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The Relationship of Moral Reasoning and Ethical Decision Making Among IT Employees

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2017

Abstract

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by

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MS, Towson University, 2006

BS, University of Maryland University College, 2002

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

There has been a rise in the last decade of documented unethical business behavior by information technology (IT) employees. Over the last several years, business managers have tried to address this area of concern to find a solution to this growing problem, but they have struggled with the metrics to identify unethical behavior in IT employees. The purpose of this study was to examine the role of 3 employee constructs—ethics training (ET), education level (EL), and employee's perception of their organizations' ethical leadership (EP)—on whether an IT employee would behave in an unethical manner. The theoretical framework for the study was Kohlberg's moral development model. Seventy IT personnel within the Maryland metropolitan area who work for businesses with DOD contracts completed the Defining Issues Test and the Ethical IT survey. Multiple regression analysis with Pearson's *r* was used to examine the relationship between ET, EL and EP, moral development, and ethical decision making. No constructs were significant. The study multiple regression model with $F(3, 66) = .570$, $p = .637$, $R^2 = .028$ failed to demonstrate a significant correlation between moral development and ethical decision making and ET, EL, and EP. Given these findings, business leaders should consider other IT employee variables that may lead to unethical business behavior. When so identified, DOD business managers will be able to promote the positive social change that arises from ethical business behavior, such as continued contractual profits, increased employee morale, sustained productivity, and a decreased unemployment rate.

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Dedication

I dedicate this degree to my husband MSG Charles E. Tillman. I would like to thank you for your continued support emotionally and mentally. Thank you for encouraging me to find a way forward, stay focused, and keep marching. I also dedicate this degree to my parents, David and Lucille, and my sisters, Maria and Dr. Laura, for your continued support, prayers, understanding, and encouragement. Lastly, I dedicate this degree to my late tiny man who stayed up with me many nights, early mornings, and whose sweet temperament always put a smile on my face when things became challenging. Thank you for believing in me even when I was not sure that I could overcome some of the challenges. This journey has been long, and I know it would not have been possible without all of you. You each gave me spiritual guidance, motivation, and enlightenment that inspired me to continue leaning forward.

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I would also like to thank my second committee member, Dr. Michael Ewald, for your knowledge and continued guidance. Furthermore, I would like to thank Dr. Lazo, my URR committee member, for your guidance and continuing to challenge me throughout the URR process. Lastly, I would like to thank Walden University staff members and the DBA community for their support throughout this journey.

Table of Contents

List of Tables

List of Figures

Section 1: Foundation of the Study

Unethical behavior by a few who work within the information technology (IT), financial, and housing business markets have cost the American public an estimated $6.3 million (Report to the Nations, 2016). Businesses with less than 100 employees are more susceptible to employees displaying unethical behavior by 31.8% (Hrncir, Metts, & Smith, 2012). Due to unethical business practices in 2011, Standard and Poor's president, Deven Sherma, downgraded the U.S. credit rating, thus causing an adverse effect on shareholder and employee retirement funds and taxpayer money (Roe, Toma, & Yallapragada, 2012). Moral decision making made by business managers includes concerns about privacy, security and control, and minimizing risks stemming from financial loss and stock options decisions (Kahle-Piasecki, Marsillac, & Nykodym, 2010). IT employees of businesses must ensure they provide email privacy rules, prevent breaches of proprietary company information, and control what information they release to the public.

Researchers have conducted studies on moral reasoning and ethical decision making and the general impact on businesses (Bagdasarov, Harkrider, Johnson, Mumford, & Thiel, 2012; Jackson, Wood, & Zboja, 2013; Pendse, 2012; Zuber, 2015). However, comparatively few researchers have focused on business related issues of the moral reasoning and ethical decision making of IT employees in businesses (Banerjee & Dutta, 2011). Business executives have wasted billions of dollars in company money on unethical business acts (Schwartz, 2012). Unethical behavior is present in American businesses, damaging employees' beliefs and the public's trust in companies (Prottas,

2013). Included in the study is the background information on the problem of unethical business practices and the impact unethical behavior has on businesses. To better understand and address moral reasoning and ethical decision making of IT employees from businesses, Section 1 includes the following detail headings: (a) background of the problem, (b) problem statement, (c) purpose of the research, (d) nature of the study, (e) research question, (f) theoretical framework, (g) definition of terms, (h) the assumptions, limitations, and delimitations, (i) significance of the study, and (j) the literature review.

Background of the Problem

A lack of morals and ethics by U.S. leaders and employees within many industries has led to organizational failures (Bejou & Greenberg, 2012). Immoral acts reported through members of the media include corrupt business practices at Enron and Tyco (Manz & Pearce, 2014). The members of the media have also reported alleged selling of U.S. secrets to Wikileaks (Andrejevic, 2014; Scheuerman, 2014). According to Baker, Detert, Mayer, Moore, and Trevino (2012), unethical behavior by a few members of an organization can have a negative influence on the entire organization. The ability of an organization's leadership to gain the trust of employees and customers becomes questionable when evidence of members within the organizations' acts of unethical behavior surfaces (Gove & Janney, 2011). As a result, such pervasive evidence of wrong acts has caused business managers to reassess the organization's present ethics policies. Managers need to assess the effectiveness of the ethical and deployment policies to measure whether there must be a change in policy development and deployment processes.

The reaffirmation by leaders to be socially responsible indicates the importance of business ethics and the sustainability to organizations' partners and customers (Lager, 2010; Neron, 2010; Weber, 2010). For sustainability to occur, a business manager's commitment needs to integrate principles within the company and balance the needs of the organization with the needs of the customers and partners. In summation, information stemming from reassessing ethical policies could help business leaders identify and prevent potential business ethical issues, which may result in the loss of Department of Defense (DOD) contracts or incur enormous fines.

Problem Statement

Business violations caused by employees often result in an intuitive but disastrous ripple effect that moves from lost contracts to lost jobs (Timofeyev, 2014). From January 2014 through October 2015, unethical business behavior caused organizations to lose on average $120,000 with a total impact in the billions of dollars (Report to the Nations, 2016). The general business problem was some leaders of businesses were unable to predict which employees had a likelihood of committing ethical violations (Report to the Nations, 2016). The specific business problem was some Maryland metropolitan based entrepreneurs contracting with the DOD do not know if ethics training (ET), education level (EL), and employee perception of their organizations' ethical leadership (EP) predict the likelihood of IT employee engagement in unethical business behavior.

Purpose Statement

The purpose of this quantitative correlation study was to determine if ET, EL, and EP predicted the likelihood of Maryland metropolitan based IT employee engagement in

unethical business behavior. The independent variables were ET, EL, and EP. The variables for the study were constructs an employee could control and act upon, therefore excluding other variables such as age and race. The dependent study variables were moral reasoning and ethical decision making. The targeted population for this study was IT employees from businesses with DOD contracts.

The geographical location included businesses within the Maryland metropolitan area, thus including Washington DC and Virginia. The implications for positive social change include the potential to encourage managers to reduce firm losses by recognizing unethical behavior and forming a model of behavior to help prevent future business ethical violations. A drop in the DOD contractor unethical behavior fosters social change by building stronger firms in the community and decreasing the unemployment rate.

Nature of the Study

A research method is a tool to provide researchers with the ability to collect and analyze data (Leggett & Yates, 2016). The three research methods are qualitative, quantitative, and mixed methods (Bala, Brown, & Venkatesh, 2013). Each research method has strengths and weaknesses. The method for this research study was quantitative.

According to Leggett and Yates (2016), researchers use quantitative research to assist with the analysis of their theory. According to Lach (2014), researchers use quantitative analysis to collect, analyze, and compare data to test one or more hypotheses. Quantitative research assists researchers in objectively revealing the relevance of the data (Leggett & Yates, 2016). The quantitative method suited the needs of this study because

the business problem required an analysis of the numerical data to examine if a correlation exists between variables. Furthermore, my goal was to project study findings across broader populations.

A researcher's focus using qualitative research is to obtain a rich understanding of participants' behaviors and attitudes. Per Jamshed (2013), researchers use the qualitative research method to explore the participants' experiences through the participants' perspectives. According to Cho and Lee (2014), qualitative research applies to studies in which observation can take place in the participant's natural setting and with no presence of controls. According to Lawrence and Tar (2013), authors of qualitative studies use case studies, grounded theory, and ethnographies to assist in gathering and exploring the meaning of data. The focus of this study was predictive; therefore, a qualitative method was not a good fit for this study.

The goal of a researcher using mixed methods research is to use a combination of qualitative and quantitative methods. According to Zohrabi (2013) and Clark et al. (2012), a researcher wishing to gain knowledge and understanding of one approach through the use of the other finds success in the use or application of the mixed methods methodology. Bala et al. (2013) posited that a researcher would use mixed methods research when the research question has a possible connection in answering both *how* and the *why* questions. How and why were not subjects for this research study; therefore, a mixed methods methodology was not a fit.

Specifically, a correlational design suited the needs of this research study. Correlational designs assist a researcher to examine the relationship between two or more

variables, the variables labeled as dependent and independent. A researcher uses experimental and quasi-experimental designs with quantitative research when the focus of the study is to find the cause and effect (Bala et al., 2013). As cause and effect were not the focus of this investigation, a nonexperimental design suited the needs for the study. Through this research study, the objective was to examine the relationship between a set of predictor variables/constructs (ET, EL, or EP) and the dependent variables (moral reasoning and ethical decision making). Experimental and quasi-experimental designs did not fit the research needs.

Research Question

The specific business problem was some Maryland metropolitan based entrepreneurs contracting with the DOD did not know if ET, EL, and EP predict the likelihood of IT employee engagement in unethical business behavior. Based on the specific business problem, the primary research question (RQ) guiding this study was as follows: Does ET, EL, and EP predict the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior? The subsidiary research questions were as follows:

1. Does ET for IT employees working for Maryland metropolitan business firms predict the likelihood of IT employee engagement in unethical business behavior?
2. Does the EL of IT employees working for Maryland metropolitan business firms predict the likelihood of IT employee engagement in unethical business behavior?

3. Does EP of IT employees working for Maryland metropolitan business predict the likelihood of IT employee engagement in unethical business behavior?

The purpose of this correlational study was to gain an understanding of the relationship between the independent variables/construct of ET, EL, and EP and the dependent constructs of moral reasoning and ethical decision making of business DOD contractors' IT employees. Findings and conclusions stemming from this regression analysis help business managers recognize which future and present employees may make unethical business decisions. Furthermore, model results help DOD contract owners and managers prevent or correct unethical IT employee behavior and decision making before it negatively influences continued business operations.

Hypotheses

This study was quantitative; therefore, the rejection or acceptance of the study hypotheses formed the extent and nature of the relationship between independent variables/constructs of ET, EL, and EP and the dependent constructs of moral reasoning and ethical decision making. The population included IT employees from businesses with DOD contracts. Evaluation occurred based upon survey data responses and subsequent hypotheses testing RQs regarding moral reasoning and ethical decision making for business based IT employees in the Maryland Metropolitan area.

$H1_0$: There is no relationship between ET for IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H1_a$: There is a relationship between ET for IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H2_0$: There is no relationship between the EL of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H2_a$: There is a relationship between the EL of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H3_0$: There is no relationship between an EP of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H3_a$: There is a relationship between an EP of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

Survey Questions

The instruments for the research study consisted of two existing survey instruments augmented with a set of demographic questions. The first survey was the Ethics in IT instrument (Shahand, 2010). Harris (2000) developed the Ethics in IT instrument to include 22 vignettes related to the potential IT dilemmas. The participants chose from options that they believed best characterized the actions of IT employees or that the participant would choose. The second survey instrument, the Defining Issues Test (DIT-

2), devised by Rest in 1999, contained a set of five sample dilemma stories for the participants to read (Bailey, 2011). After reading the stories, the participants answered a few questions to rate and then ranked the importance. The DIT-2™ test provides the researcher with insight into the moral reasoning of the participant (see Appendices B, C, and D). To assess ET, a few questions about the employee's opinion about ET effectiveness on their decision making occurred within the survey. Also, to evaluate EL, a question about the employee's view about EL in the company at the present occurred within the survey.

Theoretical Framework

Using the theoretical framework aided with the structuring of the research problem, the research findings, the description of other studies, as well as who could benefit from the study (Bryman, 2012). The theoretical framework for this study included Kohlberg's moral development theory (Hersh & Kohlberg, 1977). In 1958, Kohlberg developed the moral development theory (MDT). According to Bhardwaj, Dhingra, Srivastava, and Srivastava (2013), Kohlberg's theory provides three levels of moral reasoning. The three levels identified were (a) a preconventional level (Stages 1 and 2), (b) a conventional level (Stages 3 and 4), and (c) a postconventional level (Stages 5 and 6; Bhardwaj et al., 2013). The theory also contains six ranked stages of moral reasoning: (a) obedience and punishment, (b) naively egoistic, (c) good-boy/good-girl, (d) authority and social-order-maintaining, (e) contractual or legalistic, and (f) morality (Bhardwaj et al., 2009). In 1958, Kohlberg tested 72 Chicago born boys from middle and lower class families. Kohlberg's (1958) MDT explained how people make moral

decisions. Rest (1986), a professor at the University of Minnesota, contributed to the quest for how individuals make moral decisions with his development of the DIT-2 to measure moral judgment. Various scholars found Rest's DIT-2 instrument reliable and valid when measuring Kohlberg's concept of moral reasoning (Bailey, 2011; Dong & Thoma, 2014; Mayhew, Pascarella, & Seifert, 2010). Using Kohlberg's MDT as a framework, my goal was to examine the extent and nature of the relationship between moral reasoning and ethical decision making of DOD contractors' IT employees from businesses.

Operational Definitions

The following definitions are to assist the reader as these keywords occurred within this studyL

Ethical decision making: The principles and standards as they apply to a situation (Luth, May, & Schwoerer, 2014).

IT contractor: Employees hired to work on computer related tasks or activities (Bureau of Labor Statistics, 2014).

Leadership: The demonstration of professional conduct through which an individual can inspire people to follow them and be better as a person (Lawler, 2012).

Moral reasoning: The ability to choose between good and bad behavior (Saunders, 2013).

Morality: The ability of an individual to display good character or societal norms (Besio & Pronzini, 2014).

Organization ethics: Organization ethics is the logical standards of right and wrong (Pullen & Rhodes, 2013).

Small business: An individually owned and operated, for profit organization where size or receipts matter, and, which operates in the US and pays US taxes (U.S. Small Business Administration, 2015).

Assumptions, Limitations, and Delimitations

In most research studies, there are assumptions and limitations taken into consideration by the researcher. Outlined in the section below are the assumptions made in this research. The information described in this section provide the reader with the awareness of the assumptions and limitations of this research.

Assumptions

According to Simon (2013), assumptions are expectations claimed by a researcher. This research study included four assumptions. The fist assumption was that snowball sampling would generate a sufficient number of eligible participants for the study. The second assumption was that employees who participated in the study would answer the survey truthfully. The third assumption was that the participants had no other agenda when answering the survey questions. The fourth assumption was that participants understood the directions for the Ethics IT Survey and the DIT-2 survey and the requirements in answering each question.

Sheehan (2001), using correlation and regression analysis, examined survey results and the most likely reasons for returned surveys. Sheehan used variables such as the year of the study and the number of survey questions. Contact through the mail with

participants before and after the survey as well as the survey topic variables were also included. According to Sheehan, there is less participation in surveys because people feel over surveyed, but potentially an overall return of 31% of the surveys exists.

Limitations

A limitation is the characteristics of a study that can influence the validity of the results (Simon, 2013). The focus design for this research study was the examination of the relationship between moral reasoning and ethical decision making of IT employees of businesses with DOD contracts. Limitations included employee responses from businesses that support the DOD and worked within the Mid-Atlantic area, specifically the Maryland metropolitan geographical area. Another limitation included a lack of prior research studies in the DOD environment that addressed the relationship between moral reasoning and ethical decision making of IT employees. Participants for the study included IT employees from businesses. The analysis included only questions and responses to the surveys that related directly to moral reasoning and ethical decision making to mitigate any potential biases.

Delimitations

Delimitations included location, sample size, and population (Patterson, 2014). The domain for this study included those businesses within the DOD U.S. Community. The restriction in the analysis phase excluded any employees outside of the IT field. The results from the study did not include generalizations across all businesses. The study included only businesses within the DOD contracts.

Significance of the Study

Contribution to Business Practice

Several researchers conducted studies regarding moral reasoning and ethical decision making as well as the general impact on an organization. However, previous scholars did not address IT employees from businesses (Ferrell et al., 2000; Pendse, 2012; Zuber, 2015). Results from this study assist managers in preventing or addressing unethical behaviors. Findings from this study might add new knowledge to the body of research by identifying and potentially prescribing pathways for managers to reduce the gap in identifying employees and applicants who may make wrong or unethical decisions. Potentially, the findings might assist managers in implementing positive community outreach, employee retention, and local employment.

Implications for Social Change

The purpose of the research study was to examine the independent variables: ET, EL, EP, and moral reasoning and ethical decision making. The population included IT employees from businesses with DOD contracts. Managers of businesses who do not have an ethics program could use the findings, conclusions, and recommendations from this study for creating and adhering to an ethics plan. Understanding the potential issues and consequences of unethical behavior such as security breaches, hacking, favoritism, and unlawful access to proprietary information may provide leadership within a business an incentive for fostering open communications. Open communications assist managers with modifying the organizations' decision making practices and increasing employees'

participation in developing policies and procedures for assuring business ethics (De Wit et al., 2012).

Additionally, examining possible means for integrating business ethics within DOD contractors' business ethical decision making processes helps in designing a program to correct the behavior, thus contributing to social change. Positive social change occurs because of a complete understanding generated by the study of moral reasoning and ethical decision making of IT employees of businesses. The modified methods assist the managers of companies in avoiding revenue losses and new business scandals as well as promote public trust in the businesses as employees' displays responsible behaviors.

The results of the research study further managers' understanding of moral reasoning and how wrong decision making affects IT employees' performance. Unethical business behavior experienced by some employees of businesses within the information systems sector could lead to health risks. Employees might experience the following health risks: cardiovascular disease, unnecessary stress, and decreased body mass indices, all of which causes costly mistakes in the workplace (Giacalone & Promislo, 2010). Employees who experience unethical behavior could also lead to absenteeism, which in turn creates a loss of revenue for the company and community (Hassan, Wright, & Yukl, 2014).

In a qualitative study, Giacalone and Promislo (2010) explored how unethical behavior could affect an employee's wellbeing in the workplace. Using a human-centered framework, Giacalone and Promislo not only concentrated on the victim but also

included people who witnessed the unethical behavior as well as the victim's family and friends. Giacalone and Promislo found that unethical behavior has a direct relationship to stress and cardiovascular diseases and reduced birth rates in pregnant women and that some individuals experienced significant weight loss. In addition, the organization's health and welfare scorecard is affected (Giacalone & Promislo, 2010). According to Giacalone and Promislo, unscrupulous acts affect the individual's quality of life and have a social impact. Giacalone and Promislo concluded that companies whose leadership promises ET but who do not deliver creates no change in moral behavior among employees. In addition, just providing a video or holding ET is not an effective process for businesses to follow. In addition, to ET ethical practices must exist (Giacalone & Promislo, 2010). In summary, following the moral reasoning and ethical decision making practices of IT employees is important, allowing employees and managers to understand the organization's culture and expectations (Giacalone & Promislo, 2010).

A Review of the Professional and Academic Literature

The objective of this study was to examine ET, EL, EP and moral reasoning and ethical decision making. The moral development framework can assist in understanding the relationship of moral reasoning and ethical decision making. The moral development framework key to this study assists decision makers in understanding employees logical reasoning and when known could foster ethical professional behavior. To achieve these goals within this study, I considered the following research questions and hypotheses:

Subquestion 1: Does ET for IT employees working for Maryland metropolitan business firms predict the likelihood of IT employee engagement in unethical business behavior?

$H1_0$: There is no relationship between ET for IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H1_a$: There is a relationship between ET for IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

Subquestion 2: Does the EL of IT employees working for Maryland metropolitan business firms predict the likelihood of IT employee engagement in unethical business behavior?

$H2_0$: There is no relationship between the EL of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H2_a$: There is no relationship between the EL of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

Subquestion 3: Does the EP of IT employees working for Maryland metropolitan business firms predict the likelihood of IT employee engagement in unethical business behavior?

$H3_0$: There is no relationship between an EP of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H3_a$: There is a relationship between an EP of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

The first part of the literature review starts with an examination of the literature regarding moral problems in the IT profession, ET, and EL. Integrated into the literature review is previous research describing features as they related to unethical decision making and culture. Although not exhaustive, the search strategies used for the literature review consisted of Walden University Library and Google Scholar, using databases such as ProQuest and EBSCOhost. The terms used to search electronic databases concerning unethical behavior consisted of *ethics, unethical behavior, morals, values, bad behavior*, and *unethical decision making*. The literature review served as the foundation for this study. I examined Kohlberg's theoretical framework for understanding ethical business practices, within the literature review. Table 1 shows the summary of sources in the literature review.

Table 1

Summary of Sources in the Literature Review

Reference type	Total	Less than 5 years	Greater than 5 years
Research-based peer reviewed journals	90	78	12
Seminal books	2	0	2
Dissertations	1	0	0
Websites	4	4	0

Moral Development Framework

There are several well-known and accepted theoreticians, including Piaget, Kohlberg, and Rest, whose work creates forward-thinking concerning the field of cognitive and moral development. Piaget (1965) developed the cognitive development theory. The theory was based on early childhood education. Piaget wanted know if children followed social rules as well as how and when (Piaget, 1965). Kohlberg extended on Piaget's cognitive moral development. Kohlberg (1969) developed the hierarchy of moral development theory. Kohlberg identified stages of moral development. Rest (1979) developed the four-component model. The four-component model was an exploration of Kohlberg's moral development.

Piaget (1965) believed to understand how an individual develops; it is essential first to obtain the information on how the environment operates. According to Piaget, children develop in stages. Each event helps in the growth of the child to build upon his or her understanding of theenvironment. Piaget identified four stages in the cognitive theory of moral development. Piaget also pointed out how individuals advance through each of the stages of moral development. According to Borst, Cassotti, Houde, Pineau, and Poirel (2013), each stage is like a building block building upon the next developmental stage.

The first stage of cognitive development consists of the sensorimotor stage from infancy to 2 years of age (Piaget, 1965). According to Katsioloudis (2015), during the sensori-motor stage, a child develops through their sensory system. Piaget (1965) identified six substages within the sensori-motor stage: (a) sensory, (b) intelligence, (c)

knowledge, (d) memory, (e) physical development, and (f) language (Katsioloudis, 2015). These substages assist in the development process.

The second stage of cognitive development consists of the preoperational stage from toddler to early childhood (Piaget, 1965). During the preoperational stage, children develop through instincts (Katsioloudis, 2015). Piaget (1965) identified two substages within the preoperational stage of intelligence and memory.

The third stage of cognitive development consists of the concrete operational stage from elementary to early adolescence (Piaget, 1965). During the concrete operational stage, things children can touch or tangible things children can see help with development (Katsioloudis, 2015). Piaget (1965) identified seven types that make up the concrete operational stage: (a) numbers, (b) length, (c) liquid, (d) mass, (e) weight, (f) area, and (g) volume.

The fourth stage identified in the cognitive development theory consists of the formal operational stage from adolescence to adulthood (Piaget, 1965). During the formal operational stage, development moves from tangible to using abstracts to reason logically (Katsioloudis, 2015). Piaget (1965) identified intelligence and ecocentric thought with developing through the formal operational stage.

Kohlberg developed the moral development theory based on Piaget's cognitive moral development theory. According to Bagdasarov, MacDougall, Martin, & Mumford (2014), six stages of hierarchy were identified in Kohlberg's moral development theory:

Preconventional level. During the preconventional level people follow the rules and understand what is considered good and bad. The perconventional level is identified

by two stages. Stage 1 consists of people avoiding punishment and being obedient, and people identified at Stage 2 mainly look out for his or her own best interest (Bagdasarov et al., 2014).

Conventional level. During the conventional level people try to conform to society. The conventional level is made up of two stages. Stage 3 consists of people wanting to receive the approval from others, and people at Stage 4 are willing to follow the laws (Bagdasarov et al., 2014).

Post conventional level. At the post conventional level people are more mature and think morally. The post conventional level is also made up of two stages. People identified with being at Stage 5 are interested in the welfare of others, and people identified with being at Stage 6 have developed his or her own ethical guidelines that they follow (Bagdasarov et al., 2014).

Rest (1979) developed the four-component model that deals with moral psychology. Rest development theory shifts from stages of development to a model that characterizes developmental thinking. According to Jungert and Thornberg (2013), Rest's four-component model consists of (a) moral sensitivity, (b) moral judgment, (c) moral motivation, and (d) moral character.

While some theorists argued about the relevance of Kohlberg's moral development theory, Rest supported Kohlberg's theory (Bebeau, Narvaez, Rest, & Thomas, 2010). The DIT was developed to measure Kohlberg's moral development theory (Rest, 1979). However, Rest took a different approach and expounded on Kohlberg's moral development theory.

According to Bebeau and You (2013), ethical sensitivity develops when a person becomes aware of his or her actions and the impact it has on others. Moral judgment develops when a person determines his or her course of action as right or wrong (Godwin & Whitaker, 2013). Moral motivation develops based on an individual's ethical understanding of the situation (Bebeau & Thoma, 2013). Moral character allows a person to take an ethical course of action (Jungert & Thornberg, 2013).

Ethical Problems in the Information Technology Profession

Computers and the Internet seem to open new challenges in the IT profession, specifically concerning computer privacy and security. According to Carr, Hostak, Lys, and Yang, (2013), the Sarbanes-Oxley Act of 2002 provides an outline of the issues and guidance concerning information systems, privacy, and security issues. Transparency is a goal many business managers try to establish quickly to comply with the Sarbanes-Oxley Act, which includes understanding a business manager's decision making process (Carr et al., 2013).

In the IT field, IT professionals seem to have access to a good deal of information. IT and the potential access to information and uses can incite people to behave unethically (Buckley, Creese, Goldsmith, & Legg, 2015). Opportunity can also incite a person to behave unethically. In understanding the moral development theory, potential and opportunity develop during the moral motivation stage followed by moral judgment, which might assist a person in deciding what is morally correct.

Managers could put safeguards in place that may cause a person to pause and think about repercussions before taking action on potential opportunities of unethical

behavior. According to Davis, Powell, and Read, (2014), solutions such as audits could help lessen the opportunity for employees to act unethically. Auditing tracks execution actions, by whom, and provides a timeline. Auditing makes people within an organization accountable for their actions. Chatterjee, Sarker, and Valacich (2015) conducted two empirical studies to test this theory. Chatterjee et al. provided examples of the type of social media technology people use, such as Facebook, online dating sites, Craigslist, and chat rooms misleadingly. Chatterjee et al. (2015) discussed misleading uses of IT, such as not representing oneself truthfully, collecting private identity information, spying on children, and stalking. According to Chatterjee et al., these unscrupulous acts instigated IT security breaches such as identity theft, denial of service, and cyber-attacks. Chatterjee et al. indicated that social, situational, and technological factors influence unethical behavior. Chatterjee et al. concluded that a lack of audit trails and traceability could contribute to employees in practicing unethical behavior.

People who practice unethical behavior have one thing in common: They feel untouchable, and many feel they are smarter than the law. Doyle, Lount, Pettit, and To (2015) and Gino, Moore, Ruedy, and Schweitzer (2014) concluded that people's moral reasoning led them to think that if they can get away with bad behavior such as stealing, they take the chance. Ahluwalia and Merhi (2014) went one step further and stated that the level of punishment also influences an employee's willingness to display unethical behavior. Gino (2015) agreed with the previous studies, adding that some individuals who hold high moral values are more likely to commit unethical behavior when the opportunity is present.

Peer and Gamliel (2013) agreed with the previous study concerning people practicing unethical behavior if the opportunity presented itself. Peer and Gamliel conducted a survey of 145 undergraduate students to test if the risk of getting caught would change the students' unethical behavior. The students were willing to take risks on their own if they thought no one would find out about their bad behavior. The results of the study led Peer and Gamliel to conclude that people are willing to take risks, especially explicit risks.

Bordbar, Jandaghi, and Khanifar (2012) conducted a study regarding ethical issues in the IT field. Bordbar et al. pointed out the increase in the abuse in the IT field, however; there is a lack of research in the field of the abuses. The IT field has suffered from exploitations such as hacking into businesses and the financial systems, yet lacks discussion on other IT exploits (Bordbar et al., 2012). Abuses committed by IT professionals such as email abuse, insider threat, copying software, and using work computers for personal use are issues in the IT field that need attention (Bordbar et al., 2012). The data collected led Bordbar et al. to draw a direct correlation between ethical behavior in the IT arena and the ability of individuals to influence each other to act morally.

Warkentin and Willison (2013) agreed with the previous study on the lack of research in the IT field regarding abuses, especially insider threat. Insider threat can be more damaging to an organization, especially by a disgruntled employee (Warkentin & Willison, 2013). Further research in the field may yield a stronger conclusion. In fact, according to Coeckelbergh, Eden, Jirotka, and Stahl (2014), a lack of efficient research

exists in the overall field of ethics in IT. The subject of ethics in the IT arena needs responsible research and innovation (Coeckelbergh et al., 2014).

The focus of many studies concerning unethical behavior by IT professionals includes risk and social behaviors. Identifying the risk in IT offers importance because the identified risks seem to help managers understand potential ethical problems and formulate a plan to mitigate ethical issues. Furthermore, identifying potential risks could assist managers in devising a plan to avoid the risk altogether.

Bose (2012) researched ethical behavior in IT and included how ethics is vital within the IT field. Using a normative theory, Bose analyzed ethical decision making in the IT arena. The variables Bose tested included stockholder, stakeholder, and social contract as related to the computer industry and the industry's effects on ethical behavior. Bose pointed out that an important factor in the study included not disobeying the law. The findings led Bose to conclude that normative theory can provide insight and guidance to managers on ethical decision making of IT professionals and the impact on the organization. The previous study is important to this research because it provides managers with information to take into consideration with existing and prospective IT employees.

Landry and Payne (2006) examined the similarities shared by business professionals and information system professionals. The discussions included the need for codes of ethics in the IT field and identifying four codes of ethics. The first code developed by members of The Institute for Certification of IT Professionals tested the basic knowledge of information processing and a computer programming language of

individuals. The second code developed by members of the Association for Computing Machinery provided its members with resources and a digital library of cutting-edge technology, publications, and career resources in the field. The third code developed by members of the Association of Information Technology Professional was a group of IT professionals with members across the United States. The fourth code developed by members of the Information Technology Association of America was an industry trade group for information technology members (Landry & Payne, 2006). The vast surge in the IT arena increased the need for ethical codes of conduct (Pradhan, Tan, & Venables, 2014). IT professionals can encounter a large amount of data and information. The ethical codes of conduct are guidelines for IT professionals to use to understand the enormous responsibility of IT information, privacy issues, and data handling.

Part of our everyday lives revolves around the use of computers and the information obtained. In a workshop, with 36 scholars present, Pimple (2011) discussed the ethical issues centering on pervasive IT. Pimple's review included three critical areas: (a) machines on the go, (b) in the home, and (c) thinking for themselves (Pimple, 2011). Pimple determined that machines on the go included concerns in the areas of *coercion, surveillance, and control*. Issues concerning topics in the home arena included *privacy and security*, and in the area of thinking for them included *responsibility* (Pimple, 2011). The discussion is important to this research because Pimple highlighted ethical dilemmas such as privacy, in which IT managers may face when adding new technology to the environment.

Brinkman, Gotterbarn, Miller and Wolf (2016); Coeckelbergh, Eden, Jirotka, and Stahl (2014) agreed with the previous research that a need exists to understand the ethical implications with adding new technologies into a business environment. Brinkman et al., (2016) also stated that establishing ethical guidelines and updating codes of conduct should be a part of the discussion when adding new technology to an environment. The results from these studies assist managers in understanding the possible need for additional ethical policies when considering new technology for the business.

Ethics Training

In reviewing the literature on business ethics, in peer-reviewed journals, there lacks information describing business training programs, similar to this research study. There is also skepticism about ethics training from previous research among scholars about ethical decision making. According to Pitesa and Thau (2013), research on moral development, a person's interaction with the environment influences values and morals, therefore, influencing decision making. IT Employees in businesses must understand the values and morals, in which they acquire through the environment, may not align with the organization. Ethics training may be vital to workers making sound ethical decisions.

The results from studies on ethics training are a part of the investigation of the significance of ethics training on ethical decision making. According to Wright (2013), a good business practice includes annual ethics training. However, according to Albrecht and Holland (2013), a lack of ethics training exists in businesses. Researchers questioned if ethics training mattered in connection with ethical decision making. According to researchers (Clements & Shawver, 2014; Gasper, Laufer, & Warren 2014; Luth, May, &

Schwoerer, 2014), ethics training matter, especially when ethics training has an impact on an individual's decision making.

According to a study performed by Birch, Tesfom, and Tessema (2013) ethics training did not matter. Birch et al. concluded that ethics training could not teach an individual to make good ethical decisions. Weber (2014) agreed with the previous research findings. Weber investigated the quality of employee and business ethics training programs among U.S.-based global organizations. According to Weber (2014), the ineffectiveness of ethics training stemmed from *a lack of resources, trainers, insufficient budgets, and time allotted for training.* Weber pointed out an increase for ethics training, as well as, a need and a high demand over the recent years; however, the training lacked effectiveness.

Garvan and McCormack (2013); Lowstedt, Mohapatra, and Verma (2014) agreed with the previous study concerning the lack of effective ethics training. However, Garvan and McCormack; and Lowstedt et al. pointed out just providing ethics training is not enough, and that formal and informal ethics training needs to occur. While some researchers believed, ethics training could have a positive effect on ethical decision making Bishop (2013) studied if ethics training could provide guidance for managers to follow. Bishop also studied if ethics training served as a preventive measure. According to Bishop, establishing a definition of ethical behavior within an organization is mandatory before ethics training could serve as guidance or prevent unethical behavior. Cohen (2013) agreed with the previous research on ethics training and its importance; however, states there is a need for empathy in order to make a real change to the bad

behavior.

Several researchers (Fryer, 2015; Gonzalez-Canton, Rohlfer, & Slocum, 2014) noted that if systematically taught ethical training could be effective in the business environment. However, they all offered different approaches on how to present ethics training in the work environment. Fryer (2015); Gonzalez-Canton et al., (2014) agreed on ethics training being important to the survival of an organization. Raile (2013) stated that continued ethics training raises the ethical perception of an organization; thereby influences positive change. According to Su (2016), ethics training could promote positive effects within an organization. Su pointed out that ethics training could build trust, establish a good rapport and open communications within the organization. Beeri, Dayan, Vigoda-Gadot, and Werner (2013) conducted a longitudinal study with 108 employees. Information was gathered before and after employees went through a yearlong ethics program within the organization. According to Beeri et al., the results revealed that the ethics program produced positive awareness concerning ethics, codes of ethics, and an upsurge in ethical decisions-making.

The overall assumption from previous research on the topic may lead a researcher to believe that ethics training might aid in moral reasoning, thus impacting the ethical decision making. Understanding the importance of ethics training adds credence to the impact ethics training may have on employee's ethical decision making. No previous studies address ethics training regarding the impact training has on the moral reasoning and ethical decision making of IT employees from businesses.

Ethical Leadership

The role of effective leadership in a business environment created extensive research. The leadership within a business setting has the ability to inspire and nurture talents within an organization (Peters & Reveley, 2014). Leadership within an organization must be able to build trust, execute ethical standards, and inspire employees (Bottomley, Burgess, & Fox, 2014). Building trust and inspiring employees could led to ethical decision making by employees. One school of thought is employee's look to leaders to set the tone of the business (Hassan, Mahsud, Prussia, & Yukl, 2013). This train of thought coxed researchers to believe that ethical leadership can affect an individual's moral reasoning and ethical decision making. According to Xinxin and Yidong (2013), an employee's perception of the ethical leadership within an organization had a direct correlation with the individual's ethical decision making. According to Avella and Nunn (2015), ethical leadership not only has a direct correlation with employees making good ethical decisions, but could also lead to the company's success.

Xinxin and Yidong (2013) conducted a multilevel analysis using questionnaires to test the theory on ethical leadership's influence on employees work behavior. The questionnaire included 302 employees from different areas of work within two different agencies. The results of the study led Xinxin and Yidong to conclude a direct correlation between employees work behavior and the employees' perception of ethical leadership. Hassan, Park, and Wright (2016) agreed with the pervious study. Hassan et al conducted a study with 477 employees. The results from the study led Hassan et al to conclude a direct relationship between the ethical leadership of an organization and the employees'

ethical behavior. Hassan et al went on to state that employees were more willing to report unethical behavior when leadership displayed ethical behavior. This study provides credence to the current study on the employees' perception of the organizations ethical leadership.

Ethical leadership could change an employees' business behavior. However, some researchers believe there is not enough research data to quantitatively back up this belief. Some researchers call for additional research between ethical leadership and employees' business behavior (Akdogan & Demirtas, 2015). However, De Hoogh, den Hartog, and Kalshoven (2013) stated that research on ethical leadership and its effects has increased in recent years. De Hoogh et al. goes on to explain that employees perceived ethical leadership within an organization depends on the employees' knowledge of *moral awareness*.

According to Auvinen, Lamsa, Sintonen, and Takala (2013), the definition of a leader, is someone whose goal is to guide positive change. Boaks and Levine (2013), states that leadership is about power and authority, and with power, ethical responsibility follows. The role of leadership can trigger a leader to make unethical decisions because of the power and pressures a leader holds (De Cremer, Joosten, Van Dijke, & Van Hiel, 2013).

Various researchers Barling and Robertson, (2013); Dust, Hargis, Resick, and Shao (2013); e Cunha, Marques, Rego, and Sousa (2014) conducted research on leadership's ethical behavior and its influence in the workplace. Through an analysis of the research, they found that leadership could change the behavior of members within an

organization as well as the climate of the organization. Pucic (2015) conducted a study on ethical leadership and if it mattered to the organization. Pucic found that ethical behavior displayed by leadership affected employees. Pucic also found that ethical leadership positively affected an employees' perception of ethical leadership. Pucic's study provides credence to the current research in that an employees' perception of the organizations ethical leadership could impact the employees' ethical behavior.

Prottas, (2013), agreed that leadership's behavior had an effect on an organization's employees. Prottas went one step further and stated that an employees' perception of the organizations ethical leadership affected the employees' ethical behavior. Pattie and Taylor (2014) also agreed with the previous research that ethical leadership is an important role in employees' behavior and the organization. These studies are important to this research because they can help with rejecting the null hypothesis concerning an employee's perception of ethical leadership.

Leadership is critical to an organization; the type of leadership style shown at the organization level can impact an employee's belief system about the organization as a whole. The leadership style displayed at an organization can sometimes be the success or failure of a company. According to Du, Lindgreen, and Swaen (2013), a person can find transactional, and transformational leadership styles, which are relevant to ethics. In a study conducted by (Effelsberg, Gurt, & Solga, 2013) explored if transformational leadership could influence employees to act unethically for the good of the company. Employees who want a strong association with the company would be more likely to engage in unethical behavior practices (Effelsberg et al., 2013). Effelsberg et al. also

noted that employees who desire an intense connection with the transformational leader are also likely to practice unethical business practices for the sake of the organization. In a study conducted by Pucetaite and Novelskaite (2014) added that leader member exchange can influence employees and also influence innovation within the company.

In a research conducted by Askew et al. (2014) concluded that people would act unethically if they believed the bad behavior would go undetected. While leadership and leadership style is important to the success of a business, the leader's ethical behavior seem just as important. The ethical leadership shown by managers at an organization may attract or discourage potential employees. Strobel, Tumasjan, and Welpe (2010) studied the impact of a leader's ethical behavior and a potential employees' desire to work for the company. Strobel et al. (2010) demonstrated that a leader who displayed ethical behavior had a higher ethical leadership rating and appealed more to potential candidates for hire. Linked to the idea that ethical leaders can and do attract potential employees to business is the idea that a leader's unethical behavior could discourage potential new hires, and possibly impact existing employees negatively.

There is a lack of information between the association of the circumstances that a leader may encounter and the impact those influences have on a leader's ethical decision making (Mumford & Stenmark, 2011). To fill the gap, Mumford and Stenmark (2011) conducted an experimental design to examine the impact of (a) performance pressure, (b) interpersonal conflict, (c) leader's decision making ability, (d) type of ethical issues, and (e) positional status. A total 232 participants participated in the study. Positional status had an impact on a leader's ethical decision making, especially when the leader was

responding to a superior (Mumford & Stenmark, 2011). Providing a leader with authority could decrease bad ethical decision making according to Mumford and Stenmark (2011). Influencers in futures studies should consider the need for codes of conduct and ethics training (Mumford & Stenmark, 2011). Besio and Pronzini (2014) agreed that organizations with established codes of conduct as part of the business process influenced employee's ethical decision making.

While leaders must be visionaries, they must also be able to inspire employees. den Hartog, Folger, Greenbaum, and Piccolo (2010) conducted a qualitative study to investigate whether ethical leadership could influence employees' behavior. Sampled data gathered included 208 participants. The variables tested included (a) task significance, (b) autonomy, (c) effort, (d) organizational citizenship behavior, (e) task performance, and (f) ethical leadership. In this study, den Hartog et al. (2010) researched whether a leader's ethical behavior had a positive impact on the employee's behavior in the workplace and motivation to do good work. Chan and Mak (2014) sought to answer the question concerning supervisor's influence on subordinate's behavior and the employees job satisfaction. Chan and Mak surveyed 218 employees. The results from the study led Chan and Mak to conclude that supervisors did influence the behavior of subordinates, and had a positive effect on the employees' job satisfaction when trust was formed with the supervisor.

Visionary and inspiring are two qualities that make good leaders, and leaders must be able to exhibit those qualities even when the employees work in different locations as described by Strobel, Tumasjan, and Welpe (2011). Strobel et al. (2011)

conducted a research study using the construal level theory. Included in the study was a questionnaire to see if distance could sway employees' perception of a leader's ethical reasoning especially after a scandal. Also, the study had a question concerning if a scandal would influence the leader member exchange. A total 617 participants participated in the study whose ages ranged from 18 to 58 and included both male and females. The data collection method consisted of surveys and scenario based experiments. Distance did make a difference in the perception of a leader after a scandal according to Strobel et al. (2011). The perception of leadership, especially as a business recovers from a business scandal enlightens the business leaders (Strobel et al., 2011), which makes the study important to this research.

Leaders, usually, influence employees, but sometimes employees still act unethically. Many researchers have pondered why subordinates act unethically and whether there is a difference in what each constitutes as unethical behavior. Concerns exist in the perception of the organization by business leaders when it comes to ethical behavior within the leadership ranks. These lingering concerns are consistent with this research study. The results from the study could assist with disproving the null hypothesis, thus giving validity to this study.

Unethical Decision making and Culture

According to Gill (2012), moral reasoning, and ethical decision making within a business organization affect the employees, customers, as well as the overall health of the company. Understanding a business culture could help to understand the moral reasoning. Consequently, this understanding of moral reasoning can lead to

understanding the unethical decision making by employees. The culture the leaders within an organization establishes could impact how employees feel. According to Pierce and Snyder (2015), the culture of the company could influence the ethical decision making of its employees.

In a study examining the culture of an organization, researchers Jackson, Wood, and Zboja (2013) examined the moral reasoning of leaders within the organization and how organization's leaders make ethical decisions. Leaders who believe they know what the best direction for the organization sets the tone for others to adhere to within the organization, whether the strategy is right or wrong. Jackson et al. (2013) explained that unethical decision making that destroys an entire organization does not happen overnight or without someone else knowing what is going on within the organization. The culture of the organization is a significant factor in influencing individuals to act unethically (Jackson et al., 2013). The previous studies add usefulness to this study in understanding why some cultures accept or ignore unethical business practices. The research findings could provide managers with insight into how the culture of an organization influences moral reasoning.

Other culture influences that could impact an individual's moral reasoning and ethical decision making can range from the review of promotions, as well as peer pressures within an organization. The following study concerning peer pressure provided insight into these cultural influences. Hood, Kacmar, Lawrence, and Tillman (2015) conducted a study to see if self reporting and peer pressure affected a person's ethical decision making. Hood et al. chose participants regardless of *role-set* to explore if the

perception of unethical behavior influenced the decision making of peers. After further consideration, Hood et al. added social networking as an independent variable. The results from the research led Hood et al. to conclude that peer pressure and social networking did effect an individual's moral behavior.

Peer pressure could also influence the behavior of employees. In a survey with 600 undergraduate participants, Butterfield and O'Fallon (2012) examined if (a) social learning; (b) social identity; or (c) social comparison influenced peer pressure and behavior. According to the results of the study Butterfield and O'Fallon, concluded that employees adopt the behavior of the business when they feel unethical behavior is standard within an organization.

Several researchers conducted studies on peer pressure and unethical behavior. From the analysis of the studies, the researchers agreed with the previous study that peers can create an environment that impacts others behavior (Beekun & Westerman, 2012; Caprar & Neville, 2012). The results of the previous studies add importance to this research study in understanding the moral reasoning and the influence on an individual's ethical decision making. The business culture could be an environment for unethical behavior in the workplace.

While whistleblowing is not a part of this research, studies on whistleblowing provided researchers with insight into acceptable and non-acceptable behavior within a business culture (Campbell, Giacalone, Niu, Stylianou, & Winter, 2013). Retaliation or dismissal from an organization from whistleblowing can have negative consequences on employees within an organization Mayer, Nurmohamed, Schminke, Shapiro, and Trevino

(2013). Mayer et al. (2013) explored if supervisors and other employees' actions would prevent coworkers from whistling blowing. Data gathering included 197 participants out of 208 surveys distributed. Mayer et al. (2013) examined whether moral cues given by supervisors would influence employees to speak up on unethical behavior displayed by coworkers. Moral cues given by supervisors could have a positive effect on an employee's moral reasoning and ethical decision making (Mayer et al., 2013). According to Mayer et al., the promising results of the study should stimulate the interest of other researchers into conducting further research on moral cues and ethical decision making. Curtis, Robertson, and Robinson (2012) in a study on whistleblowing surveyed the intentions of an employee to report unethical behavior. Curtis et al. (2012) concluded employees were less likely to report on certain kinds of unethical behavior; therefore, ethics training was fundamental to an organization. The results of these studies add importance to this study in understanding how managers set the tone and culture within an organization.

In addition to the previous studies on culture influences, researchers explored core values, the state of the economy, how an organization conducts business, and the size of the business. DeLoughy, Drozdenko, and Jin (2013) studied organizational core values and manager's behavior in the workplace. Part of the research included the variables relationship between organizations core values and (a) organizational ethics, (b) social responsibility, and (c) performance outcome. DeLoughy et al. (2013) found that managers within an organization who embrace ethics, and are aware of ethics in their day-to-day activities usually achieve success. DeLoughy et al. (2013) also concluded that

open communication is a key factor in understanding ethical behavior. The results of the study add importance to understanding how an organization's core values are important to ethical decisions, policies, and actions of the organization's employees. The company's core values, as expressed by leadership, could assist in establishing company policies and thus shape employee's action.

Ethics Resource Center (ERC) (2012) conducted a study to determine whether the state of the economy influenced workplace ethics. Some individuals' in the workplace may act unethically when the economy plunges downwardly (ERC, 2012). Using a national business ethics survey (2013) conducted in Washington DC; 4,700 individuals participated in a survey to gather data on their opinions of workplace ethics. The variables included gender, age, and education level. The analysis of the data revealed no relationship between a depressed economy and gender, age, and education levels in workplace ethics. However, the organizational culture was a significant factor in workplace ethics especially when the economy falters (ERC, 2012). The work is authoritative because researchers can evaluate the analysis and possible discover patterns of moral reasoning and conclude with why unethical business practices take place during an unsettled economy.

Employees and customers observe how managers conduct business on behalf of the organization. The displayed behavior of managers could provide information to employees and customers on what is tolerable and acceptable behavior within the organization. The displayed behavior of managers could give a negative impression to employees and customers and could have negative consequences to the success of the

organization. While understanding how an organization conducts business adds importance to the discussion, the trust factor is also a significant part according to Gross, Henle, and Hogler (2013). The lack of trust among employees within a company can lead to unethical behaviors and disruption within the company culture.

In a study conducted by Gross et al. (2013) they found that social factors influence the way employees behave within the workplace. Gross et al. (2013) further concluded that if employees witness unethical behavior within the workplace they could develop a lack of trust in the company. These studies add importance because business leaders can use the results of the study to help them understand employees' behavior, also how the employees' behavior aligns with the organization's core values.

Numerous of studies exist regarding whether gender has an impact on a person's moral reasoning and ethical decision making (Boulouta, 2013; Burleson & Robbins, 2015). Results from studies indicate conflicting outcomes concerning gender and ethics; however, some researchers concluded that males exhibited more unethical behavior than females (Chen, 2014; Salamon, Samnani, & Singh, 2014). Calvano and Wang (2015) studied the gender differences and ethical decision making with undergraduate and graduate students. Calvano and Wang used personal and business ethics scenarios to test the theory. According to Calvano and Wang, females at 92.26% versus males at 80.09%, with a range between 0-100% make better ethical decisions. Data collected from the study led Calvano and Wang to conclude an association exists between ethical decision making and gender.

Betz, O'Connell, and Shepard (2013) agreed with the previous study that an association exists between ethical decision making and gender. The study also included examining ethical versus unethical decision making between undergraduate and graduate students. Females scored higher on the ethical dilemma tests, thus leading Betz, O'Connell, and Shepard to conclude that females had higher ethic morals than males (Betz et al., 2013). Ho, Li, Tam, and Zhang (2014) support the idea from the previous study that females had higher ethic morals than males.

Bucciol, Landini, and Piovesan (2013) conducted a random survey of 541 participants to see who was more likely to display unethical behavior. The experiment explored if males behaved more ethically than females. Bucciol et at. (2013) concluded from the results of the study that males were more likely to show deceptive tendencies than females. While this study surveyed customers with valid commuter tickets, it is still relevant to this study and can support the hypothesis that gender is a factor in ethical decision making.

The previous studies add importance to this research study because they add credence to the culture of the organization influencing employee's behavior. Contrary to the previous research on gender differences and ethical decision making, Sutarso and Tang (2013) found no significant differences between males versus females. However, Sutarso and Tang did note that a relationship existed between intentions and gender. Also, noted, male's intention to act unethically was negatively higher than females (Sutarso & Tang, 2013). Farjaudon, Hottegindre, and Loison (2016) agreed with

previous study, noting that gender was a significant factor and that males appeared to be more deceptive than their female counterpart.

Serwinek (1992) conducted a survey using the regression model to explore the effects (a) gender, (b) age, (c) marital status, (d) education level, (e) dependent children status, (f) region of the country, and (g) years in business would have on an individual's perception of ethics. Serwinek concluded that age was a significant factor in people's perception of ethics and as a persons' age increases so does the ethical level of tolerance. According to Serwinek (1992), less significant than gender included variables marital status, dependent children status, and the region of a certain company. According to Serwinek, the findings provided insight into an individual's maturity level and decision making process, which adds importance to the present study.

These studies led researchers to conclude contradictions exist concerning gender and ethics. It is unclear under what environments, including in the IT arena, males and females may have variances. A goal in this study included understanding the variances between males and females by examining possible patterns of variances in ethical decision making by IT employees.

Researchers and job seekers often wonder if small businesses experience similar ethical problems as larger organizations. In searching for an answer concerning ethical behavior within a small business, Dickerson, Festervand, and Vitell (2000) conducted a quantitative study. Dickerson et al. mailed surveys to 1,300 small businesses to gather data. Variables tested included (a) personal ethics, (b) business practices, (c) business standards, (d) stakeholder responsibility, and (e) response to unethical behavior

(Dickerson et al., 2000). Small businesses, like other organizations, had employees who engaged in unethical behavior according to the research conducted by Dickerson et al. (2000). Through statistical analysis, Dickerson et al. (2000) demonstrated that supervisors set the tone for ethical behavior within businesses. The results of the study can assist researchers in gaining important knowledge in understanding ethical practices within businesses whether the business is small versus ethical practices within larger organizations. The new knowledge gained by researchers from the study can assist in understanding and practicing good, ethical behavior. The results of the study can assist researchers in understanding how business standards and leadership affect the success of businesses. The results from the previous studies can also assist researchers to explain unethical behavior in the workplace, thus helping with this research study on understanding the moral reasoning and ethical decision making.

Transition

Section 1 included the description of the research business problem, the purpose, nature, assumptions, and significance of this study. This quantitative research included a review of prior professional and academic literature. Within the literature review, included the Kohlberg's theoretical framework on moral decision making as the key to this research study.

The overall goal was to examine the relationship between the moral reasoning and ethical decision making of IT employees from businesses within the geographical area of Maryland metropolitan DOD community. I examined whether a statistically significant correlation exists between ethics training, education level, and employees' perception of

their organizations' ethical leadership has an impact on moral reasoning and ethical decision making.

Section 2 includes (a) research purpose, (b) role of the researcher, (c) method and design of the study, (d) population and sampling size, (e) data collection and analysis, and the (f) description of the validity and reliability of the survey instrument.

Section 3 includes (a) the findings, (b) implications for social change, (c) recommendations for action, (d) recommendations for future research as they relate to ethical decision making, and (e) reflection about my journey.

Section 2: The Project

This multiple regression study consisted of the examination of the relationship between the independent variables ET, EL, and EP and the dependent variables moral reasoning and ethical decision making. This section includes information related to the quantitative methodology and the multiple regression correlational design for the research study. Section 2 contains descriptions of (a) the study's purpose, (b) the role of the researcher, (c) the population, (d) the sampling data, (e) the research method and design, (f) the instruments, and (g) the reliability and validity of the study.

Purpose Statement

The purpose of this quantitative correlation study was to determine if ET, EL, and EP predicted the likelihood of Maryland metropolitan based IT employee engagement in unethical business behavior. The independent study variables to test the hypotheses were ET, EL, and EP. The variables for the study were constructs an employee could control and take action upon, therefore excluding other variables such as age and race. The dependent study variables were moral reasoning and ethical decision making. The population included IT employees from businesses within the DOD community.

The geographical location included businesses within the Maryland metropolitan area. Findings from this study can assist managers in identifying IT employees with unethical behavior tendencies. The results can help managers reduce firm losses and form a model of behavior in the DOD community contractor business and may help prevent future business ethical violations. A drop in the DOD community contractor

unethical behavior fosters social change by building stronger firms in the community and decreasing the unemployment rate.

Role of the Researcher

The role of the researcher in the data collection process is to describe the purpose of the research as well as identify the population, methodology, design, and variables (Hunt, 2011). Working alongside many of the business leaders in the Maryland DOD community allowed me to establish a professional working relationship. I maintained the highest ethical standards while compiling, organizing, analyzing, and interpreting data to test the hypotheses and answer the research questions during this quantitative research study. Important responsibilities the researcher must address during the development of the study include identifying the survey instrument and verifying the reliability and validity of the instruments (Yin, 2014). The researcher is to adhere to the ethical practices for the protection of the participants as outlined in the Belmont Report (U.S. Department of Health, Education, and Welfare, 1979). Moreover, the role of the researcher includes objectivity and maintaining impartiality during data collection (Yin, 2014).

Participants

To gain access to participants, snowball sampling was executed for this research. Snowball sampling is appropriate when a question exists regarding finding a large enough or hard to find sample size (Ardern, Nie, Perez, Radhu, & Ritvo, 2013; Arieli & Cohen, 2011; Heckathorn, 2011). Snowball sampling was the planned data collection method for this research study. The use of snowball sampling in this study ensured the

study achieved a sample size sufficient to draw valid a conclusion. I had a well-established professional network with many of the business leaders in the Maryland community because I worked within the DOD from 2004 through 2013. However, I did not compromise the study through biases and always acted professionally. Through the established professional network, I established initial contacts by reaching out to potential participants to take part in the study.

Additionally, the expectation from the use of snowball sampling was to receive recommendations for new participants and introductions to establish a professional relationship. After that, I asked each new contact to identify other businesses' leaders who may meet the criteria to participate in the survey. Leaders of these businesses assisted in producing the required number of demographic participants appropriate for the target group of interest. Buchner, Erdfelder, Faul, and Lang (2009) developed G*power as sample size calculator to conduct an a priori power analysis to estimate the required sample size. To obtain a sufficient number of participants for the sample size required by the priori power analysis executing snowball sampling continued.

I made initial contact with the chief executive officer or president of a business with DOD contracts in the Maryland metropolitan area to gain agreement to participate in the study. The first contact with potential participants included an exchange through email or telephone. The target participants for the study consisted of men and women who worked as an IT employee. In addition, the business had contracts to do business with the DOD community. During the survey process, for participants who did not fit the demographic requirements, the survey stopped, and the study ended for the participant.

Participants' names and any other personal identifiable indicators were withheld in the study to ensure confidentiality and anonymity. Each participant could stop and decline to continue participating at any time in the survey, thus protecting the rights of the participants. Also, to protect participants identity, I have sole access to all data collected and stored in a password-protected electronic folder. The study outline followed the procedures of Walden University to hold all data collections for 5 years. The destruction of all data will take place at the end of 5 years from the completion of the study using the software tool CyberShredder™ v1.12 or the latest version that permanently deletes files, thus ensuring confidentiality.

Research Method and Design

The research design includes the data collection method, data measurement, analysis to address the research problem, as well as the answer to the research questions. Three prominent research methods exist: qualitative, quantitative, and mixed methods research (Gorard & Symonds, 2010). Each of the research methodologies has relative weaknesses and strengths of various studies. The research purpose and questions determine the approach a researcher uses to collect data needed for the research study (Barratt, Choi, & Li, 2011).

Research Method

The research method for this research study was the quantitative method. Quantitative research is a technique that assists a researcher to facilitate the examination of the relationships among the variables (Neuman, 2011). According to Neuman (2011), data collection and analysis test research studies' hypotheses for the quantitative research

method. Libman (2012) discussed quantitative research as appropriate when conducting empirical research. Green and Sovey (2011) explained how experimental design addresses causation among variables. Rejection of the experimental design for this study arose because assigning random treatment levels to the independent variables was not feasible.

Qualitative research has no standard measures, relying on the researcher's interpretation(s); therefore, I rejected the qualitative methodology for this study (Bansal & Corley, 2012; Birkinshaw et al., 2011; Labaree, 2011). By contrast, the mixed methods approach requires a comprehensive data collection process (Bala et al., 2013; Crosbie & Ottmann, 2013; Heyvaert, Maes, & Onghena, 2013). Time constraints and the expected time to complete the comprehensive data collection process led to rejecting the mixed methods approach for this study.

Research Design

The research design for this study was correlational. The design included three independent variables and two dependent variables. Other quantitative designs include experimental and nonexperimental designs. Page (2012) noted that nonexperimental designs could incorporate descriptive surveys. Surveys provide a numeric representation of styles, attitudes, or views of a group (Cabooter, Schillewaert, & Weijters, 2010). Weisburd (2010) noted that in nonexperimental designs, selection of participants is not random, nor are there any controls or influence over the participants. Researchers using a causal comparative analysis may assume a cause-effect relationship whereas correlational

research does not address causal relationships. A causal comparative design did not suit the needs of this research study because my intent was to examine the relationships.

Using multiple regression analysis, I examined whether the three independent variables (as a set) significantly related to moral reasoning and ethical decision making. Correlational designs can also assist a researcher to explain if each one separately may assist in predicting decision making independently of the outcome of the other variables. A correlational study was the most appropriate design for addressing the primary and subsidiary research questions. The design included the examination of the relationships between the independent variables: ET, EL, and EP and the dependent variables moral reasoning and ethical decision making.

Population and Sampling

The population for the study included IT employees from businesses with contracts to do business with DOD. Participant selection criteria included the participants (a) to be directly hired or subcontractor employees by businesses, (b) to hold an IT position, and (c) to have DOD contract(s) in the business. The focus area of the research study included businesses in the Maryland metropolitan area that conducted business within the DOD, a large community. Under the Federal Acquisition Regulations (FAR 52.203-13), leaders of companies who conduct business with the U.S. federal government under a contract award exceeding 5 million dollars and for the period of performance of more than 120 days must have a written code of business ethics and conduct. However, not all businesses connected to such contracts are subjected to this rule (General Services Administration [GSA], 2009).

Snowball sampling was the appropriate sampling method for this research study because of the restricted and sensitive nature of the DOD. According to Fisher and Monahan (2015), snowball sampling is a good technique to use when trying to gain access to *private or secure* organizations. The use of snowball sampling was to receive recommendations for new participants and introductions to establish a professional relationship. The advantage of using snowball sampling in this research study included cost-efficiency and the possible increase in the number of participants. However, the disadvantage of using snowball sampling in the research study included the possibility of sampling bias (Salganik & Heckathorn, 2004). Obtaining a large enough sample size can assist in limiting biases with the study. In addition, conducting a Web search for IT businesses within the DOD environment assisted in limiting biases with the study.

A random effect multiple regression model with two-tails assisted with the analysis and calculations for the sample size. Cohen (1992) suggested using a generic medium effect size, which Cohen defined as an f^2 of 0.15, to calculate sample size requirements when there are no specific expectations. The power was set to expect a generally accepted standard of $1 - \beta = .80$ and alpha ($\alpha = .05$) consequently to discern significant findings with 95% confidence rather than risk associations due to chance. The total number of predictors was ET consisting of two levels, yes or no, requiring one predictor variable. EL consisted of four categories and thus required modification to three dummy coded variables. The EP consisted of two possible levels (yes versus no) and required one variable; therefore, there were five predictors.

Software tools such as G*power can assist in calculating sample sizes for assuring statistical validity (Buchner et al., 2009). I used G* Power version 3.1.9 to conduct a power analysis and calculate the appropriate sample size for the research study. Using the parameters above, the regression analysis required an approximate sample size of 68 for the study. The collection of a sample this size helps to ensure the significance is firm where it does, in fact, exist and contributes to the validity of the study. Increasing the sample size to 107 increases the power to .95. Therefore, seeking a range of participants between 68 and 107 was the intent for the study (Figure 1).

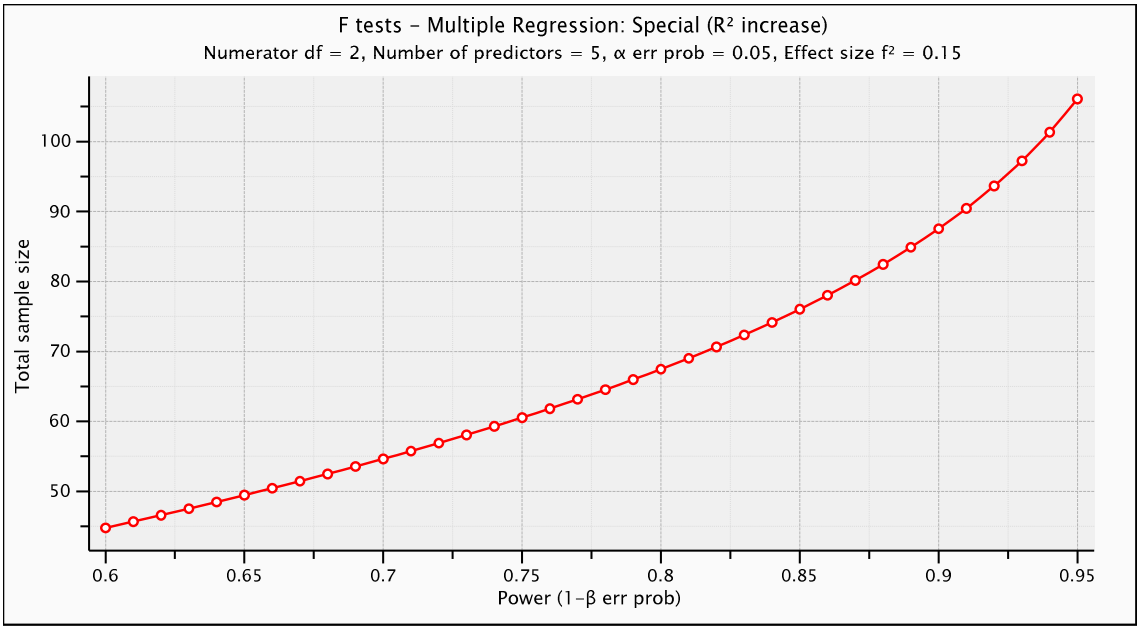

Figure 1. Priori sample size generated by using the free G*Power 3.1.9 software by Faul et al. (2009).

The use of a medium effect size ($f = .15$) was appropriate for the study. The medium effect size was based on the analysis of several articles, and ET, EL, and EP were the outcome measurements.

Ethical Research

This study included all of the required ethical assurances before proceeding. The required ethical assurances included obtaining approval number 06-22-160057002 from Walden University's Institutional Review Board (IRB). The IRB determined if the study (a) presented risks to the participants, (b) complied with the ethical principles associated with the use of human subjects, (c) complied with all U.S. federal regulations and Walden University's standards for ethical research, and (d) met all requirements. Participants could withdraw from the survey without penalty. Access to the data collected in this study is limited. The data resulting from the study resides in a storage file that is secure and contains a password for access. Storing the collection of data for 5 years for the research study follows Walden University's rules on data retention. After 5 years, the destruction of the survey data will occur using the software tool CyberShredder™ v1.12 or the latest version that permanently deletes files.

Data Collection Instruments

Instruments

The two (nondemographic) instruments for the research study were the Ethics in IT Survey developed by Harris (2000) and Rest's DIT-2 instrument (Bebeau, Narvaez, Rest, & Thoma, 1999). The participants accessed the instruments via SurveyMonkey™ (SurveyMonkey, 2012). The first contact with the potential participants included an initial phone conversation. An email to participate voluntarily in the Ethics in IT survey and the DIT-2 test included the necessary instructions and a URL to access the surveys. The survey instructions provided to the participants contained information about filling

out the survey. The survey instructions (a) listed any expectations from the participants, (b) gave details how to complete the survey, and (c) explained how to submit all survey materials. The Ethics in IT survey included 22 ethical dilemma vignettes. Participants rated each question based on a 5-point Likert-type scale with ranges from 5 (*Ethical*) to 0 (*Computer crime*).

Ethics in IT survey. Harris (2000) developed the Ethics in IT survey based on Mason's (1986) unique categories: privacy, accuracy, property, and access. The Ethics in IT survey assists researchers in gathering information on ethical decision making for IT (Harris, 2000). Various researchers have used the Ethics in IT survey to gather information to assist in their research on ethical decision making, in IT, within the last 10 years (Davis, Hodis, & Woodward, 2007; Martin & Woodward, 2011; Shahand, 2010). The Ethics in IT survey includes 22 ethical dilemma vignettes for the participants to rate each question based on a 5-point Likert-type scale with ranges from 5 (*Ethical*) to 0 (*Computer crime*) and to calculate the means, averages, and frequency distribution. During data analysis, conducting the Cronbach's alpha test of reliability assisted with determining the reliability of this instrument within the collected sample. The Ethics in IT survey has a high concurrent validity with other instruments that measure ethical decision making, achieving a significant correlation coefficient (*r*) of .32 (Woodward, Davis, & Hodis, 2007).

Defining Issues Test-2. The Center for the Study of Ethical Development (CSED) houses and distributes the DIT-2 test. The Defining Issues Test-2 (DIT-2) test assists with gathering data to evaluate the moral reasoning of participants. Applied and

documented expansively for well over 25 years, the DIT test measures the moral development of participants (Bebeau et al., 1999). The DIT-2 test contains seven criteria to test the validity of the instrument (Bebeau et al., 1999). A revised DIT-2 expanded the dilemmas as well as added additional reliability checks to identify unpredictable participants (Iran-Nejad et al., 2007).

The planned strategy included sending the DIT-2 test and survey materials to The Center for the Study of Ethical Development for tabulation and scoring. I submitted the materials to the CSED, after 2-weeks from the initial invitation to participate in the survey. The scoring of the DIT-2 included the calculation of the number of times a participant chose: (a) a personal interest schema, (b) the maintaining norms schema, or (c) the post-conventional schema (Bailey, 2011; Bebeau, Dong, Jaing, Liu, & Thoma, 2011; Iran-Nejad, Thoma, & Xu, 2007). The P score represents the post-conventional schema of the participants weighted sum of items. The P score is a percentage of the test score answers from Stages 5 and 6 of the moral development test (Bebeau et al., 2011). The N2 score reflects prioritizing and rating (Bebeau et al., 2011). The rating for discrimination uses N2 for items at Stage 2 and 3 of the moral development test. The P score and the N2 score both represent attaining higher moral reasoning. The N2 score has additional stringent rules for missing data than the P score.

Measurement of the validity and reliability of the DIT-2 test included four criteria (Bebeau et al., 1999). The four criteria consisted of (a) discrimination of age and education groups, (b) prediction of opinions on controversial public policy, (c) high correlations between DIT1 and DIT2, and (d) adequate internal reliability (Bebeau et al.,

1999). The Center for the Study of Ethical Development scores the DIT1 and DIT2 for participant reliability; therefore, the Cronbach's alpha values are not of use. Rather, The Center for the Study of Ethical Development determines how many participants provided reliable responses, and the CSED presents this information as a percentage of the sample. The DIT-2 had reliable responses from 96% of the sample in the Bebeau et al. (1999) study. In comparison, the DIT-1 has a reliable response rate of 77%. According to Bebeau et al. (1999), the N2 index for the DIT2 equaled .81 and .74 for the P index for the true Cronbach's alpha coefficients.

The Bebeau et al. (1999) study also indicated convergent validity, wherein the theoretically related concepts of age and education significantly relates to the outcome of moral judgment. An analysis to compare moral judgment scores between levels of education indicated a significantly different score for each education group ($p < .001$), where the score for moral judgment increased from ninth grade to graduate/professional school. According to Bebeau et al. (1999), the correlational analysis from the study led them to indicate a convergent validity with both education (.62 for P index; .69 for N2 index) and chronological age (.52 for P index; .56 for N2 index).

The author of the Ethics in IT survey, Albert Harris, provided permission to use the instrument (see Appendix B). The research plan consisted of communicating with The Center for the Study of Ethical Development (CSED) to obtain the test and survey materials for the DIT-2 tests (see Appendix C). Review of the raw data is available upon written request to the researcher.

Demographic survey. The use of a demographic survey assisted with the collection of data on ethics training, education level, and the employees' perception of ethical leadership. The planned goal was to analyze the data to determine if there was a relationship (or not) between moral reasoning and ethical decision making and the independent variables: (a) ethics training, (b) education level, and (c) employees' perception of their organizations' ethical leadership.

The response data characterized the variable ethics training with a 1 for 'Yes' the participant completed ethics training, and 0 for 'No' the participant had not received ethics training. The variable education level includes four level categories; HS = 0, Bachelor's Degree = 1, Master's Degree = 2, and Ph.D. = 3. Dummy coding assists the researcher in examining the significance of response differences and the values of the independent variables (Aiken, Cohen, Cohen, & West, 2013; Collins, Dziak, Kugler, & Trail, 2014; Suganthan & Zhang, 2014). The n used in dummy variables represent the number of levels in a category. The zero level for a dummy coded variable is the reference group, represented as n-1; all resulting dummy coded variables represent a comparison to the zero level, or reference (Aiken et al., 2013).

HS Diploma is the category to which a comparison against all the other categories takes place. Determining if having a Bachelor's Degree, Master's Degree, or Ph.D. versus having an HS Diploma predicts the value of the dependent variables moral reasoning and ethical decision making of IT employees from businesses occurred. The response data characterizes the variable ethical leadership with 0 for 'Yes' the participant

agrees there is the perception of ethical leadership within the company, and 1 for 'No' the perception that no ethical leadership exists within the company.

Data Collection Technique

The data collection method for the study was an online survey software tool through SurveyMonkey. SurveyMonkey is an online tool that aids researchers in collecting data (Chui, Sherry, & Thomas, 2010; Danitz & Orsillo, 2014; Jeston, McDonald, & Pollock, 2014). The Universal Resource Locator (URL) provided by SurveyMonkey provided each participant the ability to sign on to the survey through his or her email address. The link included background information and instructions on how to fill out the survey and the ability to exercise the option of not participating in the study.

An online survey reduces time, lowers the cost of administering the test, and ensures a better response rate (Adams & Monroe, 2012). The survey included three parts; demographic, the Ethics in IT survey, and the DIT-2 test. Demographic questions consist of ethics training, education level, and employees' perception of their organizations' ethical leadership. The Ethics in IT survey and the DIT-2 survey instruments assisted in gathering data from participants to evaluate the moral reasoning and ethical decision making of IT employees.

I initiated the data collection process by sending an email invitation to participate to a known point of contact (POC) of businesses with contracts to do business with DOD. The cover letter included a URL to access the survey; thereby, reducing the probability of nonresponses. Through snowball sampling, additional POCs received an email invitation to participate in the study describing the research, the importance of the topic, and the

topic's contribution to the business community. The invitation to participate in the survey included the approximate time to complete the entire survey, and the ability to withdraw from the survey. The invitation also contained an explanation of the timeline for the return of the survey.

Each company's leader who consented to permit their employees to participate in the survey received an email with a survey and a reminder of the survey timeline, confidentiality, importance, and the ability to withdraw. A pilot study was not necessary for the research, because of the proven reliability and validity of the Ethical in IT survey (Davis et al., 2007). The DIT-2 instrument also has proven reliability and validity track record (Bebeau et al., 1999). The complete set of survey questions appears in Appendices A, B, and C.

All participants received an email reminder of the survey after 1 week from the distribution date of the invitation. After 12 days, participants received the second reminder email to complete the survey. As a follow up after receiving the survey, a thank you email to each participant followed.

Data Collection Technique

The use of Microsoft Excel spreadsheets, on-line journals, databases, SPSS (.sav) files, and handwritten notes helped to facilitate organizing and tracking the response data. I have sole access to the materials in a protected online environment. Implementing the practice of strong password usage assisted in precluding unauthorized individuals from accessing the materials (National Institute of Standards and Technology (NIST), 2009).

The definition of a strong password consists of 16 characters, consisting of upper and lower case letters, numbers, and special characters (NIST, 2009). To maintain security, encryption for electronic transfer of passwords took place and includes sole access to a locked file cabinet containing all handwritten notes from the study. To protect the rights of the participants and in accordance with Walden University's IRB policy, all survey response data and data destruction will take place after 5 years from the date of CAO approval.

Data Analysis

The data analysis process for this study focused on testing the hypotheses to answer four research questions:

Subquestion 1

Subquestion 1: Does ET for IT employees working for Maryland metropolitan business firms predict the likelihood of IT employee engagement in unethical business behavior?

$H1_0$: There is no relationship between ET for IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H1_a$: There is a relationship between ET for IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

Subquestion 2

Subquestion 2: Does the EL of IT employees working for Maryland metropolitan business firms predict the likelihood of IT employee engagement in unethical business behavior?

$H2_0$: There is no relationship between the EL of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H2_a$: There is no relationship between the EL of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

Subquestion 3

Subquestion 3: Does the EP of IT employees working for Maryland metropolitan business firms predict the likelihood of IT employee engagement in unethical business behavior?

$H3_0$: There is no relationship between an EP of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

$H3_a$: There is a relationship between an EP of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior.

The plan included the use of SPSS™ statistical software version 21, or the latest available software version, for analyzing the survey response data (Basto & Pereira,

2012). The software product SPSS version 21 assists researchers with coding, selecting, and transforming variables into graphs and charts for facilitating the analysis and interpretation of the data. The first step consisted of, data cleansing of univariate outliers. Tabachnick and Fidell (2012); Bowman and Denson (2014) operationalize outliers as any score 3.29 standard deviations or more from the mean in either direction. To examine these, executing the software tool SPSS assisted in calculating the standardized residuals. The removal of participants with standardized residual scores on either dependent variable, which were greater than 3.29 or lesser than -3.29 occurred. After, removing outliers, the deletion of any participant with largely missing data from the data set followed. In this step, if the entire subscales were missing the participant was deleted from the data set. In so doing, the removal of any participant lacking data for any of the variables of interest occurred.

The next step was calculating the demographic information that described the sample's composition. Calculating the means and standard deviations described any continuous data, while the calculation of frequencies and percentages described any nominal data. Statistical analyses occurred, after data cleaning and demographic examination. The statistical technique for this research study was multiple linear regression analysis. I used the model design to assist in examining the relationship between independent variables ethics training, education level, employees' perception of their organizations' ethical leadership, and the dependent variables moral reasoning and ethical decision making.

The first goal was to determine if an overall statistically significant relationship existed (at the .05 level) between moral reasoning, ethical decision making and the three independent variables. To assess all three independent variables' relationship with the dependent variable, conducting one multiple linear regression analysis for either of the dependent variables (moral reasoning and ethical decision making) occurred. Multiple linear regression analysis is an appropriate analysis to determine the collective relationship between a set of independent variables and a single continuous dependent variable (Tabachnick & Fidell, 2012). Using the *F* statistic and *p* statistic assisted with determining the significance from each regression analysis. To safely conclude the set of variables significantly predicts the moral reasoning or ethical decision making, the respective *F*-ratio must indicate significance at the .05 level. A determination of the significant model occurred by examining the R^2 value. The R^2 value indicates the overall percentage of variation in a dependent variable accounted by the set of predictor variables (Pagano, 2009). The analysis for the overall percentage of variation for each of the two dependent variables transpired. Selecting this method for the research study over other statistical approaches allowed for the assessment of multiple variables simultaneously, and did not require measuring the variables on any specific scale (Tabachnick & Fidell, 2012).

Measuring the assumption of multiple linear regression occurred, before the analysis. The assumptions of the multiple linear regression included normality, homoscedasticity, and absence of multicollinearity. Normality is the assumption that there is a normal bell curve distribution between the predicted and observed dependent

variable values. The assumption with the analysis of scores with homoscedasticity assumes a near equally distribution about the regression line. Assessing normality and homoscedasticity transpires by analyzing scatter plots (Tabachnick & Fidell, 2012). However, Stevens (2009) suggests that the *F* test is robust against violations of the assumptions of normality and homoscedasticity when the sample size exceeds 30. The absence of multicollinearity is the assumption the predictor variables lacks close association. To assess homoscedasticity using Variance Inflation Factors (VIFs) occurred. VIF values over 10 suggest the presence of multicollinearity and a violation of the assumption (Stevens, 2009).

The second objective was to determine if each predictor was statistically significant for predicting moral reasoning and ethical decision making of businesses' IT employees. Assessing individual predictor variables for any significant model occurred. Testing each independent variable's significant contribution to the overall model involves a comparison of what the variable contributes to the model's predictive ability beyond the contribution by each of the other model variables (Tabachnick & Fidell, 2012). SPSS's output provides a summary table for examining the significance for each of the coefficients via the *t*-test for each independent variable statistic. A lack of significantly predictive models results in invalid results for each *t* test, and as such, interpreting the *t* tests occurred for significant models only.

The testing plans included the overall and unique effects of the variables ethics training, education level, and employees' perception of their organizations' ethical leadership; the expectation was to determine the contribution of both the overall

regression model and each predictor variable for predicting moral reasoning and ethical decision making. In objective one, using the overall regression model to assess the significant predictive ability at a .05 alpha level occurred. In objective two, using the individual predictors to assess for either significant model using *t*-tests transpired. Examining the *B* value to check for any significant predictors occurred. A beta weight (or *B*) indicates the slope for a significant predictor, such that for every unit increase in the independent variable, the dependent variable increases or decreases by the number associated with the *B* value. Dichotomous predictors consist of those grouped in the "1" category and interpreted as having scored on the dependent variable *B* units higher than those grouped in the "0" category. The expectation was to understand the relationship of moral reasoning and ethical decision making of IT employees from DOD contractor businesses within the Maryland metropolitan area.

Study Validity

The section below contains information on reliability and validity of the instruments for this study. Employing internal consistency measures of the instruments and the continuity of the construct reliability and validity occurred. The regression analysis is aimed to combat the potential effect of repeated testing may increase the rate of Type I error. In assessing all variables in the overall regression equation (i.e., using the *F* test), the effects of repeated testing may diminish, and a significant finding suggests individual predictors may be assessed further (Tabachnick & Fidell, 2012). In assessing the set of predictors overall, the *t* tests for individual predictors have an overall effect.

Thus, the assumption of the individual findings being valid and are less susceptible to inflated rates of Type I error.

Reliability

According to Ihantola and Kihn (2011), a consistently repeated measurement shows reliability. The main reliability issue for the research study is whether the regression model is a reliable predictor of the level or type of ethical decision making. The coefficient of determination R^2 is an estimate of the percentage of variation in the dependent variables (moral reasoning and ethical decision making) explained by the independent variables (ethics training, education level, and employees' perception of their organizations' ethical leadership). In addressing the reliability of the instruments, previous researchers reported a high reliability of the Ethics in IT survey of 0.816 using the Cronbach's alpha (Davis et al., 2007; Harris, 2000; Martin & Woodward, 2011). As noted in the Instruments heading section, I used the Cronbach's alpha to test the reliability of the Ethics in IT survey for this research.

The DIT-2 design has reliability checks to detect false data, set by the agent at The Center for the Study of Ethical Development (CSED). Bebeau, Narvaez, Rest, and Thoma (1999) tested the reliability of participant's response to the DIT-2 test. The agent at the CSED used scoring for reliability checks instead of the Cronbach's alpha. According to Bebeau et al. (1999), 96% out of 200 participants responded reliably on the DIT-2. Missing data is one-factor the agent at the CSED checks for regarding the reliability of the participant's response. If the number of missing data points exceeds the

recognized thresholds, then I may use CSED's information to determine that the participant did not answer the questions truthfully or with attentiveness.

Purging of data took place when a participant failed to rank an item, more than three times. Rejection of a participant took place when the participant left more than six rankings blank on the survey. Rejecting a participant in this study happened once a participant left more than six rankings blank. Another reliability check for the DIT-2 instrument is the stop time variables to test if the participants take too long to answer questions or are too quick in answering the questions.

Cronbach's alpha is another reliability check that reflects the degree of consistency of the questions. The agents for The Center for the Study of Ethical Development for the DIT-2 reported the Cronbach's alpha in the upper .70s/low 80s for internal consistency. I used the Cronbach's alpha to examine the reliability of the DIT-2 for the research population. Also, having participants answer questions concerning their environment was a reliability check used in the DIT-2 testing (Bebeau et al., 1999). The other reliability check the agent at the CSED used for this research included consistency to test for random responses (Iran-Nejad et al., 2007; Rest, 1986). Random responses could mean inconsistency or the user is not reading the questions, but selecting answers haphazardly.

Validity

Two types of threats exist with validity in quantitative research: internal validity and external validity threats (Barry, Chaney, Chavarria, & Piazza-Gardner, 2013). Issues with (a) composition, (b) biases of the researchers or (c) analysis or interpretation of the

data can lead to internal validity threats. Ihantola and Kihn (2011) identified threats to external validity as (a) population, (b) time, and the (c) environment. Bleijenbergh, Korzilius, and Verschuren (2011) discussed the cause and effect in causal relationships, where internal validity is applicable in a quantitative study. According to Post and Rahman (2012), internal validity applies to experimental studies. The study was nonexperimental, so threats to internal validity did not apply.

The assumptions of multiple linear regression include normality, homogeneity of variance, and the absence of multicollinearity. Using a scatterplot diagram to plot the residuals from the predicted values of the dependent variable against the regression assists in checking the normality of the regression model. Residuals occur when there is a difference between the actual values and the predicted values of the dependent variable; by charting standardized residuals, examining the homogeneity of variances can occur. The absence of multicollinearity is the assumption that independent variables are not too highly correlated, and assessed using variance inflation factors (VIFs). Stevens (2009) states that variance inflation factors exceeding 10 for any independent variable indicate a potential violation of the assumption.

External validity allows for generalization of study results from the sample data to other populations (Olsen, Orr, Bell, & Stuart, 2013). To minimize the threat to external validity choosing a representative sample size was imperative for this study. The type of businesses targeted for this study covered all of the major IT components (e.g. hardware construction, software management, IT program/project managers, database management, and systems analysis). Replicating the results of this study, which sampled

from businesses that employed all possible business IT techniques, may further contribute to the validity of the findings.

Transition and Summary

Section 2 contained a review of the project and the purpose statement. An explanation of the role of the researcher, the participants, the research method and design, population and sampling, and the ethical research. Section 2 concluded with the data collection method; including the instruments, data collection, and data organization techniques, the data analysis technique, and the explanation of reliability and validity of the study. This quantitative correlational study described the usage of multiple regression and the derivative coefficient of determination. Section 3 contains the application to professional practice and implications for change. Also, included in Section 3 is an overview of the study, a presentation of the research findings, and applications to professional practice. Section 3 concludes with the implications for social change, recommendations for action, recommendations for further study, reflections, description of the summary, and the study conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative correlation study was to determine if ET, EL, and EP predicted the likelihood of Maryland metropolitan based IT employee engagement in unethical business behavior. The independent variables were ET, EL, and EP. The dependent variables were moral development and ethical decision making.

The null hypothesis posited no relationship between moral development and ethical decision making and the variables ET, EL, and EP. The alternative hypothesis posited a relationship between moral development and ethical decision making and the variables ET, EL, and EP. I was unable to reject the null hypothesis, and I rejected the alternative hypothesis. ET, EL, and EP did not predict an employee's unethical business behavior.

Presentation of the Findings

In this section, I discuss the testing of the assumptions and the multiple regression analysis. I present descriptive statistics, provide the findings, conclude with a concise summary, and recommend future research. To address the possible influence of assumption violations, I employed bootstrapping using 2,000 samples. Thus, bootstrapping 95% confidence intervals were presented where appropriate.

The data were collected using the DIT-2 to test moral development and the Ethics in IT survey to test the ethical decision making. To test the moral development, the raw data collected were delivered via email to The Center for the Study of Ethical Development for tabulation where the *P* score and *N*2 score were calculated. The means,

standard deviation, variances, and correlations were calculated using the data indexes and other data. To reveal if a relationship exists between the variables, a correlations test was performed.

To test ethical decision making, the survey data collected from the Ethics in IT survey were coded, tabulated, and scored using SPSS software v21. An index was calculated by adding up all the scores for each of the survey participants. The descriptive analysis found in Table 2 and Appendix G highlights the characteristics of the population used to test the moral development of IT employees and its relationship to ethical decision making.

Tests of Assumptions

The assumptions of multicollinearity, outliers, normality, linearity, homoscedasticity, and independence of residuals were evaluated. Bootstrapping, using 2,000 samples, enabled combating the influence of assumption violations. The assumptions were met, and no serious violations were evident.

Table 2 shows the study of predictor variables. Tests to understand if the data met the assumption of collinearity indicated no significant violation (ET: tolerance = .969, VIF = 1.032; EL: tolerance level = .985, VIF = 1.015; EP: = tolerance level = .960, VIF = 1.041).

Table 2

Study of Predictor Variables

Variable	Collinearity Statistics	
	tolerance	VIF
ET	.969	1.032
EL	.985	1.015
EP	.960	1.041

Note. $N = 66$. Dependent variable: moral development and ethical decision making

The largest variance inflation factor shown in Table 2 is less than 10, and the average of the variance inflation factors is 1.02 and therefore would not be considered substantially greater than one. Table 3 shows the collinearity diagnostics.

Table 3

Collinearity Diagnostics

					Variance proportions		
Model	Dimension	Eigenvalue	Condition	(constant)	ET	EL	EP
1	1	3.780	1.000	.00	.01	.01	.01
	2	.110	5.857	.00	.06	.30	.45
	3	.089	6.500	.00	.54	.46	.03
	4	.020	13.636	1.00	.23	.40	.52

Note. $N = 66$. Dependent variable: moral development and ethical decision making.

Multicollinearity was evaluated by viewing the correlation coefficients among the predictor variables. The data met the assumption of independent errors Durbin-Watson value = 1.98. The examinations indicated there were no major violations of the assumptions.

Normality, homoscedasticity, and linearity assumptions were tested using the normal probability P-P plot. The histogram (Figure 2) is a display of the normal distributed residuals. The P-P plot (Figure 3) is a display of the regression standardized residual. The histogram of standard residuals indicated that the data contained errors that were about normally distributed. The normal P-P plot of standardized residuals showed points that were not completely on the regression line but were within close proximity. The data also met the assumption of nonzero variances (ET Variance = .124; EL Variance = .842; EP Variance = .124; Personal Interest Variance = 208.339; Maintain Norms Variance = 233.176; N2 Score Variance = 198.592; Ethics in IT Variance = .177).

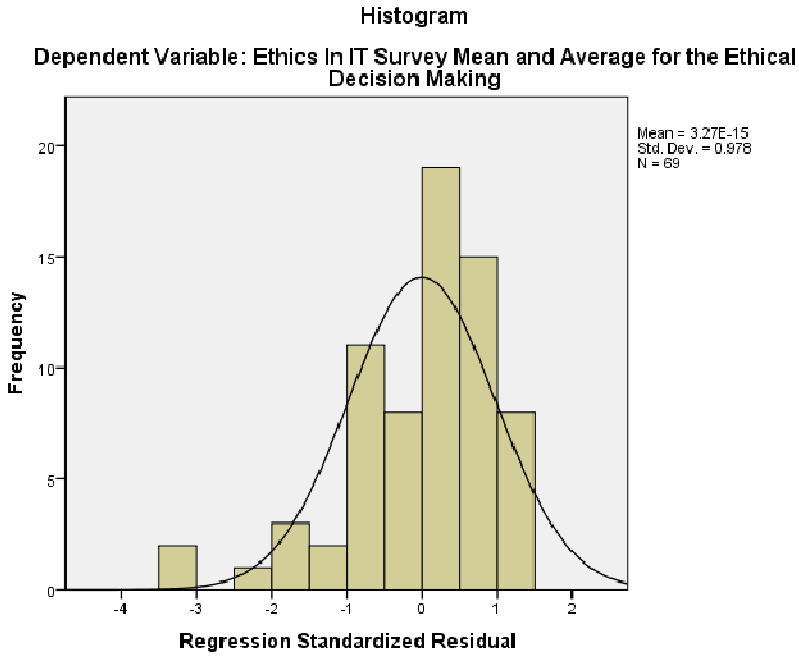

Figure 2. Histogram of the regression standardized residual.

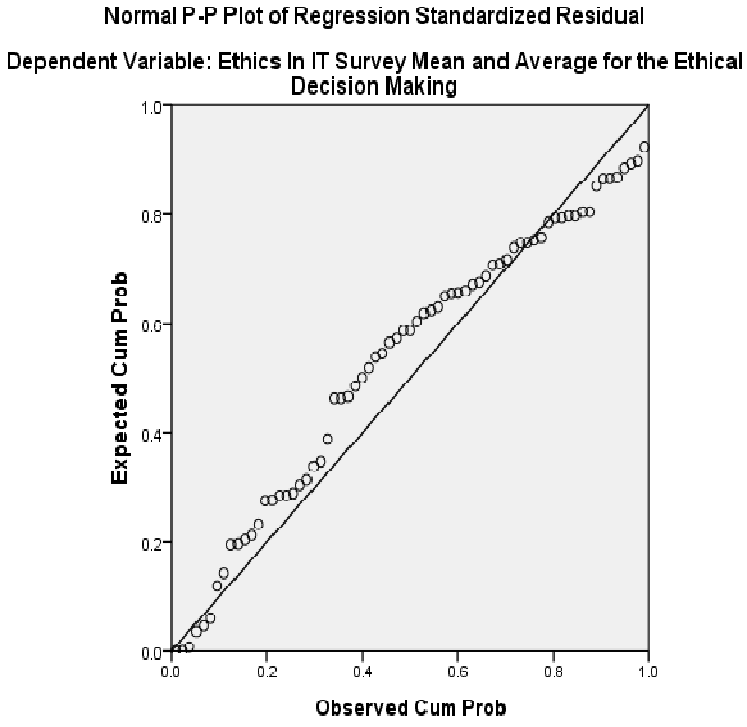

Figure 3. Normal P-P plot of regression.

Descriptive Statistics

From a total of 112 returned surveys, 42 were eliminated due to missing data or qualification criteria. Thus, 70 participants completed the survey and were included in the descriptive statistics (Table 4). Out of the 70 completed surveys, four did not meet the (CSED) reliability check; therefore, these were taken out of the Ethics in IT Survey analysis. The average number of IT employees who participated in ET was 83%. The average education level was 46% holding a Master's degree, and employee's perception of their organizations' ethical leaders was 83%. Table 4 provides a description of the moral development statistics.

Table 4

Moral Development Description Statistics (n = 70)

Personal interest stage (2/3)	Maintain norms (Stage 4)	Post conventional N2 score	N2 score (N2 Score)	Ethics in IT Survey
Mean 24.5	38.57	30.67	26.73	3.8
StdDev 14.43	15.00	15.11	14.09	.42
N 70	70	70	70	

Note. *N* = 70.

Inferential Results

Standard multiple linear regression, α = .05 (two-tailed), was used to examine the efficacy of ET, EL, and EP in predicting employees' moral development and ethical decision making. The independent variables were ET, EL, and EP. The dependent variables were employees' moral development and ethical decision making. The null hypothesis was that ET, EL, and EP would not significantly predict the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior. The alternative hypothesis was that ET, EL, and EP would significantly predict the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior. Preliminary analyses conducted to assess whether the assumptions of multicollinearity, outliers, normality, linearity, homoscedasticity, and independence of residuals were met; no serious violations were noted (see Tests of Assumptions). The model was not able to significantly predict the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior, F (3, 66) = .570, p = .637, $R2$ = .028. The $R2$ (.028) value indicated that approximately 28% of variations in moral

development and ethical decision making is accounted for by the linear combination of the predictor variables (ET, EL, and EP). The ad hoc analysis of the relationship between moral development and ethics in IT findings displayed a significant relationship between Stage 2/3 personal interest (p = -.291) and Stage 4 maintain norms (p = .431) moral development and ethical decision making.

Kohlberg's Stage 2/3 personal interest indicates a person with a high score shows a high degree of societal conformism. At the Stage 4 level of Kohlberg's moral development theory, an individual has respect for authority and rules. The mean score was 38.7, and the standard deviation was 15. The results of the consolidated scores revealed that most participants fell within the maintaining norms stage of moral reasoning. The completed list of participant scores are in Table 11, Appendix G.

Hypothesis 1 Concerning Ethics Training. The first hypothesis tested if there was no relationship between ET for IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior. The alternative hypothesis tested if there was a relationship between ET for IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior. The p-value of .767 indicated that ET had no relationship with the likelihood of IT employee engagement in unethical business behavior. Subsequently, $p = .767 > .05$, I was unable to reject the null hypothesis.

As learned from the literature review, ET did not matter (Weber, 2014). ET could not teach an individual to make good ethical decisions (Birch et al., 2013). ET is about

understanding and identifying right and wrong. Kohlberg's stages of moral development define how a person makes decisions in society. While the results from the current study revealed that ET had no relationship with the likelihood of IT employee engagement in unethical business behavior, ET still appears to be relevant. The results from the current study also revealed that moral development influences ethics decision making. Recently Connelly, Medeiros, Mulhearn, Steele, and Watts (2016) conducted research on ET and intervention. The results from the research led Connelly et al. to conclude that ET is working. Due to the continued rise in unethical business behavior, federal agencies have increased ET, resources, and financial support to combat the bad behavior. The results from the data show that ET, while slight, does reveal some improvement in unethical business behavior (Connelly et al., 2016). It was also noted that ET in the business environment is usually centered around moral reasoning and reactions measures; however, researchers have failed to study behavior outcomes and organization results (Connelly et al., 2016).

Akkilic, Alniacik, Kulahli, Ozbek, and Sahin (2015) conducted a study on ET and its effect on ethical perceptions. The experiment included 152 undergraduate students. The experiment included two groups, in which half of the students received 10 hours of ET, while the other half did not receive any ET. The results of the study revealed that students who attended the 10 hours of ET showed a positive ethical awareness and intentions. Akkilic et al. concluded that positive ethical awareness and intention provides for possible better decision making.

There is evidence on the importance of ET. ET requirements continue to grow as part of the higher learning curriculum. According to the Office of Personnel Management's website (2017), annual mandatory ET for federal government agency employees continues to be updated. Also, Maryland public ethics law 5-205(d) makes it mandatory for local officials and employees to take ET.

In a post-hoc analysis of the relationship between taking ET and a positive change in decision making concerning ethical conduct, the results showed a significant correlation at the 0.01 level ($p = .482$). The results also displayed at the 0.01 level a significant relationship exists between ET and IT employees being more willing to report unethical behavior ($p = .537$).

Hypothesis 2 Concerning Education Level. The second hypothesis was that there was no relationship between the EL of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior. The alternative hypothesis was that there was a relationship between the EL of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior. The *p*-value of .253 indicated that EL had no relationship with the likelihood of IT employee engagement in unethical business behavior. Therefore, $p = .253 > .05$; I was unable to reject the null hypothesis.

As learned from the literature review, there is no relationship between EL and unethical business behavior. The results from the current study did not reveal a relationship between EL and the influence on the likelihood of IT employee engagement

in unethical business behavior. As learned from the literature review, most researchers have focused on student's education and ethical behavior. In conducting the literature review, I found a lack of research on EL and unethical behavior within the professional business environment. This study could encourage business managers into researching if higher learning could combat unethical business behavior.

Hypothesis 3 employee perception of their organizations' ethical leaders. The third hypothesis, there was no relationship between an employees' perception of their organizations' ethical leadership of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior. The alternative hypothesis, there was a relationship between an employees' perception of their organizations' ethical leadership of IT employees working for Maryland metropolitan business firms and the likelihood of IT employee engagement in unethical business behavior. The *p*-value of .454 indicated that education level had no relationship with the likelihood of IT employee engagement in unethical business behavior. I was unable to reject the null hypothesis, $p = .454 > .05$.

While, the results from the current study revealed that an employees' perception of their organizations' ethical leadership had no influence on the likelihood of IT employee engagement in unethical business behavior, leadership influence still appear to be pertinent. The information gathered for the literature review exposed ethical leadership not only has a direct correlation with employees making good ethical decisions, but could also lead to the company's success (Avella and Nunn, 2015; Xinxin & Yidong, 2013).

In a study conducted through the national business ethics survey (2013) the results revealed that an employees' perception of their organizations ethical leadership is critical. Brown, Finkelstein, Jordan, and Trevino (2013) stated that a leader's cognitive moral development had a direct relationship with employees' perception of ethical leadership. The information from the literature review revealed the importance and influence an organizations' leadership has on its employees. Also, a leaders ethical behavior will play a part on if an employee would report any unethical behavior observed.

Analysis Summary

The purpose of this study was to examine the relationship of ET, EL, and EP in predicting the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior. I used standard multiple linear regression to examine the ability of ET, EL, and EP to predict the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior. Assumptions surrounding multiple regression were assessed with no serious violations noted. The model was not able to significantly predict the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior, F (3, 66) = .570, p = .637, R^2 = .028. ET, EL, and EP provide useful predictive information about the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior. In conclusion, ET, EL, and EP were not significantly associated with predicting the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior.

Applications to Professional Practice

Until now, little research on moral development and ethical decision making focused on employees in information technology, most research centered on college students or professionals in the accounting field. This study adds additional knowledge that was lacking in the business arena; thereby, adding value to the business environment in understanding if moral development and ethical decision making assist in predicting which IT employees may display unethical behavior. The study results provide business managers, IT program managers, and human resource manager's awareness, that ET, EL, and the EP have no significant effect in predicting which IT employees may display unethical business behavior.

Implications for Social Change

Leaders within an organization may realize predicting which employees who could display unethical behavior is an ongoing process. Implications for positive social change include business leaders within the DOD environment, other businesses, and IT employees understanding the relationships between moral development and ethical decision making and what leads to unethical business behavior. This awareness has the potential to spur open communications. Thereby, managers and IT employees could identify potential risks for unethical business behavior and ultimately, solutions to prevent or lessen the chances of unethical business behavior. This potential for open communications could create a better working environment, better ethical behavior, and a favorable reputation for a business; thereby, contract gains, and economic growth (Leung, Sun, & Zhu, 2014).

Recommendations for Action

The research findings from this study provided the chance for recommending actions. The results from the study did not reveal a positive correlation between ET, EL, nor EP being able to predict which IT employees' may display unethical behavior. However, as demonstrated in this study, there is a correlation between moral development and ethical decision making. Based on the findings from this study, business managers should continue to research ways to identify which employees who may display unethical business behavior and how to combat bad behavior.

The intent is to share the findings with survey participants. Disseminating the results of this study through publications and scholarly journal articles will add to the body of knowledge. Mentoring programs and ethical conferences, is another way I intend to disseminate the results of this study, so research on predicting unethical business behavior by IT employees in the business environment will continue. Also, the intended plan is to present the findings to the Project Management Institute.

Recommendations for Further Research

This research study has several limitations. Generalizability of the findings was the first limitation of this study. This study was the focus of businesses with DOD contracts. Recommendation for further study to improve the ability to predict unethical business behavior practices could include businesses with GSA or other federal government type contracts; thereby, widening the focus. The second limitation was the participant pool only covered the Mid-Atlantic area, specifically the Maryland metropolitan geographical area. Future studies could expand the geographical area;

thereby, attracting a larger participant pool. Opportunities for future research might also include a comparison between businesses globally.

The third limitation was the lack of prior studies in the DOD environment that examined the relationship between moral development and ethical decision making of IT employees. Prior studies on moral development and ethical decision making included only college students or professionals in the accounting field. Future researchers could use this study as a template for research on similar businesses to examine the relationship between moral development and ethical decision making of IT employees.

Reflections

The literature review provided the groundwork for a comprehensive analysis on moral development and ethical decision making. There are many research theories on predicting unethical business behavior. Reason action, as learned through the literature review is a theory on predicting unethical business behavior. I also learned through the literature review, that many factors could influence moral development; thereby, have an impact on unethical decision making. An additional factor that could influence moral development include the culture of a business. From the literature review, I learned that whistleblowing can affect an employees' ethical decision making. Other factors such as intent, awareness, and performance can also impact an employees' ethical decision making (Lehnert, Park, & Singh, 2015). An organization with a strong ethical environment, positively affects the willingness of employees to report unethical behavior (Dalton & Radtke, 2013).

My assumptions and preconceived ideas about ethical decision making, and predicting who would display unethical business behavior evolved. I found it interesting that while moral development and ethical decision making were linked, ET, EL, nor EP did not predict which IT employees would display unethical business behavior.

In looking back at my research experience during this DBA Doctoral process, I found it to be challenging and rewarding. I gained valuable experience in conducting a quantitative research study. Using the acquired knowledge and lessons learned make further research on ethical behavior easier to set up.

Conclusion

The study was to examine the relationship of ET, EL, and EP in predicting the likelihood of Maryland metropolitan based IT employees' engagement in unethical business behavior. The results from the research presented the need for a succinct understanding in predicting unethical business behavior, which continues to be a challenge. There is a lack of research in the business community on moral development and ethical decision making among IT employees in the business arena. Yet, unethical business behavior continues to inundate the front pages of major newspapers and news media. Recently released in the news an Expedia IT employee was found guilty of insider trading (Gorta, 2016). In another news release by the Federal Communications Commission reported a $105 million settlement by AT&T due to wireless cramming (FCC, 2014). Reports such as the above will continue to increase, unless new ways are discovered to recognize possible unethical intentions early; limit risk, thereby, possibly preventing bad behaviors.

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Appendix A: Demographics Survey

Thank you for taking the time to fill out part one of this survey. Your feedback is important to my dissertation and potentially provides businesses with information on ethical behavior. The anonymous demographic survey should take less than five minutes to fill out. After reading each question, please place an X mark within the brackets corresponding to the answer that best fits the question for you.

Do you hold an IT position?

0 = [] Yes 1 = [] No

What type of IT position do you hold?

0 = [] Systems/Network Admin 1 = [] Developer/Programmer

2 = [] Database Administrator 3 = [] Analyst/IT Project/Program manager

Other

Have you participated in annual ethics training within your organization?

0 = [] Yes 1 = [] No

Since, taking the annual ethics training has your decision making concerning ethical conduct positively changed?

0 = [] Yes 1 = [] No

Since, taking the annual ethics training are you more willing to report unethical behavior displayed by others?

0 = [] Yes 1 = [] No

Do individuals in a leadership position within your organization display ethical leadership?

0 = [] Yes 1 = [] No

Appendix B: Ethics in Information Technology (IT) Survey

A study is being conducted regarding various attitudes and perceptions toward Ethical Issues in the use of Information Technology. Your assistance in collecting data for this study is greatly appreciated. We ask that you, please take time to answer the following questions as honestly as possible. We want to get an understanding of your personal feelings toward the actions described in the following scenarios.

Each scenario will have a scale following it, which you should use to evaluate the ethics of the actions of the participants described. Listed below is an explanation of the different choices on the scale. Please select the one response that best represents how you feel about the actions described in each scenario and place your answer on the answer sheet provided.

Some of these scenarios may describe situations with which you are unfamiliar. Do not worry. There is no right or wrong answers. Your response will be based on your attitudes and perceptions. This is a **confidential and anonymous** survey, and no one will ever know your responses. We ask that you be honest and ethical in responding to the survey.

Following is a brief explanation of each item on the scale.

Ethical - There is no question that the action is correct in every sense of the word. Ethically, morally, and legally, this is proper behavior.

Acceptable - The action is acceptable to you, although you may have some doubts due to morals or other beliefs.

Questionable - There is some question as to the moral or ethical aspects of the action. The action truly belongs in the "Grey area" of human behavior.

Unethical - The action is contrary to your moral and ethical standards, although not a crime. This is truly unacceptable behavior.

Computer Crime - The action is unethical and illegal, and the person responsible could be charged with a criminal act.

The University's ethical guidelines for research stipulate that participants need to be informed of the nature and purpose of the research, the procedures involved, and their rights.

This research study aims to assess the attitudes and perceptions of respondents towards ethical issues in Information Technology on a global scale. We will aggregate all responses from each participant and compare only aggregate numbers. In no way will your individual responses be reported or analyzed.

Your participation is voluntary, and it does not report any personally identifiable tracking information. You may withdraw and cease participation in the study at any time without negative consequences. The final published results of the research will be aggregated measures, and there will be no features that could identify individual participants.

SCENARIOS

Mark the action that best describes the ethics that each scenario describes. Use the definitions provided on page 1 when forming your opinion.

1. Company policy states that E-Mail is a company system and is to be used only for company business. The policy also states that managers may review mail of subordinates for policy compliance. A manager enters the company's E-Mail system and review mail messages sent by various subordinates to ensure that the E-Mail system is not being used for private purposes. Two employees are found to have sent messages to other company employees with what was considered objectionable content. The manager subsequently reprimands the employees.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
The manager's actions are:	□	□	□	□	□
The employee's actions are:	□	□	□	□	□

2. An employee at a branch office of a bank realizes that he has accidentally overdrawn his checking account and that three checks will "bounce." The bank charges $25 for each overdrawn check. He changes the account status of his checking account so that no overdrawn check charges will be assessed. As soon as he makes a deposit that will make his balance positive again, he changes the account status back.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
The employee's actions are:	□	□	□	□	□

3. Jose downloads a shareware program from the internet. Shareware requires anyone using the software to register and pay a small fee for continued use of the program after a 14 day trial. In addition, shareware cannot be sold by anyone except the author. Jose uses the program he downloaded every day. He decides not to register his use since no one will ever know.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Jose's use of the software is:	□	□	□	□	□

4. Jane has a legal copy of a word processing program. Jane purchases the latest upgrade (version) of the program. The upgrade license says that the old version is to be discarded or kept only for backup purposes. Since Jane's secretary does not have a word processing program, Jane loads the old version into her secretary's computer for her to use.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Jane's actions are:	□	□	□	□	□

5. A finance class is running an investment competition. The winning team gets an A for the class. Because John is very knowledgeable with computers, he figures out how

to change data in one of the files needed in the competition. John processes his team's investments and then changes the needed data. The other teams process their investments using the changed data. Just before the results are due to the professor, John changes the data back to its original values. John's team wins the competition.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
John's action is:	□	□	□	□	□

6. Sue buys a copy of the latest spreadsheet software. The license agreement clearly states that no copies of the CD-ROM can be made for any reason. Sue makes a backup copy on a CD-ROM, which she keeps at the office to use only if something happens to the original copy.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Sue's action is:	□	□	□	□	□

7. Jacob is enrolled in a summer class at ABC University for which a laboratory fee is charged. A friend of Jacob needs to use the school's computer, so Jacob gives his password to the friend. The friend is not a student at ABC University. The password allows access to the school's computer. The friend uses several hours of computer time a week over the summer to play computer games.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Jacob's action is:	□	□	□	□	□
The friend's action is:	□	□	□	□	□

8. Jill, a graduate student, is working on a research paper about the effects of computer viruses. She decides to create a short program that would release a PEACE message through electronic mail exchange. The message would not in any way affect the receiver's data, but it would interrupt their screen. Jill is doing this as a test to see how fast a simple, non-destructive virus can spread.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Jill's action is:	□	□	□	□	□

9. A programmer is asked to write a program which he knows will generate inaccurate information for the company's external auditors. When he questions his manager about the program, the manager tells him he must write the program or be reassigned to the maintenance staff. He writes the program.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
The programmer’s action is:	□	□	□	□	□
His manager's action is:	□	□	□	□	□

10. There is no company policy on the use of e-mail in the company. A manager enters the company's e-mail system and review mail messages sent by various subordinates to ensure that the E-Mail system is not being used for private purposes. One employee is found to have sent hundreds of SPAM type e-mail messages to political donors. The manager subsequently reprimands him.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
The employee's actions are:	□	□	□	□	□
The manager's actions are:	□	□	□	□	□

11. Howard is a maintenance programmer for a loan company. He finds an error in the program that computes interest. He estimates that 25 to 30 cents are added to the bill of each borrower each month due to an error. Since the amount of the error iaas so small, and he has enough work to keep him busy for the next 14 months, Howard decides not to report the error to management.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Howard's failure to report the error is:	□	□	□	□	□

12. Felicia's company has just purchased a spreadsheet package for her to use on the job. She is in the accounting department and often takes work home with her. The license agreement says that this particular program is licensed to her machine. She knows that she can't make copies of the program and give to her peers, but she does make a copy and loads it on her machine at home. Felicia doesn't feel guilty because she knows she will never be using both programs at the same time.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Felicia's action is:	□	□	□	□	□

13. Jim is a shareware programmer who has created a solitaire game program. Users are supposed to register this program if they play the game more than 25 times. To force users to register, Jim creates a virus that will be released anytime someone plays the game more than 50 times without registering. The virus, when released, will start randomly destroying data stored on the user's computer. Jim is doing this in an attempt to stop illegal use of software and encourage users to register shareware.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Jim's action is:	□	□	□	□	□

14. A salesperson believes that she is not being paid the same as other salespeople. She figures out how to access payroll records on the main computer. She reviews the pay of the other salespeople and the sales manager and concludes that she is getting paid appropriately. No other use of the information was made.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
The salesperson's action is:	□	□	□	□	□

15. Jack is a mid-level employee trying hard to make ends meet in tough economic times. His company has currently had some rough times and has had to cut down everyone's hours. The company has also encouraged employees to search for part-time jobs that won't interfere with their company time. Jack works in the IT Department and has started doing some part-time consulting work for small businesses that would like to set up their own databases. Working after hours and without obtaining permission to use the company's computer system, Jack uses the company's computer to create databases for his clients, who pay him for his services.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Jack's actions are:	□	□	□	□	□

16. A law enforcement agency in New York City has created a database of all persons who have been charged (but not necessarily convicted) with a crime that have been handled through their agency. This database would be used to protect high ranking public officials, UN personnel, and VIP visitors. The database would be accessible by approximately 1500 people in the law enforcement agency. By executive decree, the names of every person charged with a crime and the crime they were charged with would be forwarded to the agency to be entered into the database. The data would be maintained for the life of the person.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
The law enforcement agency's action in creating and maintaining the database is:	□	□	□	□	□

17. A company has asked you to create a Web site to collect name, address, and e-mail addresses from internet surfers. The company sells the data to advertisers for a profit. You know that the advertisers will use the information to send SPAM and sexually explicit mailings to the unwitting people. Despite this, you still create the web site for the additional income.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Your actions are:	□	□	□	□	□

18. A company allows its employees to use the Web for limited personal use. Unknown to the employees, the IT staff monitors the web addresses visited. Two employees are found to be frequenting pornographic sites and the general manager subsequently fires them.

If the company has a written Computer Use Policy

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
The general manager's actions are:	□	□	□	□	□
The employees' actions are:	□	□	□	□	□

If the company does NOT have a written Computer Use Policy Ethical Acceptable

	Questionable			Unethical	Computer Crime
The general manager's actions are:	□	□	□	□	□
The employees' actions are:	□	□	□	□	□

19. Gambling is illegal in the state or country where you are located. One of your co-employees, Jackson, uses his computer at work to access an off-shore web site for gambling activity.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Jackson's actions are:	□	□	□	□	□

20. You create a new website to sell a new line of hand-made toys created by local artisans. To increase the number of visits to your website and generate revenues, you use a seal that says, "Approved by the United Nations Commission on Children" and the "Fisher-Price" trademark on the website. Neither the United Nations nor Fisher-Price has given you permission to use their names, seals or trademarks.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Using the seal and trademark is:	□	□	□	□	□

21. FamousCompany.com has registered the innovative business model of Priceline.com – name your own price - as a technology patent. Anyone who would like to use the technology must get permission from Priceline.com and pay Priceline.com a royalty to do so. Samantha thinks that the technology could be used by her newly created website. Alfred, a friend who has access to the source code for the new technology, has offered to give it to Samantha. Since Samantha's company is still very small, she gets the technology from Alfred and integrates the technology into her company's web site. She figures that if she is caught, she can "settle" with FamousCompany.com later.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Samantha's actions are:	□	□	□	□	□
Alfred's actions are:	□	□	□	□	□

22. Susan likes to visit file-swapping sites, such as Kazaa, Napster, Morpheus and Grokster, to download music into her PC. She is able to use another person's account to download several hundred good songs. She then uses her DVD burner to make albums for her friends. She gives the music DVDs to some friends and sells the music DVDs to other people for $5 a DVD.

	Ethical	Acceptable	Questionable	Unethical	Computer Crime
Susan's actions in just downloading music are:	□	□	□	□	□
Susan's actions in giving a music DVD to friends are:	□	□	□	□	□
Susan's actions in selling the music DVDs are:	□	□	□	□	□

Appendix C: DIT-2 Survey Questions

DIT-2 Defining Issues Test

Version 3.1

University of Minnesota
University of Alabama
Center for the Study of Ethical Development

Instructions

This questionnaire is concerned with how you define the issues in a social problem. Several stories about social problems will be described. After each story, there will be a list of questions. The questions that follow each story represent different issues that might be raised by the problem. In other words, the questions / issues raise different ways of judging what is important in making a decision about the social problem. You will be asked to rate and rank the questions in terms of how important each one seems to you.

This questionnaire is in two parts: one part contains the **INSTRUCTIONS** (this part) and the stories presenting the social problems; the other part contains the questions (issues) and the **ANSWER SHEET** on which to write your responses.

Here is an example of the task:

Presidential Election

Imagine that you are about to vote for a candidate for the Presidency of the United States. Imagine that before you vote, you are given several questions, and asked which issue is the most important to you in making up your mind about which candidate to vote for. In this example, 5 items are given. On a rating scale of 1 to 5 (1=Great, 2=Much, 3=Some, 4=Little, 5=No) please rate the importance of the item (issue) by filling in with a pencil one of the bubbles on the answer sheet by each item.

Assume that you thought that item #1 (below) was of great importance, item #2 had some importance, item #3 had no importance, item #4 had much importance, and item #5 had much importance. Then you would fill in the bubbles on the answer sheet as shown below.

GREAT	MUCH	SOME	LITTLE	NO	**Rate the following 12 issues in terms of importance (1-5)**
●	②	③	④	⑤	1. Financially are you personally better off now than you were four years ago?
①	②	●	④	⑤	2. Does one candidate have a superior moral character?
①	②	③	④	●	3. Which candidate stands the tallest?
①	●	③	④	⑤	4. Which candidate would make the best world leader?
①	●	③	④	⑤	5. Which candidate has the best ideas for our country's internal problems, like crime and health care?

Further, the questionnaire will ask you to rank the questions in terms of importance. In the space below, the numbers 1 through 12, represent the item number. From top to bottom, you are asked to fill in the bubble that represents the item in first importance (of those given you to choose from), then second most important, third most important, and fourth most important. Please indicate your top four choices. You might fill out this part, as follows:

Rank which issue is the most important (item number).

Most important item	●②③④⑤⑥⑦⑧⑨⑩⑪⑫	Third most important	①②③●⑤⑥⑦⑧⑨⑩⑪⑫
Second most important	①②③④●⑥⑦⑧⑨⑩⑪⑫	Fourth most important	①●③④⑤⑥⑦⑧⑨⑩⑪⑫

Note that some of the items may seem irrelevant to you (as in item #3) or not make sense to you—in that case, **rate** the item as "No" importance and do not **rank** the item. Note that in the stories that follow, there will be 12 items for each story, not five. Please make sure to consider all 12 items (questions) that are printed after each story.

In addition you will be asked to state your preference for what action to take in the story. After the story, you will be asked to indicate the action you favor on a three-point scale (1 = strongly favor some action, 2 = can't decide, 3 = strongly oppose that action).

In short, read the story from this booklet, and then fill out your answers on the answer sheet. Please use a #2 pencil. If you change your mind about a response, erase the pencil mark cleanly and enter your new response.

[Notice the second part of this questionnaire, the Answer Sheet. The Identification Number at the top of the answer sheet may already be filled in when you receive your materials. If not, you will receive instructions about how to fill in the number. If you have questions about the procedure, please ask now.

Please turn now to the Answer Sheet.]

Famine— (Story #1)

The small village in northern India has experienced shortages of food before, but this year's famine is worse than ever. Some families are even trying to feed themselves by making soup from tree bark. Mustaq Singh's family is near starvation. He has heard that a rich man in his village has supplies of food stored away and is hoarding food while its price goes higher so that he can sell the food later at a huge profit. Mustaq is desperate and thinks about stealing some food from the rich man's warehouse. The small amount of food that he needs for his family probably wouldn't even be missed.

[If at any time you would like to reread a story or the instructions, feel free to do so. Now turn to the Answer Sheet, go to the 12 issues and rate and rank them in terms of how important each issue seems to you.]

Reporter— (Story #2)

Molly Dayton has been a news reporter for the *Gazette* newspaper for over a decade. Almost by accident, she learned that one of the candidates for Lieutenant Governor for her state, Grover Thompson, had been arrested for shop-lifting 20 years earlier. Reporter Dayton found out that early in his life, Candidate Thompson had undergone a confused period and done things he later regretted, actions which would be very out-of-character now. His shop-lifting had been a minor offense and charges had been dropped by the department store. Thompson has not only straightened himself out since then, but built a distinguished record in helping many people and in leading constructive community projects. Now, Reporter Dayton regards Thompson as the best candidate in the field and likely to go on to important leadership positions in the state. Reporter Dayton wonders whether or not she should write the story about Thompson's earlier troubles because in the upcoming close and heated election, she fears that such a news story could wreck Thompson's chance to win.

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

School Board— (Story #3)

Mr. Grant has been elected to the School Board District 190 and was chosen to be Chairman. The district is bitterly divided over the closing of one of the high schools. One of the high schools has to be closed for financial reasons, but there is no agreement over which school to close. During his election to the school board, Mr. Grant had proposed a series of "Open Meetings" in which members of the community could voice their opinions. He hoped that dialogue would make the community realize the necessity of closing one high school. Also he hoped that through open discussion, the difficulty of the decision would be appreciated, and that the community would ultimately support the school board decision. The first Open Meeting was a disaster. Passionate speeches dominated the microphones and threatened violence. The meeting barely closed without fist-fights. Later in the week, school board members received threatening phone calls. Mr. Grant wonders if he ought to call off the next Open Meeting.

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

Cancer— (Story #4)

Mrs. Bennett is 62 years old, and in the last phases of colon cancer. She is in terrible pain and asks the doctor to give her more pain-killer medicine. The doctor has given her the maximum safe dose already and is reluctant to increase the dosage because it would probably hasten her death. In a clear and rational mental state, Mrs. Bennett says that she realizes this; but she wants to end her suffering even if it means ending her life. Should the doctor give her an increased dosage?

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

Demonstration — (Story #5)

Political and economic instability in a South American country prompted the President of the United States to send troops to "police" the area. Students at many campuses in the U.S.A. have protested that the United States is using its military might for economic advantage. There is widespread suspicion that big oil multinational companies are pressuring the President to safeguard a cheap oil supply even if it means loss of life. Students at one campus took to the streets, in demonstrations, tying up traffic and stopping regular business in the town. The president of the university demanded that the students stop their illegal demonstrations. Students then took over the college's administration building, completely paralyzing the college. Are the students right to demonstrate in these ways?

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

DIT-2 Answer Sheet

IDENTIFICATION NUMBER

Please read story #1 in the INSTRUCTIONS booklet.

Famine -- (Story #1)

What should Mustaq Singh do? Do you favor the action of taking the food? (Mark one.)

① Should take the food ② Can't decide ③ Should not take the food

GREAT MUCH SOME LITTLE NO

Rate the following 12 issues in terms of importance (1-5)

1. Is Mustaq Singh courageous enough to risk getting caught for stealing?
2. Isn't it only natural for a loving father to care so much for his family that he would steal?
3. Shouldn't the community's laws be upheld?
4. Does Mustaq Singh know a good recipe for preparing soup from tree bark?
5. Does the rich man have any legal right to store food when other people are starving?
6. Is the motive of Mustaq Singh to steal for himself or to steal for his family?
7. What values are going to be the basis for social cooperation?
8. Is the epitome of eating reconcilable with the culpability of stealing?
9. Does the rich man deserve to be robbed for being so greedy?
10. Isn't private property an institution to enable the rich to exploit the poor?
11. Would stealing bring about more total good for everybody concerned or wouldn't it?
12. Are laws getting in the way of the most basic claim of any member of a society?

Rank which issue is the most important (item number).

Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Now please return to the Instructions booklet for the next story.

Reporter -- (Story #2)

Do you favor the action of reporting the story? (Mark one.)

① Should report the story ② Can't decide ③ Should not report the story

GREAT MUCH SOME LITTLE NO

Rate the following 12 issues in terms of importance (1-5)

1. Doesn't the public have a right to know all the facts about all the candidates for office?
2. Would publishing the story help Reporter Dayton's reputation for investigative reporting?
3. If Dayton doesn't publish the story wouldn't another reporter get the story anyway and get the credit for investigative reporting?
4. Since voting is such a joke anyway, does it make any difference what reporter Dayton does?
5. Hasn't Thompson shown in the past 20 years that he is a better person than his earlier days as a shop-lifter?
6. What would best serve society?
7. If the story is true, how can it be wrong to report it?
8. How could reporter Dayton be so cruel and heartless as to report the damaging story about candidate Thompson?
9. Does the right of "habeas corpus" apply in this case?
10. Would the election process be more fair with or without reporting the story?
11. Should reporter Dayton treat all candidates for office in the same way by reporting everything she learns about them, good and bad?
12. Isn't it a reporter's duty to report all the news regardless of the circumstances?

Rank which issue is the most important (item number).

Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Now please return to the Instructions booklet for the next story.

PLEASE DO NOT WRITE IN THIS AREA

1052736

SCANTRON Mark Reflex® MM73897-4:32

School Board -- (Story #3)

Do you favor calling off the next Open Meeting?

① Should call off the next open meeting ② Can't decide ③ Should have the next open meeting

GREAT MUCH SOME LITTLE NO

Rate the following 12 issues in terms of importance (1-5)

1. Is Mr. Grant required by law to have Open Meetings on major school board decisions?
2. Would Mr. Grant be breaking his election campaign promises to the community by discontinuing the Open Meetings?
3. Would the community be even angrier with Mr. Grant if he stopped the Open Meetings?
4. Would the change in plans prevent scientific assessment?
5. If the school board is threatened, does the chairman have the legal authority to protect the Board by making decisions in closed meetings?
6. Would the community regard Mr. Grant as a coward if he stopped the open meetings?
7. Does Mr. Grant have another procedure in mind for ensuring that divergent views are heard?
8. Does Mr. Grant have the authority to expel troublemakers from the meetings or prevent them from making long speeches?
9. Are some people deliberately undermining the school board process by playing some sort of power game?
10. What effect would stopping the discussion have on the community's ability to handle controversial issues in the future?
11. Is the trouble coming from only a few hotheads, and is the community in general really fair-minded and democratic?
12. What is the likelihood that a good decision could be made without open discussion from the community?

Rank which issue is the most important (item number).

Most important item ①②③④⑤⑥⑦⑧⑨⑩⑪⑫ Third most important ①②③④⑤⑥⑦⑧⑨⑩⑪⑫

Second most important ①②③④⑤⑥⑦⑧⑨⑩⑪⑫ Fourth most important ①②③④⑤⑥⑦⑧⑨⑩⑪⑫

Now please return to the Instructions booklet for the next story.

Cancer -- (Story #4)

Do you favor the action of giving more medicine?

① Should give Mrs. Bennett an increased dosage to make her die ② Can't decide ③ Should not give her an increased dosage

GREAT MUCH SOME LITTLE NO

Rate the following 12 issues in terms of importance (1-5)

1. Isn't the doctor obligated by the same laws as everybody else if giving an overdose would be the same as killing her?
2. Wouldn't society be better off without so many laws about what doctors can and cannot do?
3. If Mrs. Bennett dies, would the doctor be legally responsible for malpractice?
4. Does the family of Mrs. Bennett agree that she should get more painkiller medicine?
5. Is the painkiller medicine an active heliotropic drug?
6. Does the state have the right to force continued existence on those who don't want to live?
7. Is helping to end another's life ever a responsible act of cooperation?
8. Would the doctor show more sympathy for Mrs. Bennett by giving the medicine or not?
9. Wouldn't the doctor feel guilty from giving Mrs. Bennett so much drug that she died?
10. Should only God decide when a person's life should end?
11. Shouldn't society protect everyone against being killed?
12. Where should society draw the line between protecting life and allowing someone to die if the person wants to?

Rank which issue is the most important (item number).

Most important item ①②③④⑤⑥⑦⑧⑨⑩⑪⑫ Third most important ①②③④⑤⑥⑦⑧⑨⑩⑪⑫

Second most important ①②③④⑤⑥⑦⑧⑨⑩⑪⑫ Fourth most important ①②③④⑤⑥⑦⑧⑨⑩⑪⑫

Now please return to the Instructions booklet for the next story.

PLEASE DO NOT WRITE IN THIS AREA

Demonstration -- (Story #5)

Do you favor the action of demonstrating in this way?

① Should continue demonstrating in these ways ② Can't decide ③ Should not continue demonstrating in these ways

Rate the following 12 issues in terms of importance (1-5)

GREAT	MUCH	SOME	LITTLE	NO	
①	②	③	④	⑤	1. Do the students have any right to take over property that doesn't belong to them?
①	②	③	④	⑤	2. Do the students realize that they might be arrested and fined, and even expelled from school?
①	②	③	④	⑤	3. Are the students serious about their cause or are they doing it just for fun?
①	②	③	④	⑤	4. If the university president is soft on students this time, will it lead to more disorder?
①	②	③	④	⑤	5. Will the public blame all students for the actions of a few student demonstrators?
①	②	③	④	⑤	6. Are the authorities to blame by giving in to the greed of the multinational oil companies?
①	②	③	④	⑤	7. Why should a few people like Presidents and business leaders have more power than ordinary people?
①	②	③	④	⑤	8. Does this student demonstration bring about more or less good in the long run to all people?
①	②	③	④	⑤	9. Can the students justify their civil disobedience?
①	②	③	④	⑤	10. Shouldn't the authorities be respected by students?
①	②	③	④	⑤	11. Is taking over a building consistent with principles of justice?
①	②	③	④	⑤	12. Isn't it everyone's duty to obey the law, whether one likes it or not?

Rank which issue is the most important (item number).

Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Please provide the following information about yourself:

1. Age in years:

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

2. Sex (mark one): ○ Male ○ Female

3. Level of Education (mark highest level of formal education attained, if you are currently working at that level [e.g., Freshman in college] or if you have completed that level [e.g., if you finished your Freshman year but have gone on no further].)
   - ○ Grade 1 to 6
   - ○ Grade 7, 8, 9
   - ○ Grade 10, 11, 12
   - ○ Vocational/technical school (without a bachelor's degree) (e.g., Auto mechanic, beauty school, real estate, secretary, 2-year nursing program).
   - ○ Junior college (e.g., 2-year college, community college, Associate Arts degree)
   - ○ Freshman in college in bachelor degree program.
   - ○ Sophomore in college in bachelor degree program.
   - ○ Junior in college in bachelor degree program.
   - ○ Senior in college in bachelor degree program.
   - ○ Professional degree (Practitioner degree beyond bachelor's degree) (e.g., M.D., M.B.A., Bachelor of Divinity, D.D.S. in Dentistry, J.D. in law, Masters of Arts in teaching, Masters of Education [in teaching], Doctor of Psychology, Nursing degree along with 4-year Bachelor's degree)
   - ○ Masters degree (in academic graduate school)
   - ○ Doctoral degree (in academic graduate school, e.g., Ph.D. or Ed.D.)
   - ○ Other Formal Education. (Please describe: _____)

4. In terms of your political views, how would you characterize yourself (mark one)?
   - ○ Very Liberal
   - ○ Somewhat Liberal
   - ○ Neither Liberal nor Conservative
   - ○ Somewhat Conservative
   - ○ Very Conservative

5. Are you a citizen of the U.S.A.?
   ○ Yes ○ No

6. Is English your primary language?
   ○ Yes ○ No

Thank You.

PLEASE DO NOT WRITE IN THIS AREA

Dilemma #6

Do you favor the action?

① Strongly Favor ② Favor ③ Slightly Favor ④ Neutral ⑤ Slightly Disfavor ⑥ Disfavor ⑦ Strongly Disfavor

GREAT MUCH SOME LITTLE NO

Rate the following 12 issues in terms of importance (1-5)

① ② ③ ④ ⑤ 1.
① ② ③ ④ ⑤ 2.
① ② ③ ④ ⑤ 3.
① ② ③ ④ ⑤ 4.
① ② ③ ④ ⑤ 5.
① ② ③ ④ ⑤ 6.
① ② ③ ④ ⑤ 7.
① ② ③ ④ ⑤ 8.
① ② ③ ④ ⑤ 9.
① ② ③ ④ ⑤ 10.
① ② ③ ④ ⑤ 11.
① ② ③ ④ ⑤ 12.

Rank which issue is the most important (item number).

Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Dilemma #7

Do you favor the action?

① Strongly Favor ② Favor ③ Slightly Favor ④ Neutral ⑤ Slightly Disfavor ⑥ Disfavor ⑦ Strongly Disfavor

GREAT MUCH SOME LITTLE NO

Rate the following 12 issues in terms of importance (1-5)

① ② ③ ④ ⑤ 1.
① ② ③ ④ ⑤ 2.
① ② ③ ④ ⑤ 3.
① ② ③ ④ ⑤ 4.
① ② ③ ④ ⑤ 5.
① ② ③ ④ ⑤ 6.
① ② ③ ④ ⑤ 7.
① ② ③ ④ ⑤ 8.
① ② ③ ④ ⑤ 9.
① ② ③ ④ ⑤ 10.
① ② ③ ④ ⑤ 11.
① ② ③ ④ ⑤ 12.

Rank which issue is the most important (item number).

Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

PLEASE DO NOT WRITE IN THIS AREA

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Appendix D: Permission to Use the Ethics in Information Technology (IT) Survey

Subject: Survey Permission
Dr. Harris,

My name is Karen J. Stockton-Tillman, and I am a D.B.A student at Walden University. I am working on my dissertation in Management at Walden University in Minneapolis, Minnesota, and as part of my proposal on Ethical Decision making among IT Businesses, I plan to conduct a survey.

While, conducting my research, I read about your Ethics in Information Technology (IT) survey. My purpose in contacting you is to obtain permission to use your survey as outlined in the article The Relationship Between Ethical Decision Making and Ethical Reasoning in Information Technology Students published in the *Journal of Information Systems Education, 18*(2). I do not plan to alter the survey.

I would like to thank you in advance for taking the time to consider my request. I look forward to hearing from you.

Kind Regard,

Karen J. Stockton-Tillman
Survey Permission
Dr. Harris
<XXX@appstate.edu> Fri, Feb 14, 2014 at 8:34 AM To: Karen Stockton <XXX@gmail.com>
Karen:
Ethics in Information Technology (IT) has been a research area and passion of mine for many years. I think it is great that you are pursuing it in the area of IT businesses.
My survey instrument has changed slightly over the years to keep up with the times and changes in technology.
You have my permission to use my survey in your dissertation efforts. I am glad it of help. If you want a copy of the latest survey, I will be glad to send it to you.
Good luck in your dissertation efforts. Al
Dr. Harris, Professor
Editor Emeritus, Journal of Information Systems Education
2012 AIS Award for Outstanding Contribution to IS Education
Fellow, Education Special Interest Group (EDSIG) of AITP
2008-09 Exchange Professor to the University of Angers (France)
2006 Fulbright Scholar to Portugal
Department of Computer Information Systems
Appalachian State University
http://cis.appstate.edu/faculty-staff/albert-harris-phd

Appendix E: Permission From the Office for the Study of Ethical Development

Good Evening ethical study,

Subject: Request for Permission to Use Your Survey Instrument

It is my understanding that consent letter/form to use the DIT-2 test is not required, and I only need to fill out the purchase form with the number of test materials needed and my payment. Please, let me know if my understanding is correct.

Kind Regard,

Karen J. Stockton-Tillman, PMP
Doctoral Student
Business Administration
Walden University

Dear Dr. Stockton-Tillman,

Yes. You don't need that to order DIT-2. If you want to use hardcopy DIT-2s, please fill how many you want on the order form. If you want to use surveymonkey, please let us know your SurveyMonkey account name (username only). We will transfer a copy of DIT-2 to your account.

Please let us know if you have further questions.

Thanks,
Hong

Office for the Study of Ethical Development
From: Karen Stockton [XXX@gmail.com]
Sent: Thursday, January 24, 2013 2:46 PM
To: ethical study
Subject: Re: DIT-2 test

Hello, Ms. Hong,

Yes, at this time I only need one sample of the DIT-2 for my proposal. Any assistance you can provide would be greatly appreciated.

Kind Regard,

Karen J. Stockton-Tillman, PMP
Doctoral Student
Walden University

On Thu, Jan 24, 2013 at 3:41 PM, ethicalstudy <ethicalstudy@bamaed.ua.edu<mailto:ethicalstudy@bamaed.ua.edu>> wrote:
Hi, Karen,

Do you mean that you need a sample of DIT-2 survey (including demographic information)? We don't need other specific information but the order form with your order information. Please see the attachment.

If you need a sample of DIT-2 for proposal, please let me know, and I will send you a copy.
Thanks,
Hong

Office for the Study of Ethical Development
307 Carmichael Hall
BOX 870231
The University of Alabama
Tuscaloosa, AL 35487

Appendix F: Demographics Results

Table G1

Frequency Gender Type

	Frequency	Percent	Valid percent	Cumulative percent
male	34	47.2	48.6	48.6
female	36	50.0	51.4	100.0
Total	70	97.2	100.00	

Note. $N = 70$.

Table G2

Frequency Small Business Size

	Frequency	Percent	Valid percent	Cumulative percent
Yes	43	59.7	61.4	61.4
No	27	37.5	38.6	100.0
Total	70	97.2	100.0	

Note. $N = 70$.

Table G3

Description IT Title

	Frequency	Percent	Valid percent	Cumulative percent
Systems/Network Admin	14	19.4	24.6	24.6
Developer/Programmer	7	97.7	12.3	36.8
Analyst/IT PM/Other	36	50.0	63.2	100.0
Total	57	79.2	100.0	

Note. $N = 57$.

Table G4

Participated in Ethics Training

	Frequency	Percent	Valid percent	Cumulative percent
Yes	60	83.3	85.7	85.7
No	10	13.9	14.3	100.0
Total	70	97.2	100.0	

Note. $N = 70$.

Table G5

Frequency Decision making Positively Changed

	Frequency	Percent	Valid percent	Cumulative percent
Yes	28	38.9	40.0	40.0
No	24	33.3	34.3	74.3
N/A	18	25.0	25.7	
Total	70	97.2	100.0	

Note. $N = 70$.

Table G6

*Frequency Willing to Report Unethical Behavi*or

	Frequency	Percent	Valid percent	Cumulative percent
Yes	37	51.4	53.6	53.6
No	15	20.8	21.7	75.4
N/A	17	23.6	24.6	100.0
Total	69	95.8	100.0	

Note. $N = 69$.

Table G7

DIT2 Participant Scores

ID	Personal interest (Stage 2/3)	Maintain norms (Stage 4)	Post conventional (Stage 4)	N2 Score
4819517189	30.00	28.00	32.00	40.06
4820114432	30.00	48.00	16.00	10.07
4821120266	42.00	34.00	16.00	13.64
4823534203	12.00	52.00	36.00	37.62
4825510573	32.00	32.00	36.00	17.68
4841613712	8.00	34.00	54.00	38.67
4842193792	56.00	20.00	22.00	20.68
4843301259	26.00	60.00	14.00	6.24
4843477368	8.00	72.00	18.00	35.05
4843934743	20.00	50.00	28.00	30.94
4844647398	50.00	20.00	12.00	10.96
4846493856	8.00	32.00	58.00	52.22
4847464596	20.00	44.00	32.00	27.38
4854061154	36.00	36.00	20.00	14.55
4859917804	10.00	14.00	70.00	65.62
4861504488	52.00	28.00	14.00	12.50
4862758488	2.00	56.00	42.00	47.77
4870546741	48.00	12.00	30.00	29.15
4875412586	34.00	10.00	36.00	29.27
4875796735	24.00	58.00	18.00	7.39
4876576614	28.00	24.00	40.00	32.09

(table continues)

ID	Personal interest (Stage 2/3)	Maintain norms (Stage 4)	Post conventional (Stage 4)	N2 Score
4876621013	16.00	26.00	54.00	47.98
4877238998	34.00	56.00	4.00	7.79
4878751892	10.00	38.00	52.00	57.03
4879396097	8.00	66.00	18.00	16.73
4879861826	8.00	50.00	30.00	18.65
4885762237	34.00	22.00	34.00	25.43
4893800024	38.00	28.00	22.00	16.64
4907530653	18.00	36.00	32.00	22.63
4920411191	12.00	44.00	44.00	22.59
4938205617	6.00	42.00	40.00	32.53
5022442570	42.00	46.00	12.00	5.45
5025973144	18.00	28.00	50.00	35.22
5026607440	12.00	36.00	46.00	24.60
5026729226	10.00	74.00	14.00	23.67
5026898734	8.00	42.00	36.00	31.89
5028380278	14.00	46.00	36.00	36.52
5029092688	24.00	52.00	22.00	10.69
5035974144	24.00	24.00	46.00	43.81
5036103567	34.00	34.00	24.00	25.52
5042933953	36.00	40.00	20.00	13.75
5045468807	12.00	48.00	34.00	20.35

(table continues)

ID	Personal interest (Stage 2/3)	Maintain norms (Stage 4)	Post conventionalN2 (Stage 4)	Score
5047099672	30.00	44.00	18.00	11.54
5052218324	36.00	48.00	14.00	16.73
5054820177	58.00	36.00	2.00	4.71
5054860536	10.00	58.00	30.00	20.17
5064751715	14.00	44.00	42.00	41.00
5066986979	4.00	36.00	54.00	50.98
5068064086	10.00	30.00	48.00	28.65
5068276474	6.00	84.00	8.00	25.37
5068426876	30.00	20.00	44.00	25.50
5079006017	38.00	32.00	24.00	25.59
5079250450	10.00	30.00	60.00	52.76
5080361348	10.00	54.00	36.00	31.58
5080938081	30.00	38.00	14.00	20.93
5083326686	38.00	42.00	18.00	14.49
5091044539	24.00	20.00	56.00	44.28
5091317417	44.00	34.00	16.00	15.78
5092757920	20.00	40.00	26.00	17.03
5095010315	16.00	20.00	48.00	54.36
5098822677	16.00	42.00	26.00	21.96
5101561810	6.00	58.00	34.00	43.53
5101684270	38.00	48.00	14.00	17.28
5101697983	44.00	26.00	26.00	21.59
5125058858	28.00	46.00	26.00	19.76