

ABSTRACT

Title of Thesis: EXTENDING SOCIAL BOND THEORY TO
OCCUPATIONAL CRIMES: ASSESSING
THE ROLE OF OPPORTUNITY

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This paper intends to bring attention to white-collar crime by examining the applicability of Hirschi's social bond theory to explain white-collar offending. This paper also attempts to integrate an opportunity-based approach to see if the relationship between social bonds and white-collar crimes is mediated by opportunity. Hirschi's implied assumption that criminal opportunities are ubiquitous will be tested. Proposing to use primary data collection, this study will have a sample of MBA and EMBA students from the University of Maryland. Vignette study will be utilized where research participants will respond to short descriptions of hypothetical situations and thereby revealing their perceptions and values. Along with the implications of these findings for theory, limitations and directions for future research are presented.

EXTENDING SOCIAL BOND THEORY TO OCCUPATIONAL CRIMES:
ASSESSING THE ROLE OF OPPORTUNITY

by

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Chapter 1: Introduction

Since Sutherland first introduced the concept of white-collar crime, scholars have been interested in understanding why advantaged individuals engage in illegal behavior in the workplace (Pusch and Holtfreter 2020; Rorie 2020). Typically, white-collar crimes range from money laundering to environmental violations and are committed by people of high status and high respect with economic motivations (Gottschalk 2019). In recent decades, high-profile scandals with Enron and Worldcom as exemplars in white-collar crime have stimulated interests among researchers and the public. It is established that white-collar crime is far more costly to society than street crimes. According to Cohen (2013), the total monetary costs of white-collar crimes, estimated to be more than \$1.6 trillion, far exceed the total cost of street crime victimization estimated to be \$15 million. Beyond the financial realm, the unwritten cost of white-collar crime such as broken trust of institutions and the psychological trauma of the victims are also taken into account by researchers (Dearden 2015). Thus, people have begun to view white-collar crimes at the same serious level as street crimes, which results in a more critical view of the phenomenon (Cullen, Hartman and Jonson 2008; Holtfreter et al., 2008).

Due to the increase in perceived seriousness of white-collar crime, researchers have made increasing efforts to recognize and identify characteristics of white-collar offending. The efforts made not only offer insight on the complex causes of crimes, but also provide policymakers with potentially useful information to deter individuals from committing white-collar crimes. Recent research has focused on examining the relationship between individual characteristics, such as demographic factors, personality traits, and white-collar offending (Pusch and Holtfreter 2020). One notable trend in this research is the finding that white males are overrepresented in white-collar offending (Piquero et al., 2010; Sohoni and Rorie 2019; Logan et al. 2017). Researchers

have hypothesized that this occurs because white males are more likely to have access to advanced education to obtain white-collar jobs and have the opportunity to commit high-status white-collar crime. In terms of personality traits, traits that may allow individuals to achieve high-ranked occupational positions such as the desire for control, narcissism, and egocentricity have been linked to white-collar offending (Blickle et al., 2006; Piquero et al., 2005).

Numerous studies have also considered whether theories that were originally developed to account for street crimes can be applied to offending in business settings. There have been attempts to extend general strain theory to white-collar crime and researchers have found out that the categories of strain for white-collar offenders differ from those found in other criminal populations (Langton and Piquero 2007). Self-control theory and situational action theory are applied to white-collar offending as well. Schoepfer, Piquero, and Langton (2013) identified low self-control as a predictor of corporate crime and this idea has been specifically linked to opportunity. Once the opportunity for crime exists, regardless of how that opportunity arises, those with low self-control will be more likely to offend. Life-course theory has also been tested repeatedly by researchers in the corporate setting (Piquero and Benson 2004; Jordanoska 2018; Piquero, Piquero and Farrington 2010). It has been established that most white-collar offenders have different trajectories from the conventional trajectories of street criminals because the onset of white-collar offending starts relatively late in life (Benson and Kerley 2001).

However, despite various efforts to account for white-collar crimes using contemporary criminology theories, Hirschi's (1969) social bond theory has been largely neglected by researchers in the white-collar offending field. Social bond, which can be described as the success of social and professional institutions to prevent or deter individuals from engaging in illegal conduct, has the power to influence the behaviors of individuals. People act in a "law-

abiding manner because to do otherwise would violate personal values and collective sensibilities” (Simpson 2002: 106). In Hirschi’s social bond theory, ‘personal values and collective sensibilities’ are exemplified through four informal social control elements: attachment, commitment, involvement, and belief. The four elements in social bond theory are so fundamental that they can influence other individual characteristics and behaviors. Since informal social control may exert more power over human behaviors in a white-collar setting than in street crimes because corporate responsibility and compliance depend more on informal social control (Simpson 2002), the role of social bonds in a corporate setting needs to be understood. Lasley (1988) empirically tested Hirschi’s social bond theory within a corporate environment and found out that high levels of attachment, involvement, commitment, and belief were linked to less frequent white-collar offending. Despite this successful attempt, there is still a dearth of rigorous scientific studies extending social bond theory directly to white-collar crimes. The concept of opportunity also requires attention alongside the exploration of social bond theory.

To understand why a certain person commits a certain crime at a certain time and place, it is important to pay attention to not only the individual offender but also the circumstances the individual faces (Benson and Simpson 2014). It has been argued that “no theory of motivation, however sophisticated, is sufficient to explain the causes of white-collar crime” (Coleman 1987). This is to say that without a criminal opportunity, a motivated individual alone will not commit crimes. Moreover, the situation the potential offender is in is likely to be incorporated into the offender’s behavioral repertoire (Coleman 1987). A potential set of actions will become available opportunities only when the offender is aware of them. Thus, when the offender is aware of given opportunities, certain social conditions will likely present a better criminal

opportunity than others from the offender's point of view. The attractiveness of a criminal opportunity will further facilitate potential white-collar offenders to commit crimes.

The present study aims to extend prior research on the application of Hirschi's social bond theory by extending social bond theory to white-collar offending using a sample of working professionals. This study also assesses the utility of social bond theory for explaining participation in white-collar crime and examines the intersection of social bonds and opportunity to see if opportunity mediates the relationship between social bonds and white-collar crimes. The core questions driving this research are: Can social bond theory explain white-collar offending? If so, do opportunities mediate the relationship between social bonds and white-collar offending?

Chapter 2: Literature Review

Definition of white-collar crime

The definition of white-collar crime varies across research as there is less consensus about the type of activities that fall under this term (Friedrichs 2002). Sutherland (1949) first introduced white-collar crime as “a crime committed by a person of high social status and respectability in the course of his occupation.” In comparison, Helmkamp et al. (1996) elaborated the definition of white-collar crime to read “illegal or unethical acts that violate fiduciary responsibility of public trust committed by an individual or organization, usually during the course of legitimate occupational activity, by persons of high or respectable social status for personal or organizational gain.” However, other researchers argue that definitions of white-collar crimes should not be limited to people of high status (Wheeler et al. 1982; Weisburd and Waring 2001). Rather than treating status as a constant, status should be a variable. It is the criminal techniques that are used in white-collar offending, such as the lack of direct contact between the offenders and victims, that differentiate white-collar offending from other conventional crimes (Benson and Simpson 2014).

While scholars continue to debate the definitions of white-collar crimes, there is a general acceptance of Clinard and Quinney’s (1973) bifurcation of the concept of white-collar crime, and the distinction of concepts is considered by far to be the single most influential typological scheme of white-collar crime (Friedrichs 2002). Expanding on Sutherland’s definition of white-collar crime, Clinard and Quinney (1973) intended to include all violations committed by a person in the course of his occupation regardless of his social status. Further, they divided white-collar crime into two distinct categories: occupational white-collar crime and corporate white-collar crime. The former is committed on behalf of the individuals themselves and the latter is

committed with the support of the organization or benefits the organization as a whole. In order to minimize the definitional problem in regard to white-collar crimes, this study will adopt this typology. Since organizational characteristics that are essential to understand corporate crimes are not the emphasis of this study, the current study focuses on occupational crimes only and defines occupational crime as “a violation of the legal codes in the course of activity in a legitimate occupation” (Clinard and Quinney 1973: 191).

The generic term “white-collar crime” will be used throughout the study, which encompasses both occupational and corporate crimes. The term “occupational crimes” will be primarily used in the study design.

Social bond theory and crime

Among contemporary criminology theories that seek to explain criminal offending, Hirschi’s social bond theory has been one of the leading theories for juvenile delinquency for many years (Kempf 2019). Instead of asking the question “Why do people commit crimes?” as in other theories, Hirschi phrased the question to be “Why don’t people commit crimes?” and proposed a theory that examined the connection between social bonds and the likelihood to offend. Social bond theory operates from the assumption that humans are born hedonistic and must be controlled to prevent them from committing crimes. According to Hirschi (1969: 3), “A person is free to commit delinquent acts because his ties to the conventional order have somehow been broken”. Criminal behaviors are the results of the absence of controlling forces and in Hirschi’s case, these controlling forces are “ties to conventional order.”

In social bond theory, Hirschi (1969) categorized the ties into four elements: attachment, commitment, involvement, and belief. Attachment is an emotional and close tie with parents,

friends, and institutions. If an individual is strongly attached to someone, he or she would not want to engage in delinquent behaviors to disappoint that person. Commitment refers to the value individuals consider in their devotion of time, energy, and effort to certain activities or institutions. If an individual has committed goals, then he or she will be less likely to engage in crimes. Involvement is the time individuals spend participating in activities or institutions. An individual who is involved in so many activities will not have the time to engage in delinquent behaviors. Lastly, belief represents the individual's view of the legitimacy of societal norms. Strong belief prevents individuals from committing criminal activities.

Within the fifty years since its introduction, the theory had been extensively tested in examinations of involvement in street crimes, and Hirschi's key findings have been "well supported by a variety of measures, methods, and samples" (Costello and Laub 2020: 29). Alliskarov and Bakiev (2013) examined the influence of attachment specifically on high school students and found that strong attachment decreases alcohol use among the group. Lyerly and Skipper (1981) compared the relationship between delinquency and social bond in rural areas to that of urban areas and confirmed that commitment and delinquency were inversely related. Intending to improve the drawbacks and fill in the gaps left by the Lyerly study, Gardner and Shoemaker (1989) also included a comparison between rural youths and urban youths and found that conventional beliefs and attachment have more impact on delinquency compared to either commitment or involvement. Among the replication efforts of Hirschi's study, researchers Krohn and Massey (1980) found out that the negative relationships between the four elements and alcohol and marijuana use hold true.

Successful efforts have also been made to extend social bond theory to different demographics groups and other domains of street crimes (Freda and Laufer 1993). Hindelang

(1973) was among the few studies which took both male and female into account and got results that were very similar to Hirschi's, which suggested negative relationships between the four social bond elements and juvenile delinquency for both males and females. Following Hirschi's focus on juvenile delinquency, many researchers applied the theory to drug or alcohol use among college students (Durkin et al. 1999, Cherry 1987, Durkin et al 2007, Dull 1984). Durkin and colleagues (1999) found significant negative correlations between nearly all of the social bond measures and the frequency of binge drinking. Yet in Durkin's (2007) study involving drunk driving among college students, strong commitment and belief have been found to be strongly correlated with a decrease in drinking and driving while no significant relationship between attachment and drunk driving was found. Thus, it is evident that social bond theory is not only important to juvenile delinquency, but also an effective predictor of criminal offending.

Theories under social control concept and white-collar crime

Although there is a utility in the social bond perspective for understanding conventional offending, how well social bond theory explains offending in white-collar crime is unclear. There is limited research on the impact of social control elements, such as the four social bonds, or lack thereof in the white-collar realm. Indeed, only one research study was found which specifically explores the relationship between Hirschi's social bond theory and white-collar crime. Lasley (1988) acknowledged that control theory had been largely ignored within the white-collar area and used the underlying assumptions of Hirschi's social bond theory to create four theorems. He proposed in the study that 'the stronger the attachment among an executive, management, co-workers, and the corporation,' 'the stronger the commitment of an executive to corporate,' 'the stronger the involvement of an executive in corporate activities,' and 'the

stronger the belief of an executive in the rules of the corporation,' the lower the frequency that executive has to commit white-collar crimes (Lasley 1988: 348-351). Using self-report data from a survey of 435 auto industry executives, Lasley measured demographic background as well as social bond and white-collar offending predictors. All four elements were operationalized, and as predicted, negative correlations between social bond elements and white-collar crimes had been found for all. This study confirmed Hirschi's theory in a corporate setting that individuals participated in white-collar crimes not because they felt compelled by criminogenic forces, but because of a lack of controlling forces. One limitation of this study is that this study had a nonrandom sample, which may result in a lack of generalizability in research findings.

Building on social bond theory, the age-graded theory of informal social control has been applied to white-collar criminals more often (Benson and Chio 2020). Sampson and Laub's age-graded theory adapts from Hirschi's social bond theory and posits that people who have weaker social bonds (less informal social control) are more likely to engage in crime. The theory is age-graded because it is based on the notion that social bonds are important throughout the life course and more importantly, social bonds change throughout the life course. For example, Joost van Onna and Adriaan Denkers (2019) used a sample of 634 individuals convicted of white-collar crimes between 2008-2012. They found out that relatively weak social bonds to conventional society can be a strong risk factor for participation in white-collar crime over the life course. As identified by various researchers, the age range of white-collar offenders has not changed over time and the offenders are typically middle-aged (Benson 2020). Thus, in white-collar offending, age-graded theory of informal social control has more implications compared to Hirschi's original social bond theory, which focuses on juvenile delinquency.

However, all aspects of social control need to be explored and social bond theory still requires attention in white-collar offending. Although a small body of research suggests that informal social control is inversely correlated with occupational crimes (Van Onna and Denkers 2019; Engdahl 2011), the direct effect of social bonds on occupational crimes is unclear. The lack of research in extending the social bond theory to occupational crimes indicates that there is not enough understanding in this particular field. Although solid relationships had been found in Lasley's research, the study was conducted forty years old. The changes in the work environment and the technological advancement our society have had in the past decades render Lasley's study outdated in testing social bonds to white-collar crime. Since variation in social bonds are causes of criminal behaviors and can be extended to all types of offenders and all types of offending (Benson and Choi 2020), more research needs to be done in this field. Thus, this study aims to fill in the gap and test if Hirschi's model can be operated on white-collar criminals. Moreover, recognizing the importance of a criminal opportunity is necessary for white-collar criminals, as it aids the understanding of the causes of white-collar crime. Since the idea of opportunity is not explored in previous research, this study will also introduce the concept of opportunity to the relationship between social bond theory and white-collar offending and examine the impact(s) on that relationship.

Opportunity and street crimes

Criminology researchers have established that even a highly motivated offender does not commit crimes all the time. The decision to offend is mediated by the situation the offender is in and the attractiveness of the criminal opportunity available (Eck, 2015). This is to say that the occurrence of a crime implies that an opportunity occurs before the crime happens (Benson et al.

2009). The term ‘opportunity’ can be defined as “an ecological concept, relating to how agents encounter, seek or create a set of circumstances in which their resources enable them to cope with the hazards and exploit the possibilities in order to achieve their multiple goals” (Ekblom 2017: 323). Identifying the role of opportunity aid the understanding of why certain offenders commit particular crimes at particular times and places.

Within criminology, a criminal opportunity is the central focus of two distinct yet related perspectives. The first is rational choice theory. Cornish and Clarke (1986) argue that criminal decisions made by offenders are influenced by the perceived costs and benefits of their actions. When an individual perceives risks and efforts as low and rewards as high, then an opportunity emerges, and the individual is likely to commit crimes. Rational choice helps researchers to conduct careful investigations of the decision-making process of the offenders and bridges the concept of opportunity and the exploitation of criminal opportunities through the offender’s rational choice with perceived risks and benefits (Natarajan 2011).

The second perspective with a central focus on the opportunity structure is Cohen and Felson’s (1987) routine activity theory. Before the introduction of this theory, researchers believed that opportunity fails to play an active role in criminal offending (Natarajan 2011). However, Cohen and Felson argue that crime events were produced by the intersection in time and space of a motivated offender, an attractive target, and a lack of capable guardianship. If easy opportunities are not present, offenders will not seek to benefit themselves through illegal ways (Cohen and Felson 1987). Although this theory was originally introduced to explain the rise in burglary in the United States, the theory has been extended to account for the creation of crime opportunities in other conventional crimes as well.

Opportunity and white-collar crime

Opportunity plays an important role in white-collar offending too. One of the trajectory analyses done by Piquero and Weisburd (2009) identified different developmental trends for white-collar criminals and suggested that there are more “opportunity-seekers” who seek out opportunities to commit crimes in white-collar crimes compared to stereotypical offenders who act similar to street offenders. This means that at least some white-collar offenders have deviant motives and impulses and will take action when there are opportunities present (Apel and Paternoster 2009).

The opportunity perspective in white-collar crime has been illustrated by Benson and Simpson (2014). They acknowledged the importance of criminal opportunities and developed a mechanism to account for white-collar crimes. In order to understand criminal opportunities, it is necessary to learn about the particular technique an offender uses. While conventional street criminals employ physical contact with specific victims and targets, white-collar criminals have a different mechanism. Benson and Simpson emphasize the notion that criminal opportunities in white-collar offending can be manifested through legal access to the resources and locations, distance from victims, and superficial appearance of legality. Many white-collar offenders have legitimate access to particular occupational positions that has a superficial appearance of legality so that their clients willingly give them money. Many clients never know or meet the offenders. Benson and Simpson argue that among the three, specialized legitimate access is the most important one that provides an opportunity for offenders to get to the criminal target.

The concept of opportunity has also been considered by researchers to be a structural force that shapes the job market (Sampson and Wilson 1995). The working environment is an important factor in criminological outcomes and opportunity is nested in that structure. Since

white-collar crimes are usually committed by people in the business world, the character and consequences of labor market opportunity were analyzed by researchers. Although a few studies highlighted the correlation between labor market opportunity with deprivation-violent crime relationship (Shihadeh and Ousey 1998; Parker and McCall 1999), it has been found that opportunities serve more as restraints for individuals, which is quite different from other approaches. Researchers also argued that perceptions of local labor market opportunity are an important component of social bonds. The effects of local labor market opportunity are considered similar to the four elements in Hirschi's social bond theory as can be seen by the negative correlations between local labor market opportunity and violent delinquency (Bellair, Roscigno and McNulty 2003). Similarly, Crutchfield and Pitchford (1997) linked lower expectations of the duration of the jobs to higher levels of criminal participation. The lower expectation of the duration is an aspect that can be associated with lower commitment and this study found a negative relationship between the two concepts. Crutchfield and Pitchford (1997) also found out that more time out of the labor force, which can be seen as an indicator of Hirschi's element of involvement, is positively related to criminal offending. This means that less involvement is associated with more crimes. These correlations further establish the interesting relationship between social bonds and opportunity.

Opportunity and Social Bond Theory

Although social bond theory examines the influential nature of attachment, commitment, involvement, and belief on criminal involvement and found negative relationships between them, it fails to take the potential vulnerability to available opportunity into account (Hirschi 1969; Jang 1999). In fact, Hirschi overlooks the role opportunity plays in his research until his later

work of self-control theory with Gottfredson (1990). In perceiving crime as a way that provides “immediate, easy, and short-term pleasure” (Gottfredson and Hirschi, 1990: 41), Hirschi took a similar stand as he did with social bond theory and assumed that motivation is a given. This is to say that both social bond theory and self-control theory are interested in explaining why people don’t commit crimes. In self-control theory, Hirschi and Gottfredson view criminal opportunities as so ubiquitous that they will not have a casual impact on the likelihood of individuals committing crimes. They also argued that individuals who lack self-control can see opportunities from the most mundane daily activities and that variations in opportunities over time or across individuals are insignificant (Gottfredson and Hirschi, 2003: 9). It is assumed that one’s view towards a concept will not change significantly over 20 years so this study will infer that for Hirschi’s social bond theory, criminal opportunities are likely acting in a similar way. Thus, just as self-control and perception of opportunities are inversely related, perception of criminal opportunities is intimately linked to an individual’s level of social bonds. Individuals with higher social bonds are theorized to see fewer opportunities even when they exist compared to lower bonded individuals. However, Hirschi also argued that the role of opportunity should be meaningless and will not influence the likelihood of offending. Due to the limited number of studies that concern social bond theory and white-collar crimes, this important assumption of the role of opportunity has never been tested.

It is important to notice, however, that the opportunity perspective is not in contradiction with the social bond perspective and the opportunity perspective may coexist with the social influence and mediates the relationship between social influence and crimes (Haynie and Osgood 2005). Cohen and Felson's (1979) routine activity theory states that, in order for a crime to occur, three elements including motivated offenders, suitable targets, and the absence of capable

guardians must converge in time and space. Thus, a suitable target and a lack of capable guardianship serve as potential elements of opportunities. Based on social bond theory, everyone can be a motivated offender if they don't have strong social bonds. This is to say that in an occupational crime, when potential offenders are in situations that provide an attractive target without some guardians in place, offenders with weaker social bonds are more likely to offend.

Chapter 3: Research Question

Drawing on prior research that has applied social bond theory to traditional street crimes and to various demographic groups, there may exist a similar association in white-collar offending and specifically in occupational offending. Findings regarding social bond elements can be applied to white-collar offending, by determining whether people with different levels of social bonds would have various likelihoods of committing crimes in the corporate setting. Therefore, this study intends to evaluate the influence of social bond elements on an individual's decision to engage in illegal behaviors. Specifically, this study will propose a research plan that will illustrate whether high attachment, high involvement, high commitment, and high belief will result in a lower level of occupational offending. The role of opportunity will also be introduced in the study, and the effect of opportunity will be measured as to whether opportunity mediates the relationship between social bond elements and participation in occupational crimes. This research will have significant implications for scholars and corporate policy makers who seek to understand how company structure and relationships can influence the likelihood of the occurrence of white-collar crimes and whether there is a need to implement policies that address the effect of opportunity.

Chapter 4: Data and Method

Sample

The current study proposes sampling business students from the R.H Smith School of Business at the University of Maryland. The University of Maryland is chosen because the school is ranked among the 2021 most diverse colleges in Maryland and this study will have the potential to sample a diverse body of respondents. Business school students are generally more likely to work in business corporations that involve the opportunity to make illegal business decisions. Because this study is interested in exploring how social bond theory explains occupational crimes, a sample of individuals with business experience is preferred because they are likely to have a better understanding of real work environments. With this in mind, individuals who are returning to obtain degrees at the business school that specifically caters to working professionals will be selected. The Master of Business Administration (MBA) program at the Smith School offers such degrees and requires 2 to 4 years of professional work experience to apply. Thus, this study will choose participants from MBA programs. This study will also include a group of Executive MBA students in order to take into account social bond elements among managerial levels. EMBA students are seasoned professionals with an average of 17 years of working experience and hold titles in various companies. According to the demographics posted on Smith School's website, approximately 150 MBA students every year are enrolled in the full-time program. Unfortunately, the University of Maryland did not post any information regarding the number of students in the EMBA program. Based on the available information from the newsletters, around 50 students per year make the program. Thus, this study intends to choose 100 MBA participants and 20 EMBA participants based on the statistics. Dissemination of surveys will be conducted through university platforms such as the SONA

system, which is an online system used to manage and schedule research projects for universities. There will be research credits as incentives to encourage participation. Before the surveys are distributed, the respondents will be informed that they are part of a study and their participation is voluntary.

The use of a convenience sample may raise representativeness issues. Participants will be full-time students and may have different responses if they are sampled in a business setting. However, since no dataset explicitly taps social bond elements in a white-collar sample, it is appropriate to have a sample of respondents who are experienced enough to identify with the study design. Moreover, this sample will be more likely than a typical student sample to relate to the conditions described in the study.

It is also important to note that participants from MBA and EMBA groups may have taken courses of business ethics or are exposed to such information and may make conservative choices while taking the vignette study. Thus, the results of this study may be biased in the way that results in a lower likelihood of engaging in occupational crimes.

Data Sources

This study proposes to include data from two sources. The first part of the data will come from a structured survey capturing information on demographic characteristics and social bond elements (Appendix 1). Levels of attachment, commitment, involvement, and belief will be operationalized and measured in the survey. After completing the survey, a scenario-based vignette study (Appendix 2 and 3) will be utilized. A vignette study uses short, carefully constructed descriptions of a person or a situation in order to elicit respondents' perceptions and values towards the description (Atzumller and Steiner 2010). As a method common not only in

criminology at large but also in the study of white-collar offending (Piquero, Schoepfer, and Langtron 2013; Simpson and Piquero 2002; Simpson, Paternoster, and Piquero 1998), a vignette study designed specifically with social bond theory in mind will include four detailed hypothetical situations. The likelihood of committing occupational crimes in each scenario will be measured after each scenario and the concept of opportunity will be introduced in the vignette study.

The vignette study has some drawbacks that require attention. In particular, because hypothetical situations are presented in the study, a potential weakness rises as to whether the self-identified intention to commit occupational crimes is equivalent to actual offending. Just because a participant indicates their offending propensity in the hypothetical scenario does not mean that they will commit crimes in real-world settings.

To address this issue, the scenario is framed in a setting that closely resembles the participants' real working environments. Two specific crimes will be chosen based on the common career paths of the MBA and EMBA participants (see Occupational Crime below). The vignette study will be piloted, and necessary alterations were made before final data collection.

Dependent Variable

Occupational Crime

Aligning the crime types with career paths of participants in the MBA programs, this study will focus on two specific categories of white-collar crimes: financial institution fraud and internet fraud. Specifically, embezzlement will be measured under financial institution fraud and phishing will be measured under internet fraud. These two categories are chosen because over 40% of MBA students are employed in either the finance industry or the technology industry.

There will be two individual-level scenarios per category: one with the concept of opportunity and one without. Respondents will be instructed to complete all four scenarios. After reading each scenario, the respondents will be asked to indicate the likelihood they would engage in criminal acts as the actor would act under those conditions. The dependent variables will serve as indicators of the respondents' intentions to engage in embezzlement and internet fraud. Each of the response scales ranged from "0," indicating they will not commit the offense at all, to "10," representing they will certainly commit occupational crimes under the circumstances.

Key Independent Variables

The two key independent variables in the current study will be the respondents' self-identified elements under social bond theory and opportunity.

Social bond elements

In order to measure respondents' social bonds, Lasley's (1988) nine items of control predictors will be used. As mentioned before, Lasley's work is the only research available that tested social bond theory directly in a white-collar setting and he found negative correlations between all four elements and occupational crimes. Lasley operationalized the four social control elements and his categorization is still relevant to assessing employee attitudes toward personal and professional goals. It is important to examine if those correlations hold true in a more contemporary environment. Since Lasley's study is the only reference, this study intends to replicate the setting (Table I). However, some significant modifications to that scale have been made, because of a change in working styles in the 21st century. Specifically, 'personal goals' is added under the commitment category, 'time spent in company activities' is added under the

involvement category, and ‘Corporate Rule Awareness’ is added under the belief category. The responses ranged from “0,” indicating they strongly disagree with the item, to “4,” indicating they strongly agree.

Table I. Social Bond Indicators

Attachment

Manager attachments	I would like to be the kind of person your immediate manager is.
Peer attachments	I would like to be the kind of person your friends at work are.
Corporate attachments	I like the corporation you currently employ in.

Commitment

Job purpose	The only reason for me to work for the corporation I employ in is for the money.
Job ambition	Whatever I do at work, I try hard.
Personal Goals	I have personal goals that I want to achieve within the corporation I employ in.

Involvement

Job boredom	I have felt that there is nothing to do at work.
Time spent working	In a typical workday, I spend the majority of my time on work-related projects.
Time spent social	I actively participate in social events held by my corporation or co-workers.

Belief

Corporate rule awareness	The corporation I employ in values work ethics.
Corporate rule belief	It is all right to violate corporate rules if I can get away with it.
Corporate crime attitudes	Most things that are called "white-collar" crime don't really hurt.

Opportunity

As mentioned before in the literature review, this study will borrow concepts from routine activity theory and operationalize opportunity into two elements: a suitable target and a lack of capable guardianship. Both elements will be introduced simultaneously in two of the four scenarios. Specifically, the first two scenarios will focus on embezzlement and the last two scenarios will focus on phishing. The two scenarios per crime will be identical except for the opportunity part (Appendix 2 and 3). In the first scenario of each crime, the respondents will be provided with some background information about the company and their role in the company and be asked to rate the likelihood of committing an occupational crime under the circumstance. The second one will include the concept of opportunity (both a suitable target and a lack of capable guardianship) in addition to the same scene and the respondents will again indicate their likelihood to commit an occupational crime with the presence of opportunities. Both crime types will include one scenario with opportunity and one without.

Other Variables

Since this study intends to measure the potential differences among managerial levels and their impact on an individual's illegal decision-making, participants will be asked to identify their positions in the companies they work for. Three categories will be provided for them to choose from lower-level management (employees), middle-level management (managers), and upper-level management (partners).

Control Variables

Personality

Personality has been established to be a factor that influences the criminal behavior of individuals. Using a sample of convicted white-collar offenders, Listwan, Piquero, and Voorhis (2010) found that personality is not only important to criminal acts, but also important to recidivism. Researchers also found that individuals with lower social conscientiousness are more likely to be impulsive, unethical, and are prone to engage in opportunistic criminal behaviors (Gough and Bradley 1986; Owens 1976). A more recent study that uses the Big Five Model to measure personality backed up the notion that individuals scoring lower in agreeableness and lower in conscientiousness have a higher likelihood to commit white-collar crime (Turner 2014).

The HEXACO model that this study will use is an adaption from the Big Five Model as it refines the Big Five Model and adds a sixth main dimension of personality to it. The Big Five Model distinguishes the following five traits: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. The Big Five categories are comprised of lower-level factors. For example, Extraversion includes characteristics such as excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness. Although the Big Five Model is the most commonly used model among researchers to measure personality, HEXACO is predicted to be more relevant for criminological research compared to the Big Five (Ashton et al. 2004). While three of the elements, Extraversion, Conscientiousness, and Openness, are identical to the Big Five, certain lower-level factors in Neuroticism are shifted to Agreeableness and lower-level factors in Agreeableness have shifted to Emotionality. A new category of Honesty-Humility is introduced in HEXACO, which refers to different tendencies in individuals to avoid fraud and corruption, to pay no heed to status and wealth, and to not take advantage of others for one's own fulfillment (Lee and Ashton 2004).

In the proposed study, lower-level factors will be measured using the HEXACO Personality Inventory (Appendix 4). The standard version of the HEXACO Personality Inventory includes 192 items that measure 24 lower-level factors, and all items were answered on a 1-5 (strongly disagree – strongly agree) scale. In this study, there will be a set of 60 items included, which consists of 10 items per dimension. The items will be downloaded from the HEXACO website prior to the present study and each participant will receive the same questions for their personality assessment.

The HEXACO model will be administered by research staff. Intended to have personality as a control variable, the results of the model of personality will only be taken into account in the analysis model to prevent the spurious effects that the confounding variable would have caused otherwise.

Demographics

Gender (1= Female; 2=Male; 3= Other/Prefer not to tell), race/ethnicity (1= White; 2=Black or African American; 3= Hispanic or Latino; 4= Asian; 5= Native Hawaiian or other Pacific Islander; 6= American Indian or Alaska Native), age (years old), and socioeconomic status (1= Yearly Salaries Less Than \$40,000, 2= Yearly Salaries \$40,000- \$100,000, 3= Yearly Salaries \$100,000 or more) will also be used as control variables considering the potential disparities in the level of social bond elements.

Proposed Analytic Strategy

To examine the relationships between social bonds and occupational crimes and how opportunity may mediate the relationship, a multiclass logistic regression model will be used to

estimate participants' likelihood of committing occupational crimes. A multiclass logistic regression is chosen because there are more than two possible outcomes in this study.

Participants' responses from 0-10 will be categorized into three outcomes. Specifically, lower likelihood to commit white-collar crimes with responses 0,1,2,3 will be categorized into the first outcome. Medium likelihood with responses 4,5,6,7 will be categorized into the second outcome while higher likelihood with responses 8,9,10 in the third outcome. In theory, a multiclass logistic regression model can control for potential confounding variables. It will give an odds ratio, which is adjusted for confounding variables, and thereby reduce the effects confounding variables may have on dependent variables (Pourhoseingholi et al. 2012). A logistic regression model also has the ability to predict future likelihood of offending and thus has the potential to be generalizable to other studies.

Additionally, this study intends to use the Karlson-Holm-Breen (KHB) method to examine the mediating relationship of opportunity. If there is a percentage reduction of variables' relationships comparing models when the mediating variable (i.e. opportunity) is absent and when the mediating variable is included, then a mediating role can be established. This is to say that when opportunity is included in the model, if social bond elements become non-significant, it suggests that opportunity mediates the relationship between social bonds and occupational crimes in general.

Chapter 5: Discussion and Conclusion

Limitations

There are several limitations of the proposed study. By accepting Clinard and Quinney's (1973) typology of white-collar crime, this study adopts the definition of white-collar crime developed by them as well. Their definition is more general compared to others and doesn't take into account violation of public trust or criminal techniques that are used in white-collar offending. Since there are debates in terms of the definition of white-collar crime among researchers, researchers who adopt a narrower definition may find this study unapplicable.

One of the limitations of using the hypothetical scenarios to measure individuals' propensity to commit occupational crimes is the lack of derivation to reality. It is hard to determine how accurate the self-identified intention to commit occupational crimes is compared to actual offending and indicated propensity to offend does not equate to actual offending. Although this study attempts to address this issue by carefully choosing the wording to resemble participants' real working environment, this limitation still exists. However, this study tries to minimize the potential weakness by altering the wording after piloting the study and choosing two career paths that are the most common to research participants as dependent variables.

The proposed study seeks to use a sample of business school students with working experience. These participants are full-time students who are no longer in the working environment. Their answers to survey questions that ask specifically about company culture may be different from when they were still working in the company simply because they are not in the proper environment. Moreover, these participants are of a convenience sample. Although UMD has a more diverse sample compared to other universities, statistically the participants in the sample are more likely to be white males who are in their mid-30s to 40s due to a larger

white population. Women, minorities, and people of a different age range are likely to be underrepresented. Therefore, the findings from the proposed study could only be used to evaluate the extension of social bond theory to occupational crimes for the specific demographic group described previously.

The proposed study is also limited in its inclusion of confounding variables. This study attempts to identify the main variables (i.e. personality) that have a relationship with the dependent variable based on prior research, but it is possible that other independent variables that are not identified in research may play a role in establishing the relationship between social bonds and white-collar crimes. Thus, it is hard to establish a causal relationship between social bonds and the likelihood of white-collar offending with the current study design.

Implications and Future Directions

The proposed study's results are intended to contribute to the literature on Hirschi's social bond theory and white-collar crimes. This study seeks to expand on the extension of the social bond theory to white-collar offending by introducing the idea of opportunity and taking the perspective of an opportunity-based approach. As social bond theory continues to be one of the leading theories in criminology, the proposed study seeks to test the utility of social bond theory in a rather new realm that is sometimes overlooked by researchers. This research could add to our understanding of the potential effectiveness of this well-supported theory and provide useful information on the theory's generalizability.

This study also wants to emphasize the importance of an opportunity-based approach to understand white-collar crimes. Social bond theory alone explains crime tendency based on individuals' personal characteristics. This approach neglects the role opportunity plays and fails

to take into account why people commit crimes at one place but not the other. Opportunistic theories like routine activity theory, on the other hand, explains the importance of the characteristics of social environments but leaves ‘how are individuals motivated’ unanswered. To fully understand crimes requires an integration of both individuals’ characteristics and characteristics of social environments. The opportunity-based approach provides a systematic framework that gives us ways of thinking about crime processes in a more analytical and comparative fashion. Future studies could elaborate on the proposed study’s comprehensive approach and operationalize the concept of opportunity further. The roles different opportunity structures play may illuminate ways to control and prevent white-collar crimes.

The conclusions in the proposed study could also help scholars and corporate policy makers to understand how company relationships can influence the likelihood of the occurrence of white-collar crimes and whether there is a need to implement policies that address the effect of opportunity. If it has been established that social bond elements are inversely related to white-collar offending, companies can potentially decrease the likelihood of white-collar crimes by communicating a positive corporate culture and facilitating positive quality relationships between employees. If opportunities do mediate the relationship between social bonds and white-collar offending, then security measures could be implemented to lessen the suitability of potential targets and to increase the presence of capable guardians.

Future studies could investigate whether social bond theory can be extended to organizational crimes, which is the other crime type under the typological scheme developed by Clinard and Quinney. Variables that have the potential to influence the elements of social bonds, such as organizational structures and organizational characteristics, are not explored in this study. Further, researchers could investigate whether the results found in this study can be

generalizable to a sample of working employees. The environment the participants are taking the survey in can make a great difference in terms of the results. Studies could also try to include a more diverse sample and see whether the effects are gender-specific or race-specific. As this study identified a few independent variables that may impact the dependent variable, future research could further control the confounding variables to better isolate the effect of social bonds on white-collar crimes.

Conclusion

So much more attention has been directed to conventional crimes that many people may not be aware of the magnitude of white-collar crimes and the consequences white-collar crimes bring to society. Given the massive financial and psychological impacts, it is important to give more attention to white-collar crimes and allocate more resources to understand white-collar crimes. This paper intends to bring attention to a specific category under white-collar crimes, occupational crime, and aims to examine if Hirschi's social bond theory can be applied to white-collar criminals. This paper also attempts to integrate an opportunity-based approach to white-collar crime, which fills in the gap in white-collar criminological literature accounting for the role of opportunity by assessing whether opportunity mediates the relationship between social bonds and white-collar offending. This approach tests Hirschi's implied assumption under social bond theory that criminal opportunities are ubiquitous yet meaningless. Recognizing crime as a product of an interaction between individual characteristics and social environments by taking social bonds and opportunity into account, this comprehensive approach bridges the gap in white-collar crime literature and enhances the understanding of the causes of white-collar crimes.

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Appendices

Appendix 1--- Survey

Last name:

First name:

UID (for record-keeping only):

What **gender** do you identify as?

A. Male B. Female C. _____ (Short Answer Space). D. Prefer not to answer.

What is your **age**?

A. 0 - 15 years old B. 15 - 30 years old C. 30 - 45 years old D. 45+

Please specify your **ethnicity**.

A. Caucasian B. African American C. Latino or Hispanic. D. Asian. E. Native American. F. Native Hawaiian or Pacific Islander. G. Other/Unknown H. Prefer not to say

Are you **married**?

A. Yes B. No

How many **children** do you have?

A. None B. 1. C. 2-4. D. More than 4. E. Prefer not to say

Please indicate the **Industry** of the company you are currently employed in:

Please indicate your **job position**:

A. lower-level management B. middle-level management C. upper-level management

Please indicate which **education program** you are in?

A. MBA. B. EMBA

Which category best describes your **yearly household income** before taxes? Do not give the dollar amount, just give the category. Include all income received from employment, social

security, support from children or other family, welfare, Aid to Families with Dependent Children (AFDC), bank interest, retirement accounts, rental property, investments, etc.

- A. Less than \$20000 B. \$20,000 - \$29,999 C. \$30,000 - \$39,999 D. \$40,000 - \$49,999
E. \$50,000 - \$59,999 F. \$60,000 - \$74,999 G. \$75,000 - \$99,999 H. \$100,000 - \$124,999
I. \$125,000 - \$149,999 J. \$150,000 or more

Rank the following statement on a scale from 0 (strongly disagree) to 4 (strongly agree).

1. I would like to be the kind of person your immediate manager is.
2. I would like to be the kind of person your friends at work are.
3. I like the corporation you currently employ in.
4. The only reason for me to work for the corporation I employ in is for the money.
5. Whatever I do at work, I try hard.
6. I have personal goals that I want to achieve within the corporation I employ in.
7. I have felt that there is nothing to do at work.
8. In a typical work day, I spend the majority of my time on work-related projects.
9. I actively participate in social events held by my corporation or co-workers.
10. The corporation I employ in value work ethics.
11. It is all right to violate corporate rules if I can get away with it.
12. Most things that are called "white-collar" crime don't really hurt

Appendix 2--- Vignette Study for embezzlement

S. Smith has been with Best Price Inc. for several years. Best Price Inc., a company that sells electronic devices, is a national retailing company that has been experiencing growing sales and revenues in an industry that is economically healthy. Best Price Inc. is located in a large urban center. Being involved in the company allows S. Smith to be an expert in the operating system and S. Smith knows the loopholes within the system.

If you are S. Smith and you have the ability to intercept, manipulate and alter accounts so that clients can send partial amounts or full amounts of wire transfers to your personal account, how likely would you commit embezzlement?

With opportunity

S. Smith has been with Best Price Inc. for several years. Best Price Inc., a company that sells electronic devices, is a national retailing company that has been experiencing growing sales and revenues in an industry that is economically healthy. Best Price Inc. is located in a large urban center. Being involved in the company allows S. Smith to be an expert in the operating system and S. Smith knows the loopholes within the system.

If you are S. Smith and you have the ability to intercept, manipulate and alter accounts so that clients can send partial amounts or full amounts of wire transfers to your personal account. You know for sure that you can take advantage of particular clients without them noticing and Best Price Inc. doesn't have measures in place to prevent this. How likely would you commit embezzlement?

Appendix 3--- Vignette Study for internet fraud

J. Johnson is an expert in computer science and has been with Initech LLC for several years. Initech LLC is an American multinational technology company that specializes in Internet-related services and products, which include online advertising technologies, a search engine, cloud computing, software, and hardware. Initech LLC. is located in a large urban center. Being involved in the company and interacting with clients allow J. Johnson to develop strong communication skills.

If you are J. Johnson and you have the ability to conceal the fraudulent nature and send an e-mail, text message, or other communication to someone else in an attempt to convince the unsuspecting recipient to divulge personal, sensitive information, how likely would you commit internet fraud?

With opportunity

J. Johnson is an expert in computer science and has been with Initech LLC for several years. Initech LLC is an American multinational technology company that specializes in Internet-related services and products, which include online advertising technologies, a search engine, cloud computing, software, and hardware. Initech LLC. is located in a large urban center. Being involved in the company and interacting with clients allow J. Johnson to develop strong communication skills.

If you are J. Johnson and you have the ability to conceal the fraudulent nature and send an e-mail, text message, or other communication to someone else in an attempt to convince the unsuspecting recipient to divulge personal, sensitive information. You know for sure that some

clients of yours are gullible and nobody will ever know because of your computer expertise. How likely would you commit internet fraud?

Appendix 4--- HEXACO Questionnaire

- 1 _____ I would be quite bored by a visit to an art gallery.
- 2 _____ I plan ahead and organize things, to avoid scrambling at the last minute.
- 3 _____ I rarely hold a grudge, even against people who have badly wronged me.
- 4 _____ I feel reasonably satisfied with myself overall.
- 5 _____ I would feel afraid if I had to travel in bad weather conditions.
- 6 _____ I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.
- 7 _____ I'm interested in learning about the history and politics of other countries.
- 8 _____ I often push myself very hard when trying to achieve a goal.
- 9 _____ People sometimes tell me that I am too critical of others.
- 10 _____ I rarely express my opinions in group meetings.
- 11 _____ I sometimes can't help worrying about little things.
- 12 _____ If I knew that I could never get caught, I would be willing to steal a million dollars.
- 13 _____ I would enjoy creating a work of art, such as a novel, a song, or a painting.
- 14 _____ When working on something, I don't pay much attention to small details.
- 15 _____ People sometimes tell me that I'm too stubborn.
- 16 _____ I prefer jobs that involve active social interaction to those that involve working alone.
- 17 _____ When I suffer from a painful experience, I need someone to make me feel comfortable.
- 18 _____ Having a lot of money is not especially important to me.
- 19 _____ I think that paying attention to radical ideas is a waste of time.
- 20 _____ I make decisions based on the feeling of the moment rather than on careful thought.
- 21 _____ People think of me as someone who has a quick temper.
- 22 _____ On most days, I feel cheerful and optimistic.
- 23 _____ I feel like crying when I see other people crying.
- 24 _____ I think that I am entitled to more respect than the average person is.
- 25 _____ If I had the opportunity, I would like to attend a classical music concert.
- 26 _____ When working, I sometimes have difficulties due to being disorganized.
- 27 _____ My attitude toward people who have treated me badly is "forgive and forget".
- 28 _____ I feel that I am an unpopular person.
- 29 _____ When it comes to physical danger, I am very fearful.
- 30 _____ If I want something from someone, I will laugh at that person's worst jokes.
- 31 _____ I've never really enjoyed looking through an encyclopedia.
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- 32 _____ I do only the minimum amount of work needed to get by.
- 33 _____ I tend to be lenient in judging other people.
- 34 _____ In social situations, I'm usually the one who makes the first move.
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- 33 _____ I tend to be lenient in judging other people.
- 34 _____ In social situations, I'm usually the one who makes the first move.
- 35 _____ I worry a lot less than most people do.
- 36 _____ I would never accept a bribe, even if it were very large.
- 37 _____ People have often told me that I have a good imagination.
- 38 _____ I always try to be accurate in my work, even at the expense of time.
- 39 _____ I am usually quite flexible in my opinions when people disagree with me.
- 40 _____ The first thing that I always do in a new place is to make friends.
- 41 _____ I can handle difficult situations without needing emotional support from anyone else.
- 42 _____ I would get a lot of pleasure from owning expensive luxury goods.
- 43 _____ I like people who have unconventional views.
- 44 _____ I make a lot of mistakes because I don't think before I act.
- 45 _____ Most people tend to get angry more quickly than I do.
- 46 _____ Most people are more upbeat and dynamic than I generally am.
- 47 _____ I feel strong emotions when someone close to me is going away for a long time.
- 48 _____ I want people to know that I am an important person of high status.
- 49 _____ I don't think of myself as the artistic or creative type.
- 50 _____ People often call me a perfectionist.
- 51 _____ Even when people make a lot of mistakes, I rarely say anything negative.
- 52 _____ I sometimes feel that I am a worthless person.
- 53 _____ Even in an emergency I wouldn't feel like panicking.
- 54 _____ I wouldn't pretend to like someone just to get that person to do favors for me.
- 55 _____ I find it boring to discuss philosophy.
- 56 _____ I prefer to do whatever comes to mind, rather than stick to a plan.
- 57 _____ When people tell me that I'm wrong, my first reaction is to argue with them.
- 58 _____ When I'm in a group of people, I'm often the one who speaks on behalf of the group.
- 59 _____ I remain unemotional even in situations where most people get very sentimental.
- 60 _____ I'd be tempted to use counterfeit money, if I were sure I could get away with it.