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APPLICATION OF ROUTINE ACTIVITIES THEORY TO THE STUDY OF
RESIDENTIAL ARMED ROBBERY IN GHANA

BY
NEEH NHAI LHAYEA

A dissertation submitted in partial fulfillment of the requirements for the

Doctor of Philosophy

Major in Sociology

South Dakota State University

2016

APPLICATION OF ROUTINE ACTIVITY THEORY TO THE STUDY OF
RESIDENTIAL ARMED ROBBERY IN GHANA

This dissertation is approved as a creditable and independent investigation by a candidate for the Doctor of Philosophy degree and is acceptable for meeting the dissertation requirements for this degree. Acceptance of this dissertation does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

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Date

This dissertation is dedicated to John, Naashika and Kossiwa

ACKNOWLEDGEMENTS

I would like to take this opportunity to extend a special thank you to my dissertation advisor, Dr. Jacob Jantzer. I am very grateful for his generous, unending support, invaluable advice and guidance throughout my candidature. I would also like to thank each member of my advisory committee for their guidance and encouragement throughout my time at SDSU. Further appreciation and thanks go to Dr. Arwood, Dr. Diane Kayongo-Male and Dr. Yingling who made my journey to a successful completion of this program possible. I also wish to thank the entire sociology faculty and Dr. Emery, the chair of the department. My appreciation and thanks go to ASP Atsem and Mr. Kwakyi of the Ghana Prisons Services for their unwavering support during my data collection for this project.

Finally, I would like to thank my friends for their support throughout my tangle road to completing this research. A special thanks to my family, the Lloyd Family, Moussa and Kossiwa who absorbed my daily stresses and frustrations, making this a worthwhile journey.

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ABSTRACT

APPLICATION OF ROUTINE ACTIVITIES THEORY TO THE STUDY OF
RESIDENTIAL ARMED ROBBERY IN GHANA

NEEH NHAI LHAYEA

2016

This study utilized Routine Activities theory to explain deterrent and motivating factors associated with residential armed robbery in Ghana. Although several studies have examined crime through the lenses of Routine Activities theory, none such studies have been dedicated to the study of residential armed robbery in Ghana. This study, therefore, attempts to fill that void by applying Routine Activities theory to the study of residential armed robbery.

This research samples 56 of armed robbers in three selected prisons of contemporary Ghana to provide a fuller criminological and descriptive analysis of the offence, the offenders, motivation and guardianship to committing residential armed robbery.

Findings indicate substantial evidence that motivated offenders were deterred from violating hardened targets with the presence of capable guardianship. Limitations and suggestions for further research are discussed as well.

Chapter 1: Research Problem

Introduction

In the quest to find out how neighborhoods or targets influence crime (including armed robbery), researchers have chosen and applied Routine Activities theory as one of the theories that explains crime occurrence (Cohen and Felson, 1979; Rountree, Land, and Miethe, 1994; Sampson and Raudenbush, 1999; Sherman, Gartin, and Buerger, 1989; Stark, 1987). Adherents of Routine Activities theory propose that the likelihood of the prevalence of crime in “high risk” neighborhoods depends on time, space and the convergence of the motivated offender, a suitable target, and the absence of a capable guardian. The time in this respect can be defined as day, night or the period at which robbery is committed, while space is defined as the demarcated area (for example, residential building) where the three elements (motivated offender, a suitable target, and the absence of a capable guardian) converge for a possible armed robbery at residential targets.

The Present Study

In following the postulates of Routine Activities theory, the current research tests whether the deterrent or motivating factors at various residential neighborhoods discourages or encourages residential armed robbery in present day Ghana. The study collects data from incarcerated inmates via survey questionnaire. Ultimately, the purpose is to determine whether specific types of guardianship may generate a reduction or alleviation of armed robberies that take place in residential neighborhoods.

Residential armed robbery incidents (also known as armed robberies occurring at residential buildings), in recent times, have been frequent headlines in print media and on

web-based radio stations in Ghana in recent years. Quainoo (2003) described how the spates of armed robbery have resulted to fear among residents in Ghana. The November 25, 2011 issue of *The Herald*, headlined: “Two Billionaire” Armed Robbers Killed. In another development, the *Ghanaian Times* headlined: “Police Gun down 2 Robbers at Airport Residential Area” in its November 21, 2011 issue.

A compilation of *The Ghana News Agency (GNA)* reports (see Table 1.1), for example, lists the following headlines on armed robbery cases and/or sentencing:

Table 1.1: Ghana New Agency reports on armed robbery

<ul style="list-style-type: none"> • Two sentenced 200 years for armed robbery (GNA, 2012). • Five persons including a woman in armed robbery case (GNA, 2012). • Court remands teacher and unemployed for armed robbery (Owusu-Mensah, 2012). • Laborer jailed 50 years for robbery (Helena Selby, 2013). • Two Togolese jailed 100 years for robbery (GNA, 2012). • Court sentences robber to 30 years imprisonment (GNA, 2012). • Armed robbers terrorise Swedru residents (GNA, 2010). • Three robbery gang nabbed (Ghanaian Graphic, 2013). • Three Robbers Jailed 120 Years (Daily Guide, 2013). • Three rape/robbery gang members nabbed (Daily Graphic, 2013). • Two armed robbers sentenced to 115 years in jail (GNA, 2012). • Six robbers sentenced to 240 years in prison (Daily Graphic, 2013). • Two sentenced 200 years for armed robbery (GNA, 2012).
--

Source: (GNA) 2010, 2012 and 2013

Discussions on the web-based radio stations also offer suggestions to Ghanaians in Diaspora on how to avoid being victims of robbery on their next visit to Ghana (GhanaToday radio, 2014). These and other headlines and discussions underscore the nature in which residential armed robberies are taking hold in present day Ghana. For example, the 10th May edition of *The Ghanaian Chronicles* reported the following story:

Travelers into the country are cautioned on the taxi cabs they board from the airport to their homes. It was reported that some taxi drivers are armed robbers who give information to other gangs about the location of passengers they pick at the airport. This made it easy for armed robbers to attack at night (2010).

The State department's travel information site also warns Americans who travel to Ghana about the rise of armed robberies of all kinds and issued the following statements:

Various crimes are prevalent in Ghana. However, the level of crime in Accra is similar to the level in inner city crime throughout United States...Armed robbery is a growing trend in Accra. These robberies tend to occur at night in dark areas. Assailants typically use machetes or handguns. If confronted by would be assailants, the embassy recommends compliance (Department of State, 2013).

Scholarly work pertaining to the study of armed robbery in Ghana is extremely scarce. Daily news reports on residential armed robbery was the reason why the investigator decided to examine the veracity of the occurrences of residential armed robberies in Ghana. While print media publishes the rampant occurrences of the aftermath of residential armed robberies, the motivating factors that give rise to the acts of residential armed robbery from the view point of the offender are minimally investigated and documented under a Routine Activities paradigm. This is consistent with Bernburg and Thorlindsson (2001) who have pointed out that most studies do not attempt to explore into the offender's social context within which the offense occurred. Paulsen and Robinson (2004) also noted this neglect in Routine Activities research by stating:

“Even though motivated offenders are part of the model, rarely do tests of the theory directly measure offender motivation” (Paulsen and Robinson 2004).

Research Question

Problem Statement:

The intensive review of literature revealed that while there is abundant literature on armed robbery in general, academic literature on residential armed robbery in Ghana is extremely scarce. This study therefore, advances the research on residential armed

robbery to fill a gap in existing literature. To give a theoretical relevance to the study, the researcher sought to examine the usefulness of Routine Activities theory in the Ghanaian context by asking the following research questions: What are the factors that motivate individuals to commit residential armed robbery and what are the common deterrent factors that ward off residential armed robbers from attacking their targets?

Rationale of the Study

This study was needed to identify factors that deter or motivate residential armed robbers (also known as armed robbers who attack residential buildings) in Ghana. Given the limited data on residential armed robbery in Ghana, it was anticipated that this study would accomplish this goal by giving participant offenders a structured questionnaire that addresses issues that relate to what they considered to be motivating or deterrent factors. Knowing the deterrent and motivating factors can influence the Ghanaian government's policies and increase public awareness on coping mechanisms for residential occupants. The final overarching goal was that this study would assess the usefulness of Routine Activities theory applied to residential armed robbery in the Ghanaian context.

Theoretical Significance

With the increasing number of residential armed robberies in the present day Ghana, it is important to examine the specific reasons robbers have for committing residential armed robbery and what factors are associated with residential armed robbery. The use of Routine Activities theory is particularly applicable to studying residential armed robbery because it examines the relationship and convergence of the armed robber, residential target and the absence of capable resident. The current study, therefore, will

attempt to utilize Routine Activities theory to examine how the elements of the theory are related to residential armed robbery in Ghana.

The dissertation is organized in the following manner:

Chapter 2 presents a review of literature on armed robbery as well as definition of key terminologies. Chapter 3 details Routine Activities theory, a theoretical framework used in exploring and explaining armed robbery in Ghana. It also includes empirical generalization and hypotheses. Chapter 4 presents a full description on the unit of analysis and methodology on how data was collected. Chapter 5 provides for data analysis. Chapter 6 provides a recommendation, summary and conclusion of the study.

Chapter 2: Literature Review

The literature review has been divided into four sections. The first section of this review will provide a general definition of armed robbery, which then paves way for the specific definitions of residential armed robbery and residential armed robber. The second section will look at typologies of armed robbers and armed robbery. The third section will look at factors related to residential armed robbery. The last section will offer a summary of empirical generalizations.

Definition of Armed Robbery

Robbery, which includes armed robbery and unarmed robbery, is the theft of property from another person by force or threat of force (Conklin, 2010; Burrell, Bull and Bond, 2012; Freeman, Jones, Weatherburn, Rutter, Spooner, and Donnelly, 2005).

The Uniform Crime Report (UCR), National Crime Victimization Survey (NCVS) and Federal Bureau of Investigation (FBI) use the “common-law” definition of robbery, which states that robbery:

...is the taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or threat of force or violence and/or by putting the victim in a state of fear (FBI, 2009).

In his study of the subject in Nigeria, Iwarimie-Jaja defined armed robbery as:

an act that involves person or persons who wield(s) gun, knives, club, bow, arrow or even spear with the intent to commit robbery, or actually commit(s) robbery, at day or night, on a person, premises or residences owned by another person or persons (Iwarimie-Jaja, 1993:19).

Cohen, Cantor and Kluegel (as cited in Conklin. 1972, p. 5) in his speculation about why robbery evokes fear in urban public than other crimes, Conklin stated that:

...it (robbery) creates anxiety because it is usually committed by a stranger in an unexpected and potentially violent manner. The victim actually feels that he was the target of the offender through pure chance, and the apparent unpredictability of the crime makes it even more threatening (Conklin. 1972, p. 5).

While looking for a single definition for armed robbery, the researcher realized that a number of authors and for that matter Criminologists have given different definitions to the offense. The similarity in all of these definitions is the potential to inflict emotional or physical harm and fear.

Distinguishing between Armed Robbery and Burglary in the Ghanaian Context

English common law defined burglary as housebreaking at night only. In parts of the United States for example, the common law definition is utilized with regards to the definition of burglary offense. Albeit, other States include day and night in the definition of what constitute burglary (Funk and Wagnalls, 2016). Although in some instances, residential armed robbery may be considered burglary, criminals who participated in this study did not only engage in breaking and entry, they attacked residential occupants with violence, threat of force and seized items of value. These criminals are therefore, residential armed robbers

Defining armed robbery in the Ghanaian Context

Ghana inherited its legal definition of armed robbery from its colonial past. In stating the legal definition of armed robbery, Appiahene-Gyamfi (1998) made the following observation about the Ghanaian Criminal Code:

The sections on, and wording of, robbery and extortion, as well as most other parts of the 1960 Code, are the same—word for word—as the 1892 Code. The law then and now makes no distinction between and among armed, unarmed commercial, residential, and street robberies. Offenders are charged with either robbery with or without violence.

Excerpts from the Criminal Code of 1892 states:

A person who steals a thing is guilty of robbery if, in and for the purpose of stealing the thing, he (sic) uses any force or causes any harm to any person, or if

he (sic) uses any threat of criminal assault or harm to any person, with intent thereby to prevent or overcome the resistance of that or of any other person to the stealing of the thing (Gold Coast—now known as Ghana—Criminal Code, 1892: Sec. 150).

Therefore, residential armed robbery for the purposes of this research will be defined as the willful and sometimes vicious act of a person or persons capable of using force in order to achieve robbery at victims' places of residence at an opportune time/day/night benefiting the offender(s). Therefore, the offender who engages in this act is known as residential armed robber.

Typologies of Armed Robbers

In the fields of sociology and criminology, there have been attempts to develop and categorize what criminologists and sociologists see as distinct features of armed robbers (see Block and Geis, 1962; Gibbons 1965:24; Sutherland, Cressey, 1960 and Conklin, 1972).

Conklin Typology on armed robbers

Among the few classifications of armed robbers/armed robbery is Conklin's (1972) typology. In his focus on the offender, Conklin (1972) developed four types of armed robbers; namely: Professional, Addict, Opportunist, and Alcoholic.

Professional robbers are known to manifest a long term commitment to crime as a source of livelihood. Unlike other types of robbers in this typology, professional robbers plan and organize their crime prior to execution. They seek money to support a particular lifestyle that may be called hedonistic. Hobbs (2003) emphasized that because of their lifestyle, armed robbers traditionally occupy a unique position in the hierarchy of professional criminality which produces a mirage to recruits of palatable characteristics.

Adding to the characteristics of professional robbers, Siegel (1989) asserted that robbers often operate in groups in which role assignment is the order of the day.

Addict robbers seek to steal to support their particular addictive lifestyles such as drug addiction. They are ambitious on stealing things that will help pay for their drug habits. Conklin (1972) pointed out that this category of robbers is not enthused to commit crime, but they commit crime only when they find it necessary to support their addiction behavior.

Opportunist robbers steal only when vulnerable targets avail themselves. For example, stealing from the groceries or stealing from an unaware cashier. Conklin (1972) further identified opportunist robbers as criminals who may also strike people who walk alone in the dark or elderly people.

The last category is Alcoholic robbers. In comparison to the other types of robbers, alcoholic robbers do not exhibit any commitment toward stealing. They only steal when they are under the influence or when their situation impairs them from securing an employment. More so, alcoholic robbers do not exhibit any plan before robbery (Conklin, 1972; Woodhams and Toye, 2007).

Einstadter's typology of armed robbery

In describing the various tactics that armed robbers use, Einstadter (1975) charted three categories that armed robbers use to execute their crimes. These categories are: ambush, selective raid and planned operation.

Ambush: This type of robbery has the hallmarks of little or no planning. According to Einstadter (1975), since there is little or no planning robbers attack on targets and take whatever they find. Based on newspaper article in the Ghanaian

Chronicles (2010), ambush is one of the methods used by residential armed robbers in Ghana.

Selective Raid: Raids of such nature demand some planning on how to attack targets. Given the nature of planning, robberies may be committed in short span of time in several locations.

Planned Operation: This form of approach demands the highest level of planning. The planning process may take weeks to several months. By so doing, robbers familiarize themselves to target, surrounding neighborhoods and points of exit.

Gibbons' typology of armed robbers

Gibbons' categorized armed robbers in two classes. These classes are: professional "heavy" criminals and Semi-professional. Robbers categorized under Professional "heavy" Criminal, are highly skilled and usually commit robberies in gangs and are likely to use violence in their conduct of robbery (Gibbons, 1969). On the other hand, Gibbons' contended that robbers classified under Semi-professional consider little or no planning when it comes to committing robbery. Armed robbers labeled under this category use force to attain their objective when victims try to resist (Gibbons and Garrity, 1959).

Categorizing Residential Armed Robbers in the Ghanaian Context

Categorizing residential armed robbery or armed robber under any of these typologies posed a problem for two reasons: Firstly, like in most developing countries, Ghana's Criminal Justice system does not have an organized data base for criminal records (Appiahene-Gyamfi, 1995; Asuni, 1990; Harvey, 1966; Huggins, Laryea, 2008; 1985; Mushanga, 1992).

Although there is a limited academic literature on armed robbery in Ghana, Appiahene-Gyamfi's (1998) study on robbery in Ghana and online newspaper articles illustrate that most of these robbers operate in gangs and some of them have been on police wanted lists for some time (GNA, 2013). Additionally, Laryea (2008) accentuated that armed robbers in Ghana do plan meticulously before they attack targets. Therefore, although they do not fit into the *alcoholic robber* category, they may be classified under *professional and opportunist robber* (Conklin, 1972).

Generally, residential armed robber groups plan before they orchestrate their attack on targets (Einstadter, 1975; Laryea, 2008). Further, robbers following travelers from the airport to their houses and later staging robbery attack are evidence that they do plan (The Ghanaian Chronicles, 2010). These armed robbery approaches used by robbers in Ghana fit into Einstadter's typology of armed robbery.

Residential armed robbers do equally fit into Gibbons' typology. Therefore, residential armed robbers in Ghana may be considered as professional criminals or semi-professional criminals. This means that professional criminals research their targets and plan extensively before robbery and semi-professional criminals do little or no planning at all before robbery (Gibbons, 1969).

Armed Robbery Evolution and Coping Mechanisms in Ghana

By linking robbery to social change, Appiahene-Gyamfi (1998) emphasized that the period between 1982 and 1993 saw enormous structural changes in Ghana due to Structural Adjustment Programs (SAPs) under the auspices of the World Bank and International Monetary Fund. Such fundamental changes in Ghana and other developing

countries opened up opportunities for deviant behaviors to flourish (Clinard and Abbott, 1973). The environment created by these changes can be equated with the conditions present during the industrial revolution in the developed countries which also created several deviant behaviors (see Zvekic, 1990; Arthur, 1991; Clinard and Abbott, 1973:39–41; Bennett, 1991; Cao and Maume, 1993; Shelley, 1981). Furthermore, the structural change in Ghana encouraged rural-urban migration, hence ample supply of deviant activities such as residential robbery and delinquencies (Peil, 1984, 1973; Weinberg, 1972; Adeyemi, 1990).

Appiahene-Gyamfi (1998) specified that although robbery was prevalent in colonial Ghana, current armed robbery patterns in Ghana have taken various forms in locations ranging from places of public interest, banks, highways and residential buildings. The permeating of armed robbery into the fabric of the society itself has indeed cost pecuniary loss, change of social lifestyles, human capital and the decline of the macro-economy of the country (Ghanaian Chronicles, 2009; Nyarko, 2009; Kaledzi, 2012; Nartey, 2012, Harold, Paltiel, 2008).

Due to the frequent and the violent tone of the residential armed robbery, neighborhoods have been impacted with fear (GNA, 2013). In an online news article describing the phenomenon, Quaye (2010) reported on how residents are coping with the current rise in residential armed robbery. Some of the coping measures are the use of dogs as guardians in residential buildings. Those who could afford to construct electric fences to ward off residential armed robbers are doing so for their safety. Other measures such as instituting a few neighborhood watch dog volunteers and mounting barbed wires

on residential fences are considered. Such sense of insecurity does not only affect the locals, but Ghanaians abroad who visit the country periodically (GNA, 2013).

Planning for armed robbery

Matthews (1996), Wright and Decker (1997) argued that when it comes to planning robbery, there are two extremes. One category of robbers does not plan or explore their targets before robbery. An example may be low-level street robbery (Gibbons, 1969; Alarida, Burton and Hochstetler, 2009). The other category of robbers do plan and investigate their target before any raid (Einstadter, 1975). As asserted by Felson and Massoglia (2011), the length of time in planning to raid a target may be due to the offender's age. They found that older offenders and offenders with higher socio-economic status plan carefully before they commit robberies. On the other hand, younger offenders and offenders with lower socio-economic status do not plan carefully or fail to plan before committing robberies.

Apart from planning for which target to rob, armed robbers also plan for a safe escape route, and how to evade guardians who may interfere with their operation and escape (Erickson 1996; Alarida, Burton and Hochstetler, 2009). For example, in their study of robbers Wright and Decker (1996) asserted that escape route is crucial to the planning process of robbery.

In sum, planning is very crucial in committing some robberies. Armed robbers who orchestrate their operation fully without detection may be because they researched their targets carefully as opposed to robbers who spent little or no time investigating their targets before their raid.

Victim or Target Selection

Generally, in making target selection decisions, robbers take into consideration lucrative targets such as drug dealers and customers of prostitutes since such people have cash on hand and secondly, since they engage in criminal behavior, they may avoid reporting to law enforcement (Wright and Decker, 1997; Alarida, Burton and Hochstetler, 2009). Armed robbers in Ghana on the other hand attack victims in places where there are few or no capable custodians to prevent robbery from occurring (Appiahene-Gyamfi, 1998).

Guardianship Factors

Upon reviewing armed robbery literature, it was evident that the risk of victimization of targets decreases when sufficient levels of guardianship measures are put in place. Although the literature reviewed did not reveal adequate guardianship strategies associated with residential armed robberies, there were abundant target hardening strategies related to bank armed robberies and service station armed robberies.

Guardianship Strategies and Target Hardening

Guardianship is suggested as a measure that prevents armed robbery (see Willis, 2008; Coupe and Blake, 2006; Liska and Warner, 1991; Blau and Blau, 1982; Lynch, 1987; Cohen and Felson, 1979). With respect to residential armed robbery, such preventive measures may include constraining Routine Activities to the home to ward off robbers, the availability of the unemployed or a person at targets, community vigilantism, the possession of a handgun at the target by a custodian, installation of security/alarm systems and outside lighting systems at residential buildings (Appiahene-Gyamfi, 1998;

Cohen and Felson, 1979; Smith and Louis, 2010). Further, the emphasis and certainty that legal punishment places on crime (including armed robbery) deters armed robbers or criminals from orchestrating robbery or crime in general (Erickson, Gibbs and Jensen, 1977; Silberman, 1976).

The newspaper articles that were reviewed for the purposes of this study suggest that residents in unguarded residences (i.e. buildings without fences, alarm, security personnel community watches, etc.) were attacked without any resistance from the residents (GNA, 2013; Ghanaian Graphic, 2013; Adomfm, 2013; Hotdigitalradio, 2013; Highlife, 2013; Ghanaian Times, 2012; Ghanaian daily, 2011; Joyfmonline, 2013; Cohen, Kluegel, and Land, 1981). Further, the repeated blackout in Ghanaian houses which allow robbers to operate under the shroud of darkness also contributes to the rampant unguardedness at residences; hence the increased risk in residential armed robbery (GNA, 2013, Ghanaian Times, 2012; The Chronicles, 2009 and The Herald, 2011).

Target hardening measures such as alarm installations, positioning private security at targets, closed circuit television and security screens, regularly updating safety procedures are recommended for banks and service station for robbery prevention (see Musik, 2011; Birkbeck,1993; Garofalo and Clark, 1992; Lynch and Cantor, 1992; Miethe et al. 1990; Reynald, 2009; 2010; Stahura and Sloan, 1988; Tewksbury and Mustaine, 2003; Tseloni et al. 2004; Lott Jr., and Mustard, 1997; Benson and Mast, 2001; De Gregorio, 2011; DeVries, 2010; Smith and Louis, 2010; Pratten,2008; O’Flaherty and Sethi, 2008; Thomas, 2002; Cooley1909; Mouzos and Carcach 2001).

Motivating Factors

Motivation is always a difficult area to examine, given its subjective nature. But literature on motivation to commit robbery is extensive. Sasse (2005) for example argued that:

...Motivations, or the desires to commit crimes—which includes armed robbery, are not necessarily realized immediately with the presentation of the right opportunity at the right moment. While this process will vary depending on the offense and where it happens as Routine Activities literature argues, the victimization processes do not always occur in the heat of the moment, may take years to come to fruition, and will vary according to the motivations of the offender.

The lack of a capable caretaker and the presence of a motivated offender at a particular place and time is the core element necessary for a crime—which includes armed robbery—to occur (Cohen and Felson 1979; Cohen, Kluegel and Land, 1981). Therefore, potential offender may commit crime due to his or her motivation and perceived weakness in guardianship at a target.

On the other hand, (as indicated in the guardianship section), residents with the capability to defend their targets with guns and other means of guardianship were able to offset armed robbery from occurring in their places of abode. This shows that houses with human guardians alone will be more appealing than targets which are hardened in other ways such as those illustrated in the guardianship section.

Willis (2006) revealed several motivating factors among armed robbers in United States, Australia and United Kingdom. As listed in Table 2.1, motivation to commit robbery includes but not limited to: money for drugs, food/shelter/family and debt.

Martinez, Rosenfeld, and Mares (2008) and Laryea (2008) found that economic deprivation has a positive correlation with residential instability and crime in

general. Bernasco and Block (2009) asserted that street and commercial robbers attempt to satisfy their needs by forcefully and illegitimately stealing from others. Table 2.1 below shows some of the motivations behind committing robbery.

Table 2.1: Motivation for committing robbery (percent of all respondents)

Motivation	Feeney (1986) USA	Nugent et al AUSTRALIA	Gill (2000) UK
Urge to by Friends	4	n/a	24
Money for drugs	22	30	29
Money to pay for Food/shelter/family	11	18	6
Money to pay for debt	7	6	n/a
Unemployed	n/a	4	41
It is what offender Did for living	n/a	5	n/a
Revenge/lost Temper and anger	5	2	6
Drunk/high on Drugs at the time	7	n/a	n/a
(n)	82	110	341

Source: Armed robbery: who commits it and why (Willis, Katie) 2006.

Another motivation to committing armed robbery is employment status of robbers. Baron (2008); Altindag (2012); Poutvaara and Priks (2011) Aaltonen, Macdonald, Martikainen, and Kivivuori, (2013); Holoviak and Lee, (2006) Ming-Jen (2001) found that there is a strong association between the employment status and crime. To further this point, Parker and Horwitz (1986) argued that there is a strong link between armed robbery and unemployment.

Literature on employment status among armed robbers indicates that most offenders do not hold permanent jobs. In investigating the relationship between unemployment and crime, Britt (1994); Kapardis (1988); Juin-Jen and Chi-Hsin (2012); Holoviak and Lee (2006); Ming-Jen (2001); and Edmark (2005) concluded that the higher the rates of unemployment, the higher the rate of crime in general.

In his study of armed robbery in Ghana, Appiahene-Gyamfi (1998) found that armed robbers are likely to be unemployed. The motivation to commit robbery is therefore dependent upon the criminal opportunities that exist (Matsueda, Kreager, and Huizinga, 2006). Further, findings in the study of armed robbery in Australia show that armed robbers possess low skill and do not hold permanent jobs (Willis, 2006; Morris and O'Donnell, 1994). In a study conducted in Australian, findings indicated that 75 percent of convicted armed robbers possessed no employment skills and one-third had worked at some stage as low-skilled laborers (Kapardis, 1988).

Empirical Generalization

The following empirical generalizations are drawn from the reviewed literature:

1. FBI, UCR and NCVS use the common-law definition for robbery:

...is the taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or threat of force or violence and/or by putting the victim in a state of fear (FBI, 2009).
2. Cohen and Felson (1979), Cook (1989), Nagy and Spano (2005), and Weisburd, Morris, and Groff (2009), and Messner and South (1986) indicated that armed robbers are likely to commit armed robberies when the opportunity to do so exists due to exposure and accessibility of targets.
3. Alison et al (2006) and Appiahene-Gyamfi (1998) pointed out that armed robbers are likely to use weapons/violence if victim resists.
4. Conklin (2010) indicated that robbery in general creates fear and anxiety among stakeholders.
5. Willis (2006) stated that robbers are motivated by money.

6. Matsueda, Kreager, and Huizinga (2006), and Hipp (2004) emphasized that criminal behavior is increased due to criminal opportunities.
7. Smith, Louis and Preston (2009) stated that targets located in residential or public locations are more likely to involve multiple offenders.
8. Appiahene-Gyamfi (1998) and Willis (2006) suggested that armed robberies are prevented when targets are well guarded.
9. Birkbeck (1993), Garofalo and Clark (1992), Lynch and Cantor (1992) Miethe et al. (1990), Reynald (2009; 2010), Stahura and Sloan (1988), Tewksbury and Mustaine (2003) Tseloni et al. (2004), Lott Jr and Mustard (1997), Benson and Mast (2001), De Gregorio (2011), DeVries (2010), smith and Louis (2010) Pratten (2008), O'Flaherty and Sethi (2008) Thomas (2002) Appiahene-Gyamfi (1998), and Cooley(1909) indicated that the presence of effective person to prevent property violation from occurring, the possession of conceal handgun at a target by custodian, positioning private security at targets, alarm installations, regularly updating safety procedures, community vigilantism, and availability of the unemployed at targets of interests will minimize armed robberies.
10. Musik (2011), Benson and Mast (2001) indicated that closed circuit television and security screens help in deterring robberies.
11. Cohen and Felson (1979), Cohen, Kluegel and Land (1981) emphasized that the lack of a capable caretaker at a particular place and time is the core element necessary for a crime (which includes armed robbery) to occur.
12. Cohen, Kluegel and Land (1981) GNA (2013); Ghanaian Graphic (2013), Adomfm (2013), Hotdigitalradio (2013), Highlife (2013), Ghanaian Times

(2012), Ghanaian daily (2011), MyJoyfmonline (2013) noted that unarmed custodians were more exposed to robbery victimization than custodians with weapons.

Summary

This chapter offered a review of literature of armed robbery and factors associated with this variable. It detailed the factors that help in facilitating armed robbery. Such factors were offenders' motivation or goal and planning processes of robbery. Armed robbers are less than 30 years old and are generally males. The main motivating factor to committing robbery is economic and the main deterrent factor was having capable guardianship at a perceived robbery targets. There are two planning processes between two categories of armed robbers. One category of robbers does not fully plan or explore their targets before robbery. On the other hand, offenders with higher social economic status plan carefully before they commit robberies.

Typologies of armed robber and armed robbery were reviewed. Residential armed robbery was categorized under Conklin's, Einstadter's and Gibbons typologies. Also presented were empirical generalizations that were derived from the reviewed literature. In the next chapter, the researcher will explain how these factors are associated with residential armed robbery.

Chapter 3: Theoretical Framework

Introduction

This chapter draws upon this review to provide a theoretical summary regarding factors that motivate or deter residential armed robbers from attacking their targets. Because armed robbers use deadly weapons in their pursuit for armed robbery, most residents are incapable of protecting themselves and for that matter their properties (Quaye, 2010). The purpose, therefore, of this study was to apply Routine Activities theory to explain individual motivating and guardianship factors pertinent to residential armed robbery. The empirical generalizations indicate that the convergence of motivated offender, suitable target and the lack of capable guardianship result to a criminal action. The next section begins with an overview of rational choice theories and a thorough review of Routine Activities theory.

History of Routine Activities Theory

Routine activities theory emerged at a point in time when there was a time of economic prosperity in the post-WWII United States. To better describe the causes of crime, and especially predatory crimes, Cohen and Felson (1979) among other criminologists like Hindeland, Gottfredson, and Garofalo (1978) of the day shifted their focus from the potential criminals to the various activities and lifestyles of potential victims.

Cohen and Felson (1979) asserted that their theoretical approach to Routine Activities theory can be traced back to the crime trends in the post-World War II United States are related to patterns of activities that individuals consistently pursued. Kennedy and Sacco (1998) argued that all the structural changes that followed post-World War II

“had important implications for the victimization levels because they created the conditions for the proliferation of criminal opportunities.” In essence, as guardianship is consistently absent in the homes, motivated offenders find more suitable targets to commit predatory crimes.

Definition of Routine Activities

Routine activities were defined as:

Any recurrent and prevalent activities which provide for basic population and individual needs, whatever their biological or cultural origins. Thus routine activities would include formalized work, as well as the provision of standard food, shelter, sexual outlet, leisure, social interaction, learning and childrearing. These activities may go well beyond the minimal levels needed to prevent a population's extinction, so long as their prevalence and recurrence makes them a part of everyday life (Cohen and Felson, 1979).

They (Cohen and Felson) further contended that Routine Activities may occur (1) at home, (2) in jobs away from home, and (3) in other activities away from home. They argued that post-World War II America provided opportunities for criminals to intrude upon properties. These opportunities were created in part because of changes in the social structure. For example, women, who stayed home prior to the war, were granted the chance to participate in the workforce.

Cohen and Felson (as cited in Kennedy and Sacco, 1998) argued that the existing criminological theories at the time “could not make sense” of the increase in crime rates. They observe that factors that help promote offending “such as poverty, unemployment, racial inequality” were improving while crime rates increased.

The building blocks that constitute Routine Activities theory are motivated offender, absence of capable guardianship and suitable target (Cohen and Felson, 1979). Cohen and Felson (1979) contended that predatory crime hinges on the coincidence of a

motivated offender [someone who feels the need for cash, items with immediate liquidity or other items of value such as clothing or car]. A suitable target [exposure, i.e. visibility and physical accessibility of the target) (e.g. a well-heeled pedestrian in the wrong part of town, a rental car in search of the interstate, or house with valuable goods] and the absence of a capable guardian [e.g. no residential occupant present, no police, or a lone traveler].

Motivated Offender

Cohen and Felson (1979) pointed out that motivated offender is the cornerstone in the Routine Activities literature; and crime will not occur in the absence of the motivated offender (Sasse, 2005). But since there is an ample supply of criminally motivated people, crime is bound to occur at any time when the opportunity presents itself (De Coster, Estes, and Mueller, 1999). In keeping with Routine Activities perspective, Winfree and Abadinsky (2010:55) cited an example of the motivation of an offender Willy Sutton, a famous bank robber who was once asked why he robbed banks. Willy's reply: "That's where the money is." In this example, the offender's main motivation is to rob money from the bank.

Gainey and Payne (2006) applied Routine Activities theory to study "Motivated Offenders in Patient Abuse Cases" in elderly nursing homes. The patients in this instance are considered suitable targets because they were unable to protect themselves against the attacks from the abusers (motivated offenders).

Their (Gainey and Payne) findings emphasized that:

Nearly two-thirds of the offenders were female, and about three-fourths were aides or assistants. About ten percent were nurses and a handful of the offenders were doctors. Offenders were characterized as serial abusers, pathological tormentors, or stressed-out abusers (Gainey and Payne, 2006).

Consider the following four examples:

There were instances where adult nursing home patients were struck in the face ((MFR, October 1997:20); were slapped (MFR, May 2002:10); kicked and choked (MFR, March 2002:10) and hit repeatedly (MFR, May 2002:11).

Measuring the three elements of Routine Activities—motivated offender, guardianship suitable target, Miethe and McDowall (1993) concluded that the elements in the theories had effect on property victimization such as burglary and violent crime rates.

Guardianship

Cohen and Felson (1979) detailed that guardianship is measured by the extent to which people in the course of their daily lives do, or do not do, protect property and individuals from crime. Guardians may include neighbors, police officers, locks, people—onlookers, caregivers or housewives. In an event of a possible crime occurrence, the presence of a guardian alone may stop crime from occurring. Guardianship can also mean the installation of alarms on doors, windows, surveillance cameras, and neighborhood-watch volunteers. Nagy and Spano (2005) underscored this point by emphasizing that social guardianship which refers to the availability of others may prevent personal crimes by their mere presence or by offering assistance to ward off an attack. Such steps may ameliorate predatory crimes and personal victimization. It should be underlined that the presence of a guardian alone may not deter crime from occurring. For instance, if the guardian is overpowered with lethal weapons such as gun, knives, crime may still be possible. Crime may also be possible if the guardian is weak and old and cannot defend him or herself. As asserted by Cohen et al (1981), the potentiality of crime occurring is minimal when there is a capable guardian present. Lee (2000) contended that the concept of guardianship is a paramount tenet in both the

lifestyle or exposure or Routine Activities perspectives. The findings in Table 3.1 support the view on the effects of guardianship on crime in general.

Table 3.1: Summary of guardianship and crime studies

Author/Publication Date	Measurement of Guardianship	Main Finding
Cohen and Felson (1979)	Labor force participation, single adult households	Guardianship related to a reduction in crime
Mustaine and significant Tewksbury (1998)	Self-protective behaviors (e.g., weapons possession)	Guardianship had a effect on crime
Reynald significant (2009; 2010)	Presence and interventions	Guardianship had a effect on crime
Wilcox et al. (2007)	Individual-level target hardening, place management and surveillance; neighborhood level target hardening, informal social control, natural surveillance	Individual-level: target hardening, place management, surveillance related more negatively to burglary with increased neighborhood-level target hardening, informal social control, natural surveillance
Stahura and Sloan (1988)	Police employment, police expenditure, female labor force nonparticipation	Guardianship had a significant effect on crime

Source: Guardianship for crime prevention: a critical review of the literature (Hollis-Peel et al) 2011.

Target

Cohen and Felson (1979) argued that a target is suitable if it projects values such as:

...material or symbolic desirability of a personal or property target for offender, physical visibility, access, and the inertia of a target against illegal treatment by offenders (including the weight, size and attached locked features of property inhibiting its illegal removal and the physical capacity of personal victims to resist attackers with or without weapons).

Furthermore, Cohen and Felson (as cited in Stafford, Long and Miethe, 1987; 1990) asserted that the lack of guardianship and abundance of targets was due to:

Major changes in work and leisure activities, lifestyles, and mobility patterns have occurred in the United States in the last few decades. Since the early rates of out-of-home travel, college attendance and labor force participation of women (especially married women), and single-person households have increased considerably.

This shift in the social structure created a vacuum in guardianship at homes, hence suitable targets for motivated offenders to commit crime. Cohen and Felson (1979) contend that when it comes to crimes against persons, Routine Activities theory portrays victimization as an everyday event motivated by lifestyle factors. A person in possession of desirable valuables may be a suitable target if he or she walks at night without the ability to protect her/himself from an attack from a criminal. In cases where human beings are seen as the targets, authors like Pease and Laycock (1996) and Conklin (2010) asserted that the following characteristics (see Table 3.2) make a particular target suitable.

Table 3.2: Characteristics for Human Target

<i>Precipitation or Provocation:</i> The victim does or says something that causes an offender to violate the law.
<i>Instigation or perpetration:</i> The victim actively encourages a crime or takes criminal action against another person.
<i>Facilitation:</i> The victim places himself or herself at risk by deliberation. Recklessness or negligence.
<i>Vulnerability or Invitation:</i> Some people are unusually susceptible because of personal attributes, social status or entry into risk-filled situation.
<i>Cooperation:</i> The victim is a party to a consensual crime such as gambling and prostitution.
<i>Attractiveness:</i> Affluence will often attract offenders.
<i>Impunity:</i> Offenders can expect that the victim will not report the crime to the police or testify in court, perhaps because the victim is also breaking the law.

Source: Criminology (John E, Conklin) 2010.

Stafford, Long and Miethe (1990) argued that exposure to the risk of victimization of persons outside of their homes is due to their lifestyle and the time they spend outside of their homes. They further noted that people who work in schools for example, are more vulnerable because they are exposed to varied behaviors that are riskier than people who work under the protection of capable guardians such as law enforcement entity.

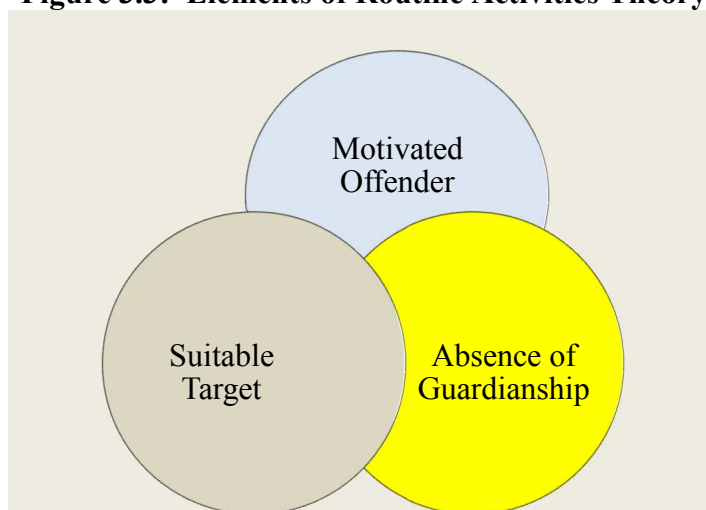
Pizarro, Corsaro and Yu (2007) stressed that Routine Activities theory posits that in order for a crime to occur there must be a convergence in time and space of a suitable target (object to which the offender acts upon), a motivated offender (a person who wants to commit a crime), and a lack of a capable guardian (anybody or anything that might prevent the crime from occurring).

A number of studies have found empirical support for three property crime rates throughout the post-war era through the 1970s (Cohen, Felson and Land, 1980). The three property crimes rates were automobile theft, robbery and burglary. Cohen, Felson and Land, (1980) and Cohen and Felson (1981) concluded that the increase in property crime rates was due to the tremendous social changes such as women contribution in the workforce, hence the decrease in capable guardianship in residential neighborhoods or communities. This is the bedrock of Routine Activities theory.

Cohen and Felson (as cited in Jacobs, 1990) argued that “any crime requires the intersection of suitable targets and motivated offenders” and in this study, residential armed robbery is not an exception. Figure 3.2 below shows how the three elements contribute to crime occurrence. In the first column is the motivated offender. In order to pursue a criminal activity, the offender needs to find a suitable crime target. Next, he or

she needs to examine the exposure of that target. Further, the offender has to assess the presence or the absence of a capable guardian. Then, the attractiveness as well as the proximity of the target is examined. When all these processes are fully assessed, and there are no capable guardian and the certainty, celerity, and the value of the rewards of the crime are vastly greater than the certainty, celerity, and severity of any punishment there is a high probability of the occurrence of crime (Cohen and Felson, 1979:606).

Figure 3.3: Elements of Routine Activities Theory



Source: Criminology (John E, Conklin) 2010.

Theoretical Propositions

Based on the review of Routine Activities, the researcher declares the following proposition summaries:

P1: The likelihood of a residential armed robber committing armed robbery is created by lack of guardianship, motivation and points of criminal exit at target.

As a rational actor, the residential armed robber observes targets that are exposed in order to attack. Within the two extremes of robbers, matured and professional armed robbers sometimes plan and research their perceived targets before embarking on residential armed robbery. In this sense, the examination of the exposure of target is very relevant to the process of committing residential armed robbery. Targets without outside light may serve as a profound site for attack; this is the case because, outside light may serve as a form of guardianship in terms of target appeal. Since residential armed robbers prefer to operate by night, outside light serve as a strong guardianship in deterring their nightly criminal operations. Motivation to commit robbery may arise due the lack of outside light at targets. Robbers are also cognizant of aisles that may potentially help them in transferring their goods via vehicles. Robbing at places that are close to escape route is very essential to committing residential armed robbery. Therefore, targets that are in close proximity to an escape route may also be motivating to residential armed robbers. Criminals may also be attracted to targets located in wealthy neighborhoods. This is because, those are the places they perceive to possess expensive items for robbery.

P2: Residential buildings with vast number of human guardians will be least motivating in terms of target appeal.

Targets with human guardian have a greater deterrent effect in preventing potential offenders from committing robbery (Stahura and Sloan, 1988; Cohen and Felson, 1979). The various protective measures listed in proposition two indicate the human elements in guardianship. Police officers for example, do have a tremendous guardianship effect, but the presence of the police personnel in Ghana is minimal. Yet criminal barely operate where they know police were present. On the other hand, close-knit communities with potential community bonding do not have the frequent/rampant

residential armed robbery occurrence. In this case, the community serves as guardianship which deters robbers from orchestrating their crimes. Lastly, adult men in residential structures do pose as a strong guardianship against residential armed robbery. With a lethal weapon in hand, the residential occupant can serve as a potential force than can assuage robbers. The mere sound of a warning shot can alert the robbers that they are at a wrong place at the wrong time. In a nutshell, the physical presence of a human guardian alone can minimize the risk of target being violated. Robbers become aware that their act may be noticed by occupants of the residential building or neighbors around the building, hence a high level of caution may be taken in order to assuage capture.

P3: Residential buildings with non-human, mechanical or physical barriers will be the next least motivating in terms of target appeal.

Non-human guardianship such as (Electric fence guardianship, Dog presence guardianship, Alarm guardianship, and Iron bar guardianship) may have a lesser guardianship power as opposed to the presence of human guardian at a target. Human guardians may alert other neighbors for assistance, hence, making resistance to robbery very formidable. Electric fence for example, may prevent robbers from climbing fence walls, but they may device other means to get into the house if their operation dictates. Robber could put a non-metallic substance such as mattress over the wall in order to climb and get into a residence. But such tactic has not been used, hence the deterrence and for that matter, electric fence wall serves as a source of guardianship. The presence of a dog at a residence may serve as a source of guardianship since dogs will bark at the sight of an intruder (residential armed robber). Alarm installation is one of the potential guardianship that can ward off residential armed robbery. If well installed, alarms may

go off if an unwelcome guest intrudes into the building. Iron bars in both window and doors may serve as formidable guardianship. Such bars may be difficult to cut through and break in without detection. These barriers help protect targets from violation.

Summary

The Routine Activities theory was used in this chapter to explore and explain predatory crime such as residential armed robbery. The theory touches on the motivating and guardianship factors of the offender (residential armed robber). In the next chapter, the researcher will discuss research methods used in collecting data and how hypotheses were derived from the theoretical propositions.

Chapter 4: Research Methods

Introduction

While the prior chapter introduced the theoretical basis and propositions for exploring and explaining residential armed robbery, this chapter builds on that understanding by describing a list of hypotheses and providing an empirical model. This part of the study outlines a general plan that directed the researcher in his data collection. Additionally, this section includes the research instrument and how variables were measured. Lastly, this section discusses about the statistical tools used for testing the hypotheses.

Hypotheses

Twelve hypotheses were derived from propositions indicated from Chapter 3. These hypotheses were designed to explore and explain the relationship between robbery, guardianship, and target appeal, or the relationship between target motivation and target appeal. The hypotheses also look at the relationship between the armed robber, guardianship and the residential building target. The following are the hypotheses considered for this study were derived from the three propositions:

P1: The likelihood of a residential armed robber committing armed robbery is created by lack of guardianship, motivation and points of criminal exit at target.

H₁: Participants will report more motivation at targets without outside lights than at targets with the proximity to an escape route.

H₂: Participants will report more motivation at targets without outside lights than at targets located in wealthy neighborhoods.

H₃: Participants will report more motivation at targets with the proximity to an escape route than targets located in wealthy neighborhoods.

P2: Residential buildings with vast number of human guardians will be least motivating in terms of target appeal.

H₄: Participants will report more motivation at targets with community watchdogs than at targets with the presence of police officer(s)

H₅: Participants will report less motivation at targets with community watchdogs than at targets with the presence of adult men.

H₆: Participants will report less motivation at targets with the presence of police officer(s) than at targets with the presence of adult men.

P3: Residential buildings with non-human, mechanical or physical barriers will be the next least motivating in terms of target appeal.

H₇: Participants will report less motivation at targets with electric fence than at targets with reinforced iron bars.

H₈: Participants will report more motivation at targets with electric fence than at targets with alarm installation.

H₉: Participants will report less motivation at targets with electric fence than at targets with dog presence.

H₁₀: Participants will report less motivation at targets with reinforced iron bars than at targets with alarm installation.

H₁₁: Participants will report less motivation at targets with reinforced iron bars than at targets with dog presence.

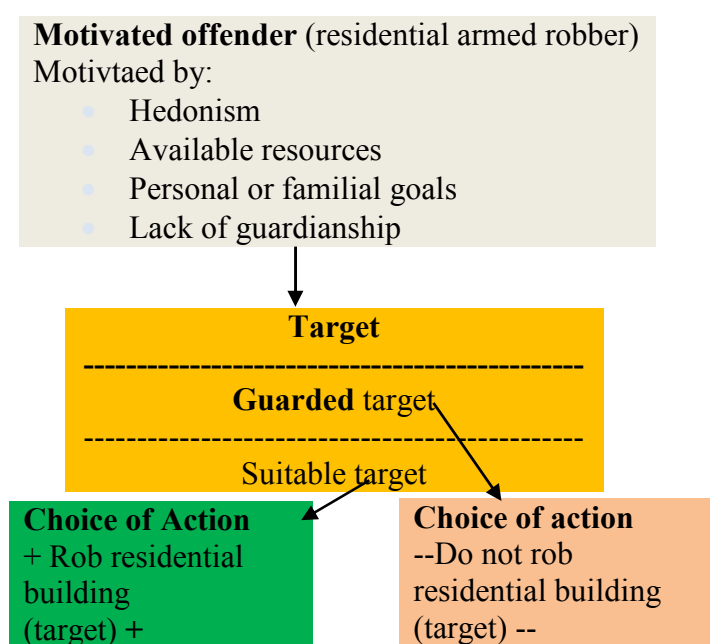
H₁₂: Participants will report less motivation at targets with alarm installation than at targets with dog presence.

Empirical Model

In this model (Fig. 4.1), Routine Activities theory is well understood by the factors of guardianship or motivation at suitable target. Once there is the convergence of target and guardianship or lack thereof, the motivated offender makes decision whether or not to commit a residential armed robbery.

The model constructed for this research as presented in Figure 4.1, shows the relationship between the residential armed robber (motivated offender), the residential occupant (guardian) and the residential building (suitable target). Beginning with the motivated offender, if he encounters a formidable guardian, robbery may not come about. On the other hand, if there is no guardian or any form of resistance on the part of the residential occupant, armed robbery may occur.

Figure 4.1 Empirical Model



- Motivated offender (residential armed robber)—motivated by hedonism, personal or familial goals, available resources and lack of guardianship.
- *Guardianship (target hardening measures)—electric fence, dog, police, community watch dog, adult men, gun-wielding-occupant/resident, alarm gadget, iron bar/rebars.
- **Weak/suitable or lack of guardianship—Isolated place, wealthy neighborhood, proximity to escape route, no outside light.
- Robbery + ■ No Robbery –

Research Design and Data Collection

The following section is divided into three parts. The first part will discuss the development and the structure of the survey instrument. The second part discusses the

operationalization of dependent and independent variables. Thirdly, a discussion of how the researcher collected data will be discussed.

Survey Instrument

The 17 closed-ended items on the questionnaire (Appendix A) were generated by the researcher. They were meant to collect information that will address the relationship between motivating or guardianship factors and the residential armed robbers. The survey instruments were also meant to explore and explain the relationship between the motivated offender, suitable target and absence of capable guardianship.

Prior to distributing the survey to the inmates, the survey questionnaire was pre-tested with few inmates for reliability purposes. The 17 items on the questionnaire were divided into two parts. Part a) attends to nine robbery-guardianship questions (1-9). The last part b) addresses eight questions (10-17) related to how target characteristics motivated participants for attack.

Operationalization of Variables

The independent and dependent variables are defined and operationalized below.

Guardianship. This variable refers to the factors that served as deterrence to committing residential armed robbery.

Electric fence. This variable refers to a guardianship factor at a target that served as deterrence to committing residential armed robbery.

Dog presence. This variable refers to a guardianship factor at a target that served as deterrence to committing residential armed robbery.

Police presence. This variable refers to a guardianship factor at a target that served as deterrence to committing residential armed robbery.

Community Watches. This variable refers to a guardianship factor at a target that served as deterrence to committing residential armed robbery.

Adult men presence. This variable refers to a guardianship factor at a target that served as deterrence to committing residential armed robbery.

Gun ownership by guardian. This variable refers to a guardianship factor at a target that served as deterrence to committing residential armed robbery.

Alarm installation. This variable refers to a guardianship factor at a target that served as deterrence to committing residential armed robbery.

Reinforced Iron bar. This variable refers to a guardianship factor at a target that served as deterrence to committing residential armed robbery.

Motivation. This variable refers to the influencing factor at a target that precipitate residential armed robbery. These variables were developed by the author.

Target in isolation. This variable refers motivation due to targets located in isolation.

Target in wealthy Area. This variable refers motivation due to targets located in wealthy neighborhoods

Target in proximity to escape route. This variable refers motivation due to targets located in in close proximity to an escape route.

Absence of outside light. This variable refers motivation due to target without outside light.

A detail use of these variables in relations to the questionnaire begins on page 83 under the heading Appendix A.

Response Coding

Part A (questions 1 - 9)

Questions 1 – 9, Participants were asked a series of questions tapping the perceived guardianship of (electric fence, long Prison Sentence, dog, police, community watch dog, adult men, gun ownership by guardian, alarm installation, and reinforced iron bars). All of these items were coded 1 for ‘no guardianship to 6 for ‘Extremely high guardianship.

Part B (questions 10-17)

Questions 10 - 17, Participants were asked a series of questions tapping the perceived motivation (target located in isolation, wealthy area motivation, escape route motivation, and the absence of outside light). All of these items were coded 1 for ‘no motivation’ to 6 for ‘Extremely high motivation. Additionally, questions 12 and 13 respectively asked participants about the level of motivation they had robbing targets with fewer than 5 people and targets that had more than 5 people. Responses were coded 1 for ‘no motivation to 6 for ‘Extremely high motivation.’

Scarcity of Crime Data in Ghana

One of the major reasons why there is a scarcity of data on robbery and other crimes in Ghana is due to the lack of full accessibility to inmates in the various prisons. This study was no exception. Although, the researcher was authorized to conduct this study, he had a limited access to the number of prisoners he had wanted to include in the study. As illustrated in Table 5.1 below, the researcher anticipated interviewing 150 inmates for this study, but for a number of reasons (including amnesty international and UN inquiries on the inhumane treatment of prisoners) the researcher got access to only 60

inmates. Four inmates failed to complete the session. The failure to complete the session ranged from lack of interest to participate to fear of their information being used against them.

The 56 inmates who completed the survey constitute the entire sample of this study. In describing the attributes of the inmates, the researcher included their basic biographic data such as age, educational status, and occupation. Part B of the survey inquired about motivating and guardianship factors related to residential armed robbery targets.

Data Collection

In the ensuing sections, the researcher will detail the steps that were taken to protect the privacy and safety of inmate participants while data was collected. In keeping with the ethical conduct of studying vulnerable population, such as prison inmates, the Institutional Review Board at South Dakota State University granted approval for this study. This was to guarantee that the lives of the human subjects for the research were not jeopardized.

After securing the approval from SDSU, the researcher traveled to Ghana in the summer of 2013 in order to secure permission from the Ghana Prison Services to collect raw data in various prison facilities. Upon been granted permission to pursue the study, the researcher went to the various facilities to collect data. The three prisons were chosen because law enforcement agencies informed the researcher that those are the prisons that harbor convicted armed robbers.

Who Were Eligible?

Again, the Ghana Criminal Justice system barely keeps and publishes records of individual crime statistics. But according to the Ghana Prison Service, the total inmate population in all prison facilities in the country is 14,298 (Ghanaprison, 2014). Of this number, about 750 were residential armed robbery convicts or remand residential armed robbers (this figure excludes other types of robberies). As there were other types of armed robberies (such as bank robbers, street robbers, highway robbers, auto robbers among other criminals) in the general prison population, the focus here was to collect data on residential armed robbers.

In order to involve as many participants as possible, snowball sampling was adopted in addition to the review of residential armed robbery inmates' record that was present at the prison facility. In the case of snowball sampling, once an inmate expressed interest in participating in the study, he was asked whether he knew other inmates who had similar criminal background and are willing to participate in the study.

As detailed in table 4.2, a sample of 150 inmates was chosen because the researcher anticipated that such a figure would produce an external validity of the general population of residential armed robbers. But for the lack of full accessibility to inmates, the sample was reduced to 60 and finally 56 inmates completed the study.

Table 4.2: Characteristics of the Sample

Inmate with	Inmate Surveyed		
	Nsawam	Kumasi	Winneba
Anticipated (150)			
Survey distributed (60)	20	20	20
Completed survey (56)	19	20	17

To be considered for the study, the researcher contacted the Ghana Prisons Service where a review of inmates' records was checked to identify who were eligible and willing to participate in the study. On the first day at each facility, the researcher briefed the residential armed robbery inmates about the study in order to solicit their participation. After the briefing, the researcher was led to a room where all the offenders were gathered to participate in the study. Although prison guards were not present, a couple of guards stood a few feet away from where the survey session was taking place. This was to assure prisoners of the confidentiality of responses as well as ensuring the researcher's safety in case of any form of antagonism.

Informing Inmates about the Study

At the survey session, the researcher explained that their participation was totally voluntary, but that their participation would yield an incentive of \$3 (equivalent to 5 GH Cedis). At any point if they felt they did not want to proceed with the study, they were free to leave. The researcher also read the informed consent form (*Appendix C*), and interpreted in other Ghanaian languages.

Filling Out Questionnaire Items

Upon distributing the survey questionnaires, the researcher made sure that inmates did not write their names on the questionnaire forms. The researcher had in his possession a single code sheet (see *Appendix B*), and he read out the answer codes for each item on the questionnaire. So, for instance the first item on the questionnaire asks for inmate's age. The answer to this via the code can be chosen from letters WI to VA. For example, if an inmate expressed 'no motivation at a particular target, his input or answer will be WI. Another example is the level of guardianship; for instance, if an

inmate had indicated the lack of 'guardianship at a target, his answer will be NY, and VA for 'extremely high guardianship. This was the pattern used throughout the entire survey session. Knowing that a copy of the code sheet had been saved on the researchers' computer which was not present at the prison facility, he destroyed it at the end of the survey session.

Validity and Reliability

Validity of the measurement instrument was assessed through the use of face validity. The function of face validity is to examine whether an indicator of a concept or construct makes sense. Upon constructing the survey questionnaire, the dissertation committee approved of its use. This study therefore, utilizes both face validity and the approval of the committees' advice.

Data Analysis Procedures

The final section of this chapter addresses the type of statistics that will be used to test the factors that motivate or guard against residential armed robberies in Ghana. It is important to indicated here that the sample gathered was not sufficient to claim external validity. The statistics used in the analysis included measures of t-tests and significance testing. A discussion of these statistics is shown below.

Tests of Significance

This study utilizes the t-tests to provide a standard for determining whether to accept or reject the null hypotheses. A p-value of .05 or less will be used as sufficient evidence to reject (fail to accept) the null hypotheses.

Summary

In this chapter, the researcher presented 12 hypotheses, the design of the study, operationalized variables, procedure for data collection, statistical tests considered in testing hypotheses. The next chapter will present results of analyzed data.

Chapter 5: Results

In this chapter, the researcher presents descriptive attributes about residential targets. Also presented in this chapter are independent (electric fence, dog presence, police presence, community watch dogs, adult men guardianship, gun ownership by occupant's guardianship, alarm guardianship, iron bar guardianship), and dependent variables (target in isolation motivation, wealthy area targets, escape route motivation and absence of outside light motivation). The final part of this section includes hypotheses testing and findings will be generated by analyzing and interpreting the data presented.

Descriptive Data

Guardianship

In this section, the idea presented is to determine the most potent guardianship that wards off armed robbers. The following guardianship mechanisms were addressed.

Electric fence guardianship. In Table 5.1, the researcher displays data regarding the guardianship factor of electric fence at residential building. Fifteen (26.8%) reported that electric fence did not pose any guardianship at all. Four (7.1%) reported that electric fence had a low guardianship. Seven (12.5%) reported that electric fence had some guardianship on their ability to rob a target. Seven (12.5%) reported that electric fence had a good guardianship. Six (10.7%) reported that there was a guardianship. Sixteen (28.6%) reported that electric fence was extremely high guardianship. One (1.8%) did not respond to the question.

Table 5:1 **Guardianship**

Variable	Frequency	Median	Percent
Electric Fence Guardianship			
<i>No guardianship</i>	15		26.8
<i>Low guardianship</i>	4		7.1
<i>Some guardianship</i>	7		12.5
<i>Good guardianship</i>	7		12.5
<i>Guardianship</i>	6		10.7
<i>Extremely high guardianship</i>	16		28.1
<i>Missing</i>	1		1.8
		3.0	

Dog guardianship. In Table 5.2, the researcher displays data regarding the guardianship factor of dog presence at a residential building. Of the 56 participants of the survey, 14 (25.0%) reported that dog posed no guardianship. Ten (17.9%) reported that dogs posed a low guardianship. Nine (16.1%) reported some guardianship. Six (10.7%) reported a good guardianship. Nine (16.1%) reported guardianship. Seven (12.5%) reported an extremely high guardianship. One (1.8%) did not respond to the question.

Table 5:2 **Guardianship**

Variable	Frequency	Median	Percent
Dog Guardianship			
<i>No guardianship</i>	14		25.0
<i>Low guardianship</i>	10		17.9
<i>Some guardianship</i>	9		16.1
<i>Good guardianship</i>	6		10.7
<i>guardianship</i>	9		16.1
<i>Extremely high guardianship</i>	7		12.5
<i>Missing</i>	1		1.8
		2.0	

Presence of police guardianship. In Table 5.3, the researcher displays data regarding the guardianship of police officer at a target. Eight (14.3%) reported that the presence of police was no guardianship. Five (8.9%) reported low guardianship. Seven (12.5%) reported some guardianship. Ten (17.9%) reported good guardianship. Four

(7.1%) reported that they had guardianship. Twenty-one (37.5%) reported an extremely high guardianship. One (1.8%) did not respond to the question.

Table 5:3 **Guardianship**

Variable	Frequency	Median	Percent
N=56			
Police Guardianship			
<i>No guardianship</i>	8		14.3
<i>Low guardianship</i>	5		8.9
<i>Some guardianship</i>	7		12.5
<i>Good guardianship</i>	10		17.9
<i>guardianship</i>	4		7.1
<i>Extremely high guardianship</i>	21		37.5
<i>Missing</i>	1		1.8
		3.0	

Presence of community watchdog guardianship. In Table 5.4, the researcher displays data regarding the presence of community watch dog as a guardianship to residential armed robbery. Eight (14.3%) reported that the presence of community watch dog was no guardianship. Six (10.7%) reported low guardianship. Eleven (19.6%) report some guardianship. Six (10.7%) reported good guardianship. Five (8.9%) reported guardianship. Nineteen (3.9%) reported extremely high guardianship. One (1.8%) did not respond to the question.

Table 5.4 **Guardianship**

Variable	Frequency	Median	Percent
N=56			
Community Watch Dog Guardianship			
<i>No guardianship</i>	8		14.3
<i>Low guardianship</i>	6		10.7
<i>Some guardianship</i>	11		19.6
<i>Good guardianship</i>	6		10.7
<i>Guardianship</i>	5		8.9
<i>Extremely high guardianship</i>	19		33.9
<i>Missing</i>	1		1.8
		3.0	

Presence of adult men guardianship. In Table 5.5, the researcher displays data regarding the presence of adult men as a guardianship to residential armed robbery. Of the 56 participants who took part in the survey, 15 (26.8%) reported that adult men posed no guardianship. Ten (17.9%) reported that dogs posed a low guardianship. Eight (14.3%) reported some guardianship. Seven (12.5%) reported a good guardianship. Six (10.7%) reported guardianship. Eight (14.3%) reported an extremely high guardianship. Two (3.6%) did not respond to the question.

Variable	Frequency	Median	Percent
N=56			
Adult Men Guardianship			
<i>No guardianship</i>	15		26.8
<i>Low guardianship</i>	10		17.9
<i>Some guardianship</i>	8		14.3
<i>Good guardianship</i>	7		12.5
<i>Guardianship</i>	6		10.7
<i>Extremely high guardianship</i>	8		14.3
<i>Missing</i>	2		3.6
		2.0	

Gun ownership by guardian guardianship. In Table 5.6, the researcher displays data regarding the presence of a gun-owning residential occupant as a guardianship. Of the 56 participants of the survey, 6 (10.7%) reported that the presence of a gun by a residential occupant posed *no* guardianship. Five (8.9%) reported that the presence of a gun by a residential occupant posed a *low* guardianship. Ten (17.9%) reported *some* guardianship. Sixteen (28.6%) reported a *good* guardianship. Sixteen (28.6%) reported guardianship. Three (5.4%) did not respond to the question.

Variable	Frequency	Median	Percent
Gun by Guardian Guardianship			
<i>No guardianship</i>	6		10.7
<i>Low guardianship</i>	5		8.9
<i>Some guardianship</i>	10		17.9
<i>Good guardianship</i>	16		28.6
<i>Guardianship</i>	-		
<i>Extremely high guardianship</i>	16		28.6
<i>Missing</i>	3		5.4
		3.0	

Presence of alarm installation guardianship. In Table 5.7, the researcher displays data regarding the guardianship of the presence of security alarm at a residential building. Of the 56 participants of the survey, 10 (17.9%) reported that alarm system posed no guardianship. Six (10.7%) reported that alarm posed a low guardianship. Eleven (19.6%) reported some guardianship. Nine (16.1%) reported a good guardianship. Four (7.1%) reported guardianship. Fifteen (26.8%) reported an extremely high guardianship. One (%) did not respond to the question.

Variable	Frequency	Median	Percent
Alarm Guardianship.			
<i>No guardianship</i>	10		17.9
<i>Low guardianship</i>	6		10.7
<i>Some guardianship</i>	11		19.6
<i>Good guardianship</i>	9		16.1
<i>guardianship</i>	4		7.1
<i>Extremely high guardianship</i>	15		26.8
<i>Missing</i>	1		1.8
		2.0	

Presence of reinforced iron bar Guardianship. In Table 5.8, the researcher displays data regarding the presence of reinforced iron bars on windows and doors of

residential building as a guardianship. Nine (16.1%) reported that Iron bars posed *no* guardianship. Seven (12.5%) reported that Iron bars posed a *low* guardianship. Eleven (19.6%) reported *some* guardianship. Eleven (19.6%) reported a *good* guardianship. Six (10.7%) reported *guardianship*. Nine (16.1%) reported an *extremely high* guardianship. Three (5.4%) did not respond to the question.

Table 5:8 **Guardianship**

Variable	Frequency N=56	Median	Percent
Iron Bars Guardianship			
<i>No guardianship</i>	9		16.1
<i>Low guardianship</i>	7		12.5
<i>Some guardianship</i>	11		19.6
<i>Good guardianship</i>	11		19.6
<i>guardianship</i>	6		10.7
<i>Extremely high guardianship</i>	9		16.1
<i>Missing</i>	3		5.4
		2.0	

Motivation

What was your source of motivation. Table 5.9, displays data regarding respondent's source of motivation. Twenty-nine (51.8%) reported that what motivated them was because of lack of resources. One (1.8%) reported that it was just for the thrill. Twenty-four (42.9%) reported that friends motivated them. One (1.8%) reported that he was motivated by drugs. One (1.8%) did not respond to this question.

What was your main goal for robbery. Table 5.9 displays data regarding reasons why respondents engaged in residential armed robbery. Thirteen (23.2%) reported that friends got them involved, but they did not indicate their main goal. Fifteen (26.8%) reported that their main goal was to get money. Three (5.4%) reported that their main goal was to get money for drugs. Thirteen (23.2%) reported that their main goal

was to support self. One (1.8%) reported that they saw crime as a normal way of life. Five (8.9%) reported that their main goal was to support their family. Six (10.7%) chose “other” without indicating their main goal.

Table 5.9: Source of motivation and Main goal

Variable	Frequency N= (56)	Percent
Source of motivation		
Lack source of income	29	51.8
Just for the thrill	1	1.8
Friends	24	42.9
I was on drugs	1	1.8
Missing	1	1.8
Main goal for robbery		
Friends got me involved	13	23.2
For money	15	26.8
For drugs	3	5.4
To support self	13	23.2
Saw crime as a way of life	1	1.8
To help family	5	8.9
Other	6	10.7

In this section, the idea presented is to determine factors that make targets most suitable. The following motivating factors were addressed.

Targets in isolation motivation. In Table 5.10, the researcher displays data regarding how much residential building located in isolated places as a motivation. Ten (17.9%) reported that targets in isolated place had no *influence* in determining residential armed robbery. Twelve (21.4%) reported *low influence*. Fifteen (26.8%) reported *some influence*. Four (7.1%) reported a *good influence*. Three (5.4%) reported *influence*. Eleven (19.1%) reported an *extremely high influence*. One (1.8%) did not respond to this question.

Table: 5.10 **Target Motivation**

Variable	Frequency N= (56)	Median	Percent
Isolation Motivation			
<i>No motivation</i>	10		17.9
<i>Low motivation</i>	12		21.4
<i>Some motivation</i>	15		26.8
<i>Good motivation</i>	4		7.1
<i>motivation</i>	3		5.4
<i>Extremely High motivation</i>	11		19.6
<i>Missing</i>	1		1.8
		2.0	

Targets located in wealthy area motivation. In Table 5.11, the researcher displays data regarding targets in wealthy neighborhoods as a *motivating* factor to committing residential armed robbery. Of the 56 participants, 10 (17.9%) reported that targets in wealthy neighborhoods had *no influence* in determining residential armed robbery. Ten (17.9%) reported *low influence*. Thirteen (23.2%) reported *some influence*. Two (3.6%) reported a *good influence*. Two (3.6%) reported *influence*. Eighteen (32.1%) reported an *extremely high influence*. One (1.8%) did not respond to this question

Table: 5.11 **Target Motivation**

Variable	Frequency N= (56)	Median	Percent
Wealthy Area Motivation			
<i>No motivation</i>	10		17.9
<i>Low motivation</i>	10		17.9
<i>Some motivation</i>	13		23.2
<i>Good motivation</i>	2		3.6
<i>motivation</i>	2		3.6
<i>Extremely High motivation</i>	18		32.1
<i>Missing</i>	1		1.8
		3.0	

Proximity to escape route motivation. In Table 5.12, the researcher displayed data regarding escape route by a residential building as a motivation. Of the 56 participants, 4 (7.1%) reported that targets in close proximity to escape route had *some influence* in committing residential armed robbery. Six (10.7%) reported *good influence*. Twenty-two (39.3%) reported “influence.” Twenty-three (41.1%) reported an *extremely high influence*. One (1.8%) did not respond to this question.

Table: 5.12 **Target Motivation**

Variable	Frequency N= (56)	Median	Percent
Escape Route Motivation			
<i>No motivation</i>	-	-	
<i>Low motivation</i>	-	-	
<i>Some motivation</i>	4		7.1
<i>Good motivation</i>	6		10.7
<i>motivation</i>	22		39.3
<i>Extremely High motivation</i>	23		41.1
<i>Missing</i>	1		1.8
		4.0	

Absence of outside light motivation. In Table 5.13, the researcher displays data regarding the absence of outside light at a residential building as a motivation to commit robbery. Of the 56 participants, 2 (3.6%) reported that absence of outside light had no influence in determining residential armed robbery. Two (3.6%) reported low influence. Four (7.1%) reported some influence. Nine (16.1%) reported a good influence. Twenty-six (46.4%) reported influence. Twelve (21.4%) reported an extremely high influence. One (1.8%) did not respond to this question.

Table: 5.13 **Target Motivation**

Variable	Frequency N= (56)	Median	Percent
Outside light Motivation			
<i>No motivation</i>	2		3.6
<i>Low motivation</i>	2		3.6
<i>Some motivation</i>	4		7.1
<i>Good motivation</i>	9		16.1
<i>motivation</i>	26		46.4
<i>Extremely High motivation</i>	12		21.4
<i>Missing</i>	1		1.8
		4.0	

Table 5.14: **Summary of Hypotheses**

1	Participants will report more motivation at targets without outside lights than at targets with the proximity to an escape route.
2	Participants will report more motivation at targets without outside lights than at targets located in wealthy neighborhoods.
3	Participants will report more motivation at targets with the proximity to an escape route than targets located in wealthy neighborhoods.
4	Participants will report more motivation at targets with community watchdogs than at targets with the presence of police officer(s)
5	Participants will report less motivation at targets with community watchdogs than at targets with the presence of adult men.
6	Participants will report less motivation at targets with the presence of police officer(s) than at targets with the presence of adult men.
7	Participants will report less motivation at targets with electric fence than at targets with reinforced iron bars.
8	Participants will report more motivation at targets with electric fence than at targets with alarm installation.
9	Participants will report less motivation at targets with electric fence than at targets with dog presence.
10	Participants will report less motivation at targets with reinforced iron bars than at targets with alarm installation.
11	Participants will report less motivation at targets with reinforced iron bars than at targets with dog presence.
12	Participants will report less motivation at targets with alarm installation than at targets with dog presence.

Hypothesis-Testing

The following section will present results of hypotheses based on the theoretical model (see Figure 4.1) and the review of literature. The following null and research hypotheses are tested at the $p < .05$ level. A t-test will be performed for each hypothesis.

Test of Proposition One

P1: The likelihood of a residential armed robber committing armed robbery is created by lack of guardianship, motivation and criminal points of exit at target.

Hypothesis 1

Null Hypothesis 1. There is no difference between the motivation mean at targets without outside lights and at targets with the proximity to an escape route.

Research Hypothesis (H₁). Participants will report more motivation at targets without outside lights than at targets with the proximity to an escape route.

Discussion of Result of Hypothesis 1

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets without outside lights and targets with the proximity to an escape route. There was a significant difference between the motivation at targets without outside lights ($M=3.65$; $SD=1.220$) and at targets with the proximity to an escape route ($M=4.16$, $SD=.898$); $t(-2.298) = .025$, ($p < .05$). This does not support our null hypothesis, that there is no significant difference in motivation at targets without outside lights than at targets with the proximity to an escape route. With the p-value at .025, null hypothesis is therefore, rejected

The result from this hypothesis testing shows that the mere absence of outside light at the target proved to be a motivating factor for attack than at targets with proximity to an escape route. This is an attestation to the Routine Activities theory that targets become more vulnerable for violation when they are not properly guarded; hence making it suitable for violation.

Hypothesis 2

Null Hypothesis 2. There is no difference between the motivation mean at targets without outside lights and at targets located in wealthy neighborhoods.

Research Hypothesis H₂: Participants will report more motivation at targets without outside lights than targets located in wealthy neighborhoods.

Discussion of Result of Hypothesis 2

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets without outside lights and targets located in wealthy neighborhoods. There was a significant difference between the motivation at targets without outside lights ($M=3.65$, $SD=1.220$) and at targets located in wealthy neighborhoods ($M=2.55$, $SD=1.951$) $t(3.585) = .001$, ($p < .05$). This does not support our null hypothesis, that there is no significant difference in motivation between targets without outside lights than at targets located in wealthy neighborhoods. With the p-value at .001, null hypothesis is therefore, rejected.

The result from this hypothesis testing shows that the mere absence of outside light at the target proved to be more motivating for attack than at targets located in wealthy neighborhoods. This is an attestation to the Routine Activities theory that targets

become more vulnerable for violation when they are not properly guarded; hence making it suitable for violation.

Hypothesis 3

Null Hypothesis 3. There is no difference between the motivation mean at targets with the proximity to an escape route and targets located in wealthy neighborhoods.

Research Hypothesis H₃: Participants will report more motivation at targets with the proximity to an escape route than targets located in wealthy neighborhoods.

Discussion of Result of Hypothesis 3

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with the proximity to an escape route than at targets located in wealthy neighborhoods. There was a significant difference between the motivation at targets with the proximity to an escape route ($M=4.16$, $SD=.898$) and at targets located in wealthy neighborhoods. ($M=2.55$, $SD=1.951$) $t(6.232) = .000$, ($p < .05$). This does not support our null hypothesis, that there is no significant difference in motivation between targets with the proximity to an escape route than at targets located in wealthy neighborhoods. With the p-value at .000, null hypothesis is therefore, rejected

The result from this hypothesis testing indicates that targets located in wealthy neighborhoods have a lower motivation urge in comparison to targets in close proximity to escape route. This is an attestation to the Routine Activities theory that targets become more vulnerable for violation when they are in close proximity to escape route; making the target more appealing for attack.

Test of Proposition Two

P₂: Residential buildings with vast number of human guardians will be least motivating in terms of target appeal.

Hypothesis 4

Null Hypothesis 4. There is no difference between the motivation mean at targets with community watchdogs and at targets with the presence of police officer(s).

Research Hypothesis H₄: Participants will report more motivation at targets with community watchdogs than at targets with the presence of police officer(s).

Discussion of Result of Hypothesis 4

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with community watchdogs and targets with the presence of police officer(s). There was a significant difference between the motivation at targets with community watchdogs ($M=2.47$, $SD=1.831$) and at targets with the presence of police officer(s) ($M=3.16$, $SD=1.831$) $t(-.885) = .380$, ($p < .05$). There is a significant difference between the motivation means at targets with community watchdogs and at targets with the presence of police officer(s). In this case, with the p-value at .380, we fail to reject the null hypothesis.

The result from this hypothesis testing indicates that targets located in community watchdogs' vicinity pose a lesser motivating factor as opposed to targets where police officers are present. This is an attestation to the Routine Activities theory that targets become less vulnerable for violation when human guardians are present.

Hypothesis 5

Null Hypothesis 5. There is no difference between the motivation mean at targets with community watchdogs and at targets with the presence of adult men.

Research Hypothesis H₅: Participants will report less motivation at targets with community watchdogs than at targets with the presence of adult men.

Discussion of Result of Hypothesis 5

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with community watchdogs and at targets with the presence of adult men. There was a significant difference between the motivation at targets with community watchdogs ($M=2.47$, $SD=1.831$) and at targets with the presence of adult men. ($M=2.08$, $SD=1.69$) $t(3.465) = .001$, ($p < .05$). With the p-value at .001, the null hypothesis was rejected.

The results from this hypothesis testing indicates that targets with community watchdogs posed a lesser motivating power than targets with the presence of adult men. This is an attestation to the Routine Activities theory that targets become less vulnerable for violation when human guardians are present.

Hypothesis 6

Null Hypothesis 6. There is no difference between the motivation mean at targets with the presence of police officer(s) and at targets with the presence of adult men.

Research Hypothesis H₆: Participants will report less motivation at targets with the presence of police officer(s) than at targets with the presence of adult men.

Discussion of Result of Hypothesis 6

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with the presence of police officer(s) and at targets with the presence of adult men. There was a significant difference between the motivation at targets with the presence of police officer(s) ($M=3.16$, $SD=1.87$) and at targets with the presence of adult men. ($M=2.08$, $SD=1.69$) $t(4.725) = .000$, ($p < .05$). With the p-value at .000, the null hypothesis was rejected.

The results from this hypothesis testing indicates that targets with the presence of adult men pose a lesser motivating factor than at targets with the presence of police officer(s). This is an attestation to the Routine Activities theory that targets become less vulnerable for violation when human guardians are present.

Test of Proposition Three

P₃: Residential buildings with non-human, mechanical or physical barriers will be the next least motivating in terms of target appeal.

Hypothesis 7

Null Hypothesis 7. There is no difference between the motivation mean at targets with electric fence and at targets with reinforced iron bars.

Research Hypothesis H₇: Participants will report less motivation at targets with electric fence than at targets with reinforced iron bars.

Discussion of Result of Hypothesis 7

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with electric fence and at targets with reinforced iron bars. There was a significant difference between the motivation at targets with electric fence ($M=2.63$, $SD=2.049$) and at targets with reinforced iron bars ($M=2.71$, $SD=1.89$) $t(603) = .549$, ($p < .05$). In this case, with a p-value at .549, we fail to reject the null hypothesis.

The result from this hypothesis testing indicates that targets with electric fence posed a lesser motivating power than at targets with reinforced iron bars. This is an attestation to the Routine Activities theory that targets become less vulnerable for violation when human guardians are present.

Hypothesis 8

Null Hypothesis 8. There is no difference between the motivation mean at targets with electric fence and at targets with alarm installation.

Research Hypothesis H₈: Participants will report more motivation at targets with electric fence than at targets with alarm installation.

Discussion of Result of Hypothesis 8

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with electric fence and at targets with alarm installation. There was a significant difference between the motivation at targets with

electric fence ($M=2.63$, $SD=12.049$) and at targets with alarm installation ($M=2.96$, $SD=1.865$) $t(-1.184) = .855$, ($p < .05$). In this case, with a p-value at .855, we fail to reject the null hypothesis.

The result from this hypothesis testing indicates that motivation at targets with electric fence posed a lesser motivation than the motivation at targets with alarm installation. This is an attestation to the Routine Activities theory that targets become less vulnerable for violation when guardianship is not strong enough to withstand violation.

Hypothesis 9

Null Hypothesis 9. There is no difference between the motivation mean at targets with electric fence and at targets with dog presence.

Research Hypothesis H₉: Participants will report less motivation at targets with electric fence than at targets with dog presence.

Discussion of Result of Hypothesis 9

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with electric fence and at targets with dog presence. There was a significant difference between the motivation at targets with electric fence ($M=2.63$, $SD=2.049$) and at targets with dog presence ($M=2.08$, $SD=1.82$) $t(1.771) = .082$, ($p < .05$). In this case, with a p-value at .082, we fail to reject the null hypothesis

The result from this hypothesis testing indicates that targets with dog presence posed a lesser motivating power than at targets with electric fence. This is an attestation

to the Routine Activities theory that targets become less vulnerable for violation when human guardians are present.

Hypothesis 10

Null Hypothesis 10. There is no difference between the motivation mean at targets with reinforced iron bars and at targets with alarm installation.

Research Hypothesis H₁₀: Participants will report less motivation at targets with reinforced iron bars than at targets with alarm installation.

Discussion of Result of Hypothesis 10

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with reinforced iron bars and at targets with alarm installation. There was a significant difference between the motivation at targets with reinforced iron bars ($M=2.71$, $SD=1.89$) and at targets with alarm installation ($M=2.96$, $SD=1.865$) $t(-1.272) = .209$, ($p < .05$). In this case, with a p-value at .209, we fail to reject the null hypothesis.

The result from this hypothesis testing indicates that there is a lesser motivation at targets with reinforced iron bars than at targets with alarm installation. This is an attestation to the Routine Activities theory that targets become more vulnerable for violation when human guardians are not present.

Hypothesis 11

Null Hypothesis 11. There is no difference between the motivation mean at targets with reinforced iron bars and at targets with dog presence.

Research Hypothesis H₁₁: Participants will report less motivation at targets with reinforced iron bars than at targets with dog presence.

Discussion of Result of Hypothesis 11

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between motivation mean at targets with reinforced iron bars and at targets with dog presence. There was a significant difference between the motivation at targets with reinforced iron bars (M=2.71, SD=1.89) and at targets with dog presence (M=2.08, SD=1.820) $t(1.977) = .053$, ($p < .05$). In this case, with a p-value at .053, we fail to reject the null hypothesis.

The result from this hypothesis testing indicates that targets with dog presence has a lesser motivation factor than at targets with reinforced iron. This is an attestation to the Routine Activities theory that targets become more vulnerable for violation when human guardians are not present.

Hypothesis 12

Null Hypothesis 12. There is no difference between the motivation mean at targets with alarm installation and at targets with dog presence.

Research Hypothesis H₁₂: Participants will report less motivation at targets with alarm installation than at targets with dog presence.

Discussion of Result of Hypothesis 12

A one-tailed T-test was conducted to determine the degree to which the motivation variables differed between targets with alarm installation and at targets with

dog presence. In terms of target appeal, there was a significant difference between the motivation at targets with alarm installation ($M=2.96$, $SD=1.865$) and at targets with dog presence ($M=2.08$, $SD=1.82$) $t(2.288) = .026$, ($p < .05$). In this case, with a p-value at .026, the null hypothesis was rejected.

The result from this hypothesis testing indicates that targets with alarm installation has a lesser motivation power than at targets with dog. This is an attestation to the Routine Activities theory that targets become more vulnerable in the absence of a human guardian.

Summary

This chapter provided descriptive statistics of dependent and independent variables, data analysis and hypotheses results were obtained by a t-test statistical procedure and how the hypotheses are related to Routine Activities theory. In the final chapter, the implications of these finding will be discussed in view of their theoretical significance.

Chapter 6: Discussion

Introduction

The purpose of this study was to apply Routine Activities theory to the study residential armed robbery in Ghana. By so doing, the researcher conducted an intensive review of literature on armed robbery in general. The background and major elements of Routine Activities theory were thoroughly discussed. The theoretical exploration and explanation on residential armed robbery was discussed. The researcher developed a set of survey questionnaire and administered them to inmate prisoners in Ghana. Twelve hypotheses were generated from the three propositions and tested. This concluding chapter discusses findings and implications of the foregoing steps. It will start by reviewing the research question and research objective. After that, the theoretical significance will be discussed in light of the tested hypotheses. Lastly, this final part will discuss the limitation and recommendations for further research.

Research Questions

The main purpose of this study was to answer the following question: What are the factors that motivate individuals to commit residential armed robbery? (see survey questionnaire 10 – 17. page 87) and what are the common guardianship factors that ward off residential armed robbers from attacking their targets? (see survey questionnaire 1 – 9. page 86). The questions were developed from the routine activity paradigm. Motivating factors and guardianship strategies were treated as independent variable and target appeal was treated as the dependent variable.

Summary of Findings

Table 6.1 provides a summary of the findings of the testing. Of the twelve hypotheses generated, six supported the research hypotheses and six failed accept the null

hypotheses. This indicate that the variables from the various hypotheses results differed tremendously within each hypothesis. It also showed how different guardianship can deter or motivate residential armed robbery to occur.

Table 6.1: Summary Table of the Relationship Between the variables used in the Study.

Hypothesis	Relationship	Research Hypothesis Accepted or Rejected
1	Participants will report more motivation at targets without outside lights than at targets with the proximity to an escape route.	Accept
2	Participants will report more motivation at targets without outside lights than at targets located in wealthy neighborhoods	Accept
3	Participants will report more motivation at targets with the proximity to an escape route than targets located in wealthy neighborhoods.	Accept
4	Participants will report more motivation at targets with community watchdogs than at targets with the presence of police officer(s)	Reject
5	Participants will report less motivation at targets with community watchdogs than at targets with the presence of adult men.	Accept
6	Participants will report less motivation at targets with the presence of police officer(s) than at targets with the presence of adult men.	Accept
7	Participants will report less motivation at targets with electric fence than at targets with reinforced iron bars.	Reject
8	Participants will report more motivation at targets with electric fence than at targets with alarm installation.	Reject
9	Participants will report less motivation at targets with electric fence than at targets with dog presence.	Reject
10	Participants will report less motivation at targets with reinforced iron bars than at targets with alarm installation.	Reject
11	Participants will report less motivation at targets with reinforced iron bars than at targets with dog presence.	Reject
12	Participants will report less motivation at targets with alarm installation than at targets with dog presence.	Accept

Theoretical Significance

By using routine activity theory, study has advanced the research on residential armed robbery by filling the gap in extant literature. An exhaustive review of literature showed limited studies relating to residential armed robbery and the application of routine activity theory in the Ghanaian context. The next section of this concluding chapter deal with the hypotheses that supported the theoretical explanation and hypotheses that did not support the theoretical explanation.

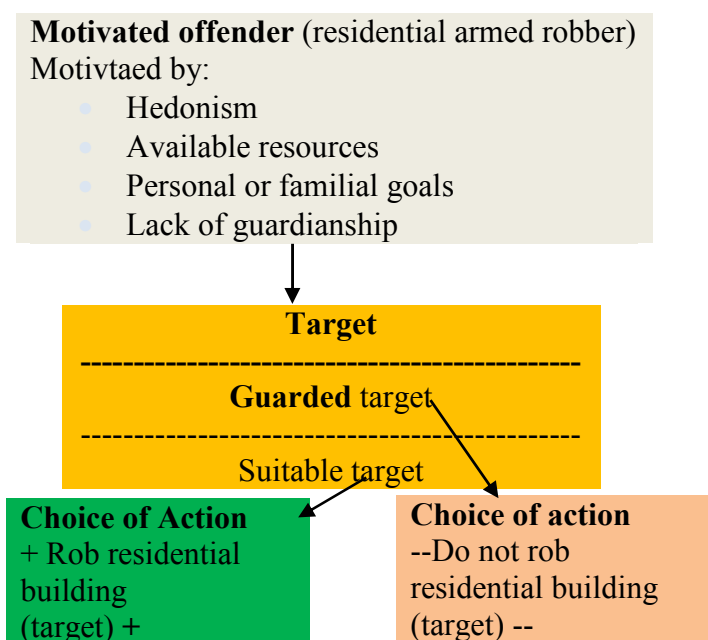
Support of Theoretical Explanations

Of the twelve hypotheses tested in this study, the following six hypotheses supported Routine Activities theory: H₁ for example, indicated that targets without outside lights were more vulnerable in comparison with targets with the proximity to an escape route. This supports the theory of Routine Activities because offenders find more motivation at targets without outside light than the comparable target with the proximity to an escape route. H₂ indicates more motivation at targets without outside light than at targets located in wealthy neighborhoods. This supports the Routine Activities theory because, the level of motivation at targets without outside light surpasses the level of motivation at target located in wealthy neighborhood. H₃ shows more motivation at targets with the proximity to an escape route than at targets located in wealthy neighborhoods. This does support the theory in the sense that offenders may find motivation to commit residential armed robbery given target's proximity to an escape route. H₅ reveals no motivation at targets with community watchdogs than at targets with adult men presence. This does support the theory because, offenders may find more motivation at target with fewer human guardianship than a whole community watch dog

unit. H_6 reveals no motivation at targets with the presence of police officer than at targets with the presence of adult men. This does support the theory because, offenders may less motivation at targets with police presence than at targets with adult men. H_{12} shows that targets with alarm installation were less attractive than targets with dog presence. This supports the Routine Activities theory because, the level of motivation at targets with alarm installation was less than at target with dog presence.

Empirical Model of Relationships that are “Supported” by Hypotheses Testing.

Empirical Model Figure 6.2



- Motivated offender (residential armed robber)—motivated by hedonism, personal or familial goals, available resources and lack of guardianship.
- *Guardianship (target hardening measures)—electric fence, dog, police, community watch dog, adult men, gun-wielding-occupant/resident, alarm gadget, iron bar/rebars.
- **Weak/suitable or lack of guardianship—Isolated place, wealthy neighborhood, proximity to escape route, no outside light.
- Robbery + ■ No Robbery –

Lack of Support for the Theoretical Explanations

Throughout the hypotheses testing process, six out of the twelve hypotheses showed significantly less motivation. The variables had limited motivation with respect to residential targets. Variables in Hypotheses (H₇; H₈; H₉; H₁₀; and H₁₁) showed strong guardianship factors (such as human guardians and visible physical barriers), hence, they did not reveal motivation to violate residential targets.

Explanation of Supported and Unsupported Hypotheses

The hypotheses test revealed that human guardians have more guardianship power than other forms guardianship. Human guardians can alert other neighbors for help if a residential occupant feels threatened by armed robbery. Secondly, the sight of human can serve as a deterrent. This is consistent with Routine Activities theory, that the presence of capable guardianship can ameliorate target violation.

Limitations of the Study

The study had several limitations. One of the limitations is lack of external validity due to the size of the overall sample (N=56). A limitation is attributed to the way data was collected. The researcher used a structured questionnaire survey in gathering the data for this study. Given the structure of the questions, inmates did not have the liberty to add on to the answers they gave on the survey.

Another limitation of this study is the number of items presented on the questionnaire. The study should have contained more questions compared to the 17 items named on the questionnaire. Having more detailed items on the questionnaire would broaden the level of analysis and further paint a brighter picture of the situation.

Future Research

While this study fulfilled its main goal by relating Routine Activities theory to the study of residential armed robbery, this study can be built upon in the following ways.

Firstly, a detailed understanding about the background of the residential armed robbers is needed. For example, the familial background, places lived, associations, and religious background may be investigated to inquire about the source that led them taking on the occupation residential armed robbery.

The use of qualitative methodology may also provide a richer data as opposed to the strict closed-ended questionnaire survey adopted in this study. In qualitative method, the researcher has the luxury to ask follow up questions when the previous answer was not clear enough. It is also important to investigate the number of residential armed robbery there are in the Ghanaian prisons.

Although this study tackles the actions of resident curbing residential armed robbery, future research can extend that focus to the policies that the Ghanaian government has put in place to curb residential armed robbery.

Conclusion

This study has revealed that Routine Activities theory has utility in explaining residential armed robbery in Ghana. The theoretical model that was constructed can serve as a guide to others who plan to advance the study of residential armed robbery in relations to Routine Activities theory. The findings imply that residential armed robbery can be ameliorated by hardening targets against armed robbers. The findings also painted a clearer picture of residential armed robbery in Ghana that the quester hopes would lead to a better understanding of residential armed robbery there.

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Radio stations

www.peacefmonline.com
www.myjoyfmonline.com
www.ghanawaves.com
www.highliferadio.com

Appendix A

Survey questionnaire

Part A

Guardianship and Target Questions

- 1) How much were you deterred to commit residential armed robbery due to the presence of **electric fence** at a target?

No Low Some Good Extr-high

Guardianship_Guardianship_GuardianshipGuardianshipGuardianship_Guardianship

0 1 2 3 4 5

Answer:

- 2) How much were you deterred to commit residential armed robbery due to the presence of **dog at a target?**

No Low Some Good Extr-high

Guardianship_Guardianship_Guardianship__Guardianship_Guardianship_Guardianship

0 1 2 3 4 5

Answer:

- 3) How much were you deterred to commit residential armed robbery due to **Police** presence?

No Low Some Good Extr-high

Guardianship_Guardianship_Guardianship_Guardianship_Guardianship_Guardianship

0 1 2 3 4 5

Answer:

- 4) How much were you deterred to commit residential armed robbery due to the presence of **community watch dog?**

No Low Some Good Extr-high

Guardianship_Guardianship_Guardianship__Guardianship_Guardianship_Guardianship

0 1 2 3 4 5

Answer:

- 5) How much were you deterred to commit residential armed robbery due to the presence of **adult men** at a target?

No Low Some Good Extr-high

Guardianship_Guardianship_Guardianship__Guardianship_Guardianship_Guardianship

0 1 2 3 4 5

Answer:

- 6) How much were you deterred to commit residential armed robbery due to the presence of gun ownership by guardian at a target?

No Low Some Good Extr-high

Guardianship_Guardianship_Guardianship__Guardianship_Guardianship_Guardianship

0 1 2 3 4 5

Answer:

- 7) How much were you deterred to commit residential armed robbery due to presence of alarm installation?

No Low Some Good Extr-high

Guardianship_Guardianship_Guardianship__Guardianship_Guardianship_Guardianship

0 1 2 3 4 5

Answer:

- 8) How much were you deterred to commit residential armed robbery due the presence of reinforced iron bars at a residence?

No Low Some Good Extr-high

Guardianship_Guardianship_Guardianship__Guardianship_Guardianship_Guardianship

0 1 2 3 4 5

Answer:

- 9) Prior to your current imprisonment, how much did long prison sentence deter you from committing residential armed robbery?

No Low Some Good Extr-high

Guardianship_Guardianship_Guardianship__Guardianship_Guardianship_Guardianship

0 1 2 3 4 5

Answer:

- 10) What motivated you to commit residential armed robbery?

I lack sources of income

Just for the thrill

Friends

I was on drugs

Other-----

Answer: you can check a box

- 11) What was your main **goal** that led you in committing residential armed robbery?
(CHECK ONE)

For excitement

Friends got me involved

For money

Lost of temper

Get money for drugs

To support self and family

Saw crime as a normal way of life

To help my family

Other -----

Answer: you can check a box

12) During the six months before you were incarcerated, how much motivation did you gain from robbing target with **fewer** than 5 people?

No	Low	Some	Good		Extr-high
<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	
<u>Motivation</u>					
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Answer:

13) During the six months before you were incarcerated, how much motivation did you gain from robbing target with more than 5 people?

No	Low	Some	Good		Extr-high
<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	
<u>Motivation</u>					
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Answer:

14) How much were you motivated to commit residential armed robbery due to targets in isolation?

No	Low	Some	Good		Extr-high
<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	
<u>Motivation</u>					
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Answer:

15) Prior to your present incarceration, how much were you motivated to commit residential armed robbery due to targets in **wealthy** neighborhoods?

No	Low	Some	Good		Extr-high
<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	
<u>Motivation</u>					
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Answer:

16) How much were you motivated to commit residential armed robbery due the proximity of escape route at a target?

No	Low	Some	Good		Extr-high
<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	
<u>Motivation</u>					
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Answer:

17) How much were you motivated to commit residential armed robbery due the absence of outside light at a target?

No	Low	Some	Good		Extr-high
<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	<u>Motivation</u>	
<u>Motivation</u>					
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Answer:

Appendix B

Code Sheet**Motivation**

No motivation: WI

Low motivation: NV

Some motivation: CO

Good motivation: NM

Motivation: FL

Extremely high motivation: GA

Guardianship

No guardianship: NY

Low guardianship: LA

Some guardianship: MN

Good guardianship: SD

Guardianship: ND

Extremely high guardianship: VA

Appendix C

Human Subjects Committee
 HUMAN SUBJECTS APPROVAL REQUEST
South Dakota State University

Exempt Expedited Review Committee Review

1. Principal investigator :NEEH LHAYEA Phone No. 320-223-****

E-mail address of principal investigator Neeh.Lahyea@jacks.sdstate.edu

Faculty Graduate Student Undergraduate Student Not
SDSU Researcher

If student, faculty advisor Dr. JACOB JANTZER

College/School SOUTH DAKOTA STATE UNIVERSITY Department:
SOCIOLOGY

(Please use an additional sheet to list names and contact information for others involved with the project).

2. Project title APPLICATION OF ROUTINE ACTIVITY THEORY TO THE STUDY OF ARMED ROBBERY IN GHANA

3. Sponsoring agency NONE

4. Project Period (contact with participants): From 05/18/2013 To 07/10/2013

5. Location of study GHANA

6. Number of human participants to be selected 60 INMATES

7. Types of participants to be selected:

Normal Adults Pregnant Women Prisoners

Minors Fetuses Mentally Disabled or
Delayed

8. Exemption from Committee Review Requested? _____ Yes No

If "yes", indicate basis for exemption:

Common Educational Setting Educational Tests Study of
Existing Data

Survey/Interview Research Observational Research

(The above do not automatically make a project exempt; it may require expedited or full committee review.)

9. Will any drugs, chemical or biological agents be administered to human subjects?

Yes No *If Yes, include documentation regarding safety from a source other than the manufacturer in METHODS.*

10. Will specimens or samples of tissues, body fluids, or other substances be collected from participants?

Yes No *If Yes, include details of collection, storage, labeling, use, and disposal in METHODS.*

11. Has each investigator involved in the study completed the CITI on-line training and filed a copy of the certificate with quarter

Carolyn Curley in the Office of Research and Sponsored Programs? Yes _____
No

12. **Research Protocol:** Complete a description of the proposed study following instructions.

13. **Informed Consent:** Attach copies of all forms which will be used to obtain the legally effective informed consent of human subjects or their legal representatives, or justification why informed consent should be altered or waived.

14. **Additional Materials:** Attach a copy of all surveys, recruitment materials, and any other relevant documents.

Authorized Signatures:

Principal Investigator NEEH LHAYEA

Date 05/14/2013

I do do not wish to appear before the committee

Advisor (if student project) DR. JACOB JANTZER Date 05/14/2013

Department Head or Dean DR MARY EMORY

Date 05/14/2013

Research Protocol

A. Objectives:

According to various print media reports in Ghana, the Ghanaian society is highly plagued with one specific crime: armed robbery. Solution to this menace has not been meted with rehabilitation, but rather based on the theory of incapacitation effect as crime control mechanism. The theory posits that inmates will age out of crime once given long years of sentence to serve as indicated by Stahlkopf, Males and Macallair (2010). But not only does such method create over-crowdedness in the various penitentiaries, it increases the state-run prison budget as well. Further, the measure is devoid of mending the issue at stake because it lacks the opportunities to assuage would be offenders from committing crime.

Although there is no scholarly work pertaining to the study of armed robbery in Ghana, various print media help in documenting and disseminating armed robbery occurrences in parts of the country. They report on the length of time these robbers are imprisoned when arrested and convicted. Depending on the severity of the crime, prison sentences range from 5 years to 100 years. It was noted that other sentences span 200 years. A compilation of *The Ghana News Agency* reports, for example, has the following headlines on armed robbery sentencing:

Two sentenced 200 years for armed robbery. Five persons including a woman in armed robbery case. Court remands teacher and unemployed for armed robbery. Laborer jailed 50 years for robbery. Two Togolese jailed 100 years for robbery. Court sentences robber to 30 years imprisonment. Armed robbers terrorise Swedru residents. Robbery gang captured. Three sentenced 53 years armed robbers were sentenced to a total 53 years imprisonment by the Accra fast track high court for robbery (2012).

It is important to state that since such stories are not empirically verified, caution is taken as to how true these prison sentences are. Such is the reason why this study is necessary.

Although sanctions pertaining to their crimes are published as noted above, the causes of the acts of armed robbery from the view point of the offender are not well investigated and documented. The media houses underscore the frequency of armed robberies and describe how robbery activities impact neighborhoods with fear. Such fear does not only affect the locals, but Ghanaians abroad who visit the country annually. For example, the 10th May edition of *The Ghanaian Chronicles* reported the following story:

Travelers into the country are cautioned on the taxi cabs they board from the airport to their homes. It was reported that some taxi drivers are armed robbers who give information to other gangs about the location of passengers they pick at the airport. This made it easy for armed robbers to attack at night (2010).

Additionally, various print media have reported on how stakeholders are coping with the current phenomenon. Some of such measures are having dogs as guardians of house; those who can afford are constructing electric fences to ward off criminals.

Problem Statement:

The proposal seeks to ask the following research question: What is the level of empirical support or validity for Routine Activities theory in the study of residential armed robbery in contemporary Ghana?

Rationale of the Study:

The primary goal of this study is to offer survey questionnaires to individual offenders in order to investigate how offenders perceive opportunities and cost of crime.

By so doing, the study will look at the causes of residential armed robberies and attempt to paint a clearer picture of armed robbery in Ghana that will lead to a better understanding of the problem and associated issues, which may in turn increase feelings of safety among residents, entrepreneurs and tourists. A tertiary goal is to provide a document that may assist government officials in addressing the problem of armed-robbery or robberies in general and its associated issues in the society.

B. Participants:

To be considered in this study, corrections officers' (COs) help may be needed to indicate which inmates are convicts of armed robbery. When that phase is completed, inmates will be selected and talked to about the study individually. It is important to talk to them individually as opposed to in-group meeting because it will eliminate the risk of an inmate making a comment that may affect others participation. There has to be rapport between the inmates and the researcher; which then translate to mutual respect and confidence building. This then, can help to create a larger pool of recruits and it can have an impact on the way the inmates respond to the items on the questionnaire.

As the title of this project and appendix A suggest, there are no questions related to their present condition in the various prisons. The objective of the project is design to inquire about their pre-incarceration activities vis-a-vis armed robbery and how those activities pertained to Routine Activities. Having stated this, it is important to indicate that this study will consider respecting the humanity of each and every inmate who will be engaged in this research by understanding their will to participate of avoid participation. Secondly, the study will make sure that inmates are not put at risk by submitting their feedback to prison guard or third party. Depending on the number of inmates' voluntary participation, the study will sample 50 or more residential armed robbery inmates from three Ghanaian penitentiaries.

C. Time Required for Individual Participants:

About 30 minutes

D. Compensation to Participants:

Inmates will be given a small monetary reward (\$5 or less) for participating in this study.

E. Benefits to Participants:

None

F. Methods:

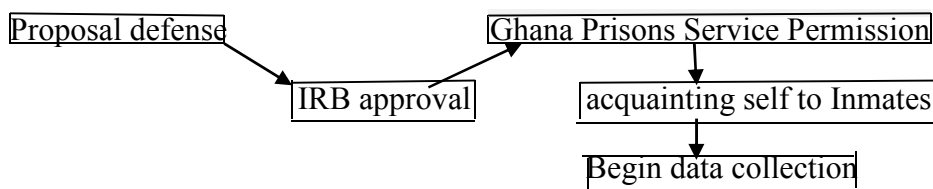
This study seeks to give structured questionnaire to residential armed robbery inmates in three Ghanaian Penitentiaries. Upon IRB approval, permission will be sought from the Ghana Prison Services (GPS) in order to start data collection in the various prison facilities.

I will request that Corrections Officer(s) should not be present while inmates are responding to the questionnaire. The inmates will have a certain level of privacy while responding to the questionnaire. If such condition is met, there is a high probability that inmates will be assured that their responses are kept confidential.

Knowing full well of the uniqueness of every prison, I anticipate a culture that is unique to the prisons that will be visited to conduct this study. Having made previous inquiry on the feasibility of conducting research about inmates in Ghanaian prisons, the following points were made clear. The inmates operated around scheduled routine; they have specific times to go to school on site. They have specific times that they engage in religious ceremonies; a time was also allocated for sports and to dine; when to sleep and when to wake up. Again, based on my earlier inquiry and visits to the prisons, COs and inmates relationship was very cordial, I did not sense any form of intimidation on the part of the inmates and according to accounts by COs, inmates get along fairly well with one

another.

Prison research flowchart



Please see Appendix A for survey Questionnaire.

G. Risks to Participants:

There are no known or no foreseeable risks

H. Risk Reduction:

Upon the request from Ghana Prisons Service that no prison officer will be present in the room while collecting data; inmates will be assured of risk reduction if not elimination of it. Further, I will work to establish a positive rapport with the inmate population to earn their trust and respect. The inmates will be assured that I am not affiliated with the prison system and that no individual information from the research study would be reported to the Ghana Prisons Service or a third party. This will make it impossible for others (other participants, guards or third parties) to link the responses to a particular participant.

I. Confidentiality:

It is crucial that inmates' information be kept private and not be used to penalize their participation. I am aware of the information given by inmates must not be

transferred to a third party or Ghana Prisons for any recrimination. This will be made clear upon the granting of permission by the GPS prior to the initial stages of the data collection. It is also important to evoke The Belmont Report which identified three basic ethical principles. These are: respect for person, beneficence and justice. It is important to respect the inmate population under study. They must not be coerced to participate in the study against their will. Secondly, inmates should not be put at risk because of the study they accept to participate in. Lastly, there should be justice and fairness while the study is underway. Please refer to section J for more information on how I intend to deal with inmates' responses/data.

J. Recruitment

I am considering doing my research in the following Ghanaian penitentiaries: NSAWAM, KUMASI AND WINNEBA. Upon permission to commence the study, I will acquaint myself with the above named facilities and I will administer the survey questionnaire to a group consisting of 10 to 20 convicted armed robbery offenders per prison facility. But before that is done, sample inmates will receive notice describing the survey several days before I alert them to the survey session at a scheduled time which will be arranged in concert with the prison authorities.

As I have stated earlier, per my request to the GPS, prison official will not be present while inmates are in the survey session. The researcher will depend on prison officials to direct and select convicted armed robbers to attend the survey session. Again, they will just direct and select inmates and they will not be present at or participate in the survey

session. Noting the vulnerable nature of the prisoners' situation, I will be the sole conductor of the survey.

For recruitment and confidential issues, the following protocol will be followed:

When inmates arrive at the session, I will describe the study and explain to them that their participation is totally voluntary, but that their participation would yield an incentive of \$3 (equivalent to 5 GH Cedis). At any point if they feel they do not want to proceed with the study, they are free to leave.

I will also read the informed consent form, and possibly interpret in other Ghanaian languages (I understand 4—Ga, Fanti, Asante, Akuapim--Ghanaian languages at level of native proficiency; therefore, I will not need assistance in communication in the languages stated. I will not have communication problems because the languages indicated are the most common to Ghanaians). I will also help inmates who have problem with grammar/spelling, and instructions for completing the survey. The questionnaire is only going to be written in English, because the researcher himself lacks the written ability to any of the four Ghanaian languages noted above.

For confidential purposes, the criminal justice data will be coded from hard copies of prison records for 60 inmate respondents as soon as the collection of data is completed.

These data will include: Age, educational level, criminal goal and planning for crime and prior arrests.

Cover Letter- usually used for surveys and when recruitment is done at a distance, such as through the mail.

Information Sheet- may be used when recruitment is done face-to-face, such as in a classroom. If a signed Consent Form is required, an Information Sheet (which is the Consent Form without a signature) can be given to the participant to take with them should there be any questions in the future.

Consent Form- must be used for all projects posing greater than minimal risk to participants.

Assent- If minors (under the age of 18 years in South Dakota) are included as participants, they cannot provide legal consent. Instead, investigators should obtain assent from these participants. The format must follow the general ideas of the consent form, and should be written in language appropriate to the age of the participant. Readability statistics are available on most word processing programs, and should be included in the submission.

Parental Permission Form- to be used when a participant is under 18 years of age and can be modified for use with other vulnerable populations.

Cover Letter with Implied Consent

Dear _____:

I NEEH LHAYEA, am conducting a research project entitled "APPLICATION OF ROUTINE ACTIVITY THEORY TO THE STUDY OF ARMED ROBBERY IN GHANA" as part of a dissertation, at South Dakota State University.

The purpose of the study is to check the level of empirical support/validity for Routine Activity Theory in the study of residential armed robbery in contemporary Ghana.

You are invited to participate in the study by completing the attached survey. We realize that your time is valuable and have attempted to keep the requested information as brief and concise as possible. It will take you approximately 30 minutes of your time. Your participation in this project is voluntary. You may withdraw from the study at any time without consequence.

There are no known risks to you for participating in this study.

There are no direct benefits attached to this study.

Your responses are strictly confidential. When the data and analysis are presented, you will not be linked to the data by your name, title or any other identifying item.

Please assist us in our research and return the completed survey in the enclosed envelope.

Your consent is implied by the return of the completed questionnaire. Please keep this letter for your information. If you have any questions, now or later, you may contact us at the number below. Thank you very much for your time and assistance. If you have any questions regarding your rights as a research participant in this study, you may contact the SDSU Research Compliance Coordinator at 605-688-6975, SDSU.IRB@sdstate.edu.

Sincerely,

Project Director

Address

E-mail Address

Phone No.

This project has been approved by the SDSU Institutional Review Board, Approval No.: _____

Information Sheet
 Participation in a Research Project
 South Dakota State University
 Brookings, SD 57007

Department of Sociology

Project Director _____

Phone No.

E-mail _____

Date _____

Please read (listen to) the following information:

1. This an invitation for you (*as a student, teacher, etc.*) to participate in a research project under the direction of the _____.
2. The project is entitled APPLICATION OF ROUTINE ACTIVITY THEORY TO THE STUDY OF ARMED ROBBERY IN GHANA
3. The purpose of the project is to look at the level of empirical support/validity for Routine Activity Theory in the study of residential armed robbery in contemporary Ghana.
4. If you consent to participate, you will be involved in the following process which will take about 30 minutes of your time: You will be given these questionnaires on these papers to fill out in you various classrooms.
5. Participation in this project is voluntary. You have the right to withdraw at any time without penalty. If you have any questions, you may contact the project director at the number listed above.
6. There are no known risks to your participation in the study.
7. There are no direct benefits attached to this study.
8. There is a (\$5 or less) monetary compensation for your participation in this study.

9. Your responses are strictly confidential. When the data and analysis are presented, you will not be linked to the data by your name, title or any other identifying item.
10. As a research participant, I have read the above and have had any questions answered. I will receive a copy of this information sheet to keep.

If you have any questions regarding this study you may contact the Project Director. If you have questions regarding your rights as a participant, you can contact the SDSU Research Compliance Coordinator at (605) 688-6975 or SDSU.IRB@sdstate.edu.

This project has been approved by the SDSU Institutional Review Board, Approval No.:

Human Subjects Committee - Checklist

South Dakota State University

COMPLETE by checking all appropriate items and INCLUDE THIS SHEET IN ALL SUBMISSIONS

Project Director:

Project Title: APPLICATION OF ROUTINE ACTIVITY THEORY TO THE STUDY OF ARMED ROBBERY IN GHANA

TITLE

1. ___ Does the title of the study appear and match the title used throughout the proposal?

INVITATION TO PARTICIPATE

2. ___ Does the consent form begin with a clear invitation to participate?

3. ___ Is there a description of who participants will be; how they were selected?

PURPOSE

4. ___ Is there a clear statement of the purpose of the research?

5. ___ Does it state who is conducting the research?

6. ___ Does the consent form state that participation is voluntary?

7. ___ Is it stated that the participant may withdraw without penalty?

PROCEDURES

8. ___ Is the explanation of procedures adequate?

9. ___ Are copies of the instruments attached?

10. ___ Has permission to use instruments been obtained, if was developed by someone else?

11. ___ Does it state amount of time the participant will be involved?

BENEFITS

12. ___ Is the statement of potential benefits complete?

COMPENSATION

13. ___ Is the availability of compensation stated?
14. ___ Is there any cost to the participants?
15. ___ Is there compensation in case of injury?
16. ___ Is there alternative treatment available?
17. ___ Is there a statement on emergency medical treatment (for more than minimal risk studies)?

RISKS

18. ___ Is the description of the potential risks and discomforts complete?
19. ___ Are methods of risk reduction in place? (i.e., referral in case of upset due to questions asked)
20. ___ Does it state that the investigator may remove a participant from the study if it is in their best interest?

CONFIDENTIALITY

21. ___ Is the assurance of confidentiality, when applicable clear and complete?
22. ___ Is the FDA access (or other access) to research records statement included, if applicable?
23. ___ Has the participant had an opportunity to ask questions and they have been provided with contact information should they questions in the future?
24. ___ Does it state that participants will receive a copy of the consent form?

SIGNATURES

25. ___ Are there dated subject and investigator blanks?

GENERAL QUESTIONS

26. ___ Is the investigator's name and phone number on the form (i.e., signature block)
27. ___ Is the consent form written in "lay language"?
28. ___ Is the consent form free of any exculpatory language? (That is, no PI can claim that they are not responsible for anything that happens to a participant do to their participation in their study).
29. ___ If children are included as subjects, is provision made for securing the assent of the

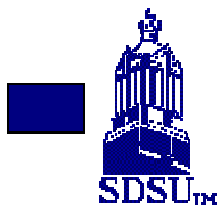
child and the consent of the parent/guardian?

30. ___ Has permission been obtained from schools, agencies involved?

31. ___ What is the overall risk classification? Minimal? Greater than minimal?

PROTOCOL QUESTIONS

32. ___ Do you have any major questions pertaining to the protocol (indicate on back with page # and section referenced)?



South Dakota State University

Human Subjects Committee/Office of Research
 SAD Room 124
 Box 2201 SDSU
 Brookings, SD 57007

To: Neeh Lhayea, Department of Sociology and Rural Studies
 Date: June 19, 2013
 Project Title: Application of Routine Activity Theory to the Study of Armed Robbery in Ghana
 Approval #: IRB-1306007-EXP

The committee approved your project using expedited procedures as described in 45 CFR 46.110. The activity was deemed to be no greater than minimal risk, and the following expedited categories from 63 FR 60364-60367 were found to be applicable to your activity:

(7) Research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

The following condition is added to your approval. The investigator will report in writing to Dr. Jantzer and Norm Braaten after he has contacted prison officials. Please provide the following:

- 1) That the facility leadership has to allowed you to conduct the study,**
- 2) That they agree to your methods, and**
- 3) They are OK with the amount of compensation given to the inmates.**

One-year approval of your project will be dated starting 6/19/13. If you require additional time to complete your project, please submit a request for extension before 6/18/14. Protocol changes must be approved by the Committee prior to implementation. Forms may be found on the Human Subjects web page. If there are any unanticipated problems involving risks to subjects or others, please contact the SDSU Research Compliance Coordinator. At the end of the project please inform the committee that your project is complete.

If I can be of further assistance, don't hesitate to let me know.

Thank you.

Norm

Norman O. Braaten
 Research Compliance Coordinator