GENDER AND PERCEPTIONS OF PERSONAL SECURITY

IN GHANA

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Acceptance

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INTEGRI PROCEDAMUS
Declaration

I, Clement Sefa-Nyarko, hereby declare that except for references to other works, which has been duly acknowledged, this dissertation is the results of my own research and that it has neither in part nor in whole been presented elsewhere for another degree.

Signed: ..............................................................................................

Clement Sefa-Nyarko
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Abstract

Peace and security are *sine qua non* for development; and they are intrinsically linked to demographic change. People are likely to move out *en masse* where there is extremely low personal security, real or perceived. Even in non-conflict societies, personal security is especially compromised through crime, persecution, domestic violence and public disorder. Perceptions of personal security determine people’s participation in social, economic and political activities, and have an impact on their physiological and psychological wellbeing. Ghana is a typical politically stable country that had a relatively lower score on personal safety in the 2013 Ibrahim Index of African Governance, compared with its own score on other indicators of governance. None of the explanations offered for Ghana’s lower score on personal safety has considered gender as an important demographic indicator. Men and women perceive crime, violence and threats differently based on their socialisation, which makes it imperative that any discourse on personal security takes into account gender dynamics in society. The system of patriarchy which is endemic in almost every society, coupled with cultures of masculinity and femininity, play significant roles in the way men and women perceive their personal security. This study uses a four-item scale from the sixth edition of the Ghana Living Standards Survey to provide gender-sensitive explanations for gender differences in the perception of personal security in Ghana. The results are consistent with existing literature, especially when fear facilitators and fear inhibitors are introduced into the analysis. Residential arrangements and type of place of residence, among others, were found to predict perceptions of personal security significantly. Fear inhibiting factors, like reliable security services and responsive governance, were found to provide positive associations with perceptions of personal security, with women responding more positively. The thesis argues that focusing on improving fear inhibitors can significantly enhance perceptions of personal security of people, and can reduce gender inequality gaps.
CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The seminal Human Development Report of 1994 confirmed that Peace and security are sine qua non for development (UNDP, 1994). Subsequent studies have agreed with this, and established that peace and security are not only compromised in the context of conflict, but also in non-conflict societies (Moser and McIlwaine, 2004; Paris, 2001 and 2004; Ayres, 1998; Alkire, 2003), where threats to human security abound. Personal security is an aspect of human security, and is especially compromised by crime and other forms of violence in many non-conflict developing countries. It is defined as ‘the safety of human beings ... and the ways in which they are enabled to live a full and productive life with dignity, without feeling afraid or at risk’ (Muggah, 2012: para 5).

In many developing countries, gender is an important dimension of the discourse on personal security. Gender advocacy approaches have varied over the years, starting with Women in Development (WID) and Gender and Development (GAD) approaches in the 1980s that emphasized sexual and reproductive rights of women. Through discussions at the 1994 Cairo International Conference on Population and Development (ICPD), the 1995 Fourth World Conference on Women in Beijing, and the 2000 World AIDS Day campaign programmes; it became apparent that ‘Men make a difference’ in the discourse on gender equality and personal security. This was a milestone in the discourse on gender, a shift from women-centred approach to gender (Dodoo and Frost, 2008; Dodoo, 1998; Gill, n.d.).

Personal security, like education, reproductive and health rights, is linked to collective social goods since its absence restricts the freedom of both men and women to access basic social and economic needs, thereby affecting quality and quantity of life. This study hopes to explore men’s and women’s’ perceptions of security at home and in their neighbourhood. Such gender sensitive analysis is useful in capturing the security dimensions of inequality and social injustice, and ensuring that threats that afflict

1 The 2000 World AIDS Day Campaign had the theme: ‘Men make a difference’. 
individuals and communities are not overlooked (Blanchard, 2003; Caprioli, 2005; Harcourt, 2009).

Ghana is a politically stable country but has deficit in personal security. The 2013 Ibrahim Index of African Governance ranked Ghana as the 7th on the continent with overall governance score of 66.8 percent. The country was ranked 6th on Safety and Rule of Law, scoring 70.8 percent, much higher than the West African average of 54.9 percent. However, Ghana was ranked 16th on Personal Safety, scoring a low of 52.5 percent (IIAG, 2013). When people feel unsafe in their homes or neighbourhood, they also feel insecure to engage in productive active activities. People’s ability to move about freely, access education, access healthcare, and engage in productive economic activities depend greatly on their perception and experience of personal security. Individuals assess their personal security by assessing their immediate personal safety conditions. They ask themselves whether they are able to stay home alone, walk in their neighbourhood alone at night, or walk alone to school, workplace or market places without compromising their safety.

In patriarchal societies, unequal gender roles, rampant inappropriate sexual behaviours, and gendered socializations have impact on the way men and women assess their security (Kameri-Mbote, 2004). Men and women experience and perpetuate violence differently, whether in the domestic or public space (UNODC, 2011; UNDP, 2012; Grossman and Owren, 2008; Bradshaw 2004). Socially constructed differences must therefore be critically assessed in the discourse on security, especially in sub-Saharan Africa, in order not to mask differentiated perceptions and experiences of (in)security by men and women. Such differentiation ought to be done with caution in order not to accept gender stereotypes and injustices as indubitable norms. Gender roles, norms and stereotypes abound in Ghana (Gender Policy of the YMCA, 2011). Women’s work load in domestic chores is approximately 25% greater than men (World Bank Gender

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2 This is notwithstanding the fact that the 2012 Afrobarometer reported that 84 percent of Ghanaians felt safe at home and 81 percent felt safe in their neighbourhood. The discrepancy between the Afrobarometer and the IIAG report could be because data for the former was collected in 2011, which was one year prior to the general election in Ghana; whilst data for the latter was collected in 2012, which was an election year with its attendant potential of post-election violence.
Whilst women spend about two and half hours a day on unpaid chores at home, men spend about 40 minutes a day (GSS, 2009). This study hopes to factor these into the analysis in subsequent chapters.

This dissertation problematises (not glorifies) masculinity, and hopes to measure gendered perceptions of personal insecurity in Ghana after controlling for other variables like place of residence, region of residence and age. The theory of patriarchy understood within the context of socially constructed hierarchy of masculinity and femininity would be interrogated to aid the analysis. The power relations created between men and women socializes the former to be aggressive and confident in public, whilst the latter is said to be receptive and submissive to the protection of men. Men are socialized into masculinities, and are expected to be ‘aggressive, active, life-taking and violent’ (Harders, 2011: 141); whilst women are socialized into femininities, and are expected to be ‘life-giving, passive, peaceful and caring’ (ibid). A gendered relationship is created as part of socialization. This affects people’s daily experiences of oppression and fear, impacting on their perceptions of personal security. The dissertation recognizes that perception of (in)security does not equate to real experience of (in)security. However, it works on the assumption that when people feel insecure, the quality of their lives and productivity are affected.

The study would therefore interrogate the differences in perception of security using datasets from the 6th round of the Ghana Living Standards Survey, which had a module on Governance, Peace and Security. Explanatory variables would be used to understand underlying causes and consequences of the perceptions of personal insecurity. The rest of this chapter provides the statement of the problem, objectives of the study, hypotheses, theory, and rationale for the study.

1.2 Statement of the Problem

In the past two decades, Ghana has emerged as an example of political stability and good governance in Sub-Saharan Africa (Throup, 2011: 1). According to the 2013 Mo Ibrahim Index on African Governance, Ghana is doing well on most indicators of governance including rule of law, national security, participation, and human rights. The country has a robust political system that thrives on democracy. Ghana’s high overall score (66.8 percent) and ranking (7th) on governance, and higher score (70.8
percent) and ranking (6th) on Safety and Rule of Law are not consistent with its low score on personal safety (16th with 52.5 percent) (IIAG, 2013). This is indicative of structural challenges which affect the daily realities of people. The following are reasons offered by some scholars to explain the low sense of personal security in Ghana.

First, the fierce political rivalry that has become part of Ghana’s democratic dispensation sometimes turns violent during electioneering campaigns (Throup, 2011), affecting people’s personal security. Second, socio-economic factors afflicting the country in the last few years increase crime and other anti-social activities, especially in urban areas (Opoku, 2012), thereby compounding safety dilemmas of individuals in their homes and public spaces. This nexus is what Odumosu (1999: 71) referred to as the ‘social cost of poverty’ in his article on the rate of crime in Nigeria. Third, an emerging sector of the economy, commercial oil extraction, has the potential of increasing trends of personal insecurity, considering trends in Chad, Nigeria and Angola. The main report of the sixth round of the Ghana Living Standards Survey has indicated that the oil extraction region of Ghana (Western Region) was the most unsafe region between 2012 and 2013 due to higher rates of crime, attacks and insecurity (GSS, 2013: 177).

Fourth, ethnic and religious rivalries, which have claimed many lives in parts of the country, especially the northern region (Mahama, 2009; Odotei and Awedoba, 2006: 5) compound the problem of personal insecurity, due to occurrences of clashes and violence. Fifth, bulging youth unemployment that breeds grievances, discontent, and competition over few available job opportunities (Amankrah 2008) expose the youth to manipulation by the older generation. Just as it is in other African countries like Kenya, politicians and other influential persons entice the youth with rewards in order to help them consolidate their hold on to power and influence, sometimes through the use of violence (Kolo, 2010; Henningsen and Jones, 2013; Anderson, 2002)). Murunga (2006) has argued, however, that any assessment of youth impacts on society should be on how to harness their potentials for nation building, and not on the few instances where their potentials have been allowed to get destructive due to bad policies and influences.

Despite the dominance of gender in the demographic and socio-economic discourse of nations (UNFPA, 2003; Parmar et al, 2014; Neubert and Taggar, 2004), limited
attention has been given to gender as an important determinant of personal insecurity in Ghana. The issue of gender and security in Ghana is not entirely terra incognita. Existing literature pays attention to gender and human security in general, without exploring the personal security dimensions of men and women in the face of increasing crime, violence and abuse. For instance, gender insecurity as a result of domestic and sexual violence has been widely studied, spearheaded by feminists and other activists who are passionate about the rights of women in society (Ampofo, 1993; Ofei-Aboagye, 1994; Ardayfio-Schandorf, 2005; Cantalupo et al, 2006; Osam, 2004; Tenkorang et al, 2013). Some work has also been done on gender and human security, which is more concerned with survival strategies of women, especially those in rural areas affected by famine and harsh climatic conditions (Pearl and Dankelman, 2008; Glazebrook, 2011; Wrigley-Asante, 2008). In the context of conflict and post-conflict societies, gender and insecurity discourses have been limited to sexual abuses by soldiers, neglect of the security needs of women, and under-representation of women in post-conflict peace building (Mama, 2014; Mama and Okazawa-Ray, 2012; Alaga, 2011; UNSSRTF, 2012; UNDP, 2012; UN Women, 2011).

However, no attention has been paid to the dilemmas facing both men and women in societies plagued by some degree of crime and violence, including Ghana. Such analysis can provide some feedback in holistically explaining Ghana’s low index of personal safety. Structural factors perpetuating gender imbalances that subject men and women to specific safety threats ought to be studied for deeper understanding of security dilemmas of the state. This would help identify sources of structural violence and structural inequality, or at least provide new insight into social relations that could have impact on national cohesion. This study is aimed at treating perceptions of personal security as an indicator of structural stresses suppressing the development and wellbeing of members of society. The power relations between men and women in patriarchal societies affect their respective experiences and perceptions of security (Kameri-Mbote, 2005: 3). It is therefore helpful to have a gender-sensitive framework for understanding personal security, and to explore underlying causative factors.

Global crime statistics show that men are both the major perpetrators and victims of public crime or public violence, whilst women are major victims of domestic violence
In 2008 for instance, 83% of victims of homicide outside the home were men, suggesting a typical pattern of ‘men killing men’ (UNODC, 2011: 63). Many acts of violent crime are committed within male groups (Farr and Gebre-World, 2002), explaining why many prison inmates are men (Harder, 2011: 143). Men dominate the military and security services, but are also major victims of war and violence (The Rwandese and Bosnian experiences typify the fact that men are major victims of war). Globally, up to 50% of women have experienced domestic violence (Kishor and Johnson, 2004). According to the United Nations Office of Drugs and Crime (UNODC) report on Latin America, women are most likely to be murdered at home, whereas men are most likely to be murdered outside the home (UNODC, 2011). A 1998 survey in Ghana showed that one in three women had experienced violence at the hands of their current or recent partner (Coker-Appiah and Cusack, 1999); and in 2010, some 109,784 cases of violence against women and children were reported at the Domestic Violence and Victims Support Unit (DOVVSU) of the Ghana Police Service (Ghanaweb, 2010). It is a truism, therefore, that experiences of personal security vary between men and women. Whether they perceive and express threats to their personal security differently is not well explored. This is important because it provides a sense of how people can freely go about their productive and livelihood activities at home and in their communities where they live.

This study is designed to provide a gender-sensitive analysis of perceptions of personal security in Ghana, something which has been overlooked over the years. The study acknowledges that perceptions of personal security do not translate into real experiences of harm or direct threats to personal security. However, perceptions of insecurity cannot be taken lightly, irrespective of the cause. Such perceptions have an impact on access to health, education and quality of life, which makes the study very timely at a time when the United Nations is making preparations to extend the mandate of the MDG regime beyond 2015. Perceptions of personal security, experiences of discrimination and inequality, and the freedom to live a fulfilled life are interlinked; and these have an impact on Ghana’s ability to attain the MDGs.
1.3 Research Questions
Gender-sensitive assessment of personal security is important, since gendered roles, relationships, opportunities and mobility vary significantly in Ghana, especially across various regions and residential areas. In order to understand and offer explanations for variations brought forth as a result of such gendered roles and relationships, the following questions will be answered in the study:

- How do perceptions of personal security vary in Ghana?
- Why do variations exist in perceptions of personal security in Ghana?

1.4 Objectives
According to Kameri-Mbote (2004: 1), ‘gender as a relational concept contributes significantly to an understanding of the causes and impacts of insecurity, and is also a critical factor in the search for solutions to insecurity’. The power relations between individuals and how their roles are defined in society are expected to have significant impact on access to security.

Generally, this study aims to interrogate demographic predictors and consequences of personal safety in Ghana. Specifically, it aims to

1. explore gender-sensitive perceptions of personal security in Ghana;
2. identify the determinants of perceptions of personal safety for men and women in Ghana; and
3. inform policy on gender and security in Ghana.

1.5 Rationale for the study
Since gendered roles and relationships in many developing countries have a direct bearing on wellbeing and safety of men and women, this dissertation analyses the impact these differences have on perceptions of personal safety. The study is relevant and timely for five reasons:

First, paying attention to gender-sensitive perceptions of personal security in Ghana would provide useful feedback for government and policy makers on livelihood strategies for men and women, which could also be a good indicator for gender equality, providing another dimension for the evaluation of MDG goals 1 to 3. Men and women
have almost 50 percent representation of the population of Ghana, and so it is important to pay attention to the differences in perception of personal security.

Second, perception of personal insecurity has impact on how people access health, education, and basic social amenities. It also determines the degree of freedom that is enjoyed by individuals. Efforts made by the United Nations, the international community, and the government of Ghana aimed at improving the quality of life of Ghanaians would be futile unless citizens live and perceive their personal security as indubitable. Since men and women have nuanced experiences and perceptions of their social realities, a study of their perceptions of personal security would help determine the state of their wellbeing. This would help inform policy, especially in the natural resource exploration sector, where employment opportunities are male-oriented.

Third, human security is directly premised on personal security, since vulnerability to personal insecurity undermines human development (UNDP, 2012; UNDP, 1994). According to UNDP, ‘people who fear for their lives cannot plan for a long-term and more prosperous future’ (UNDP, 2012; 13). Personal insecurity undermines the building of trust between individuals, their community and the nation, thereby undermining efficiency of labour and productivity. National, regional and international security will be unsustainable unless personal security is tackled as a fundamental determinant of security (Kameri-Mbote, 2004: 3). It is therefore important to understand the dynamics of gender and its impact on perceptions of personal security, since the male or female, boy or girl, forms the fundamental building block of any society. There cannot be any better early warning system for the security of the state than to look at it in the prism of gender.

Fourth, the World Bank identifies security as an important pillar for poverty reduction; and poverty reduction is described to include ‘reducing vulnerability’ to shocks, disasters, health catastrophes and threats to personal safety (World Bank, 2001). Since gender is a determinant of vulnerability in sub-Saharan Africa, a measure of gender-sensitive personal security could expand the knowledge base of this nexus, and inform policy. This is because perceptions of security have impact on access to health, education and quality living of both men and women, without which would impede the attainment of the Millennium Development Goals (MDGs); especially those goals
aimed at improving living conditions of peoples and eliminating major global and
gender inequities (UNCHS, 2003; Abama and Kwaja, 2009; see also Mudege et al.,
2008). Moreover, if the United Nations Security Council Resolution 1325 (UNSCR,
1325) is to make sense in post-conflict peace building, the security needs of both men
and women must be made priorities in non-conflict societies. This is because many
conflict and post-conflict gender-based atrocities are mere transfer of cultural norms
and practices from non-conflict contexts to conflict and post-conflict situations.

Fifth, for the first time in Ghana, data are available for measuring perceptions of
personal security through the introduction of the Governance, Peace and Security
module in the Ghana Living Standards Survey. This must inspire the interest of
demographers in exploring the nexus between gender, migration and socio-economic
characteristics on the one hand and perceptions of peace and security on the other hand.
It is important to know how these perceptions can influence demographic change and
vice versa; and this dissertation sought to do just that.

1.6 Clarification of Terms

Gender: Gender is a social construction of roles and relationships between men and
women of different age groups. These roles and relationships are constructed based on
biological categorizations of sex, and could change over time (World Bank, 2002: 1;
Moser, 1993: 230.)

Human Security: Human security is defined as safety from pervasive threats like hunger
and oppression, and protection from sudden disruption to daily patterns of human lives
(UNDP, 1994). It is a post-Cold War concept of security that took over from the state-
centred concept of security that prevailed at the time. Human security encompasses
freedom from livelihood threat (like shortage of food, water, energy, economic),
freedom from threats to survival (death, injury and ill-health), and freedom from
indignity (absence of human rights and prevention of participation).

Perception: Perception is a mental process through which individuals interpret and
organize experiences and events to produce a meaningful world. A person’s
consciousness and acceptance of the event plays important part in the perception
process. Perception is subjective, and may not correspond to reality (Pickens, 2005: 52ff).

**Personal safety:** Personal safety denotes a protection from danger, risk, harm or injury which have unintended or random sources. Such random or unintended sources include accidents, environmental conditions, and other incidents occurring as result of one or more coincidences. The relationship between personal safety and personal security is directly proportional, but indirectly proportional to risk or danger. This is because weakness in personal security increases risk, thereby decreasing personal safety (Byres and Cusimano, 2010: para 3).

**Personal security:** Personal security is ‘the safety of human beings ... and the ways in which they are enabled to live a full and productive life with dignity, without feeling afraid’ of crime, violence, attacks, risks or other intended harms (Muggah, 2012: para 5). Personal insecurity occurs when a person or household is unable to have a fulfilling, productive and dignifying life as a result of the fear of violence deliberately inflicted for some gains or to create harm. There are two main determinants of personal security: freedom from violence and freedom from the fear of violence or danger. The prevalence of crime, unfavourable political conditions, and certain suppressive socio-cultural practices perpetuate violence and fear, thereby creating personal insecurity.

**State or National Security:** The concept of national security is concerned with protecting national borders, ensuring collective safety, and preventing sectarian, regional and national conflicts.

1.7 **Organization of the Study**
The next chapter reviews existing literature on the relationship between gender and perceptions of personal security. It would explore theories like patriarchy and masculinity and how they perpetuate perceptions of personal (in)security among men and women; and would expound on the conceptual framework for the study. Chapter Three explains the methodology adopted for this study; and is followed in Chapter Four by a profile of Ghana and demographic characteristics of persons who responded to the module on Governance, Peace and Security in the 2012/2013 Ghana Living Standards Survey. Chapters Five and Six deal with bivariate and multivariate analyses, and
explore the relationship between the various set of variables – independent, control, intermediate and dependent. The final chapter provides a summary for the study, concluding remarks, and recommendations for the entire dissertation.
CHAPTER TWO

LITERATURE REVIEW

2.1 Personal Security Defined

The concept of human security subsumes personal security (UNDP, 1994), as it identifies ‘the protection of the individual as the starting point for political thinking and practice’ (Werthes et al., 2011: 6; See UNDP, 1994: 22-23). Human security is a safeguard of the ‘vital core of all human lives [against] critical pervasive threats’ that hamper human fulfilments (Alkire, 2003: 2; see UNHSC, 2003) like hunger and oppression, and protection from sudden disruption to daily patterns of human lives (UNDP, 1994). Some scholars have proposed three distinctions of human security: livelihood security, which includes food, water, energy, and economic provisions; survival security, which includes absence of threat of death and injury or presence of health; and dignity, which includes full human rights and participation in political life of the state (Grossman and Owren, 2008: 25). Others have made two distinctions: ‘freedom from fear’ and ‘freedom from want’ (Acharya, 2001: 448; UNCHS, 2003). Personal security is a survival security, freedom from fear (Alkire, 2003; Muggah, 2012; UNDP, 1994; Acharya, 2001; UNCHS, 2003), and is a phenomenon directly related to experiences of individuals and households (UNDP, 1994; Muggah, 2012; Acharya, 2001), unlike the concept of national security which is concerned with protecting national borders, ensuring collective safety, and preventing sectarian, regional and national conflicts (Matthews, 1989; Booth, 1991).3 Personal security is a fundamental building block upon which a nation could achieve sustainable development and stability, since according to the United Nations, ‘the world can never be at peace unless people have security in their daily lives’ (UNDP, 1994: 1). Personal security then becomes ‘the safety of human beings … and the ways in which they are

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3 In an era of globalization and interdependence of nations, human security, national security and global security are intrinsically linked (Paris 2001: 98). Rotberg (2004: 5) and Piazza (2008: 85) have shown that where human security is severely compromised, like the cases of Somalia, Afghanistan and some parts of Sudan, local and transnational crime rate increases. Human security is therefore a critical dimension for the safety of individuals, the security of nations and the international community.
enabled to live a full and productive life with dignity, without feeling afraid or at risk’ (Muggah, 2012; para 5).

Personal insecurity occurs when a person or household is unable to have fulfilling, productive and dignifying life as a result of the fear of violence or threats (Moser and McIlwaine, 2004; Moser and Rodgers, 2005). There are two direct determinants of personal insecurity – experience of victimization and fear of any harmful event like crime (Muggah, 2012; Moser and McIlwaine, 2004; Moser and Rodgers, 2005). The prevalence of crime, unfavourable political conditions, corruption, human rights abuses, widening gap of socio-economic inequality, natural disasters and certain socio-cultural practices undermines personal security, and instil fear that could destabilize an entire nation through the loot seeker (greed) and justice seeker (grievance) models of conflict (Stewart, 2010; Keen, 2012; Collier and Binswanger, 1999; Collier 2000; Berdal, 2005; Ballentine and Nitzschke, 2003; Ballentine, 2003).

Violence forms the core of personal insecurity, and is defined as ‘the exercise of power that is invariably used to legitimize the use of force for specific gains’, socially acceptable or not (Moser and Rodgers, 2005: 4). Violence could be ‘direct’ or ‘indirect’ (Alkire, 2003: 29), and its limit of acceptance could be part of the political, institutional, economic and social frameworks of societies (Moser and Rodgers, 2005: 5; Galtung, 1969, 1985). Direct violence are those actions and inactions like domestic violence, theft, rape, kidnapping, that are deliberately caused by state or non-state actors like criminal gangs, thieves, rebels and spouses, with the primary aim of causing fear, panic or injury in order to gain some benefit (Alkire, 2003). Indirect violence are structural ones like corruption, non-responsive state institutions, vandalism or mob-actions, and may be defined as ‘actions by groups, or systems or institutions whose threat to [personal] security is a by-product of an action taken for a different primary purpose’ (Alkire, 2003: 29). All these affect perceptions of personal security.
2.2 Theories and Contexts of Gender, Violence and Personal Security

2.2.1 Patriarchy, Masculinity, Violence and Personal Security

The human species naturally bonds and builds relationships (Frith, 2013; Tomasello and Vaish, 2012), the processes of which give them power to violate others, but also to be violated by others (Armstrong and Bernstein, 2008; Castells, 2007). Societies regulate such relationships through cultural, political and institutional norms and practices; and coalesce power around a central point, the state (McAdam, 1982), and around other multiple sources through socialisation (Armstrong and Bernstein, 2008). In almost all human cultures, one group exhibit some form of domination over the other(s) through institutionalized power relationships, most of which turn out to be exploitative (Francis, 2004; Eisler, 1990; Armstrong and Bernstein, 2008; Harders, 2011).

Patriarchy is an example of such systems created to regulate the relationship between men and women (Holland, 2006; Walby, 1991; Kambarami, 2006; Sultana, 2011), whilst masculinity and femininity are polar characteristics (stereotypes) that are groomed and exhibited by men and women respectively (Kambarami, 2006; Sultana, 2011). Masculinity and femininity are perceived as polar concepts in many societies, one being the opposite of the other (Swatay, 2012; Bhasin, 2004). Men are expected to dominate, control and order, whilst women are expected to be submissive, controlled and take orders. Both patriarchy and masculinity systematically undermine femininity and the place of women in society (Swatay, 2012; Bhasin, 2004; Holland, 2006; Walby, 1991), whilst femininity condones and accepts the underprivileged place of women (Kambarami, 2006; Eves, 2010; Kambrami, 2006). Together with masculinity and femininity, the concept of patriarchy can help explain gendered inequality, differences in experiences of violence and perceptions of personal security.

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4 The emergence of homosexuality into dominant western socio-cultural discourses is radically shifting the concept of masculinity and femininity from the male-female dichotomy to more nuanced and inclusive categorizations. Male and female members of society can each exhibit feminine and masculine traits, according to this emerging trend of socialization. This discourse, however, dwells on dominant cultural traits in developing countries, which persists with the male-female categorizations of masculinity and femininity.

5 Patriarchy originates from ancient Greece, literally meaning ‘rule of fathers’. It was adopted in Europe in the Seventeenth Century to justify feudal systems, aimed at nurturing and maintaining ‘principles of patrilineal descent and inheritance’ (Edstrom et al. 2014: 3).
Works by Murshed (2002: 389) and Gurr (1970) argue that inequality in all shapes and forms are acts of discrimination that create insecurity, grievances and rebellion if they become systemic. Beyond the household level, some scholars have found a strong connection between gender inequality and outbreaks of intrastate conflicts, an ultimate source of personal insecurity (Caprioli, 2005; Harcourt, 2009). Countries with higher levels of gender inequality are more likely to be involved in interstate disputes and more likely to rely on violence to settle those disputes’ through the cultivation of ‘cultural norms that legitimize violence’ (Caprioli, 2005: 162-163). This is consistent with findings in Galtung (1985), which identified violent behaviour as the end product of structural and cultural systems that condone and propagate violence in society.

Structural violence is understood as the systematic exploitations embedded into social order, which is justified and legitimimized by cultural violence that manifests itself in politics, religion, ideology, language and art (Galtung, 1975: 265).

Some scholars argue that patriarchy creates and sustains structural suppressive systems that condone vices and injustices against women (Meintjes et al., 2001; Francis, 2004; Holland, 2006; Walby, 1991), and against other men who are considered to be ‘subalterns’ (Carrigan et al., 1985) or ‘unmarked male’ (Connell, 2005) due to certain traits they possess which are not masculine enough. This affects perceptions, and sometimes experiences, of personal security of men and women, especially in sub-Saharan Africa where little institutional frameworks exist to protect the interest of the vulnerable members of society. Among women of the Kasena-Nankana district of Ghana for instance, the ‘fear of violence is neither rare nor unfounded’, since women perceive themselves to have ‘no power over [their] husbands’, who are culturally allowed to beat their wives and have unlimited access to them at all times (Bawah et al., 1999: 56-57). A Ugandan woman accounts: ‘sometimes, we are seriously wronged by other people, usually men’, who are often protected by ‘their fellow rich and powerful’ men (UN Women, 2011: 10). This fits Galtung’s notion of cultural violence, which ‘makes direct and structural violence look, even feel, right – or at least not wrong’ (Galtung, 1990: 291). Through all recorded history, security systems for women have been ‘partial….elusive and mundane’ (Sylvester, 1994: 183; see also Blanchard, 2003: 1290), appending women’s security to men and grossing over their specific
security needs (UNDP, 2002; Estes et al., 2012; Kameri-Mbote, 2005; Cammack, 2000; Kambarami, 2006; McDowell and Pringle, 1992).

However, all men do not reap the dividends of patriarchy and masculinity equally. Men who exhibit traits of femininity or inadequate masculine traits are filtered out and discriminated upon, especially in developing countries (Connell and Messerschmidt, 2005; Cornwall and Lindisfarne, 1994). Masculinity is a cultural ideal for male members of society that creates a hierarchy or power relations among them based on who is tough, has physical power, strength and ability to dominate (Harders, 2011: 143; Page, 2010; Edstrom et al., 2014). Patriarchy dwells on masculinity to provide privileges to ‘some men’, subordinating all others (Edstrom et al., 2014: 3). Irrespective of their level on the masculinity strata, all men are postulated to be superior to women (Edstrom et al., 2014; Harders, 2011; Eves, 2010; Page, 2010), and in many African societies, ‘men are the dominant decision makers’ (Bawah et al. 1999: 61).

Some scholars argue that violence is intrinsically built into masculinity, and is sustained by competition among men to reap the dividends of patriarchy (Harders, 2011; Eves, 2010; Page, 2010; Lo, 2010). Masculinity assumes that ‘rage is an acceptable response to frustration; that vengeful violence is justified; and that to acknowledge loneliness, pain, vulnerability, or to seek assistance is a sign of inadequacy’ (Page, 2010: 2). A study in the Balkans in 2007 titled, *Exploring dimensions of masculinity and violence*, found that men have generally been socialized to exhibit violence tendencies. For instance, ‘A man should defend his honour, protect his family, and not let his children or his wife be insulted’, said an adolescent male (Eckman et al., 2007: 17). Said another: ‘You must be protective of the opposite sex and family: Otherwise you are not a real man’ (ibid); and yet another: ‘You have violence, and you have self-defence. Self-defence is justified. We gather and we defend a friend. I am proud of that…’ (ibid). To be a protector also implies to use force to protect if that becomes an option. Men are not expected to exhibit emotions, not to cry, or to show any sign of weakness (Goodey, 1997; Eckman et al., 2007), as for instance, this statement from an adolescent: ‘typical man usually doesn’t cry, but when he is drunk, it is acceptable’ (Eckman et al., 2007: 21).
Such masculine traits suppress men’s need for intimacy, sharing and self-disclosure, which leads to frustrations that are vented out through different forms of violence, like sexual violence, crime and victimization (Philaretou, 2001). It could also affect the health of men through aggravated stress and cardiovascular diseases, with some studies suggesting that men develop heart diseases 7 to 10 years earlier than women and thus affect their life expectancy (Fodor and Tzerovska, 2004; Sharp, 1994), although the overall rate of death from cardiovascular disease is the same for both men and women (Maas and Appelman, 2010; Emslie, 2005; Vaccarino et al, 1999). The World Health Organisation estimates that 3.8 million men and 3.4 million women die from heart diseases each year (Mackay and Mensah, 2004). This man does not cry syndrome can have an impact on the quality of the measure of perceptions of personal security, since men generally are not willing to express the extent of their personal insecurity.

Critics of the theory of patriarchy have argued that it is ahistorical and does not desegregate the different experiences of women and men found in different cultures and societies (Barrett, 1980; Rowbotham, 1981). Walby (1991: 2) disagrees with the latter argument and insists that the concept captures ‘the depth, pervasiveness and interconnectedness of different aspects of women’s subordination’, and could be varied to account for the differences in approach to gender biases over different epochs. Charvet (1982) argues to complement the position of Walby (1991), and explains that the strength of patriarchy as a culture lies on its ability to draw on the authority of tradition and universality, making injustices look almost right, or at least not wrong. The next two sections explore fundamental basis for personal insecurity for both men and women, both of which have patriarchy as the source. This underscores the fact that patriarchy undermines the wellbeing of both men and women, although the impact is felt most by women.

2.2.2 Personal Insecurity of Women

In the private space – in families and in households – women are the major victims of violence and men are the main perpetrators (UNODC, 2011). This results from gender roles and power relations that confine women to the domestic sphere (Alaga, 2011; Harders, 2011; Kameri-Mbote, 2004; GSS, 2009; Agarwal, 1997); and which make them exclusively dependent on men, especially in developing countries, where
marriage and other social norms restrict the ‘reproductive and sexual behaviours’ of women (Horne et al., 2013: 503; Caldwell and Caldwell, 1987). ‘Limited educational and training opportunities for women’ reinforce their dependence on men (Tenkorang et al., 2013: 4), increases fertility, and exposes them to domestic violence and sexually transmitted diseases (Tenkorang et al., 2013; Horne et al., 2013; Bawah et al, 1999). Educational level of women, their socio-economic status, and place of residence determines their degree of toleration of violence at home (Tenkorang et al., 2013; Bradley, 2001; Bawah, 2002). More educated women are less likely to be maltreated by their partners due to their increased bargaining power, and they are less likely to tolerate gender-based violence. Women with many children are not able to compete with men in the labour force, since much of their productive life is spent reproducing and caring for children (Tenkorang et al., 2013: 4). This male dominance in family arrangements puts women at a disadvantage. Horne et al. (2013) found some correlation between payment of bride wealth and violence against women in Ghanaian homes. Patriarchy and masculinity perpetuate violence against women (Harley, 2005), and femininity condones such practices (Eves, 2010; Kambarami, 2006). All these affect their general perceptions of personal security.

Shona men of Zimbabwe, for instance, ‘are socialized to view themselves as breadwinners and heads of households whilst [women] are taught to be obedient and submissive housekeepers’ (Kambarami, 2006: 2). In Papua New Guinea (PNG), boys are ‘socialized from early childhood to interact assertively and aggressively with others’ (Eves, 2010: 53); whilst girls are taught to submit to their male counterparts at all times. This makes women subservient to men, constantly living under the threat of violence both at home and in the neighbourhood (Eves, 2010; AI, 2006; NRI and JAG, 2006). About 67 percent of women in rural areas and 56 percent in urban areas in Papua New Guinea have ever been abused by their husbands, according to available national figures (Bradley, 2001; See also Eves, 2010: 54). In Kenya, 42 percent of some 612 women surveyed in one district reported that they have ever been beaten by their partner, many of whom reported repeated beatings (UNICEF, 2000: 5). A survey in 1998 showed that a third of Ghanaian women interviewed had experienced violence at the hands of their current or previous partners (Coker-Appiah and Cusack, 1999). In the Kasena-Nankana district of Ghana, the following expression by an opinion leader captures the aggressive
attitude of men towards the sexuality of women: ‘if a woman is not experiencing her
menses and is not sick, she has no right to refuse sex…so if she refuses to have sex…I
will beat her’ (Bawah et al., 1999: 57). In India, up to 45% of married men
acknowledged that they have ever abused their wives physically, and 20% of men in
Thailand acknowledged the same (UNICEF, 2000: 5). Such gender-based violence is
not only prevalent in developing countries, according to the United Nations figures, but
also exists in developed countries. Up to 59% of Japanese women reported experiencing
physical abuses from their partners in a survey in 1993 (ibid); and in the United States,
28% of women reported at least one event of physical abuse from their partners, in a
national survey (ibid). These experiences of personal insecurity at home also affect
personal insecurity in the neighbourhood, as would be seen later in this section.

The United Nations further describes violence against women in prevailing patriarchal
systems as a ‘life cycle’ event globally. Table 2.1 summarizes the graduated cycles of
violence which women are exposed to throughout their life across the world.

Thus, women go through various degrees of violence and injustice that transcend any
age group. Right from conception, females begin to face the brunt of patriarchal
discrimination, through sex selectivity as is practiced in China and other Asian
countries. The impact of these on perceptions of personal insecurity is ‘comparable to
torture in both its form and severity (UNICEF, 2000: 4), but is difficult to measure
quantitatively. Proxies like suicide and wellbeing have been helpful in assessing this
impact.

Femininity is a socialization that condones these forms of violence and threats. In Papua
New Guinea for instance, some women think that ‘husbands don’t hit their wives for
no reason’ (Eves, 2010: 57). Such justifications are also common in Ghana (Horne et
al., 2013; Ofei-Aboagye, 1994; Amoakohene, 2004), perpetuated by certain cultural
practices and gender roles in marriages that make it impossible for women to defend
their rights in the face of threats to their personal security at home (Ofei-Aboagye, 1994;
Amoakohene, 2004; Bowman, 2003; Heilman, 2010; Horne et al., 2013).
Table 2.1 Instances of Violence against Women in their Life Cycle (UNICEF, 2000: 5)

<table>
<thead>
<tr>
<th>PHASE</th>
<th>TYPE OF VIOLENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-birth</td>
<td>Sex-selective termination of pregnancy;</td>
</tr>
<tr>
<td></td>
<td>Defects from battering pregnant woman due to birth outcomes.</td>
</tr>
<tr>
<td>Infancy</td>
<td>Female infanticide</td>
</tr>
<tr>
<td></td>
<td>Physical, sexual and psychological abuse of girls</td>
</tr>
<tr>
<td>Girlhood</td>
<td>Child marriage; female genital mutilation;</td>
</tr>
<tr>
<td></td>
<td>Physical, sexual and psychological abuse</td>
</tr>
<tr>
<td></td>
<td>Verbal aggression and constant humiliation;</td>
</tr>
<tr>
<td></td>
<td>Traditional practices harmful to female, like genital mutilations;</td>
</tr>
<tr>
<td></td>
<td>Incest; child prostitution and pornography</td>
</tr>
<tr>
<td>Adolescence and</td>
<td>Dating and courtship violence, like date rape and physical deformities</td>
</tr>
<tr>
<td>Adulthood</td>
<td>Economically coerced sex, like school girls ‘sugar daddies’ for support;</td>
</tr>
<tr>
<td></td>
<td>Incest; rape; sexual harassment;</td>
</tr>
<tr>
<td></td>
<td>Traditional practices harmful to female, like genital mutilations;</td>
</tr>
<tr>
<td></td>
<td>Denial of access to funds and labour force participation restrictions;</td>
</tr>
<tr>
<td></td>
<td>Trafficking of women;</td>
</tr>
<tr>
<td></td>
<td>Dowry abuse and murder;</td>
</tr>
<tr>
<td></td>
<td>Verbal aggression and constant humiliation;</td>
</tr>
<tr>
<td></td>
<td>Threats to take away custody of children.</td>
</tr>
<tr>
<td>Elderly</td>
<td>Forced ‘suicide’;</td>
</tr>
<tr>
<td></td>
<td>Homicide of widows for economic reasons;</td>
</tr>
<tr>
<td></td>
<td>Sexual, physical and psychological abuse.</td>
</tr>
</tbody>
</table>

A quantitative study by Horne et al. (2013) found some statistically significant social support for men who beat their wives for sexually-related disagreements in the North Tongu district of the Volta Region of Ghana. Although some of these findings appear to be outdated and may not represent current realities, the principles underlying patriarchy, masculinity and femininity transcend many epochs in history (Edstrom et al., 2014; Holland 2006; Weber, 1978; Pateman, 1988; Engels, 1972).

Such experiences of personal insecurity at home also affect perceptions of personal security outside the home. About 29% of Estonian women aged between 18 and 24 years, and 52% of those above 65 years, live in fear of domestic violence (UNICEF, 2000). In Papua New Guinea (PNG), feeling of insecurity at home is found to affect women’s ability to move freely to assess public services like education, healthcare and market centres (Eves, 2010; AI, 2006; NRI and JAG, 2006). Moreover, a woman who has ever been abused is 12 times more likely to commit suicide than one who has never been abused (UNICEF, 2000; UN, 1998). In the United States, up to 50% of women who have been abused are likely to commit suicide (UNICEF, 2000).
Nevertheless, some scholars provide counter arguments to the dominant masculinity-violence discourse (West et al., 1978; Wilson, 1983; Gelles, 1972). They argue that only ‘impaired’ masculinity is expressed with violence (West et al. 1978). ‘Problematic childhood’, where there is no love and attention, prevent some men from acquiring ‘normal form of masculinity’, leaving ‘them unprepared to deal with the stresses of life’ (West et al., 1978, as paraphrased by Walby, 1991: 130). This makes them extremely sensitive and unable to have measured control over social interactions with women and with society in general, leading them to engage in anti-social activities like rape, theft and wife beating. This kind of explanation is consistent with Freud’s psychoanalytic projection of childhood anomalies into adult life (Freud 1965). Wilson (1983) and Gelles (1972) have used class analysis from the Marxist perspective to provide support for this abnormal masculinity explanation. They argue that male violence throughout history has been most common in places where there is economic stress. In those places, unemployed men and those men at the lower strata of society are the most culpable in reported cases of crime and violence (Wilson, 1983 and Gelles, 1972). However, this is an overgeneralization, since not all men with problematic childhood end up being violent; and not all violent men had problematic childhood. There are also many more unreported cases of rape and domestic violence from homes which may be classified as upper class homes (Russell, 1982). Contemporary scholars have argued that new forms of plural and sometimes competing masculinities have emerged in developing countries as a result of formal education, labour migration and religion, which tend to openly detest violent tendencies (Eves, 2010). In spite of these changes, all forms of masculinity make ‘legitimate’ claim of power over the feminine (Eves, 2010: 52).

2.2.3 Personal Insecurity of Men

In spite of the dividends of patriarchy to men, and because of the burden of masculinity – breadwinner, protector of households, provision of fatherly guidance to children, need to exhibit powerful and assertive tendencies – some men who are not able to live up to expectations of masculinity become antisocial and stressed out, with accompanying feelings of inadequacy and low self-esteem (Lo, 2010; Harders, 2011; Eves, 2010; Page, 2010; Eckman et al., 2007). These increase the likelihood for men ‘to perpetuate violence’ (Eckman et al., 2007: 8). Some have argued that due to dwindling number of women in Asia as a result of sex selectivity at conception, many men are denied wives,
and their ‘sexual frustrations’ are channelled into antisocial activities and sometimes ‘extreme nationalism’ (Lo, 2010: 3). Some scholars have proposed that the very nature of masculinity requires close institutional and social management, lest its destructive tendencies are unleashed into a self-destructive mode (Knight and Tullberg, 2011; Gill, n.d.). Evidence of this is found in Nairobi Slums in Kenya (Dodoo et al., 2003). Poverty compels men into drinking habits, in order to be insulated from frustrations of living below masculine expectations:

> Many men deliberately drink because, in this highly patriarchal society, they feel ashamed at not being able to fulfil their ‘manly’ obligations as providers, because of unemployment or low wages. (Dodoo et al., 2003)

This brings to the fore, the debate on whether masculinity is in crisis in developing countries due to changing socio-cultural norms, persistently harsh socio-economic conditions that do not allow men to live up to their socially-constructed responsibilities, and assertive feminist ideologies (Clare, 2000; Seidler, 2005) that put men on their toes without being prepared to deal with such challenges.

Thus, violence and crime are coping strategies for some men who are plagued with unemployment, divorce, social stresses and poverty. Masculinities have generally viewed the use of violence as possible option for resolving problems (UNICEF, 2000; Borwankar et al., 2008); whilst femininity condones violence (Eves, 2010; Kambarami, 2006). The United Nations homicide statistics concludes, for instance, that ‘crime…is typically a male activity’ (UNODC, 2011: 63). Yet, whilst 90% of people convicted of crime globally are men, 82% of victims of murder are also men, even after accounting for domestic violence which is mainly men aggression against women (ibid). By engaging in violence and crime, they are able to convince themselves that they are also powerful and confident, in the midst of perceived insurmountable challenges, thereby consolidating their masculine position. Violence could be unleashed directly; through economic crimes like robbery and theft, social crimes like rape and sexual exploitation, and other forms of public and domestic mayhem (Walby, 1991); or indirectly through institutional exploitations, corruption and mob justice (Walby, 1991; Alkire, 2003). These notwithstanding, both men and women generally suffer the consequences of insecurity that arise from crime and violence (UNDP, 2012: 13; Kameri-Mbote, 2005: 2).
Masculinity also directly increases the vulnerability of men (Grossman and Owren, 2008). As part of the cultures associated with masculinity, men become ‘overconfident’ and presumptuous in the face of risky situations in public; whilst women ‘are more willing to adapt their strategies and behaviour’ (Grossman and Owren, 2008: 9). Consequently, more men become victims of disasters and public violence because first, men are socialized to be more adventurous than women, bringing them face-to-face with disaster when it strikes; and second, men underestimate risks and only realize the extent of exposure to risk when it is too late to escape (Bradshaw, 2004; UNODC, 2011).

The ‘men don’t cry syndrome’ (Eckman et al., 2007: 21; Goodey, 1997; Goldberg, 1979), where men ought not to admit fear or express public emotions, also affect the ability of men to report of victimization perpetrated against them by both men and women (Dutton and Nicholls, 2005). Studies have found that women have up to 10 times chance of reporting partner violence than men (Brown, 2004; Stets and Straus, 1992). A study in the United Kingdom also found that even when men report of domestic violence to the police, arrest of the women perpetrators is only 60% of the time, compared to 75% of the time when women report of being victimized (Brown, 2004: 34). The combined effect of the unwillingness of men to report domestic violence and the reluctance of the police to arrest female perpetrators has meant that fewer female perpetrators of violence get into the national statistics (Brown, 2004; Statistics Canada, 2003). Statistics in Ghana shows that the trend is changing, though slowly. A news item that made headlines in national dailies on 23rd March 2015 was captioned: ‘518 Men report wives to DOVVSU for beating them’. In that story, the Ghana Police Service in Tamale Reported that ‘there is an increase in the number of men now coming out boldly to report their abusive wives.’ The story stated that ‘In 2009, 71 cases were reported by the men, 47 in 2010, 44 in 2011, 77 in 2012, 147 in 2013 and 132 in 2014’. By contrast, almost 2000 cases of domestic violence were reported by women (The Chronicle, Monday March 23, 2015). Dutton and Nicholles (2005) insists that the gender differentials in domestic violence that places women as the perpetual victims needs a rethink; implying that both men and women suffer domestic violence to almost equal proportions. Some scholars have rebutted such claims of pre-emptive domestic attacks on men by women, arguing that women only exhibit violence against men in
self-defence, even when the female violence is disproportionately deployed (Walker, 1984 and Saunders, 1988).

Vulnerabilities exist in both femininity and masculinity, even though the proportions may be skewed against women due to the protection of men’s interests by patriarchy. Such vulnerabilities are exploited by both men and women, leading to domestic violence and abuses that also affect their general perceptions of security at home and in the neighbourhood.

2.3 Conceptualizing Gender and Perception of Personal Security: Fear of Crime and Social Disorder

Perception of personal insecurity could be situated in the fear of crime literature (Warr, 2000), since fear of crime is defined as ‘negative emotional reactions generated by crime or symbols associated with crime’ and violence (Ferraro and La Grange, 1987: 72). Fear of crime is a driving force that can affect perception of personal security of people, and this is aptly captured by the *Business Day* publication of December 3, 2006 as follows:

The most destructive characteristic of crime is the fear it places in our souls. The greater part of that fear arises from the fact that crime is an amorphous presence, its sources only dimly imagined. The fear sits on our shoulders and follows us everywhere. (Roberts, 2010: 250)

Fear is defined as the ‘institutional, cultural and psychological repercussion of violence’ (Kruijt and Koonings, 1999: 5). It generates and is generated by perceptions and realities of ‘insecurity and vulnerability’ (Moser and Rodgers, 2005: 4; Arriagada and Godoy, 2000) through a closed cycle where one leads to the other and is in turn regenerated by the other.

Perception of personal insecurity and fear of crime are both emotional dispositions which include mistrust for the other, fear of unknown persons, perceived risk at home and in the neighbourhood, concern about downturn of neighbourhood safety conditions, and deteriorating morality of a community (Warr, 2000). Two important defining parameters stand out in this explanation. First, there is the emotional response to fear-producing situations; and second, there is the rational assessment of the risks for victimization (Ferraro and LaGrange, 1987; Ferraro, 1995; Rountree and Land, 1996). These define perceptions of personal security.
Findings on gender and perceptions of personal insecurity have been inconclusive. Scarborough et al (2010) found that women are more likely to express higher perception of personal insecurity than men. Schafer et al. (2006) on the other hand, found that both men and women express relatively similar perceptions of personal insecurity: women, for personal safety and personal victimization reasons; and men, for property victimization reasons. The low sense of personal safety expressed by women is especially due to their risk of exposure to sexual violence (Warr, 1984; Riger et al., 1978; Stanko, 1990), which transcends all other forms of threat (Warr, 1984). This is especially because even when a woman has been sexually abused, there is the likelihood that she would be accused of inviting such violence upon herself due to her actions and inactions. The fear of property victimization expressed by men is due to their need to be breadwinners and protectors of the household (Schafer et al., 2006).

Closely related to perception of personal insecurity is the broken windows thesis. The broken windows perspective looks at the relationship between weakening social order and crime (Wilson and Kelling, 1982). It proposes that there is a direct relationship between social disorder and crime. Social problems like poverty, unemployment, broken homes, and overcrowding in communities have positive correlation to perceptions of insecurity and fear of crime (Sampson and Raundebush, 2004; Wyant, 2008). Social disorder, like public display of alcoholism, dilapidated structures, numerous abandoned cars, indiscriminate deposit of garbage, high rates of loitering, and high child delinquency, can have two effects on personal security of both men and women in society:

First, it creates fear in community members (Scarborough et al., 2010) since they know that they may not have social support in their times of need. This motivates people or groups to put up defences for protection, legitimate or otherwise, thereby increasing the sense of fear and insecurity for the socially vulnerable. This is likely to embolden violent men, for instance, to be more aggressive towards those they can easily overpower and exploit (Garofalo, 1981; Goodey, 1997; Madriz, 1997; Stanko, 1990); or to encourage gated communities and high-walled houses (Jackson, 2006; Moller, 2005; Valji et al., 2004; Roberts, 2010). This can have a self-fulfilling effect of mistrust,
since those who are capable of securing their own safety create ‘barriers’ and misconceptions that inhibit social cohesion (Valji et al., 2004).

Second, such visual cues of social disorder give a signal to criminal offenders that there is no social cohesion in the community, that the residents are indifferent to their surroundings, and that they lack any collective strategy to deal with criminals and those who breach social norms (Sampson and Raudenbush, 2004; Wilson and Kelling, 1982). Scarborough et al. (2010) found a strong correlation between perception of social disorder and higher perception of personal insecurity.\(^6\)

Since women are socialized through femininity to be very sensitive of their physiological and social vulnerabilities (Scott, 2003; Goodey, 1997; Madriz, 1997; Stanko, 1995); to feel that their security needs are appendages to that of men (Kambarami, 2006; Kameri-Mbote, 2005; Cammack, 2000; Riger, et al. 1978); and that the wellbeing of their children is exclusively theirs (Gilchrist et al., 1998); any increase in social disorder is likely to affect their perceptions of personal insecurity. This is consistent with the findings of Schafer et al. (2006), in which women were found to be more sensitive of their personal safety. Men, on the other hand, have been socialized to be protectors, breadwinners, and property owners; so they have their own sense of insecurity in the midst of social disorder, which some scholars have referred to as ‘Fear of property victimisation’ (Schafer et al., 2006: 289; McGarrell et al., 1987). That is, whilst women demonstrate perceptions of personal insecurity due to the possibility of being raped in the event of violence like burglary (Warr, 1984; Ferraro, 1996; Fisher and Sloan, 2003); men express similar perceptions of insecurity for loss of property (Schafer et al., 2006).

Whilst the broken windows hypothesis proposes that the police and other national institutions should move to instil social order to curb domestic violence and other criminal activities (Hinkle and Weisburd, 2008), some scholars who belong to the Collective Efficacy Perspective school have proposed that enhancing social cohesion

\(^6\) It however could not prove that such fear could actually lead to crime as proposed by the broken window hypothesis.
could be more effective if it is done independent of formal social or national institutions like the police (Wyant, 2008; Sampson and Raudenbush, 2004; Sampson et al., 1997). This is because the continuous presence of the police and other security agencies is itself a source of insecurity due to the signal it sends that there are problems in the community (Hinkle and Weisburd, 2008). The capacity of the security agencies would also be stretched beyond limits if they have to be visible in every single community (Bursik and Grasmick, 1993). Enhancing the capacity of both men and women through education and social support systems could reduce gender inequality and social disorder (Buchmann and Hannum, 2001; Ogundari and Aromolaran, 2014; Kuenzi, 2005; Gyimah, 2009), and may be a better option in dealing with the broken window problem.

2.3.1 Other Determinants of Perceptions of Personal Security

Place of residence and safety of neighbourhoods also shapes people’s perception of security (Brunton-Smith and Jackson, 2012; Ferraro, 1995; Sampson et al., 1997; Jackson, 2005; Tulloch, 2003). Studies have shown that it is not only events in immediate neighbourhood that determine people’s perceptions of security, but the wider social and geographical context of the state and region, since the definition of a person’s neighbourhood is more complex than administrative demarcation of regions and states. There is a ‘spill over effect’ of threats, public crime and violence beyond administrative boundaries (Brunton-Smith and Jackson, 2012: 56), and therefore beyond the home and immediate neighbourhood. People are likely to have a higher sense of insecurity, even when their homes and immediate social environment are without crime and disorder, but share boundaries with geographical areas that have higher rates of social disorder and crime.

Commercial exploration of natural resources also accounts for some variation in perceptions of personal security. Le Billon (2001) argues that natural resource availability in a country heightens insecurity through three dynamics: First, if the resource is lootable (easily stolen), like Diamonds, crime increases, and those who wish to rebel against the state can easily have access to funds to start a rebellion (See also Ross, 2004). Second, the cost-benefit analysis becomes favourable to engage in crime or rebellion where benefits from these resources can easily be accessed illegally; and third, the benefit that may accrue to power wielders in a stable political environment
becomes lower than an unstable context, especially in sub-Saharan Africa where there are weak institutions (Le Billon 2001: 574), thereby discouraging any serious commitment to peace deals when armed conflicts arise. Both the greed and grievances explanations (Stewart, 2010; Keen, 2012; Collier and Binswanger, 1999; Collier, 2000; Berdal, 2005; Ballentine and Nitzschke, 2003; Ballentine, 2003) fit well in the nexus between natural resources and personal security, since crime rate, depletion of the environment, and general livelihood challenges increase with commercial exploration of natural resources (UNEP, 2011). The Niger Delta region of Nigeria is a typical case, where commercial crude oil exploration has resulted in massive destruction of the ecosystem in the Ogono area (Steiner, 2010; Vidal, 2010), increased militia clashes with government security agencies, maritime insecurity, hostage taking for ransom, general disorder, and destruction of properties (Ejibunu, 2007). Such clashes of power and exploration processes exclude women; especially since exploration of most natural resources are all men affairs. This makes women passive players in resource-rich regions of any country. This potentially heightens their sense of personal insecurity.

Scarce or depleting natural resources can affect personal security as well, with some studies predicting that inadequate rainfall that leads to drought and economic hardships can increase the probability of armed violence by about 50 percent (Edward et al., 2003). Women are disproportionately put at disadvantage in such situations, since they are socialized to do domestic chores like cooking, washing and fetching firewood in many developing countries. Depletion of renewable resources, especially, affects the place and wellbeing of women. In 2003, prolonged droughts in Darfur in Western Sudan led to struggles over scarce resources like water and renewable resources for subsistence, which increased rates of crime and personal insecurity; and exposed many women to rape, violence and sexual abuse. This became a battle for survival between non-Arabs and Arabs led by the Janjaweed militia (Sharaky, 2005; Hagan, 2007; Giddens, 2011). This natural-resource-violence discourse remains controversial, since countries like Japan have attained political stability without natural resources, and Norway has attained same with natural resources.
2.4 Perceptions of Personal Security and Complexities in Measurement

Perception of security is difficult to measure, since perception is subjective and exposed to biases (Pickens, 2005). Perception is contingent on memory, time interval between exposure to events and recall, and visibility of event. Perceptions of personal insecurity are borne out of fear, especially when people believe they themselves, the society or the state have lost control over their immediate social environment (Lewis and Salem, 1986; Tulloch, 2003). This may not always correlate to real threat to security (Pickens 2005), although the mere fact that there is perceived threat or fear cannot be discounted (Brunton-Smith and Jackson, 2012; Ferraro, 1995; Jackson, 2005). Perceptions of personal insecurity, whether borne out of real threat or perceived threat, have significant impact on people’s behaviour (Brunton-Smith and Jackson, 2012; Tulloch, 2003); and could affect their mobility, education, productivity, health and wellbeing (Jackson and Stafford, 2009; Stafford et al., 2007). Studies have found that people with greater perceptions of insecurity (fear) are 1.93 times more likely to have depression than people who have lower sense of personal insecurity (Stafford et al., 2007). People with higher perception of personal insecurity exercise less, socialize less, and are more confined to themselves than those who have higher perception of security, which have impact on their health and mental status. A study among slum dwellers in Nairobi found that the fear of being raped, murdered or attacked affected the movement of adolescents, which in turn affected their education (Mudege et al., 2008). A primary school pupil, for instance, recounted why she dropped out of school:

I used to walk to school through some risky area called Rurii. Sometimes people used to be murdered in that area… The road which is secured was a long distance to school; and also my mother had no money for my bus fare…. Children who were late for school were punished and sent back home. I was in a dilemma…. I started missing school; I continued missing school until I completely dropped out of school. (Mudege et al., 2008: 106)

In another instance, one of the students recounted:

You meet people and they rape you. Now you lose hope and say, ‘ah! I will never go to school if that school is what got me raped. (Mudege et al., 2008: 107)

Yet, perception of insecurity may not necessarily correspond to real threat or victimization, since perception is affected by time, memory, proximity of other cases of violence, and subjective interpretation of events. The disconnection that can exist between perception of insecurity and immanence of real threat can be exemplified by
two South American surveys conducted by the UNDP. Five out of ten South Americans perceived that security in their countries had deteriorated in 2012. However, eight (8) out of ten (10) people felt safe in their neighbourhood in Honduras, where murder rate is highest in the world (86.5 murder cases per 100,000 people). In Chile, where murder rate is lowest in the region (2 murder cases per 100,000 people), perception of safety is lower than in Honduras, with seven (7) out of ten (10) people feeling secure in their neighbourhood (UNDP, 2013).

Stiglitz et al. (2010) aptly captured this disconnection between perception of insecurity and actual experience of victimisation in the Commission on the Measurement of Economic Performance and Social Progress report:

Countries with a higher share of people reporting fear of crime do not experience a higher victimization while, within countries, older and richer people feel more unsafe than younger and poorer people, despite being less likely to be victims of crime. (Stiglitz et al., 2010: 53)

2.5 Conceptual Framework

The focus of this study is to understand the factors that drive variation in perceptions of personal security expressed by men and women (See Figure 2.1 below).

A number of studies have been done on gender-based perceptions and fear of crime (Schafer et al., 2006; Scarborough et al., 2010; Ferraro and LaGrange, 1998; Acierno et al., 2004). There is increasing evidence that violence against women, perpetuated by patriarchy, increase fear (Horne et al., 2013; Ardayfio-Schandorf, 2005; Lannert et al., 2014; Walby, 1991; see contrasts by Dutton and Nicholls, 2005). Some few studies have looked at the anxieties of men due to the burden of masculinity (Bawah et al., 1999; Eckam et al., 2007; Swatay, 2012). Others have found that fear may not be borne out of direct threat, but out of altruistic concern for other ‘vulnerable’ household members like children (Warr and Ellison, 2000).
The work of McGarrel et al. (1997) is particularly useful for this study, since it considered the impact of demographic, neighbourhood and social conditions on perceptions of personal security. In their model of fear, they used a combination of social order, social disorder and community concern hypotheses, which were later explored with gender dynamics by Schafer et al. (2006). Together with what has become known as the indirect victimization model of fear (Garofalo and Laub, 1978; Will and McGrath 1995), this study derives its conceptual framework. This indirect victimization model counters the argument that victims of violence are most likely to have higher personal insecurity (Skogan and Maxfield, 1981); and argues that people who feel more vulnerable in society, like women and elderly, are likely to feel more insecure (See also Wyant, 2008).
2.5.1 Dependent Variable: Perception of Personal Security

Measuring perception of personal security is difficult, since there is no conceptually definite distinction between fear of specific crime and general sense of personal insecurity (Ferraro, 1995; Ferraro and LaGrange, 1987; Warr, 2000). Perception of personal insecurity, like fear of crime, covers ‘a wide range of subjective and emotional assessments and behavioural reports’ (DuBow et al., 1979: 1). Since perception of security is difficult to measure directly, some indirect approaches have been used. Kaplinsky (2000), for instance, uses well-being of the individual as an indirect measure for it; Mudege et al. (2008) use actions and behaviours of parents and students in response to threat to measure it; whilst Gallup and Barometer surveys use behaviours like “walking alone at night” or “women walking unaccompanied at night” to measures it. Although Ferraro and LaGrange (1987) refers to this traditional ‘fear of walking alone at night measure’ as vague and formless, which does not measure any specific form of threat, it is useful in measuring a general sense of perceptions of personal security over time and across regions (Roberts, 2010).

2.5.2 Independent Variables

A person’s real or perceived physical, social and demographic vulnerability can affect the perception of security (Schafer et al., 2006; Goodey, 1997; Skogan and Maxfield, 1981). Persons who are socially vulnerable and disadvantaged, like women in the context of patriarchy and the elderly, are overwhelmed by fear when they live or work in places which have higher rates of crime, social disorder and lower social support (Wyant, 2008). Some studies found strong correlation between gender and personal safety (Scarborough et al., 2010; Warr 1984), although Schafer et al. (2006) found no significant relationship between gender and safety in general. Whilst studies found that men have lower sense of security when it comes to safety of properties, especially due to patriarchal social arrangements that apportion property acquisition to men (Schaffer et al., 2006); Others contend that women always exhibit the lowest sense of security, since they live in the fear that they may be sexually abused (Warr, 1984; Farraro, 1996; Fisher and Sloan, 2003). There are others who believe that men, especially young men, are mostly victims of public crime, and so exhibit the greatest sense of personal insecurity in places of social disorder (Rand, 2008). Education has also been found to
be a significant predictor of fear. As level of education increases, perception of personal insecurity decrease (Scarborough et al., 2010) for both men and women. This is probably because certain perceptions and misconceptions about safety in neighbourhoods are cleared with higher education. Limited education for women (Tenkorang et al., 2013) reinforces their dependence (Ogundari and Aromolaran, 2014; Kuenzi, 2005; Gyimah, 2009), increasing their chance of feeling insecure in the absence of rigorous social support systems. Minority residents and low-income individuals have lower sense of personal security (Garofalo, 1981; Will and McGrath, 1995). Other demographic characteristics that could affect perceptions of security include place of residence, household size, and marital status.

2.5.3 Intermediate Variables 1: Fear Facilitating Factors

Certain behaviours, attitudes and perceptions have the capacity to reduce perception of security (McGarrel et al., 1987; Schafer et al., 2006). Social disorder and perceptions thereof induce individual concerns for communal integrity, leading people to think that the community no longer has grip over its environment. Frequency of violence, hooliganism, theft, illegal activities and child destitution degrades people’s perception of safety; and could affect social integration. Skogan (1990) calls this the spiral of decadence, which creates anxiety and relapse into conditions of social disorder. Although a much contested thesis, the broken window thesis helps explain this kind of connection (Wilson and Kelling, 1982; see also Scarborough et al., 2010; Skogan and Maxfield, 1981). When a person perceives that the frequency of disorder in a community is higher, such perception could be translated into real personal insecurity. This is what has been termed as the risk of violence in this study.

There is also the altruistic nature of expression of personal insecurity, where the presence of children and other vulnerable members of society (Warr and Ellison, 2000; Gilchrist et al., 1998) can lead people to rate their perception of security lower. Women with many children are unable to compete fully in the labour force since they spend much of their productive life bringing forth children and caring for them. This confines them mostly to the home, and might affect their perception of personal security when the community is thought to be unsafe. Personal experiences of violence, attacks and robbery can affect people’s perception of safety (Skogan and Maxfield, 1981), although
this has been contested in recent times. Those who are the most at risk of gang attacks like young men, for instance, are found to have lower sense of insecurity, in contrast to those who are least at risk of attack, like women and elderly (Garofalo and Laub, 1978).

2.5.4 Intermediate Variables 2: Fear Inhibitors

Some social factors act as buffer against perceptions of insecurity (McGarrell et al., 1987). These factors can counter the effects of fear facilitators like disorder, crime and other forms of social ills. These factors reassure residents that they are together in dealing with communal stresses that threaten their very survival. Social cohesion, trust in relatives and neighbours, assurance that the government has individual’s interest at heart, and assurance of efficient state security services can boost such feelings of personal security. Availability of neighbourhood watch scheme and other private initiatives to boost personal security could also have impact on perception of personal security. This category of variables is important for informing policies aimed at targeting wellbeing of persons in society.

2.6 Hypotheses

The following hypotheses are informed by three major scholarly perspectives. The first is that men are mostly perpetrators of crime and violence in developing countries (UNDP, 2012; Kameri-Mbote, 2005; UNODC 2011), and that women’s fear of sexual assault heightens their sense of insecurity (Warr, 1984). Second, patriarchal societies protect the social, economic and political interest of men and leave women vulnerable (Cain et al., 1979; Chesler, 1991; Hunnicutt, 2009; UN Women, 2011). Third, commercial exploration of crude oil and other natural resources could breed insecurity and political instability in developing countries in the absence of robust institutions (Auty, 1993: 1; Le Billon, 2001: 562; Ross, 2012: 5; Humphreys, 2005: 27; Collier et al., 2003).

1. Women are more likely to feel insecure than men in Ghana;
2. People who stay with their spouses are more likely to have higher perception of personal security than those who do not stay with spouses.
3. Residents of resource-rich regions are less likely to feel secure than residents of non-resource-rich regions.
CHAPTER THREE

METHODOLOGY

3.1 About the GLSS 6 Data

Surveys and censuses are the main sources of national demographic data in Ghana, as is the case in many other developing countries. The Ghana Living Standards Survey part 6 (GLSS 6) is the source of data for this study. GLSS 6 was conducted between October 2012 and October 2013, by the Ghana Statistical Service (GSS). The twelve-month data collection period was divided into 10 cycles of 35 days each. Some 18,000 nationally representative households in 1,200 enumeration areas were selected for the survey. The response rate was 93 percent. Weights have been computed into the data for analysis since according to the Ghana Statistical Service, ‘disproportionately larger samples from regions with smaller populations were drawn’ to account for certain socio-demographic and ethnic dynamics in regions which are sparsely populated (GSS, 2014: 207), especially in the three northern regions. This means that ‘each sample household did not have the same chance of selection into the survey’ (ibid). Thus, the weights were computed by GSS to account for the different probabilities of selection of each household. These weights were based on regional variations in population size, composition and characteristic, as was declared in the 2010 Population and Housing Census.

In the sampling process, the country was divided along the borders of the ten already existing administrative regions; and then further sub-divided into urban and rural strata. In order to account for varying degrees of livelihood strategies and geographical differences across the country, further subdivisions were made according to the three ecological zones – Coastal, Forest and Savannah. Due to the unique nature of the Greater Accra region, as the national capital and most industrialized city in the country, it is always treated as a separate geographical category, often referred to as the Greater Accra Metropolitan Area (GAMA) in the data. The Confidence Interval chosen for the study is 95 percent, suggesting an error margin of 5 percent.

A new module was introduced into the GLSS 6 – the Governance, Peace and Security Questionnaire – which is the primary source of data for this study. The Governance,
Peace and Security module collected information from household heads or their designated representatives, unlike the other modules that collected data for all household members and household characteristics. This is mainly a perception module, soliciting information on how respondents perceive certain safety, security and governance stimuli in their communities. The unit of analysis in this study, therefore, is the household head. The total sample size is 18,000 since that is the total number of households sampled for the survey. There were five other modules in addition to the Governance, Peace and Security Questionnaire, which together comprise GLSS 6. The GLSS was first conducted in Ghana in 1987, with subsequent ones in 1998, 1991/92, 1998/99 and 2005/06. The 2012/2013 round is the sixth and latest one, and is the only one yet to have introduced a module on Governance, Peace and Security.

The Governance, Peace and Security module had sections soliciting information on experiences of theft in households, sexual offences against respondents, their account of violence and security in the community, their perceptions of safety, their accounts of peace and social cohesion, their engagement in political activities, and their assessment of national governance. Information solicited on all the various sections were used in this analysis, except the sexual assault section. Information from this section was excluded because only 2 percent of respondents reported that they have ever been sexually assaulted, whilst the rest said they have never been sexually assaulted. Nevertheless, it is important to note that out of a total count of 331 respondents who reported that they have ever been sexually abused, almost a third (65.9 percent) were females. On its own merit, this could have interesting dynamics on perception of personal security; but the relatively smaller numbers could not allow for further analysis in the overall model for this study.

The study is not limited to particular regions or districts; but covers the perspectives of all the household heads or their designated representatives who took part in the survey. All these respondents shall together be referred to in this study as household heads, although in some instances, representatives of household heads responded to the questionnaires on their behalf where they were absent. Statistical Package for the Social Sciences (SPSS) was used for the entire analysis, as would be seen in subsequent
chapters. All the files in the Governance, Peace and Security folder prepared by the GSS were merged using Household Identification Number (HID) as the ‘Key Variable’.

3.2 Methods of Analysis

3.2.1 Dependent Variable

A four item additive scale was used to operationalise the outcome variable, the perception of personal security in Ghana. This perception measures the general sense of contentment and peace of mind that people have in their daily lives, homes, neighbourhood and community. Different stimuli may affect people’s perceptions about safety in walking alone at night in their neighbourhood, their comfort in staying alone at home at night, general contentment about safety during ordinary daily activities, and their perception about household safety. These are expected to be distinct but interrelated stimuli. Therefore, no single variable on safety is expected to capture the overall perception of personal security of individuals. That is why four questions have been combined into a scale to measure perception of personal security. To ensure that the four variables for the scale were not arbitrarily chosen, a reliability analysis test was done (Alpha=0.857).\(^7\)

Generally, a Cronbach’s Alpha that is greater than 0.7 indicates a statistically reliable coherence between the variables that are to be used for the scale.\(^8\) Table 1 of Appendix A shows Item-Total Statistics for the four variables. The ‘Cronbach’s Alpha if Item deleted’ values range from 0.809 to 0.828, indicating that deleting any of the four variables would reduce the reliability of the scale in representing the individual variables. Each of the four questions or variables therefore complements the accuracy of the scale in measuring the perception of personal security. The questions were selected from the Safety section of the module, and include the following:

Do you feel safe walking down your street alone in your neighbourhood at night?

How safe do you feel when you are at home alone after dark?

\(^7\) On SPSS: Analyse\>Scale\>Reliability Analysis_Statistics: Scale if Item deleted.

\(^8\) To double-check the compatibility of these four variables for the scale, a factor analysis was conducted, which generated a single component with eigenvalue 3.233.
In your daily life, do you feel very safe or not safe at all?
Would you say your household is safe from crime and violence at home?

Each of the questions had the following answer options: 1=Very safe; 2=Fairly safe; 3=Safe; 4=A bit unsafe; 5=Not safe at all. The direction of these response options was reversed and spread along a continuum from 0 to 100, using the ‘Recode into different variables’ command on the Transform menu of SPSS. This process also transformed each of the questions from ordinal or ranked variables into continuous variables. In order to create the composite scale for perception of personal security, all four variables were combined into a single scale. The ‘Compute Variable’ command was used to create average scores for the four variables. This scale is what shall be termed subsequently in this study as the Perception Scale. This is the Perception of Personal Security Scale.

This perception scale varies from ‘Very high perception of personal security’ (a score of 100) to ‘Very low perception of personal security’ (a score of 0). In other words, in the continuum from 0 to 100, lower values represent higher sense of personal insecurity, and higher values represent higher sense of personal security.

3.2.2 Intermediate Variables

Two sets of intermediate variables are used to ascertain the pathways through which perception of personal security is influenced by gender. These two sets are fear facilitators and fear inhibitors. The fear facilitators are expected to test how certain stimuli that instil fear could have direct bearing on perceptions of personal insecurity; whilst the fear inhibitors would test the pathways through which certain social phenomena that reduce fear could have influences on perception of personal security. These two intermediate variables are discussed below.

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9 In the recode, the ‘Not Safe At all’ option (originally coded as 5) was coded as 0, indicating that there is absolutely no sense of safety for the respondent; whilst the ‘Very Safe’ option (originally coded as 1) was coded as 100, indicating absolutely high sense of safety.
3.2.3 Intermediate Variables 1: Fear Facilitators

A number of factors are predicted to have negative correlation to perception of personal security, especially due to their potential to instil fear in people. These factors include proximity to some form of social disorder, the presence of children in the household, personal experience of crime, and personal experience of attack, assault or threat.

Proximity to some form of social disorder increases a person’s perception of risk to violence. This is consistent with the broken windows hypothesis, in which disorder has both psychological and pragmatic impact on perception of security (Skogan, 1990; McGarrel et al., 1997). Both the intensity and timing of the events of social disorder determine how perception of personal security is affected. Such stimuli of social disorder do not have to affect the respondent or the household directly to influence perceptions, but could be very influential even if the event occurred in the community, town or neighbourhood.

The first variable measures whether respondents perceive that there is tension or conflict between different groups or social actors in the community. A dummy variable was created for this question, with 1 representing ‘Yes, there is tension or conflict’; and 0 representing ‘No, there is no tension or conflict’. The first category is a combination of varying degrees of ‘Yes’, based on time and intensity. The second category is a simple denial of any form of tension or conflict in the community.

The presence of a child in a household is another fear facilitator that could affect perception of personal security. It would be interesting to see how this affects the perception of personal security of men and women, since some studies found altruistic feeling of insecurity due to the presence of children at home. There were 11, 498 children under five years in the total household membership of 72,372, representing 15.9 percent of all members in households sampled for the Living Standards Survey. However, due to the household arrangement in Ghana, where household heads may not be direct biological parents of children in the household, this variable was dropped from the list of variables used for the analysis.
Two other variables were used to separately measure personal experiences of violence – Personal experiences of robbery and attack or threat. These are direct manifestation of social disorder in the neighbourhood. The first question is: ‘Over the past five years (since 2008), did anyone steal or try to steal anything from you or other members of your household?’ The second variable is paraphrased as: In the past 12 months, have you or a member of your household been attacked, assaulted or threatened at home or elsewhere in the community by someone in ways that frightened you? Each of the variables was recoded into dummy variables. The recoding merged personal experiences with household experiences into a single category: ‘Yes, myself or a member of my household’ [1=‘Yes, myself or a member of my household’; 0=No, neither myself nor a member of my household]. Three main factors influenced the decision to combine these categories. First, the responses for the household experiences were negligible (2.5 percent), especially for the attack or threat variable. Second, the researcher assumed that ties between household members in many parts of Africa is very strong, making emotional responses to violent experiences a shared household phenomenon. Third, violent acts like robbery and threats affect the collective wellbeing of household members. Consequently, it is sometimes difficult to draw a distinct line between them.

3.2.4 Intermediate Variables 2: Fear Inhibitors

A number of social processes and events are expected to enhance the perceptions of personal security of individuals. These factors are predicted to boost perception of personal security, acting as buffer against perception of personal insecurity.

The first fear inhibitor is the expression of confidence in public security services. This is expected to boost the perceptions of personal security. A three-item additive scale was used to operationalise confidence in public security services (Alpha=0.764). Table 2 of Appendix A presents the Item-Total Statistics for the reliability analysis. The three questions were chosen from the Violence and Security section of the module; and they are:

In general, how much confidence do you have in the public security services to protect you, your household and your property from crime and violence? [1=Extremely
confident; 2=Somewhat confident; 3=Not very confident; 4=Not at all confident; 5=Don’t know]

In general, do you agree with the statement ‘public security services address the problems submitted to them in an effective manner’? [1=Strongly agree; 2=Somewhat agree; 3=No opinion; 4=Somewhat disagree; 5=Strongly disagree; 6=Don’t know]

What level of confidence do you have in the police? [1=Very confident; 2=Confident; 3=Not confident; 4=Don’t Know]

These questions were recoded and transformed into a reverse continuous direction from 0 to 100; where 0 indicates no confidence in public security services or total disagreement with a statement about the effectiveness of the security services. On the other extreme, 100 represent highest confidence or total agreement with their effectiveness. All the ‘Don’t Know’ responses were given midway values, since they did not fit into any of the extreme values. There were less than ten non-responses, which were all added to the third option category of ‘not confident’. The additive scale is continuous, and ranges from 0 (No trust in the public security services at all) to 100 (Complete trust in public security services).

The second inhibitor to fear is social cohesion. This is expressed in terms of trust for neighbours and community members. A six-item additive scale was developed for this social cohesion (Alpha=0.904). Table 3 in Appendix A displays the Item-Total statistics. Questions about trust for family or household members were excluded from this scale, since that would bias the scale. The six selected variables asked whether respondents trust people from their neighbourhood/village, ethnic group members, non-ethnic group members, people from other religions, people who belong to the same group/organization, and business owners in the community with whom they interact regularly. There were four response options for each of them (1=All the time; 2=Most of the time; 3=Sometimes; 4=Not at all]. There were some few non-responses, less than ten, which were all added to the last category of ‘not at all’. The non-response in each category was less than six, which were each added to the fourth category of ‘not at all’. A scale from 0 to 100 was created for these six variables, after reversing the direction

\[\text{10}^\text{The ‘Don’t Know’ options were recoded as system missing or no-responses, since they could not fit anywhere in the continuum of the scale.}\]
of the ordinal responses. It ranged from ‘No trust in neighbours at all’ (0) to ‘Constant, unreserved trust in neighbours’ (100). Table 3 of Appendix A presents the Item-Total Statistics.

The third inhibitor to fear is people’s perception of government’s responsiveness to their needs, especially regarding policy implementation. This variable inquired: ‘To what extent does the government take into account concerns voiced by you, your household or people like you when making changes in rules, laws and policies affecting your business/activities?’ The original question had five ranked responses, ranging from ‘Always’ to ‘Never’. A dummy variable was created to combine all the variance of government accountability to ‘Yes, the government takes my concerns into account’ (coded as 1); and ‘No, government does not take my concerns into account’. The ‘Don’t Know’ responses were counted as negative response, based on the assumption that if the government actually took the concerns of the respondents into account, they would have had some interactions already. The lack of knowledge was assumed to mean one of two things: either the government did not engage with them, or the respondents did not bother to engage with the government. Their concerns were therefore not factored into government policies and legislations. There were seven non-responses and two error entries. These nine were also added to the ‘No’ category.

The fourth of these fear inhibitors is the availability of at least one private security gadget, service or phenomenon. An index was created for six variables that measured the security upon which respondents relied upon to protect themselves and their households. These are special door locks, special window/door grilles, neighbourhood watch schemes, security guard, dogs and barbed wire. A single variable was created for all these questions, where anyone who relied on at least one of these items or services was coded as 1. Those who did not rely on any of these items or services were coded as 0. Thus, a dummy variable for private security index was created [1=Availability of at least one private security service; 0=no private security measure at all].
3.2.5 Independent Variables

This section discusses the approach for measuring gender, the main independent variable, and other explanatory variables which were controlled in the process of analysis. These controlled variables include age, marital status, and place of residence.

3.2.6 Independent Variable: Gender

Gender is a socially constructed phenomenon which socializes people to take up and accept certain roles and relationships models based on sex. Male and female members of society are socialized to take up models that categorize them into men and women. Since almost all males in Ghana are socialized to take up roles of men and almost all females are socialized to take up roles of women, the variable on ‘Sex’ was recoded as ‘Gender’, measured as ‘men’ and ‘women’. A dummy variable was created [1=Men and 0=Women].

3.2.7 Control Variables: Other Socio-Demographic Variables

Some socio-demographic factors which are expected to affect perception of personal security were used as control variables. These include age, marital status, education, religious affiliation and employment status. Geographic factors like place of residence, ecological zone and region of residence could also affect perceptions of personal security.

Age: Age was measured as ordinal variable, and re-categorized as less than 20, 20 to 44, 45 to 64 and 65+ years. This categorization was done to find out how the youth, active adult cohort, older adult cohort and elderly or retired cohorts perceive their personal security. The 65+ year category was used as the reference category.

Spousal co-residence for those in sexual unions: Those who are married or in consensual unions with spouses were separated from all other persons who did not reside in the same household with spouses. Couples who reside in the same household are expected to feel more secured than those who do not co-reside. A dummy variable was also created for this variable [1=Stay together with spouse in same household; 0=Do not stay with spouse in same household]. Those who did not stay in same household with spouse also included everybody else who was not married or in regular sexual union. Some 49 non-responses were added to the never married cohort.
Residence: Dummy variable was created for place of residence (1=Urban; 0=Rural).

Region of residence: The ten regions of Ghana was recoded into four categories [1=Natural resource endowed regions; 2=Dry savannah, resource scarce regions; 3=Greater Accra Metropolitan Area (GAMA); and 4=Other Regions]. Three of the ten regions of Ghana explore natural resources in commercial quantities. These are the Asante Region (Gold), Eastern Region (Diamond and Timber), and Western Region (Crude Oil and Timber). These three regions were categorised as Natural Resource Endowed regions. This category was used as the reference category. The Dry savannah regions comprised of the Northern, Upper East and Upper West regions. These are mostly deprived areas, with only one season of rainfall throughout the year, unlike the other regions in the south that has two rainy seasons each year. They form a dry savannah belt, and are mostly hard pressed for both renewable and non-renewable natural resources. These are resource scarce regions; and are also replete with sporadic outbreaks of chieftaincy and ethnic conflicts. The Greater Accra Region was categorized as one category, due to its unique urban and political position in national affairs. The three other regions – Central, Volta and Brong Ahafo – were categorized as ‘Other regions’.

Household size: Household size was recoded into five ordinal categories: one member, two members, three members, four members, and five or more members of the household. The first category was used as the reference category. This category is expected to shed light on how household size influence perception of personal security.

Educational level: Educational level was measured as the highest level of formal schooling completed by the respondents at the time of the interview. This was grouped into four categories [1=No education; 2=Primary education; 3=Secondary education; 4=Post-secondary education]. The recoding was done in such a way that only those who completed primary 6 were categorized as ‘primary education’. Similarly, all those who did not complete Junior Secondary School (JHS), Middle school or Senior Secondary school (SHS) were placed in the category of primary school. Only those who finished school at JHS 3 or JHS 4, SHS 3, Middle school stage 4, Secondary school stage 5 or above and other vocational and technical schools were placed in the category of ‘Secondary education’. Primary education was used as the reference category. This was
a filter question for those who ever attended school. Therefore, all the non-responses were treated as those with no education at all.

Employment status: The question for measuring employment status asked about any type of work at all engaged by the respondent in the previous days that had fetched some money, profit or pay to him or her. The question is: ‘Did [you] do any work for pay, profit, and family gain; or did [you] produce anything for barter or home use during the last 7 days even if it was for only one hour?’ A dummy variable was created for this variable (1=Yes; 0=No).

Religion: Religion was recoded into four categories: 1=Catholics/protestants; 2=Islam; 3=Pentecostal/Charismatic; 4=Other. Religion could be an important determinant of perception of personal security due to the prominence of religion in people’s life in Africa, and the varying support systems available to adherents of the different religious groups.

Appendix C has a summary of all measurements outlined in this section.

3.3 Methods of Analysis

The SPSS is the statistical software used for all the analysis. Various levels of analysis were used: univariate, bivariate and multivariate.

Univariate analysis is the first stage, where variations in all the variables were explored. Histograms have been used to display variation in all the continuous variables. Frequency tables have been used to express variations in all the variables, whilst bar charts and pie charts are used to display variation in some of the ordinal and nominal variables.

The second stage is the bivariate analyses, which explored interconnections and relationships between the variables in pairs. These are relationships mainly between the independent, intermediate and or dependent variables, through the use of Independent-Sample T-Tests, Analysis of Variance (ANOVA), and Chi-Square tests.

Independent-Sample T-Tests are expected to assess relationships between the dichotomous and continuous variables. Before the Independent-Sample T-Test was used, some few assumptions proposed by Field (2009) and Laerd Statistics online were
explored. First, only independent variables that are dichotomous and dependent variables that are continuous were used for this test. Second, the GLSS data ensured that there is independence of observation between groups in the sample. Gender, for instance, passed all the two assumptions which are applicable, since it is dichotomous, and none of those who responded to the questionnaire as men also responded as women. Third, there were no significant outliers with the continuous variables, and box plots have been used to verify that this assumption was not violated. Fourth, each variable which is treated as outcome variable should be approximately normally distributed for each category of the explanatory variable. The Kolmogorov-Smirnov test of normality has been used to verify this for all the applicable bivariate analyses, since we have large sample size more than 2000 people. Finally, homogeneity of variances was ensured, through the use of the Levene’s test for homogeneity of variances. Only the trust in neighbours scale met these assumptions when it was paired with gender.

The Independent-Sample T-Test could not be used to test associations between the main independent and dependent variables – gender and perception of personal security. This is because the normality assumption could not be met. The normality assumption could not be met because the Kolmogorov-Smirnov test showed a p-value of 0.000, signifying that there is significant deviation from the mean. The perception scale did not, therefore, meet the normality criteria. Leard Statistics online and Field (2009) suggest that Wilcoxon signed-ranked Test and the Mann-Whitney U-Test is a preferred test for comparing mean under such circumstances, since they are non-parametric tests, and do not require as many assumptions as the parametric ones. According to Field (2009: 540), ‘these tests are the non-parametric equivalent of the independent t-test’. These non-parametric tests rely on ranks within the data to run the tests, not on the actual values. Since the Mann-Whitney U-Test does not require any normality, it was used to test association between gender and perceptions of personal security. The mean rank was used to report this output, since the box plot showed that there are differences in the shapes of the distribution between men and women (See Figure 5 of Appendix B).

11 The Shapiro-Wilk test of normality could have been used as well, if we had a sample size of less than 2000
For similar reasons, the association between gender and confidence in public security services was also tested with Mann-Whitney U-Test. The median was used to report the results, since the box plot showed that there are similarities between the shapes of the distribution for men and women (See Figure 3 of Appendix B).

The Mann-Whitney U-Test was used for testing association between three of the control variables (which were dichotomous) and perception of personal security. These are co-residence with spouse, economic activity and type of place of residence. This was due to violation of non-significant outliers, normality and homogeneity of variance assumptions, for which reason the Independent-Sample T-Test could not be used.

ANOVA was also used to test association between independent variables which are nominal and dependent variables which are continuous. All the assumptions for the Independent-Sample T-Test are applicable here, except for the fact that independent variables in the case of ANOVA can be nominal or ordinal, not necessarily dichotomous (Field, 2009; Laerd Statistics online). All the assumptions were met for ANOVA as well. These variables whose associations were tested with ANOVA include religion and perceptions of personal security, and marital status and perception of personal security. The assumptions of normality and homogeneity were violated, since perception of personal security is not normally distributed. However, some scholars have proposed that F is robust against non-normal and violation of homogeneity if the sample sizes are similar, and if the means are similar (Field, 2009; Wilcox, 2005; Glass, 1966).

Chi-square tests were done for all the dependent and independent variables which are dichotomous. These include gender and experience of robbery, and gender and experience of attacks or threats.

The final stage of analysis was the multivariate stage, where all the variables were put together into models, to ascertain the extent of their association with perception of personal security. Four linear regression models were developed. The first model was a multiple linear regression that looked at the relationship between gender alone and the perception of personal security. The second model introduced the fear facilitators. The control variables were introduced in the third model; whilst the final model
included all the predictor variables – gender, control variables, fear facilitators, and fear inhibitors. Assumptions of normality and homogeneity were assumed due to the large sample size of the data (Field, 2009).

### 3.4 Data Limitations

Some important characteristics like education, marital status, employment status and religious affiliations were not collected as part of the Governance, Peace and Security module, which made it difficult to make broader analyses with demographic variables. More expert statistical computations were needed to merge variables from the other modules in the GLSS 6.

Although household heads were expected to be the main respondents, the multiple visitations for compiling the data for the Living Standards Surveys has meant that respondents changed hands some few times. In some instances, household members other than household heads responded to the questions. This could potentially bias the results. Moreover, the respondents provided responses for themselves to a large extent, which means that their perceptions of personal security cannot represent the households per se; but their individual perspectives.
CHAPTER FOUR

UNIVARIATE ANALYSES

4.1 About Ghana (Profile of Ghana)

Ghana is one of the most politically stable countries in sub-Saharan Africa. Since 1992, the country has had six free and fair democratic elections, and has had three different governments ascending the reins of power through peaceful transitions. The latest Ibrahim Index of African Governance ranks Ghana as 7th in overall best practices in Governance in Africa. It also scored highly in rule of law and participation indicators. The population of Ghana is 25,658,823 (GSS, 2010). The male population is about 49 percent of the total population, whilst female population is about 51 percent. There are ten administrative regions of Ghana and 170 districts across the country. Ghana discovered crude oil in commercial quantities in 2007, which became part of its list of other natural resource commodities that support its national budget – gold, diamond, cocoa, timber. Revenue from gold, cocoa and timber especially form a substantial chunk of the country’s Gross Domestic Product.

The national average of households headed by males is 69.5 percent, compared to 30.5 percent headed by female (GSS, 2014: 190).

The gender inequality gap in the country has been consistently narrowed over the years, with Ghana being the only country in West Africa to attain optimum Gender Parity Index (GPI) at primary school, around 0.97. GPI at higher levels of education has also increased, presently stagnating at 0.92, much higher than the sub-Saharan African average. Gender equality in labour force participation is still low. The employment to population ratio in the country is about 67.4 percent; 69.0 percent for males and 65.6 percent for females. Majority of Ghanaians work in the private informal sector (86.2 percent); 91 percent of female and 81 percent of male are employed in this sector. The proportion of male who work in the government and private formal sector is twice the proportion of female. Unemployment rate is higher in urban areas (18.2 percent) than in rural areas (8.0 percent) due to increasing drift in rural-urban migration without corresponding expansion of industry and social facilities.
4.2 Socio-Demographic Characteristics of Respondents

The unit of analysis is the household heads in each of the 18,000 households surveyed for the Ghana Living Standards Survey. The total number of valid responses for this study was 15,756, representing 87.53 percent of total surveyed household heads. It is this total number of respondents who responded to the set of questions used for the Perception scale. Table 4.1 shows the summary of their characteristics.

Table 4.1 Demographic and Other Socio-Geographic Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Women</td>
<td>8353</td>
<td>53.0</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>7403</td>
<td>47.0</td>
</tr>
<tr>
<td>Spousal Co-residence</td>
<td>Do not stay with spouse</td>
<td>8069</td>
<td>51.2</td>
</tr>
<tr>
<td></td>
<td>Stay with spouse in same HH</td>
<td>7687</td>
<td>48.8</td>
</tr>
<tr>
<td>Age group of respondents</td>
<td>&lt;20 yrs</td>
<td>841</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>20 - 44 yrs</td>
<td>9565</td>
<td>60.7</td>
</tr>
<tr>
<td></td>
<td>45 - 64 yrs</td>
<td>3686</td>
<td>23.4</td>
</tr>
<tr>
<td></td>
<td>65+ year</td>
<td>1664</td>
<td>10.6</td>
</tr>
<tr>
<td>Household size</td>
<td>1 member</td>
<td>2671</td>
<td>17.0</td>
</tr>
<tr>
<td></td>
<td>2 members</td>
<td>1837</td>
<td>11.6</td>
</tr>
<tr>
<td></td>
<td>3 members</td>
<td>2218</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>4 members</td>
<td>2365</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>5+ members</td>
<td>6665</td>
<td>42.3</td>
</tr>
<tr>
<td>Religion</td>
<td>Catholics/Protestants</td>
<td>4743</td>
<td>30.1</td>
</tr>
<tr>
<td></td>
<td>Islam</td>
<td>3901</td>
<td>24.8</td>
</tr>
<tr>
<td></td>
<td>Pentecostal/Charismatic</td>
<td>4668</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>2444</td>
<td>15.5</td>
</tr>
<tr>
<td>Completed Level of Education</td>
<td>No Education</td>
<td>6567</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>2039</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td>Secondary/ Vocational/Technical</td>
<td>6235</td>
<td>39.6</td>
</tr>
<tr>
<td></td>
<td>Tertiary/ Post-Secondary</td>
<td>915</td>
<td>5.8</td>
</tr>
<tr>
<td>Economic activity in last 7 days</td>
<td>No economic activity</td>
<td>3560</td>
<td>22.6</td>
</tr>
<tr>
<td></td>
<td>Engaged in economic activity</td>
<td>12196</td>
<td>77.4</td>
</tr>
<tr>
<td>Type of Place of Residence</td>
<td>Rural</td>
<td>8801</td>
<td>55.9</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>6955</td>
<td>44.1</td>
</tr>
<tr>
<td>Region of Residence</td>
<td>Natural resource endowed regions</td>
<td>5040</td>
<td>32.0</td>
</tr>
<tr>
<td></td>
<td>Dry savannah, resource scarce reg</td>
<td>4419</td>
<td>28.0</td>
</tr>
<tr>
<td></td>
<td>Greater Accra Region</td>
<td>1806</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>Other regions</td>
<td>4491</td>
<td>28.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15756</td>
<td>100</td>
</tr>
</tbody>
</table>

[Source: Generated from Ghana Living Standards 2012/2013]

Out of the total number of respondents, 53 percent were women and 47 percent were men. This indicates a Sex Ratio (SR) of 88.5, a little less than the national average of 95.2 (GSS, 2013: 59). This proportion is not consistent with the fact that there are many male household heads than women household heads in Ghana. This disparity is because many of the persons who actually took part in the survey were female household heads.
members – spouses, divorced, separated or widowed – who were available at home during interview visitations. It probably indicates that women are more confined to the homes than men in many parts of Ghana. A closer look at the marital status question provides some answers to this dilemma.

More than half the respondents were married, followed by the never married cohort (21.5 percent) and those who were previously married but were separated, divorced or widowed (18.4 percent). Those in consensual unions were the least of the cohorts, forming 8.5 percent. Altogether, those who were married and cohabiting with their spouses were 48.8 percent of the total number of respondents. The rest (51.2 percent) were either staying without a spouse because they were not currently in marriage (or cohabiting).

Majority of respondents (60.7 percent) were in the active working age group, from 20 years to 44 years. This was followed by those in the older-working and early-retired classes, 45 years to 64 years (23.4 percent). Adolescents were the least represented, being 5.3 percent of total respondents. This lower adolescent cohort is understandable, since many household heads in Ghana are expected to be older persons with families and properties of their own. Adolescents can represent the household in rare cases, where both parents are deceased or in sojourn, and where there are no other adults present. In some cultures, women delegate adolescent males to represent the household where the older male head of the household is not available.

Household size is big in many households across the survey areas. Some 42.3 percent of households had more than 5 members. This was followed by single-member households (15 percent). Four-member households and three-member households followed closely (15.0 and 14.1 percent respectively), and then two-member households (11.7 percent). This is consistent with existing literature, which shows that households in sub-Saharan Africa are big due to persistence of extended family systems.

Orthodox Christians and Pentecostals were in the majority, forming three out of five of total respondents. Adherents of Islam were about a quarter of the total number of respondents.
Many of the respondents had “no education” (41.7 percent), meaning that they either never entered the classroom, or did not complete schooling up to class six. Those who completed primary school but did not complete Junior Secondary School (JSS/JHS) or Middle School were also classified as completing only primary school (12.9 percent). Those who completed Junior Secondary School and above but not beyond Senior Secondary School (SHS/SSS) or other second cycle vocational and technical institutions were classified as completing secondary school, and these formed 39.6 percent of respondents. Respondents who had tertiary or post-secondary education like nursing trainees, teacher trainees and polytechnic graduates were the least of the total number (5.8 percent).

More than three-quarters of respondents were engaged in some kind of economic activity. In the seven days preceding the days of the interviews, only 22.6 percent of respondents had not engaged in any economic activity that was expected to yield some profit or monetary gains. The rest engaged in economic activities.

In terms of geographic location, about six out of ten respondents resided in rural areas, with the remaining four out of ten residing in urban areas. For the regional distributions category, residents from natural resource-rich regions were more (32 percent), followed closely by those from other regions (28.5 percent), and then those from dry savannah, resource-scarce regions (28 percent). Respondents residing in Greater Accra were about a tenth of the total number. The resource-rich regions comprised of the Asante Region that is endowed with Gold; the Western Region that is endowed with crude oil and timber; and the Eastern Region that is endowed with Diamond and timber. The dry savannah regions included the Northern Region, Upper East and Upper West regions. These have dry climatic conditions in most part of the year, and have scarce renewable and non-renewable natural resources like forests and water bodies. The other regions comprised of the Brong Ahafo Region, Volta Region and Central Region. The Greater Accra Region is treated separately, due to its distinct urban, industrial and demographic characteristics. It is the capital city of Ghana, the most densely populated, and the most industrialized region, according to the 2010 Population and Housing Census.
4.3 Fear Facilitators

Three fear facilitators are outlined in the conceptual framework. These are people’s perception of tension in the community, their experience of robbery, and their experience of attacks or frightening threats. These are all categorical variables, and Table 4.2 displays the frequencies of responses.

Tension or conflict in community was used as proxy for measuring social disorder. Asked whether they thought that their communities have manifestations of social disorder, 16.5 percent said that their communities were plagued with conflicts or that there was tension between different groups of people. The rest (85.5 percent) said there was no tension or conflict at all in their communities.

Experience of robbery is a direct manifestation of social disorder on individuals or their households. More than a third of respondents (36.5 percent) had been victims of robbery in the five years that preceded the survey. Such robbery incidence occurred to them or their household members. Majority of respondents (63.5 percent), had never been robbed or had their property stolen over the period.

A second direct manifestation of social disorder is experience of personal attacks or threats that significantly frighten individuals and or members of their households. Only about 1 out of 10 respondents said that members of their household or themselves have been victims of such attacks and threats in the 12 months that preceded the interview. The rest (91.1 percent) had never had such experience over the one year period.

Table 4.2: Descriptive Statistics of Respondents’ Accounts of Fear Facilitators

<table>
<thead>
<tr>
<th>Fear facilitators</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tension or conflict in neighbourhood</td>
<td>No</td>
<td>13158</td>
<td>83.5</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>2598</td>
<td>16.5</td>
</tr>
<tr>
<td>Experience of robbery at home</td>
<td>No</td>
<td>10006</td>
<td>63.5</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>5750</td>
<td>36.5</td>
</tr>
<tr>
<td>Experience of attacks or frightening threats</td>
<td>No</td>
<td>14350</td>
<td>91.1</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>1406</td>
<td>8.9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15756</td>
<td>100</td>
</tr>
</tbody>
</table>

[Source: The Ghana Living Standards Survey 2012/2013]
4.4 Fear Inhibitors

Four variables were used to measure fear inhibitors. Two of them were measured as continuous variables – confidence in public security services and trust for neighbours. These were scales which were developed from multiple variables. The other two fear inhibitors were dichotomous – government responsiveness and availability of any private security measure that provides some assurance of security at home (Private Security Index).

The statistical summary of the continuous variables are displayed in Table 4.3, which includes the mean, the standard deviations and standard errors about the means. In either scale, 0 represents very low confidence or trust and 100 represents very high confidence or trust.

Table 4.3: Descriptive Statistics of Fear-Inhibitor Scales

<table>
<thead>
<tr>
<th>Fear inhibitor scales</th>
<th>Mean</th>
<th>Median</th>
<th>Min.</th>
<th>Max.</th>
<th>Std. Dev.</th>
<th>Std. Err</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence in Public Security Services</td>
<td>72.52</td>
<td>77.78</td>
<td>0.00</td>
<td>100.0</td>
<td>22.19</td>
<td>0.18</td>
<td>1575</td>
</tr>
<tr>
<td>Trust in neighbours scale</td>
<td>43.99</td>
<td>38.89</td>
<td>0.00</td>
<td>100.0</td>
<td>23.77</td>
<td>0.19</td>
<td>1575</td>
</tr>
</tbody>
</table>

[Source: The Ghana Living Standards Survey 2012/2013]

About half the total number of respondents had very high (77.78 score) confidence in the public security services to protect them from crime, threats and violence. The average confidence in the efficiency and effectiveness of the police to protect people and to deal with any exigency that may arise in their communities was 72.52 on the scale from 0 to 100. The graphical distribution (histogram) of the confidence scale can be found in Figure 1 of Appendix B. The standard deviation for the confidence in public security services scale was 22.19 scores, with a standard error of 0.18 scores about the mean. A modified box plot and stem-and-leaf plot showed that all observations below 11 percent were outliers or extreme cases (See Appendix B). These are 298 cases, representing 1.9 percent of total number of respondents. These outliers have been maintained for variations during the bivariate and multivariate analysis stage, to find out whether their omission or inclusion could have any impact.

There was low level of trust for community members with whom they interact on regular basis. About half the total number of respondents had 38.89 score of trust in
their community members. The average score for trust for community members was 44. The graphical distribution (histogram) of the trust for neighbours scale can be found in Figure 2 of Appendix B. The standard deviation for the trust in neighbours was 23.77 scores, with standard error of 0.19 scores about the mean. A modified box plot showed that there were no outliers for the trust for neighbours scale (See Appendix B).

Table 4.4 presents descriptive statistics of the other two fear inhibitors measured as dichotomous variables. Almost four out of ten respondents said government takes their concerns and that of their household members into account when formulating and changing policies and or laws. Some 61.2 percent said their concerns are never taken into account when government is effecting changes to existing laws, formulating new law or implementing policies.

In terms of the availability of private security services at home, about a third of respondents said they rely on at least one private security service at home. These include special door locks, special window or door grilles, security guard, neighbourhood watch schemes, dogs and barbed wires.

Table 4.4: Categorical (Dichotomous) Fear Inhibitors

<table>
<thead>
<tr>
<th>Fear Inhibitors</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government responsive to concerns</td>
<td>No</td>
<td>9650</td>
<td>61.2</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>6106</td>
<td>38.8</td>
</tr>
<tr>
<td>Private Security Index</td>
<td>No private security</td>
<td>9899</td>
<td>62.8</td>
</tr>
<tr>
<td></td>
<td>At least one private security gadget or service exist</td>
<td>5857</td>
<td>37.2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15756</td>
<td>100</td>
</tr>
</tbody>
</table>

[Source: Ghana Living Standards Survey 2012/2013]

4.5 Perception of Personal Security

This is the outcome variable for the study, and provides a scale of increasing scores of perception of personal security, from 0 to 100. Table 4.5 below provides the summary statistics. About half the total number of respondents had perception of personal security score of 93.75. The average score of perception of personal security among the respondents was 82.5. This means that majority of respondents had little or no fears at all to move about alone at night, to stay alone at home at night, or to go about their daily activities without significant fear of compromising their safety. Figure 4.1 presents graphical representation of the distribution with the help of a histogram. The standard
deviation from the mean was 22.29 scores, with standard error of 0.18 scores. A modified box plot of the distribution indicates that all observations that recorded less than 20 scores on the perception scale are outliers (See Figure 4.2). These are 185 in number, according to a stem-and-leaf plot, representing 1.2 percent of the total number of respondents. Different models would be run with and without these outliers to ascertain their significance in influencing the data.

Table 4.5: Summary Statistics for the Perception of Personal Security Scale

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Min.</th>
<th>Max.</th>
<th>Std. Dev.</th>
<th>Std. Err.</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception Scale for Personal Security</td>
<td>82.49</td>
<td>93.75</td>
<td>0.00</td>
<td>100.00</td>
<td>22.29</td>
<td>0.18</td>
<td>1575</td>
</tr>
</tbody>
</table>

[Source: Generated from the Ghana Living Standards Survey 2012/2013]

Figure 4.1: Histogram Representation of the Perception of Personal Security of Respondents.
Figure 4.2: Modified Box Plot for Perception Scale
CHAPTER FIVE

BIVARIATE ANALYSES

5.1 Introduction
In this chapter, the strength of the relationship among the variables and the others are tested. The strength of relationship between gender (main independent variable) and perception of personal security (outcome variable) is tested. Gender is also tested against each of the intermediate variables. Similarly, all the control variables are tested against the outcome variable.

5.2 Gender, Fear facilitators, Fear Inhibitors & Perception of Personal Security

5.2.1 Gender and Perception of Personal Security
The Mann-Whitney U-Test was used to compare means of men and women (Gender) with regards to their perception of personal security. This test is best for comparing two independent categories (men and women) when the outcome variable is either ordinal or continuous, but does not meet the normality assumption necessary for Independent-Sample T-test (Laerd Statistics online). The problems of non-normality and significant outliers have been explained earlier in chapter four. Cases were excluded listwise, descriptive statistics and quartiles were checked, and the Mann-Whitney U option was highlighted. Two box plots generated for the distribution did not show that the shapes for the perception of male and female were similar (See Figure 5 of Appendix B). The median was nevertheless used for reporting this test. Table 5.1 below shows the actual figures for the Mann-Whitney U test, showing the mean ranks. The corresponding test statistics are shown in Table 5.2. The mean scores are shown in Table 5.6 ahead.

12 Analyse>Nonparametric tests>Legacy dialogs>2 independent samples>Test variables=Perception scale>Grouping variable=Gender(0,1)>Mann-Whitney U-Test…

13 Analyse>Descriptive statistics>Explore>Dependent=Perception scale; Factor list=Gender>Plots->’Factor level together’; ‘Stem-and-leaf’; ‘histogram’; ‘normality plots with tests’…
Table 5.1: Mann-Whitney U-Test Ranks Table for Gender and Perception of Personal Security

<table>
<thead>
<tr>
<th>Perception Scale for Personal Security</th>
<th>Gender</th>
<th>N</th>
<th>Median</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>8353</td>
<td>93.75</td>
<td>7606.99</td>
<td>63541146.50</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>7403</td>
<td>100</td>
<td>8184.86</td>
<td>60592499.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15756</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2: Test Statistics for Mann-Whitney U Test.

<table>
<thead>
<tr>
<th>Tests</th>
<th>Perception Scale for Personal Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>28650000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>63540000</td>
</tr>
<tr>
<td>Z</td>
<td>-8.474</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Gender

Men (Median = 100) generally have higher perception of personal security than women (Median = 93.75). This difference in perception of personal security between men and women is statistically significant at 99 percent confidence interval, judging from the test statistics from the Mann-Whitney U-Test above (U = 28650000, p = 0.000, z = -8.474, r = -0.068).

The size of the effect could also be computed using the equation provided by Field (2009: 550)

\[
r = \frac{z}{\sqrt{N}}
\]

Where \( z \) = z-score provided by the Mann-Whitney test, and \( N \)=sample size.

\[
= \frac{-8.474}{\sqrt{15756}}
\]

\[
= -0.068
\]

The size of the effect is very slight.

The significant difference in mean was expected. It is consistent with both the literature on patriarchal disadvantages of women and the fear of crime. Women are expected to feel and express their sense of personal insecurity, especially if they perceive higher occurrence of social disorder. Men are also generally expected to hype their sense of security. Many research findings conclude that all things being equal, women would be more fearful of crime and violence than men.
5.2.2 Gender and the Fear Facilitators (Perception of Social Disorder)

The descriptive statistics for the association between gender and the fear facilitators (or social disorder stimuli) are shown in Table 5.3 below, with corresponding chi-square statistics in Table 5.4. The perception of conflict in the neighbourhood was the same for both men and women across the country, representing one out of six of the total number of respondents. Men experienced attacks or frightening threats (9.2 percent) more than women (8.7 percent) in the 12 months preceding the interview; but this difference was not significant (p = 0.210).

Table 5.3: Gender and the Occurrence (or Perception) of Fear Facilitators among Respondents

<table>
<thead>
<tr>
<th>Fear Facilitators</th>
<th>Category</th>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Women</td>
<td>Men</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
</tr>
<tr>
<td>Tension or conflict in neighbourhood</td>
<td>No</td>
<td>6961</td>
<td>83.3</td>
<td>6197</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>1392</td>
<td>16.7</td>
<td>1206</td>
</tr>
<tr>
<td>Experience of robbery at home</td>
<td>No</td>
<td>5433</td>
<td>65.0</td>
<td>4573</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>2920</td>
<td>35.0</td>
<td>2830</td>
</tr>
<tr>
<td>Experience of attack or threats at home</td>
<td>No</td>
<td>7630</td>
<td>91.3</td>
<td>6720</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>723</td>
<td>8.7</td>
<td>683</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8353</td>
<td>100</td>
<td>7403</td>
</tr>
</tbody>
</table>

[Source: Generated from the Ghana Living Standards Survey 2012/2013]

It is the difference in the experience of robbery at home that was found to be significant at 99 percent confidence interval (p = 0.01). 38.2 percent of men reported of experiencing robbery at home in the last five years, which was significantly more than the 35 percent of women who reported same. These findings are counterintuitive.

Table 5.4: Pearson Chi-Square Tests for Gender and the Fear Facilitators

<table>
<thead>
<tr>
<th>Fear facilitators</th>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chi-square</td>
<td>0.399</td>
<td></td>
</tr>
<tr>
<td></td>
<td>df</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>0.528</td>
<td></td>
</tr>
<tr>
<td>Experienced robbery at home</td>
<td>Chi-square</td>
<td>18.110</td>
<td></td>
</tr>
<tr>
<td></td>
<td>df</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>0.000*</td>
<td></td>
</tr>
<tr>
<td>Experienced attack or threats that frighten</td>
<td>Chi-square</td>
<td>1.571</td>
<td></td>
</tr>
<tr>
<td></td>
<td>df</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>0.210</td>
<td></td>
</tr>
</tbody>
</table>
It was expected that men would experience robbery, threats and attacks more than women, due to their socialization. Men are socialized to be property owners, and so should have had more items stolen than women. Moreover, men were expected to be attacked and threatened more than women, since they are socialized to be more adventurous, daring, outgoing and aggressive than women. It is possible nevertheless, that the same socialization which vilifies men who express their fear publicly also stopped them from reporting their experiences of robbery and violence. Women, on the other hand, were expected to express more fear at home, according to the extant literature. But this was not the case with the finding. Further multivariate analysis in the next chapter should throw further light on these dynamics.

5.2.3 Gender and the Fear Inhibitors (Those Variables that are Continuous)

Two of the fear inhibitors are continuous variables – confidence in public security services and trust for neighbours. The best instrument of analysis for gender (dichotomous) and each of the continuous variables is the Independent-Samples T-Test. However, the confidence in public security scale failed to satisfy all three assumptions of no significant outliers, normality and homogeneity of variance (See explore outputs in previous chapter and Table 10 below). Another method, the Mann-Whitney U-Test, would be used for the confidence in public security scale later in this section.

5.2.4 Gender and Trust in Neighbours

Trust in neighbours, on the other hand, satisfied all the assumptions for an Independent-Sample T-Test. The Independent-Sample T-Test or Two Sample T-Test is used to explore whether there is significant difference between the means of two unrelated groups. Here, we test whether there is significant difference in the extent of trust that men and women have for their neighbours. The confidence interval for this test is 95 percent, implying an error margin of 0.05 ($\alpha$-level = 0.05). The null hypothesis ($H_0$) is that the means of men and women are the same:

$H_0: \bar{X}_1 = \bar{X}_2$

---

14 A closer look at the box plots also confirmed that observations for confidence in public security services are actually truly non-normal.
The Alternative hypothesis ($H_A$) is that the means are not the same.

$H_A$: $\bar{X}_1 \neq \bar{X}_2$

Before the Independent-Sample T-Test was conducted for gender and trust in neighbours, some three assumptions were verified. Tests were conducted for outliers, normality and homogeneity of variances.

The first assumption that was verified was a check for outliers. There were no outliers for trust in neighbours, as has already been established in the previous chapter. The second assumption that was verified was the normality of the distribution of trust for each category of gender. Since the sample size is large, the Kolmogorov-Smirnov test was conducted.\(^{15}\) Confidence interval of 95 percent was chosen; whilst ‘factor level together’, ‘stem-and-leaf plot’ and ‘normality plots with test’ were the options checked for the plots. The test of normality in Table 5.5 shows that the data significantly deviate from a normal distribution, since all the p-values are less than 0.05. This means that based on the statistics from Kolmogorov-Smirnov test of normality, Trust for neighbours scale did not satisfy the test of normality, the same way confidence in public security services did not satisfy the test. However, there are exceptions to the rule; especially when the sample size is big, decisions should be made after other graphical outputs like box plots, histograms and Q-Q plots have been analysed (Field 2009). The histogram and box plot for trust in neighbours displayed some normality. The box plot is shown in Figure 5.1 below.

<table>
<thead>
<tr>
<th>Some Fear Inhibitors</th>
<th>Gender</th>
<th>Kolmogorov-Smirnov$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>Confidence in Public Security Services</td>
<td>Women</td>
<td>0.145</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>0.151</td>
</tr>
<tr>
<td>Trust in neighbours scale</td>
<td>Women</td>
<td>0.130</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>0.127</td>
</tr>
</tbody>
</table>

\(a\). Lilliefors Significance Correction

\(^{15}\) Analyze>Descriptive Statistics>Explore…>Dependent=Confidence in public security services/Trust in neighbours; Factor list=Gender…
The distribution for the trust in neighbours is closer to normality, as shown in the box plot in Figure 5.1. Field (2009) advises that when the sample size is very large, even the slightest deviations might lead to an output of non-normality, for which reason some discretion is needed in using the results of Komogorov-Smirnov to decide on tests of correlation. Due to the near normality of gender and trust in neighbours, it was further considered for the Independent-Sample T-Test.

Further test was done to verify homogeneity of variance. The Levene’s test statistics was used. The null hypothesis for the Levene’s test is that the variances in different groups are equal. In other words, the difference between the variances is zero.

$$H_0: S_1^2 = S_2^2 \quad \text{or} \quad S_1^2 - S_2^2 = 0$$

The Alternative hypothesis proposes a counter argument and argues that the variances are not equal. When the p-value is significant ($p<0.05$), it means that the null hypothesis is rejected. In that case, it can be concluded that the variances are not the same, and that there is no homogeneity of variance. If, however, the p-value is not significant ($p>0.05$),

---

16 Analyze>Descriptive statistics>Explore>Dependent=Trust in neighbours; Factor list=Gender>Plots=Factor levels together+Stem-and-leaf+histogram+Normality plots with tests+Untransformed…
it means that the null hypothesis is accepted, with the conclusion that there is homogeneity of variance.

When the ‘untransformed’ radio command was selected, the Levene’s test of variances had a p-value greater than 0.05 based on mean (p = 0.948). This means that homogeneity of variance for gender and trust in neighbours is verified \((F(1, 15754) = 0.004, \ p>0.05, \text{not significant})\). The Independent-Sample T-Test can, therefore, be done to test the association between gender and the trust in neighbours.\(^{17}\) The results in Tables 5.6 and 5.7 show that trust in neighbours is not significantly different for women (43.65+/−23.76 scores) and men (44.38+/−23.77 scores), \(t(15754) = -1.928, \ p = 0.054\). There is no significant difference, therefore, between the trust that men and women have for other members of the community. This is because the p-value is greater than 0.05.

Table 5.6: Distribution of Initial Perception, Confidence and Trust Scales by Gender

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td>Women</td>
</tr>
<tr>
<td>Perception Scale for Personal Security</td>
<td>Frequency</td>
<td>8353</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>80.98</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>23.09</td>
</tr>
<tr>
<td></td>
<td>Standard Error of Mean</td>
<td>0.25</td>
</tr>
<tr>
<td>Confidence in Public Security Services</td>
<td>Frequency</td>
<td>8353</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>72.98</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>21.68</td>
</tr>
<tr>
<td></td>
<td>Standard Error of Mean</td>
<td>0.24</td>
</tr>
<tr>
<td>Trust in neighbours scale</td>
<td>Frequency</td>
<td>8353</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>43.64</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>23.76</td>
</tr>
<tr>
<td></td>
<td>Standard Error of Mean</td>
<td>0.26</td>
</tr>
</tbody>
</table>

[Source: The Ghana Living Standards Survey 2012/2013]

\(^{17}\) Analyse>Compare means>Independent-Sample T-Test>Test variables=Trust in neighbours; Grouping variable=Gender(0,1)>95%CI; Exclude cases listwise…
A closer look at the means can also attest to this, since they are almost the same, 43.65 scores for women and 44.38 scores for men, with similar standard deviations of 23.8 scores for each. There is therefore no evidence that gender explains the phenomenon of trust for other members of the community.

### 5.2.5 Gender and Confidence in Public Security Services

The Mann-Whitney U-Test was used to check for association between gender and confidence in public security services. This is because the variables did not meet the conditions of no significant outliers, normality and homogeneity of variance, as has been explained earlier. These are not important assumptions for Mann-Whitney U-Test, which is a non-parametric test. The box plots showed that the shapes for men and women are similar (See Figure 3 in Appendix B). Therefore, we could compare the medians instead of the means. The median is the best measure for the Mann-Whitney U-Test. Since SPSS compares means by default with the Mann-Whitney U-Test, the

<table>
<thead>
<tr>
<th>Table 5.7: Independent Samples Test for Gender and Trust in Neighbours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust in neighbours scale</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Equal variances assumed</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
</tr>
</tbody>
</table>

A closer look at the means can also attest to this, since they are almost the same, 43.65 scores for women and 44.38 scores for men, with similar standard deviations of 23.8 scores for each. There is therefore no evidence that gender explains the phenomenon of trust for other members of the community.

### 5.2.5 Gender and Confidence in Public Security Services

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‘Explore’ command was first used to reset this default from the mean to the median so that the median would be known for reporting.¹⁹

The resulting output showed that there was no significant difference between the means and the medians. Here, only the median is reported. Expression of confidence in public security services for women (Mdn = 77.78 score) did not vary significantly from that for men (Mdn = 77.78 score). According to the statistics, U = 30420000, z = -1.781, ns, r = -0.0142. The size of the effect (r) is computed by the equation provided by Field (2009: 550):

\[ r = \frac{z}{\sqrt{N}} \]

Where \( z = z \)-score provided by the Mann-Whitney test, and \( N \) = sample size.

\[ = -1.781/\sqrt{15756} \]
\[ = -0.0142 \]

The value of \( r \) is very slight. Thus, there is no difference at all in the extent to which one differs from the other.

No significant difference in the expression of confidence in public security services was recorded between men and women. In other words, both men and women have similar level of confidence in public security services to provide them with security, and to resolve security concerns when they arise.

**5.2.6 Gender and the Other Non-Continuous Fear Inhibitors**

In order to test the relationship between gender and each of the other fear inhibitors, chi-square analyses were done. These fear inhibitors are four in number, and include government responsiveness to private concerns, neighbourhood security schemes in community, dogs at home, and the use of special door and window grilles. Tables 5.8 and 5.9 show the descriptive statistics and the chi-square test outputs respectively.

¹⁹ Analyse>Compare means>Means>Dependent list = Confidence in public security services; Independent = Gender> Options> Transfer median into the ‘Cell Statistics:’ box and deselect mean, number of cases and standard deviation...
Table 5.8: Cross Tabulations for Gender and each of the Dichotomous Fear Inhibitors

<table>
<thead>
<tr>
<th>Fear Inhibitors (Dichotomous)</th>
<th>Category</th>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Government responsive to concerns</td>
<td>No</td>
<td>5266</td>
<td>63.0</td>
<td>4384</td>
<td>59.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>3087</td>
<td>37.0</td>
<td>3019</td>
<td>40.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of neighbourhood watch scheme</td>
<td>No</td>
<td>8015</td>
<td>96.0</td>
<td>7095</td>
<td>95.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>338</td>
<td>4.0</td>
<td>308</td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dogs at Home</td>
<td>No</td>
<td>6560</td>
<td>78.5</td>
<td>5792</td>
<td>78.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>1793</td>
<td>21.5</td>
<td>1611</td>
<td>21.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special windows or door grilles</td>
<td>No</td>
<td>7541</td>
<td>90.3</td>
<td>6669</td>
<td>90.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>812</td>
<td>9.7</td>
<td>734</td>
<td>9.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8353</td>
<td>100</td>
<td>7403</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Source: The Ghana Living Standards Survey 2012/2013]

Only concerns for government responsiveness showed any significant difference between men and women. The results showed that at $\alpha$-level of 0.01, there was a significant relationship between gender and perception of government responsiveness to the needs of individuals and households. 37 percent of women and 40.8 percent of men said government took their concerns or the concerns of their households seriously.

Table 5.9: Chi-Square Tests for Gender and each of the Dichotomous Fear Inhibitors

<table>
<thead>
<tr>
<th>Fear Inhibitors (Dichotomous)</th>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Chi-square</td>
<td>24.179</td>
</tr>
<tr>
<td></td>
<td></td>
<td>df</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.</td>
<td>$0.000^*$</td>
</tr>
<tr>
<td>Availability of neighbourhood watch scheme</td>
<td></td>
<td>Chi-square</td>
<td>0.130</td>
</tr>
<tr>
<td></td>
<td></td>
<td>df</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.</td>
<td>0.719</td>
</tr>
<tr>
<td>Dogs at Home</td>
<td></td>
<td>Chi-square</td>
<td>0.203</td>
</tr>
<tr>
<td></td>
<td></td>
<td>df</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.</td>
<td>0.652</td>
</tr>
<tr>
<td>Special windows or door grilles</td>
<td></td>
<td>Chi-square</td>
<td>0.167</td>
</tr>
<tr>
<td></td>
<td></td>
<td>df</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.</td>
<td>0.683</td>
</tr>
</tbody>
</table>

This means that men had a more positive appraisal of government responsiveness to their needs and the needs of their households than women. It means that women generally have lower appraisal of government responsiveness to their needs and the needs of their household members. This is consistent with extant literature on patriarchy, where the interests of women are never of prime concern in many societies. Since men also generally have higher perception of personal security, it would be
interesting to see how this indicator impacts on that perception in multivariate analysis in the next chapter.

For all the other categorical fear inhibitors, there were no significant relationships. There was no significant relationship between gender and availability of any of the private security factors. The difference between men and women who live in homes protected by neighbourhood watch schemes, dogs and special doors was not significant. Many households were protected by dogs (22 percent for both men and women). The use of dogs is a common practice in Ghana, not necessarily for security purposes, but dogs are seen as pets in many households in Ghana. About a tenth of respondents rely on special windows and door grilles; whilst some five percent live in communities with neighbourhood watch schemes.

5.3 The Control Variables and the Perception of Personal Security

The Mann-Whitney U-Test was used to test the association between the means of three of the control variables for the perception of personal security. The cross-tabulations for these are shown in Table 5.10. Since the perception of personal security is not normally distributed, as has been explained in earlier sections, all the subsequent tests of association with dichotomous variables have been done with the Mann-Whitney U-Test. The three continuous variables are co-residence with spouse, engagement in economic activity, and type of place of residence. Box plots for each of them found that their shapes were not similar. Therefore, the means are used for comparison instead of the median.

Co-Residence: Perception of personal security was statistically significantly higher for those who shared residence with their spouses (Mean = 83.07) than for those who did not share residence with their spouses or were not married (Mean = 81.94). The Mann-Whitney U-Test, U = 3001000, z = -3.744, p<0.01. This means that co-residence has statistically significantly higher influence on people’s feeling of safety in their homes and neighbourhood.

20 Analyse>Nonparametric tests>2 Independent Samples…>…
Table 5.10 Descriptive Statistics of Perception of Personal Security and Dichotomous Control Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Categories</th>
<th>Perception Scale</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Std Err</td>
<td></td>
</tr>
<tr>
<td>Spousal co-residence</td>
<td>No</td>
<td>81.94</td>
<td>22.53</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>83.07</td>
<td>22.03</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Economic activity in last 7 days</td>
<td>No economic activity</td>
<td>80.76</td>
<td>22.6</td>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Engaged in economic</td>
<td>82.99</td>
<td>22.18</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Type of Place of Residence</td>
<td>Rural</td>
<td>84.47</td>
<td>21.48</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>79.99</td>
<td>23.05</td>
<td>0.28</td>
<td></td>
</tr>
</tbody>
</table>

[Source: Generated from the Ghana Living Standards Survey 2012/2013]

Economic activity: Perception of personal security was statistically significantly higher for those who engaged in economic activities in the seven days preceding the interview (Mean = 82.99) than for those who did not engage in any economic activity (Mean = 80.76). The Mann-Whitney U-Test, U = 20310000, z = -6.221, p<0.01. This means that economic activity provided significant explanation for perception of personal security among respondents.

Type of place of residence: Perception of personal security was found to be statistically significantly higher for rural dwellers (Mean = 84.47) than for urban dweller (Mean = 79.99). The Mann-Whitney U-Test, U = 26710000, z = -14.635, p<0.01. The size of the effect (r) is -0.117, which is quite weak, but higher than the r for the other two control variables tested earlier. Rural dwellers, therefore, have significantly higher perception of personal security compared to their counterparts in urban areas. This finding is consistent with extant literature, which posits that uncontrolled urbanization in many parts of the developing world increases anti-social activities, which makes urban dwellers feel more insecure than rural dwellers.

Age, household size and completed level of education were compared with perception of personal security. Spearman’s Rho (ρ) correlation method was used to measure these associations, due to the large sample size (Field 2009). As a nonparametric test, the

---

21 Analyse>Correlates>Bivariate>Drop all relevant variables into the ‘variables:’ box….>Select Spearman and deselect all others…
only assumption required for this test is for the independent variable to be ordinal, whilst the dependent variable is also either ordinal or continuous. All three control variables – age, household size and level of education – are ordinal, whilst the perception of personal security is continuous. Cases were excluded analysis by analysis. There would not be much difference whether cases were excluded listwise or analysis by analysis, since there are no missing variables. Table 5.11 below presents the output for the Spearman’s Rho correlation analysis.

**Table 5.11: Spearman’s Rho Correlations Matrix**

<table>
<thead>
<tr>
<th></th>
<th>Age group of respondents</th>
<th>Household size</th>
<th>Level of Completed Education</th>
<th>Perception Scale for Personal Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Coefficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age group of respondents</td>
<td>1.000</td>
<td>-0.111**</td>
<td>-0.202**</td>
<td>0.041**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>15756</td>
<td>15756</td>
<td>15756</td>
<td>15756</td>
</tr>
<tr>
<td>Household size</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.111**</td>
<td>1.000</td>
<td>-0.142**</td>
<td>-0.004</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td></td>
<td>0.000</td>
<td>0.604</td>
</tr>
<tr>
<td>N</td>
<td>15756</td>
<td>15756</td>
<td>15756</td>
<td>15756</td>
</tr>
<tr>
<td>Level of Completed Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.202**</td>
<td>-0.142**</td>
<td>1.000</td>
<td>0.006</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
<td>0.473</td>
</tr>
<tr>
<td>N</td>
<td>15756</td>
<td>15756</td>
<td>15756</td>
<td>15756</td>
</tr>
<tr>
<td>Perception Scale for Personal Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>0.041**</td>
<td>-0.004</td>
<td>0.006</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.604</td>
<td>0.473</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>15756</td>
<td>15756</td>
<td>15756</td>
<td>15756</td>
</tr>
</tbody>
</table>

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

Age was the only one among the three which had a positive significant correlation with perception of personal security, with correlation coefficient of 0.041 (ρ = 0.041), p<0.01. That means that at 99 percent confidence interval, age is positively correlated to perception of personal security. Perception of personal security therefore increases with age. Older persons are thus, expected to have higher perception of personal security. None of the other two variables – household size (ρ = -0.004, p = 0.604) and level of education (ρ = 0.006, p = 0.473) – had any significant correlation with perception of personal security.
The next sets of variables to be checked for association are nominal measures. These are region of residence and religion. Analysis of Variance (ANOVA) is the best test for checking association between nominal and continuous variables. Table 4 of Appendix B presents the descriptive statistics. Although all tests for normality and homogeneity of variance with perception of personal security scores have failed, some scholars agree that with large samples, these can be violated for ANOVA, since it is a robust. Findings from Field (2009: 360), Wilcox (2005) and Glass (1966) suggest that when the means of the categories are similar, normality may be violated; and that when sample sizes are similar, homogeneity of variance assumption may be violated for these three categories. Field (2009: 359), however, cautions that the ‘violation of the assumption of independence is very serious’. The independence of the groups is assured in this data, as collected by the Ghana Statistical Service.

One-way ANOVA was done for each of the variables. Turkey post-hoc tests were done, together with output options of description and homogeneity of variance. It has adequately been explained that although these tests violate the normality and homogeneity assumptions, there are enough scholarly support for them to be carried on. The Null hypothesis for ANOVA is based on the assumption that the means of the groups for each categorical variable relative to perception of personal security are the same; and the alternative hypothesis is that the two means are not the same.

\[ H_0: \bar{X}_1 = \bar{X}_2 = \bar{X}_3 = \bar{X}_4 \ldots = \bar{X}_n \]

\[ H_A: \text{The means of the two variables are not the same} \]

Where \( \bar{X}_{1-n} \) are the mean scores of perception of personal security for each of the categories of the nominal variables.

Religion: The test for association between religion and perception of personal security showed that at least one of the means is significantly different (F(3, 15752) = 17.964, p<0.01), thus, rejecting the null hypothesis that the means are the same. Table 5.12 below shows the ANOVA output.
Table 5.12: ANOVA Output for Religion and Perception of Personal Security

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>26698.307</td>
<td>3</td>
<td>8899.436</td>
<td>17.964</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>7803528.243</td>
<td>15752</td>
<td>495.399</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7830226.551</td>
<td>15755</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post hoc test showed (see also Table 4 of Appendix A) that Catholics/protestants (83.43, sd = 21.53, p < 0.01) had statistically significantly higher perception of personal security than adherents of Islam (80.36, sd = 22.90), but not for Pentecostals/Charismatics (82.59, sd = 22.54) and those from other religions (83.88, sd = 22.07). Adherents of Islam, on the other hand, had statistically significantly lower perception of personal security (p < 0.01) than Catholics/Protestants, Pentecostals/Charismatics and adherents of other religious denominations. There was no other statistically significant difference between any of the other groups.

Region of Residence: The ANOVA test of association between region of residence and perception of personal security showed that there is significant difference between at least one of the means (F(3, 15752) = 89.296, p < 0.01). The following are the results of the post-hoc test. Perception of personal security for residents of natural resource endowed regions (86.24, sd = 21.31, p < 0.01) was statistically significantly higher than those residing in Dry Savannah region (79.47, sd = 22.85), Greater Accra region (79.18, sd = 21.42) and other regions (82.58, sd = 22.52). There was also statistically significantly higher perception for those in other regions (p < 0.01) as compared with those from Dry Savannah and the Greater Accra regions. There was, however, no statistical significance between perception of personal security for respondents residing in Greater Accra and those in Dry Savannah regions (see Table 5 of Appendix A for the post-hoc test output).

5.4 Intermediate Variables and Perception of Personal Security

5.4.1 The Fear Facilitators and Perception of Personal Security

All the fear inhibitors were measured as dichotomous variables; and since there is no normality in the distribution of the perception of personal security, the Mann-Whitney U-Test, which is a nonparametric test, would be used for comparing their means. Before the Mann-Whitney U-Test was performed, the explore command was used to assess the
descriptive statistics for the means. Histogram distributions showed that the shape of the distributions of each pair of groups were similar for all the fear inhibitors. Their descriptive statistics are displayed in Table 5.13.

Those who reported that there was tension or conflict in their community (Mean = 76.00 scores) had statistically significantly lower perception of personal security than those who said there is no tension (Mean = 83.77 scores): U = 14070000, z = -15.184, p < 0.01, r = -0.121. This means that at 99 percent confidence interval, there was significant difference between the means of those who consider that they lived in communities with rampant cases of conflict and tension. People who live in places with tension (perceived or real) have lower perception of personal security than those who live in places without tension or conflict. This is consistent with extant literature.

Table 5.13: Descriptive Statistics for Fear Facilitators and Perception of Personal Security

<table>
<thead>
<tr>
<th>Variables</th>
<th>Response</th>
<th>Perception Scale for Personal Security</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean scores</td>
<td>Std Dev.</td>
</tr>
<tr>
<td>Tension or conflict in neighbourhood</td>
<td>No</td>
<td>83.77</td>
<td>21.38</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>76.00</td>
<td>25.49</td>
</tr>
<tr>
<td>Experience of robbery at home</td>
<td>No</td>
<td>83.63</td>
<td>21.61</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>80.51</td>
<td>23.31</td>
</tr>
<tr>
<td>Experience of attacks or threats that frighten</td>
<td>No</td>
<td>82.73</td>
<td>22.12</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>80.09</td>
<td>23.87</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Source: The Ghana Living Standards Survey 2012/2013]

Those who experienced robbery at home in the past (Mean = 80.51 scores) had statistically significantly lower perception of personal security than those who have never experienced robbery (Mean = 83.63 scores): U = 26540000, z = -8.613, p < 0.01, r = -0.069. This means that at 99 percent confidence interval, there is statistically significant difference between persons who have ever experienced robbery at home in the past and those who have never experienced robbery. Persons who have never experienced robbery at home are likely to have higher perception of personal security than those who have ever experienced robbery at home. The literature on this is

23 The size of the effect, \( r = \frac{z}{\sqrt{N}} \)

24 The size of the effect, \( r = \frac{z}{\sqrt{N}} \)
inconclusive, since some studies found that persons who have experienced personal violence do not necessarily report higher levels of fear. Further analysis is expected to clarify this.

Those who experienced attacks or frightening threats in the past (Mean = 80.09 scores) had statistically significantly lower perception of personal security than those who never experienced any such threats or attacks (Mean = 82.73): U = 9466693.50, z = -4.064, p < 0.01, r = -0.032. This means that at $\alpha$-level of 0.01, persons who have ever experienced frightening threats or attacks have statistically significantly lower perception of personal security than those who have not. Those who have never experienced these frightening threats, therefore, have higher perception of personal security than those who have experienced any threats or attacks.

The fear facilitators have all shown some statistically significant association to perception of personal security. The presence of any of these fear inhibitors is expected to increase people’s fears, and to reduce perception of personal security.

**5.4.2 The Fear Inhibitors**

Two of the fear inhibitors were measured as continuous variables, whilst the other two were measured as dichotomous variables. The Pearson’s correlation analysis was used to test association between perception of personal security and the two continuous variables – confidence in public security services and trust in neighbours. The results showed that there is a positive association between perception of personal security and the two other scales as shown in the Figure 5.2 below.

---

25 The size of the effect, $r = \frac{z}{\sqrt{N}}$
Figure 5.2: Line Graph of Perception of Personal Security and Confidence in Public Security Services and Trust in Neighbours.

There was a statistically significantly positive association between perception of personal security and confidence in public security services ($r = 0.166$, $p < 0.01$). Although this association is weak, increased confidence in public security services is statistically significantly associated with higher perceptions of personal security. The coefficient of determination is low nevertheless ($r^2 = 0.02756$). This means that confidence in public security services explains perception of personal security by only 2.76 percent. Other variables in the model explain perception of personal security by 97.24 percent.

There was also statistically significantly positive association between perception of personal security and trust for neighbours ($r = 0.172$, $p < 0.01$). This correlation is also weak; yet, increased trust in community members is significantly associated with increased perceptions of personal security. The coefficient of determination is low ($r^2 = 0.02958$). This means that trust in community members explains perception of personal security by 2.3 percent. Thus, other variables in the model explain up to 97 percent of perception of personal security.
The means of the other two fear inhibitors are displayed in Table 5.14. Since the perception of personal security scale is not normal and does not satisfy the homogeneity of variance assumption, as has been elaborately explained earlier, the Mann-Whitney U-Test would be used for this bivariate analysis. This is possible because this test is nonparametric. The means shall be used for reporting the test.

Table 5.14: Table for Some Fear Inhibitors (Dichotomous) and Perception of Personal Security

<table>
<thead>
<tr>
<th>Some Fear Inhibitors (dichotomous)</th>
<th>Categories</th>
<th>Perception Scale for Personal Security</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Std Dev.</td>
</tr>
<tr>
<td>Government responsive to concerns</td>
<td>No</td>
<td>80.97</td>
<td>22.66</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>84.89</td>
<td>21.48</td>
</tr>
<tr>
<td>Private security at home</td>
<td>No private security gadget at home</td>
<td>83.61</td>
<td>21.95</td>
</tr>
<tr>
<td></td>
<td>At least one private security gadget or service at home</td>
<td>80.59</td>
<td>22.75</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Source: The Ghana Living Standards Survey 2012/2013]

The perception of personal security for those who said government was responsive to their concerns (Mean = 84.89) was statistically significantly higher than those who said government was not responsive to their concerns (Mean = 80.97): U = 26500000, z = -11.340, p < 0.01, r = -0.090.\(^{26}\) This means that at \(\alpha\)-level of 0.01, those who perceived the government to be responsive to their needs also had positively higher perception of personal security than those who did not perceive the government as responsive to their needs. This was an expected outcome as a fear inhibitor.

The perception of personal security of those who had at least one private security enhancer at home (Mean = 80.59) was statistically significantly lower than those who had no private security enhancer (Mean = 83.61): U= 26560000, z = -9.370, p < 0.01, r = -0.075. That means that contrary to expectation, those who had at least one enhancer of private security at home had statistically significantly lower perception of personal security than those who had none. This could be attributable to the fact that people who

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\(^{26}\) \(r\) is the size of the effect of the association, which is computed as \(z/\sqrt{N}\)
decide to adopt private security measures may already be living in very insecure communities, where crime rate and violence may be rampant. There is also the possibility of mistrust that results in societies where there are high walls and extreme protection. The extant literature supports this self-fulfilling effect of mistrust that results when people try to build walls and fences around themselves.

Further rigorous regression analyses have been done in the next chapter, to explore the variations through which the predictors explain the outcome.
CHAPTER SIX
MULTIVARIATE ANALYSES

6.1 Introduction
This chapter explores a number of relationships. The previous chapter explored in pairs the relationship between individual predictors, the individual intermediate variables and the outcome variable. However, these predictors alone could not significantly explain the outcome variable (perception of personal security), due to the effect of known and unknown confounding variables. Multiple regression analyses have been used to help provide explanations for some of the unexplained variations in the outcome variable. A statistically significant association has been found between gender and perception of personal security through the use of the Mann Whitney U-Test; in which men (median = 100) were found to have higher perception of personal security than women (median = 93.75) (U = 28650000, p < 0.01, z = -8.474, r = 0.068). Although significant, gender explains perception of personal security only slightly, judging from the r value in the Mann-Whitney U-Test. Four regression models were run in this chapter. Model 1 included only gender and perception of personal security. The difference in perception of personal security between men and women was found to be significant in this model ($\beta = 3.204$, $p < 0.01$). This has been explained further in subsequent sections.\footnote{Note that men were coded as 1 and women as 0, meaning that women are the reference category. The $\beta$ score available is the difference in score from the mean for men.}

Since there is inconclusive evidence in the literature about the impact of personal experience of violence on the expression of fear, which also affects the perception of personal security, the fear facilitators were added to the regression model to create a second model (Model 2). The second model explored the association between gender and perception of personal security in the midst of the fear facilitators. The variation in the perception of personal security for men increased slightly higher than that for women ($\beta = 3.280$, $p < 0.01$), indicating that men’s perception of personal security improved slightly in the midst of fear facilitators. This could also mean that women...
were slightly negatively affected by fear facilitators than men; leading to a drop in their perception of personal security compared to men.

The third model introduced the control variables into the previous model. The control variables are mainly socio-demographic characteristics of respondents. This third model explored the association between gender and the perception of personal security in the midst of the fear facilitators and socio-demographic characteristics. This reduced the difference in perception of personal security for men, although this difference was still significant ($\beta = 2.954, p < 0.01$). The individual demographic characteristics did not, thus, improve the efficiency of the model in predicting perceptions of personal security.

The fear inhibitors were introduced into the regression model to create a fourth model for this study. These variables reduced the difference in perception to a large extent, although the difference between men and women was still significant ($\beta = 2.810, p < 0.01$). The fear inhibitors, thus, improved the perception of personal security for women, reducing that of men. This model is the overall model for the study. Before proceeding to discuss the results in details, it is important to take a look at some of the methods used and the assumptions that were satisfied for the running of the multiple regression models.

6.1.1 Regression Method Used

The hierarchical or blockwise regression method was used for running the models. This approach was used because the explanatory variables for the study were chosen based on previous studies. Field (2009: 213) proposed that if there is sound theoretical foundation for the choice of variables, ‘stepwise methods are best avoided’ in preference for blockwise. Hierarchical or blockwise model allows the researcher to first enter into the model those explanatory variables which are relevant to the outcome variable, based on existing literature. The hierarchical or blockwise method was chosen for this analysis based on previous studies, especially by McGarrell et al (1997), Schafer et al (2006) and Scarborough et al (2010). Schafer et al (2006), for instance, found that women are significantly more concerned about their personal security than men, although men have some concern for the security of their properties. Scarborough et al (2010) also found significant association between social disorder factors and fear of
crime. They also found no significant association between fear inhibitors and expression of fear.

Therefore in Model 1, gender alone was first entered into the regression model; in model 2, the fear facilitators were added; in model 3, the control variables were added; and then in model 4, the overall model, the fear inhibitors were added.

6.2 Meeting Assumptions of Multiple Regression Analysis

Before multiple linear regression analysis could be generalized from the sample to the population, certain assumptions have to be satisfied. The main ones are that of linearity, normality of residuals, homoscedasticity, no multicolinearity, and no significant outliers or high influence. These and some few others were considered at this stage of the analysis.

The first assumption is that all the variables ought to be continuous or at least, the dependent variable has to be continuous. The perception of personal security is continuous, so this condition for the outcome variable was satisfied. Most of the other variables in the framework are either continuous or dichotomous, except six of the control variables – age, region of residence, household size, religion, ethnicity and educational level. Dummy variables were created for each of these categorical variables. The reference category for age was chosen as age 65 years and above. Natural Resource endowed regions was chosen as reference category for region of residence; single household membership was chosen as reference for household size; Islam was chosen as reference for religion; the Akan ethnic group was chosen as reference for ethnicity; and ‘no education’ was chosen as reference category for level of education. The value of 1 was chosen for each of the categories and 0 for others.

Second, the assumptions of random error and homoscedasticity were checked with plots of standardized residuals on y-axis (*ZRESID on y-axis) against standardized predicted values of the dependent variable on the x-axis (*ZPRED on x-axis).\(^\text{28}\) The *ZRESID are standardized differences between the observed data and the predicted values; whilst

\(^{28}\) These plots can be specified from the ‘plots’ option of the linear regression dialogue box.
the *ZPRED are standardized forms of the values predicted by the model. According to Field (2009: 247), this graph should look like a random array of dots evenly dispersed around zero. If this graph funnels out, then the chances are that there is heteroscedasticity in the data. If there is any sort of curve in this graph, then the chances are that the data has broken the assumption of linearity.

A careful inspection of the standardized residual and the standardized predicted value plots (see Figure 6 of Appendix B) found that the points indeed, converged around zero, without spreading in any particular shape across the spectrum of the x-axis, although it is not a very perfect scatter. The conclusion here, therefore, is that the data satisfies both homoscedasticity (normality of error or constant variance) and linearity. The assumption of homoscedasticity assumes that the error variances in the data are constant for all values of x; whilst assumption of linearity assumes that the association between the dependent and independent variables are collectively linear. Inspections of the PP-plots of the individual variables against perception of personal security did not raise any significant suspicion.

Third, the assumption of normality of residuals was checked with histogram plot of the standardized residuals (Figure 7 of Appendix B) and the normal PP-Plot (Figure 8 of Appendix B). Visual inspection of the both outputs gave assurance that the assumption of normality of error has been met in the data.

Fourth, the assumption of no-multicolinearity was checked based on the criteria set up by scholars like Field (2009), Bowerman and O’Connell (1990) and Myers (1990). These scholars used the Variance Inflation Factor (VIF) and Tolerance value (T) to set cut-off points for checking colinearity. There are three main rules governing the interpretation of the VIF and T. First, Bowerman and O’Connell (1990) and Myers (1990) proposed that the largest VIF must be less than 10 (Largest VIF < 10). Otherwise, there should be cause for worry about colinearity among the predictors. Second, the average VIF must be less than 1 or at least closely to 1 (Average VIF < 1 or closer to 1). Otherwise, the regression model may be biased. Field (2009) provided a third rule about colinearity using tolerance value. Tolerance value must be greater than 0.1 (T > 0.1). Otherwise, there must be cause for concern. Other scholars like Menard (1995) purge the minimum acceptable T value at 0.2, meaning that T value
must be greater than 0.2 for the model to be classified as meeting the condition of non-colinearity. The average VIF is computed as follows:

**Average VIF = \( \frac{\sum \text{VIF}_i}{k} \)**

Where \( \text{VIF}_i \) = the VIF values for each explanatory variable;

\( K \) = the number of predictors in the model

The maximum VIF for all the three models was 3.084 (for age group 20-44) in the fourth model; and the average VIF for each of the models was found to be either one or less than one. Moreover, none of the T values was less than 0.2. Therefore, the assumption of no multicolinearity in the data has been met.

Fifth, outliers and influential cases were also checked. The standardized residuals (Residuals from the model divided by their standard deviations) were used to check for outliers. Since these standardized residuals are equivalent to z-scores, any value greater than 3.29 standard deviations from the mean should be cause for concern because under the normal curve, 99.9 percent of cases must fall within 3.29 standard deviations from the mean. At 95 percent confidence interval, this value should range between +1.96 and -1.96 deviations from the mean. All values beyond this range should be considered as outliers. Similarly, at 99 percent confidence interval, the standardized residuals or z-scores should range between +2.58 and -2.58; otherwise, they must be considered as outliers. All the standardized residuals (Beta) had a value greater than 1.96 standard deviations from the mean. The highest Beta (z-score) was -0.155, which was recorded by Dry Savannah in Model 3. This was within the 95 percent confidence interval scores, and calls for no outlier concerns.

The Adjusted Predicted value and the Cook’s Distance were used to assess variables that have undue influence on the model. The Adjusted value is the value of the dependent variable for each case when that case is excluded from the model. Therefore,

---

29 As a general norm, the unstandardized residuals should also not be too large. Larger residuals indicate substantial deviation of a case from the best fit line. The unstandardized residuals, however, do not lend themselves for comparison with other models. The standardized residuals are therefore preferred.
if a case were to be deleted from a model, its value should not be substantially different from the originally predicted coefficient. Where there is vast difference between the Adjusted predicted value and predicted value, it means that the particular case has undue influence on the model, and could bias the results. The Cook’s value, on the other hand, assesses the influence of cases on the overall model; and should not be greater than 1. In other words, Cook’s Distance should be less than one if a case’s influence on a model is to be tolerable (Cook’s Distance < 1). Otherwise, it means the case exerts too much influence, and has to be investigated further. From the residual statistics of the models, the mean Adjusted Predicted value is the same as the mean Predicted value (82.49), which means that on the average, no case has undue influence on the models. The maximum Cook’s Distance is 0.001. These statistics satisfy the assumption that none of the cases have undue influence on the models.

Due to the assumption of linearity in the linear regression model, a linear relationship is assumed to exist between all the explanatory variables and the outcome variable. The best fit line that expresses the relationship between the explanatory variables and the outcome variable is expressed as:

\[ \text{Outcome}_i = (\text{Model}) + \text{Error}_i \]

\[ Y_i = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \ldots + b_nx_n + \varepsilon_i \]

Where \( Y_i \) = The outcome variable (Perception of personal security)

\( b_i \) = the slope or gradient of the regression line, the strength of association with the outcome variable

\( b_0 \) = the intercept which defines the outcome variable where all other predictors are held constant

\( x_i \) = individual predictors or explanatory variables

\( \varepsilon_i \) = the difference between the predicted and observed values of \( Y \) for the \( ith \) respondent

This is an ordinary least square (OLS) where the best fit line with least deviations is computed. For the overall model (Model 4), the relationship between the explanatory
variables and the perception of personal security is expressed as follows, in the order in which they appear in the model in Table 6.3:

\[ P_4 = (\text{gender}) + (\text{fear facilitators}) + (\text{control variables}) + (\text{fear inhibitors}) + \varepsilon_4 \]

\[ P_4 = b_0 + [b_1(\text{gender})] + [b_2(\text{tension}) + b_3(\text{rob}) + b_4(\text{attack})] + \\
[b_5(\text{spouse}) + b_6(\text{age}) + b_7(\text{HHS}) + b_8(\text{rel}) + b_9(\text{edu}) + b_{10}(\text{emp}) + b_{11}(\text{ethnic}) + \\
b_{12}(\text{res}) + b_{13}(\text{reg})] + [b_{13}(\text{conf}) + b_{14}(\text{trust}) + b_{15}(\text{gov}) + b_{16}(\text{PSI})] + \varepsilon_4 \]

The coefficient of determination \( (R^2) \) was 10.40 percent \( (R^2 = 0.104) \). The next sections explore variations in all the four models of the study.

6.3 Regression Diagnostics

The coefficient of determination \( (R^2) \) of the models improved substantially from under one percent in the first model to over ten percent in the overall model. The \( R^2 \) in the overall model is 0.104 (10.40 percent). In the first model, the F-Ratio changed from 0 to 81.50 percent, which is very significant. Gender, therefore, improved the model’s explanatory power by 81.5 percent. The addition of the fear facilitators (Model 2) improved the explanatory power of the model by 114.31 percent. This means that the fear facilitators explain the perception of personal security much better than gender.

However, the third model’s efficacy in explaining the perception of personal security reduced substantially to 29.94 percent. In other words, the control variables which were added to the model (Model 3) did not improve its explanatory power better than the second model. The control variables have the least effect in explaining perception of personal security. The fear inhibitors, introduced in (Model 4), improved the explanatory power of the model, the F-ratio, by 193.29 percent. The addition of the fear inhibitors, therefore, improved the explanatory power of the perception of personal security substantially. This brought the overall explanatory power of the predictors \( (R^2) \) to 10.40 percent. The changes in the F-ratio from Model 1 to Model 4 are each significant at \( p < 0.01 \) (See Table 6.1).
Table 6.1: Model Summary* of the Regression Models

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>Std. Err of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R² Change</td>
<td>F Change (%)</td>
</tr>
<tr>
<td>1</td>
<td>0.072</td>
<td>0.005</td>
<td>0.005</td>
<td>22.23675</td>
<td>0.005</td>
<td>81.503</td>
</tr>
<tr>
<td>2</td>
<td>0.162</td>
<td>0.026</td>
<td>0.026</td>
<td>22.00065</td>
<td>0.021</td>
<td>114.314</td>
</tr>
<tr>
<td>3</td>
<td>0.246</td>
<td>0.060</td>
<td>0.059</td>
<td>21.62635</td>
<td>0.034</td>
<td>29.944</td>
</tr>
<tr>
<td>4</td>
<td>0.323</td>
<td>0.104</td>
<td>0.103</td>
<td>21.11630</td>
<td>0.044</td>
<td>193.292</td>
</tr>
</tbody>
</table>

* Dependent variable: Perception of Personal Security

In terms of the generalisability of the model, the Adjusted R² determines how well the model generalizes the sample to the population. Ideally, Adjusted R² should be the same or closer to the R². The difference between the R² and Adjusted R² tells the shrinkage of the model, implying that if the model was transposed into the population, there would be approximately (R² – Adjusted R²) percent variance in the outcome variable. The difference in the R² and Adjusted R² for each of the models is very slight; implying that we can generalize the findings to the population, since there would be very little variance in the scores of perception of personal security.

The next important indicator is the Durbin-Watson statistic. This helps check for the independence of error of assumption in the regression. This assumption is satisfied if the Durbin-Watson statistic is closer to 2 (but between 1 and 3). In the model, the Durbin-Watson statistic is 1.366. This is indicative that the independence of error assumption has been met in the data.

The ANOVA test also helps test whether the model predicts the outcome variable better than simply using the mean to make conjectures. The predictors in each of the four models made significant prediction of the outcome variable, the perception of personal security (Table 6.2). For each of the models, the predictors provided significant explanation of the perception of personal security at α-level of 0.01 (p<0.01). As has already been alluded to in previous paragraphs, the second model explained the
outcome variable better. In other words, gender and the fear facilitators have the greatest explanatory power (F(4, 15751) = 106.551, p<0.01).

Table 6.2: ANOVA* Test for the Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression</td>
<td>40300.966</td>
<td>1</td>
<td>40300.966</td>
<td>81.503</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>7789925.585</td>
<td>15754</td>
<td>494.473</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>7830226.551</td>
<td>15755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>206294.673</td>
<td>4</td>
<td>51573.668</td>
<td>106.551</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>7623931.878</td>
<td>15751</td>
<td>484.028</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>7830226.551</td>
<td>15755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Regression</td>
<td>472388.449</td>
<td>23</td>
<td>20538.628</td>
<td>43.914</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>7357838.102</td>
<td>15732</td>
<td>467.699</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>7830226.551</td>
<td>15755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Regression</td>
<td>817142.711</td>
<td>27</td>
<td>30264.545</td>
<td>67.873</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>7013083.840</td>
<td>15728</td>
<td>445.898</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>7830226.551</td>
<td>15755</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

e. Dependent Variable: Perception Scale for Personal Security

The third model provided the poorest explanation of the outcome variable (F(23, 15732) = 43.914, p<0.01), although its impact is still significant. This model included gender, fear facilitators and control variables. In other words, the introduction of the control variables did not contribute much to the explanatory power of the model. In fact, it reduced its efficacy from 114.31 percent to 29.94 percent as shown in Table 6.1.

The introduction of the fear inhibitors improved the model significantly (Model 4), changing the F-ratio from 29.94 percent to 193.29 percent (F(27, 15728) = 67.87, p < 0.01). The explanatory power of all the variables in the model, therefore, provided better explanation for the perception of personal security than could be done by the use of means.

Overall, gender, the fear facilitators and the fear inhibitors provided the best explanation for perception of personal security. The other socio-demographic variables have the least explanatory power for the perception of personal security. The overall model predicts the perception of personal security by 10.40 percent, whilst other
predictors that are not accounted for in the model predict the perception of personal security by 89.60 percent.

6.4 The Results and Checking of Hypotheses

6.4.1 Gender

Gender was found to be a significant predictor of perception of personal security in all the four models (see Table 6.3). Men had significantly higher perception of personal security in the base model than women ($\beta = 3.204$, $p < 0.01$). In other words, men had about three scores higher in perception of personal security than women. This difference increased slightly to 3.280 scores in Model 2, after the addition of the fear facilitators. The control variables, however, reduced this score in Model 3 ($\beta = 2.954$, $p<0.01$); whilst the addition of the fear inhibitors in the overall model reduced this further to $\beta = 2.810$, $p<0.01$. Although the difference in perception of personal security between men and women remained significant in all four models at $\alpha$-level of 0.05, the addition of the fear inhibitors had the greatest impact, based on the wider difference between the base model and the overall model, which is $(3.204 - 2.810)$, 0.394. All four models confirmed the first hypothesis, that women are less likely to feel secure than men in Ghana; implying that the perception of personal security of women in Ghana is lower than the perception of personal security of men. Women’s perception of personal security is negatively affected by fear facilitators, but positively affected by fear inhibitors. It is not clear from the results, whether the change in perception for women leads to corresponding inverse effect on perceptions for men. This could be the subject of further investigations.

6.4.2 The Fear Facilitators (Social Disorder Factors)

The fear facilitators were introduced into the second model. These variables collectively had the greatest explanatory power on the model ($F (4, 15751) = 106.551$, $p<0.01$). As was expected, all the three fear facilitators had significant inverse effect on perception of personal security. Perception of tension or conflict in the community had the greatest negative effect on perception of personal security ($\beta = -7.532$, $p<0.01$), followed by experience of robbery in the five years preceding the interview ($\beta = -2.929$, $p<0.01$), and then by experience of frightening attacks or threats in the one year preceding the interview ($\beta = -1.400$, $p<0.05$). Proportionate variation in the fear
facilitators were found in the third and fourth models. The only difference in the subsequent models was that variation in the experience of attack or threat was significant at $\alpha$-level of 0.05 in the second model, but shifted to be significant at $\alpha$-level of 0.01 in the third and overall models.

In the overall model, those who reported that there was conflict or tension in their communities had 6.744 scores lower in perception of personal security than those who did not report of such conflicts or tension. Those who reported experiencing robbery at their homes in the last five years had 2.782 scores lower than those who did not report of any such experiences. The score for those who were attacked or threatened in the 12 months preceding the interview was also lower than those who were never attacked ($\beta = -1.601$, $p<0.01$), although obviously, this last variable had the least inverse effect on perception of personal security compared to the other two fear facilitators.
Table 6.3: Hierarchical Regression Models Predicting Perception of Personal Security ($\beta = \text{Unstandardised Coeff}$)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>MODEL 1</th>
<th></th>
<th>MODEL 2</th>
<th></th>
<th>MODEL 3</th>
<th></th>
<th>MODEL 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2 = 0.005$</td>
<td></td>
<td>$R^2 = 0.026$</td>
<td></td>
<td>$R^2 = 0.060$</td>
<td></td>
<td>$R^2 = 0.104$</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>80.984</td>
<td>0.243</td>
<td>0.000</td>
<td>83.385</td>
<td>0.284</td>
<td>0.000</td>
<td>89.257</td>
<td>0.906</td>
</tr>
<tr>
<td>Gender (Women)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>3.204</td>
<td>0.355</td>
<td>0.000</td>
<td>3.280</td>
<td>0.351</td>
<td>0.000</td>
<td>2.954</td>
<td>0.371</td>
</tr>
<tr>
<td>Fear Facilitators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tension/conflict in neigh (No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>-7.532</td>
<td>0.474</td>
<td>0.000</td>
<td>-7.519</td>
<td>0.468</td>
<td>0.000</td>
<td>-6.744</td>
<td>0.459</td>
</tr>
<tr>
<td>Robbery at home (No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>-2.929</td>
<td>0.367</td>
<td>0.000</td>
<td>-3.255</td>
<td>0.362</td>
<td>0.000</td>
<td>-2.782</td>
<td>0.355</td>
</tr>
<tr>
<td>Attack or threats (No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>-1.400</td>
<td>0.620</td>
<td>0.024</td>
<td>-2.01</td>
<td>0.612</td>
<td>0.001</td>
<td>-1.601</td>
<td>0.598</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spousal co-residence (No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1.107</td>
<td>0.420</td>
<td>0.008</td>
<td>0.784</td>
<td>0.410</td>
<td>0.056</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (65+ years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;20 years</td>
<td>-0.908</td>
<td>0.972</td>
<td>0.350</td>
<td>-0.222</td>
<td>0.95</td>
<td>0.815</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-44 years</td>
<td>-1.644</td>
<td>0.616</td>
<td>0.008</td>
<td>-1.118</td>
<td>0.603</td>
<td>0.064</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-64 years</td>
<td>-0.238</td>
<td>0.665</td>
<td>0.443</td>
<td>-0.272</td>
<td>0.650</td>
<td>0.676</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HH size (One member)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two household members</td>
<td>-0.530</td>
<td>0.691</td>
<td>0.443</td>
<td>-0.458</td>
<td>0.675</td>
<td>0.498</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three household members</td>
<td>-0.543</td>
<td>0.679</td>
<td>0.424</td>
<td>-0.654</td>
<td>0.663</td>
<td>0.324</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four household members</td>
<td>-0.271</td>
<td>0.680</td>
<td>0.690</td>
<td>-0.436</td>
<td>0.664</td>
<td>0.324</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five household members</td>
<td>-0.917</td>
<td>0.593</td>
<td>0.122</td>
<td>-1.123</td>
<td>0.580</td>
<td>0.053</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6.3 (Cont.): Hierarchical Regression Models Predicting Perception of Personal Security (β = Unstandardised Coeff)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>MODEL 1</th>
<th>MODEL 2</th>
<th>MODEL 3</th>
<th>MODEL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2 = 0.005$</td>
<td>$R^2 = 0.026$</td>
<td>$R^2 = 0.060$</td>
<td>$R^2 = 0.104$</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>S.E</td>
<td>Sig.</td>
<td>β</td>
</tr>
<tr>
<td>Religion (Islam)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholics or protestants</td>
<td>0.620</td>
<td>0.522</td>
<td>0.235</td>
<td>1.418</td>
</tr>
<tr>
<td>Pentecostal or Charismatic</td>
<td>0.129</td>
<td>0.541</td>
<td>0.811</td>
<td>1.095</td>
</tr>
<tr>
<td>Other religions</td>
<td>0.297</td>
<td>0.612</td>
<td>0.627</td>
<td>1.164</td>
</tr>
<tr>
<td>Education (No education)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete primary</td>
<td>1.977</td>
<td>0.579</td>
<td>0.001</td>
<td>1.752</td>
</tr>
<tr>
<td>Complete secondary</td>
<td>1.313</td>
<td>0.457</td>
<td>0.004</td>
<td>1.6170</td>
</tr>
<tr>
<td>Post-Secondary or Tertiary</td>
<td>-0.487</td>
<td>0.822</td>
<td>0.553</td>
<td>0.651</td>
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<tr>
<td>Employment (No)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1.072</td>
<td>0.435</td>
<td>0.014</td>
<td>0.950</td>
</tr>
<tr>
<td>Residential status (Rural)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>-5.117</td>
<td>0.397</td>
<td>0.000</td>
<td>-4.406</td>
</tr>
<tr>
<td>Region (Nat. Resource reg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Savannah regions</td>
<td>-7.705</td>
<td>0.530</td>
<td>0.000</td>
<td>-6.315</td>
</tr>
<tr>
<td>Greater Accra region</td>
<td>-5.962</td>
<td>0.620</td>
<td>0.000</td>
<td>-5.751</td>
</tr>
<tr>
<td>Other</td>
<td>-4.080</td>
<td>0.447</td>
<td>0.000</td>
<td>-4.590</td>
</tr>
<tr>
<td>Fear Inhibitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidence in Pub Sec. scale</td>
<td>0.122</td>
<td>0.008</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Trust in neighbours scale</td>
<td>0.117</td>
<td>0.007</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Govt responsiveness (No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2.998</td>
<td>0.350</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Private Security Index (No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>-2.646</td>
<td>0.355</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>
6.4.3 Control Variables

The control variables were introduced into the third model, and collectively had the least explanatory power on perception of personal security \( F(27, 15732) = 43.91, p<0.01 \). Religion, household size and age did not have any significant explanatory power on the model; except for the fact that persons in their active adult stages, 24 years to 44 years had significantly lower perception of personal security than the elderly aged 65 years and above \( \beta = -1.644, p<0.01 \). Those variables which had the most impact were spousal residential status, education, type of place of residence and region of residence. In Model 3, persons who shared residence with their spouses had significantly higher perception of personal security than those who did not share residence with spouses, married or not \( \beta = 1.107, p<0.01 \). However, this variation was not significant in the fourth model. The second hypothesis for the study was confirmed at 95 percent confidence interval without the fear inhibitors. When the fear inhibitors were introduced in Model 4, this difference in perception between those who cohabit with spouses and those who do not cohabit was no more significant.

In terms of education, those who completed primary education and secondary education had significantly higher perception of personal security \( \beta = 1.752, p<0.01 \); \( \beta = 1.617, p<0.01 \) respectively) than those who never completed any level of education. Although persons who accessed post-secondary and tertiary education had higher perception of personal security than those who never completed any level of education, this difference was not significant. Difference in perception of personal security was slightly higher for the employed than for the unemployed.

Geographical location of residence had significant impact on perception of personal security. Those who reside in urban areas had statistically significantly lower perception of personal security than those who reside in rural areas \( \beta = -4.406, p<0.01 \). Similarly, as compared to those who reside in natural resource endowed regions, persons from Savannah \( \beta = -6.315, p<0.01 \), Greater Accra \( \beta = -5.751, p<0.01 \) and other \( \beta = -4.590, p<0.01 \) regions had statistically significantly lower perception of personal security. This finding rejects the third hypothesis, that residents in natural resource-endowed regions are more likely to have lower perception of personal security than those from regions without abundant natural resources. Residents from the other...
regions were expected to have higher perception of personal security than those from the Savannah and other regions. This hypothesis was not confirmed.

### 6.4.4 Fear Inhibitors

The fear inhibitors were introduced into the final model. This substantially increased the effectiveness of the F-ratio from 29.94 percent to 193.29 percent, as shown in Table 6.1. According to the output in Table 6.3, each of the fear inhibitors increased perception of personal security, apart from the private security index.

The confidence in public security services had a statistically significantly positive association with perception of personal security ($\beta = 0.122, p<0.01$). The confidence in public security services was measured as a continuous variable. Therefore, for any unit change in confidence in public security services, perception of personal security increased by a score of 0.122 if all other variables were held constant. Similarly, trust in neighbours was measured as a continuous scale. The expression of trust in neighbours had a statistically significantly positive association with perception of personal security ($\beta = 0.117, p<0.01$). For any unit change in trust for neighbours, perception of personal security increased by 0.118 scores if all other variables were held constant.

Perception of government responsiveness to the concerns of people also had statistically significant positive association to perception of personal security ($\beta = 2.998, p<0.01$). Respondents who thought that government took their concerns into account in policy and law making had significantly higher perception of personal security than those who thought otherwise.

The private security index, on the other hand, had a statistically significant negative association with perception of personal security ($\beta = -2.646, p<0.01$). Those who had at least one gadget, property or service available that provided some assurance of protection of household had a lower perception of personal security. This is probably because persons who live in communities with prevalence of violence are those who are more concerned about protection for their homes.
6.5 Discussion

Overall, the results presented in the models are consistent with existing literature, with a few exceptions. The study has confirmed that gender is an important demographic predictor of perception of personal security. Women are generally thought to have lower perception of personal security or higher fear of crime and violence than men (Garafalo, 1981, McGarrell et al., 1997, Schafer et al., 2006, Scarborough et al., 2010), in spite of some few variations (Hale, 1996). The persistence of gender as a dominant predictor of perceptions of personal security has been attributable to systemic patriarchal inequities that place women at universal disadvantage compared to men (Holland, 2006; Walby, 1991; Kambrami, 2006; Sultana, 2011). These patriarchal trends are sustained by the cultures of masculinity and femininity, which see to a socialization which boosts the confidence and self esteem of men, and undermine the independence and safety of women. Since women are socialized through femininity to be very sensitive of their physiological and social vulnerabilities (Scott, 2003; Goodey, 1997; Madriz, 1997; Stanko, 1995); to feel that their security needs are appendages to that of men (O’Neil and Hartmann, 2012; Kambrami, 2006; Kameri-Mbote, 2005; Cammack, 2000; Riger et al., 1978); and that the wellbeing of their children is exclusively theirs (Gilchrist et al., 1998); any increase in social disorder is likely to affect their perceptions of personal insecurity.

This is attested by the fact that the addition of the fear facilitators to the model slightly reduced the perception of personal security of women, slightly increasing that of men. Social disorder factors which dwell on perception (tension in neighbourhood) had the greatest negative association with perception of personal security. This association was much stronger than the association of personal experiences of crime and violence. The extant literature also supports this finding, that experience of violence does not necessarily increase fear of crime. Although this study found significantly negative association between experiences of robbery and threats, this association was not as strong as that between socially perceived disorders of conflict and perception of personal security. This is consistent with the literature, that women’s fear of violence and crime increases with increasing social disorder (Schafer et al., 2006; Warr, 1984; McGarrell et al., 1991). The fear of sexual assault, for instance, overshadows all their
perceptions of security and safety, even when there are discussions about non-personal and non-violent issues (Ferraro, 1995; Warr, 1984; Fisher and Sloan, 2003).

The safety of women is subject to societal manipulation, and this is confirmed by the fact that women’s score of perception of personal security improved with the addition of fear inhibitors to the model. Men’s perception of personal security reduced after introducing social fear inhibitors like trust for neighbours, confidence in public security services and perception of government responsiveness to the needs of people. Women feel safer than men when there is social order and assurance of justice in the community.

One finding which appears to be counter-intuitive at a glance is the effect of private security at home on the perception of personal security. It would seem that once people have assurance of private security at home, it would complement the wider public security that the state provides to enhance the feeling of safety. However, the model did not confirm this. Some scholars have explained that building high walls and defences around homes, for instance, can self-perpetuate mistrust and potential violence (Robert, 2010). Therefore, people who are on high alert for protection may create barriers for proper social integration that may enhance their perception of safety. It is also possible that people who are on high alert for personal protection already live in places with higher prevalence of crime and violence. In this case, it would not be the protection they seek which diminishes their perception of personal security, but the reverse. Their lower perception of personal security in the midst of social disorder may have motivated them to seek private protection in order to boost their security, not vice versa.

Residential arrangement of spouses, type of place of residence and region of residence significantly predicted perception of personal security. These variables narrowed the difference in perception of personal security between men and women. Men’s perception of personal security reduced, and by implication, women’s perception increased with the addition of these socio-demographic variables.

The literature is inconclusive regarding the occurrence of insecurity in resource-endowed and resource-poor regions. The greed versus grievance literature proposes that exploration of natural resources in commercial quantities increases the chance of violence, crime and political instability (Keen, 2012; Collier and Binswager, 1999;
Collier, 2000; Berdal, 2005; Ballentine and Nitzschke, 2003; Ballentine, 2003). There is another school of thought that proposes that scarcity of renewable natural resource also increases the occurrence of violence due to potential struggles for control over insufficient resources (Edward et al., 2003; Giddens, 2011). The finding in this study supports the latter school. Residents in all the other regions had lower perception of personal security than those in natural resource endowed regions. This finding clarifies the resource curse literature in the context of Ghana. People who live in Accra, resource-poor regions and other regions have lower perceptions of personal security than those who live in resource endowed regions. The resource-scarcity debate where struggles over scarce resources lead to deterioration in security is supported by these findings. Many parts of the resource-poor northern regions of Ghana are endemic with ethnic and chieftaincy conflicts; coupled with the fact that urban areas like Greater Accra have their own challenges of youth unemployment and social vices. It would be interesting in future studies to see how gender also plays a part in predicting perception of personal security under conditions of natural resource availability and scarcity.

The support which spousal co-residence offers to perception of personal security is another phenomenon that is worth exploring. It would be interesting to explore further dynamics to ascertain how gender also influences the strong association between spousal co-residence and perception of personal security. The questions to ask in such a discourse is, who receives the most protection and safety in marriage and co-residence, is it men or women? Such an exploration would help understand dynamics of spousal co-residence, especially since violence against spouses is common in many societies. Education had a positive association with perception of personal security as well, although it is difficult to explain why post-secondary and tertiary education had a lower perception of personal security. This could be because those who attain higher levels of education are extremely sensitive to their environment, and easily identify the least threats to their safety.

People in urban areas have lower perception of personal security than those in rural areas. This supports the literature that faster pace of unplanned urbanization in developing countries come with increasing anti-social practices that affect the security of urban dwellers. This is linked to the phenomenon of higher unemployment rates in
urban areas in Ghana (GSS, 2013). Unemployment rate is higher in urban areas than rural areas.

Other socio-demographic characteristics like ethnicity, religion, age and household size were not significant predictors of perception of personal security. This is counterintuitive because many communities in Ghana dominated by adherents of Islam, like the Zongo communities and Northern Region of Ghana have higher prevalence of violence. The Dagbon Crisis of 2003 in Northern Region is a classical example (Mahama, 2009).

It is important to note that lower perceptions of security or increased fear of victimization does not necessarily correlate with actual occurrences of victimization. Although women may report of higher perception of personal insecurity, this fear might motivate them to move cautiously about in relatively safe places, thereby reducing any actual occurrence of victimisation. Men, on the other hand, are more likely to be victims of crime and violence due to their perceived sense of safety.
CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Summary
The dissertation contextualizes the discourse on gender inequality in Ghana within the patriarchy and fear of crime literature. It problematised the system of patriarchy and its attendant socializations of male and female into men and women, which inculcate into them cultures of masculinity and femininity; and which undermine the place and role of women in society. The study argued that the gendered socializations make it imperative for men to have higher perceptions of personal security than women. Using the fear of crime literature as basis to test this proposition, a conceptual framework was developed with fear facilitators and fear inhibitors as mediating variables. The Governance, Peace and Security module of the sixth round of the Ghana Living Survey (2012/2013) was the main source of data for analyses. A four-item perception scale (Alpha = 0.857) was developed from questions that enquired the degree of safety of respondents in their daily activities at home and in their neighbourhoods. This perception scale was the dependent variable to which the other predictor variables were tested. A total of 15756 out of 18,000 respondents answered these set of questions, making this number the valid N for all the analyses. Frequency tables, charts and cross-tabulations were used to describe the characteristics of the respondents and to test the strength of association between the variables.

Four multiple linear regression models were run to test the strength of association between the predictor variables and the perception of personal security of the respondents. Gender was the only predictor variable in the first model. Fear facilitators were introduced in the second model, and the socio-demographic variables were introduced in the third model. In the fourth model, the final set of variables, the fear inhibitors, were introduced. This was the overall model which included all the predictors. Efforts were made to ensure that all the assumptions for the bivariate and multivariate tests were met. The next section points out some major conclusions drawn from the various analyses.
7.2 Conclusions
The findings of the study have largely confirmed what exists in the literature. Gender remains a significant predictor of fear of crime and perception of personal security. Social disorder factors aggravate the gender difference in perception of personal security. Perception of personal security of women reduces in the midst of fear facilitators like crime and social tension. When there is the occurrence of tension or conflict (perceived or real), women’s perception of personal security reduces more than men’s perception of personal security. Personal experiences of crime or perceived social tension aggravate the fears. Men, on the other hand, respond less negatively to fear facilitators, except frightening threats. The literature on patriarchy, masculinity and femininity support these findings, as men are generally socialized to be perpetrators of violence with a few exceptions; and women to live under the shadow of women, even if they have to live in fear.

Fear inhibitors like greater confidence in the public security services improve the perception of personal security of women significantly. When there is confidence that public security services are capable of efficiently addressing problems submitted to them; and that households and properties are well protected from crime and violence, women tend to have higher perception of personal security. Private security gadgets, however, have negative association with perception of personal security; implying that people who are fixated on relying on private security gadgets and services probably live in places with higher social indicator factors.

Demographic characteristics do not enhance the gender disparity in the perception of personal security. Ethnicity, household size, and religious affiliations do not have any significant impact on perception of personal security. However, residential arrangements have a significant impact on perceptions of personal security. People who stay with their spouses have enhanced perception of their security; and so do people who live in rural areas and those who live in resource-rich areas. Minimal level of education also improves people’s sense of security, although higher levels of education probably improves people’s sensitivity to their environment, and respond to insecurity stimuli faster than those with lower levels of education.
7.3 Recommendations

Having an optimum sense of personal security is crucial for reaping the full dividends of social goods. Governments and policymakers must necessarily be interested in ensuring that people feel safe in reaping the full benefits of governance.

Tackling the personal security question also tackles the gender question because decreased perception of personal security of women also affects their ability to assert their independence and to benefit from the constitutional provision of freedom of movement. Women tend to depend on men for safety at odd times (at night and in secluded areas) for their movements and access to certain social facilities. This trend feeds on patriarchal systems and propagates cultures of femininity and masculinity. Policymakers could incorporate demographic considerations in addressing human security questions, since the two can hardly be separated. Socio-demographic and geographic characteristics also influence perceptions of personal security.

Rural residence, for instance, induces higher perception of personal security; so some characteristics of rural areas that lend themselves to enhancing people’s security should be identified and highlighted for replication in urban areas. Higher unemployment rates and social vices prevalent in urban areas should be treated as a security issue, although the exact characteristics of the unemployed persons that reduce their sense of security should be subject for further investigation.

The role of stable family arrangements in defining people’s sense of security also came out strongly in this study. Spousal co-residence boosts perception of personal security. It is unclear how policymakers can directly influence residential arrangements of spouses. Affordable housing could be made available to young persons and those with families in order to facilitate co-residence of those in sexual unions, especially for urban dwellers.

Universal basic education should continue to be a priority on the national agenda, since the perception for those with at least basic or secondary education is higher than those with no education at all. Post-secondary education or tertiary education also helps to improved perception of personal security through another pathway. People with post-secondary education become very alert of their environment, and could help identify
latent causes of disorder and insecurity. Legislation should be put in place to ensure that education also becomes a national security tool.

Representative governance should be treated as a panacea for dealing with gender differences in perception of personal security, and for tackling perception of personal insecurity in general. Effective democratic governance is expected to achieve this, and Ghana has demonstrated that she is on the right track to entrenching its democratic credentials. The arm of the legislature which represents citizens in government should be further empowered, and so should the local governments and assemblies. Effective consultation of members of parliament (MPs) with their constituents should be made a priority for all political parties and the house of parliament. Regular visitation to constituencies and media outreach programmes that assure people that their concerns are taken into account in national policies and legislations are important to boost confidence of women especially. District, municipal and metropolitan assemblies should be well resourced to have closer contact with residents in their respective catchment areas.

Neighbourhood associations should be encouraged by opinion leaders, local assemblies and traditional authorities. Efforts at building trust among community members should be made through communal labour and community meetings. Such efforts could be response to the broken windows hypothesis. It has dual benefit of boosting social cohesion and sending signals to criminals that the community is united against anti-social behaviours. This can reduce crime rates and increase perceptions of personal security.

The police should boost their efforts at building rapport between themselves and citizens. Once there is confidence that the needs of households and communities could be efficiently handled by the police and other security agencies, self confidence of citizens would be boosted, especially for women. This could provide some psychological empowerment for women who may otherwise be reluctant to report incidence of domestic violence to the police for justice to be served. This should be done with some moderation, though, since too much police presence could also instil fear in people. Excessive police presence could be indicative of some social disorder in a community.
There is no proof that the use of private security gadgets and services to protect households improves perception of personal security. This is however quite tricky, because the use of private security at home could be in response to high prevalence of stimuli of fear, like armed robbery, unprovoked violence and crime. Further investigations are needed in this regard.
APPENDIX A

Additional Tables

**Table 1A: Item-Total Statistics for the Variables in the Perception of Personal Security Scale**
(Alpha=0.857)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel safe when walking down your street alone at night</td>
<td>251.9819</td>
<td>4178.309</td>
<td>0.698</td>
<td>0.828</td>
</tr>
<tr>
<td>Feel safe when home alone after dark</td>
<td>243.6601</td>
<td>4921.606</td>
<td>0.714</td>
<td>0.815</td>
</tr>
<tr>
<td>Feel safe in daily life</td>
<td>245.0334</td>
<td>4963.269</td>
<td>0.736</td>
<td>0.809</td>
</tr>
<tr>
<td>Household safe from crime</td>
<td>249.1439</td>
<td>4673.620</td>
<td>0.690</td>
<td>0.823</td>
</tr>
</tbody>
</table>

**Table 2A: Item-Total Statistics for Variables in the Public Security Service Trust Scale**
(Alpha=0.764)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>General confidence in public security services</td>
<td>141.9959</td>
<td>1935.258</td>
<td>0.659</td>
<td>0.608</td>
</tr>
<tr>
<td>Public security services address problem effectively</td>
<td>142.1965</td>
<td>2106.294</td>
<td>0.605</td>
<td>0.673</td>
</tr>
<tr>
<td>Level of confidence in the Police</td>
<td>150.9242</td>
<td>2566.400</td>
<td>0.536</td>
<td>0.749</td>
</tr>
</tbody>
</table>

**Table 3A: Item-Total Statistics for Variables in the Trust for Neighbours Scale**
(Alpha=0.904)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust in neighbours</td>
<td>215.7613</td>
<td>14157.505</td>
<td>0.705</td>
<td>0.892</td>
</tr>
<tr>
<td>Trust in ethnic group members</td>
<td>216.2608</td>
<td>14017.899</td>
<td>0.780</td>
<td>0.880</td>
</tr>
<tr>
<td>Trust in non-ethnic group memb</td>
<td>225.8047</td>
<td>14591.150</td>
<td>0.750</td>
<td>0.885</td>
</tr>
<tr>
<td>Trust in members of other religions</td>
<td>222.6016</td>
<td>14539.422</td>
<td>0.739</td>
<td>0.886</td>
</tr>
<tr>
<td>Trust in same organization memb</td>
<td>219.2863</td>
<td>14401.631</td>
<td>0.760</td>
<td>0.883</td>
</tr>
<tr>
<td>Trust in business owners</td>
<td>219.9401</td>
<td>14655.374</td>
<td>0.690</td>
<td>0.894</td>
</tr>
</tbody>
</table>
Table 4A: Descriptive Statistics for Test of Association between Perception of Personal Security and Region of Residence, Religion and Ethnicity

<table>
<thead>
<tr>
<th>Variables</th>
<th>Categories</th>
<th>Perception Scale for Personal Security</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Categories</td>
<td>Mean</td>
</tr>
<tr>
<td>Region of Residence</td>
<td>Natural resource endowed</td>
<td>86.24</td>
</tr>
<tr>
<td></td>
<td>Savannah, resource scarce</td>
<td>79.47</td>
</tr>
<tr>
<td></td>
<td>Greater Accra Region</td>
<td>79.18</td>
</tr>
<tr>
<td></td>
<td>Other regions</td>
<td>82.58</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>82.49</td>
</tr>
<tr>
<td>Religion</td>
<td>Catholics/Protestants</td>
<td>83.43</td>
</tr>
<tr>
<td></td>
<td>Islam</td>
<td>80.36</td>
</tr>
<tr>
<td></td>
<td>Pentecostal/Charismatic</td>
<td>82.59</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>83.88</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>82.49</td>
</tr>
<tr>
<td>Ethnicity of respondents</td>
<td>Akans</td>
<td>84.20</td>
</tr>
<tr>
<td></td>
<td>Ewe/Ga-Dangme</td>
<td>82.97</td>
</tr>
<tr>
<td></td>
<td>Guan/Gurma/Grusi</td>
<td>81.91</td>
</tr>
<tr>
<td></td>
<td>Mole Dagbani</td>
<td>79.65</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>81.35</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>82.49</td>
</tr>
</tbody>
</table>
Table 5A: Multiple Comparisons Table (Post-Hoc Test) for Region of Residence and Perception Scale

Perception Scale for Personal Security, Tukey HSD

<table>
<thead>
<tr>
<th>(I) Region of Residence</th>
<th>(J) Region of Residence</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural resource endowed</td>
<td>Savannah, resource scarce</td>
<td>6.76933*</td>
<td>0.45562</td>
<td>0.000</td>
<td>5.5987 - 7.9400</td>
</tr>
<tr>
<td></td>
<td>Greater Accra Region</td>
<td>7.05611*</td>
<td>0.60632</td>
<td>0.000</td>
<td>5.4983 - 8.6139</td>
</tr>
<tr>
<td></td>
<td>Other regions</td>
<td>3.65825*</td>
<td>0.45367</td>
<td>0.000</td>
<td>2.4926 - 4.8239</td>
</tr>
<tr>
<td>Savannah</td>
<td>Natural resource endowed</td>
<td>-6.76933*</td>
<td>0.45562</td>
<td>0.000</td>
<td>-7.9400 - 5.5987</td>
</tr>
<tr>
<td></td>
<td>Greater Accra Region</td>
<td>.28678</td>
<td>0.61746</td>
<td>0.967</td>
<td>-1.2997 - 1.8732</td>
</tr>
<tr>
<td></td>
<td>Other regions</td>
<td>-3.11108*</td>
<td>0.46845</td>
<td>0.000</td>
<td>-4.3147 - 1.9075</td>
</tr>
<tr>
<td>Greater Accra Region</td>
<td>Natural resource endowed</td>
<td>-7.05611*</td>
<td>0.60632</td>
<td>0.000</td>
<td>-8.6139 - 5.4983</td>
</tr>
<tr>
<td></td>
<td>Savannah</td>
<td>-2.8678</td>
<td>0.61746</td>
<td>0.967</td>
<td>-1.8732 - 1.2997</td>
</tr>
<tr>
<td></td>
<td>Other regions</td>
<td>-3.39786*</td>
<td>0.61602</td>
<td>0.000</td>
<td>-4.9806 - 1.8151</td>
</tr>
<tr>
<td>Other regions</td>
<td>Natural resource endowed</td>
<td>-3.65825*</td>
<td>0.45367</td>
<td>0.000</td>
<td>-4.8239 - 2.4926</td>
</tr>
<tr>
<td></td>
<td>Savannah</td>
<td>3.11108*</td>
<td>0.46845</td>
<td>0.000</td>
<td>1.9075 - 4.3147</td>
</tr>
<tr>
<td></td>
<td>Greater Accra Region</td>
<td>3.39786*</td>
<td>0.61602</td>
<td>0.000</td>
<td>1.8151 - 4.9806</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the 0.05 level.
APPENDIX B

Additional Charts and Graphs

Figure 1B: Histogram Representation of the Confidence in Public Security Scale

Figure 2B: A histogram Representing Trust in Neighbours and Community Members
Figure 3B: Modified Box Plot for Confidence in Public Security Services by Gender

Figure 4B: A Box Plot for Trust in Neighbours Scale
Figure 5B: Box Plot for Gender and Perception of Personal Security

Figure 6B: A Scatter plot of Standardized Residuals (*ZRESID) and Standardized Predicted Value (*ZPRED)
Figure 7B: Normal Probability Plot of the Standardized Residuals

Figure 8B: Normal PP-Plot of Standardized Residuals
APPENDIX C

Summary of Variables Measurements

Unit of Analysis
- Household Heads

Dependent variable
*Perception of Personal Security (Continuous)*
- A four-item additive scale (Alpha=0.857)
- Scale = 0 to 100
  Where 0 indicates lowest perception of personal security or highest perception of personal insecurity; and 100 measures highest perception of personal security.

Independent variable
*Gender (Dichotomous)*
- 1 = Men
- 0 = Women

Intermediate variables 1: Fear facilitators
*Tension or conflict in community (Dichotomous)*
- 1 = Yes, there is tension or conflict
- 0 = No, there is no tension or conflict

*Experience of robbery (Dichotomous)*
- 1 = Yes, myself or a member of my household
- 0 = No, neither myself nor a member of my household

*Experience of attack or threat (Dichotomous)*
- 1 = Yes, myself or a member of my household
- 0 = No, neither myself nor a member of my household

Intermediate variables 2: Fear inhibitors
*Confidence in public security service (Continuous)*
- A three-item additive scale (Alpha=0.772)
- Scale = 0 to 100
  Where 0 indicates no confidence at all in public security service; and 100 indicates maximum trust in public security services to provide protection

*Trust for neighbours (Continuous)*
- A six-item additive scale (Alpha=0.904)
- Scale = 0 to 100
  Where 0 indicates no trust at all for neighbours; and 100 indicates unreserved trust for neighbours in the community

*Perception of Government responsiveness (Dichotomous)*
- 1 = Yes
- 0 = No
Private Security Index
1 = Rely on at least one private security gadget or service
0 = Do not rely on any private security gadget or service

Control variables
Spousal co-residence for those married (Dichotomous)
1 = Yes, stay together with spouse in same household
0 = No, do not stay together in same household

Age (Ordinal)
1 = < 20 years
2 = 20 – 44 years
3 = 45 – 64 years
4 = 65+ years [Reference]

Residence (Dichotomous)
1 = Urban
0 = Rural

Region of Residence (Categorical)
1 = Natural resource endowed regions [Reference]
2 = Dry savannah, resource scarce regions
3 = Greater Accra Metropolitan Area
4 = Other regions

Household size (Ordinal)
1 = 1 member [Reference]
2 = 2 members
3 = 3 members
4 = 4 members
5 = 5+ members

Religion (Categorical)
1 = Catholics or protestants
2 = Islam [Reference]
3 = Pentecostal/Charismatic
4 = Other

Educational level (Ordinal)
1 = No education [Reference]
2 = Primary education
3 = Secondary school
4 = Post-secondary and tertiary

Employment status (Dichotomous)
1 = Yes, engaged in economic activities in last 7 days
0 = No, not engaged in economic activities in last 7 days

Methods of Analysis
Univariate Analysis: Frequency tables, bar charts, pie charts, histograms
Bivariate Analysis: Chi-square, ANOVA, Correlations
Multivariate Analysis: Multiple Linear Regression
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