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Examining Employee Motivation, Environmental Systems, and Corporate Social Responsibility in Proenvironmental Behavior

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Abstract

The World Health Organization has pointed to climate change as the most significant issue in the 21st century as a result of greenhouse gas emissions and environmental pollution. Organizations are leaning toward corporate social responsibility (CSR) and environmental management systems (EMS) to reverse the current trend; however, these efforts are often ineffective or pooly implemented. The purpose of this quantitative study was to determine the extent to which employees' proenvironmental behavior relates to their protection motivation and organizational identification, as well as their perception and knowledge of the organization's CSR and EMS, respectively. Using social identity as the theoretical framework, this research addressed how organizational and intrapersonal factors influence employees' proenvironmental behavior. One hundred-twenty employees from American-based organizations completed an online survey measuring self-assessed proenvironmental behaviors, among other variables. The results from a Pearson correlation analysis indicated that all of the independent variables had a significant positive relationship with employee proenvironmental behaviors. Multiple regression analysis showed that while each variable was a significant predictor of proenvironmental behaviors, only the economic dimension of CSR ($\beta = .300$, $p = .014$) and the self-efficacy dimension of protection motivation ($\beta = .269$, $p = .037$) significantly contributed to the model. Leaders' use of the findings may lead to positive social change through improved environmental performance in the form of decreased pollution, a more efficient use of natural resources, and reduced greenhouse gas emissions, all toward a more sustainable future.

Examining Employee Motivation, Environmental Systems, and Corporate Social Responsibility in Proenvironmental Behavior

by

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Dedication

I dedicate this study to my amazing wife, Stacy, and two beautiful daughters, Brittney and Simone, whose encouragement and prayers helped me stay focused on my dream since the very first course. I am also thankful for my parents, who engrained in me the value of a solid education while acknowledging the trials and tribulations that come with a doctoral journey. The following Latin proverb captures it eloquently: “Absque sudore et labore nullum opus perfectum est” (“Without sweat and toil, no work is made perfect”).

Acknowledgments

In my usual fashion, I extend all of my appreciation to God, who provided me with not only the discipline, fortitude, perseverance, and mental capacity to achieve this doctoral degree, but also wisdom and confidence that I can do all things. I am thankful for greater understanding on a topic that I am most passionate about and for an increased opportunity to influence positive social change.

I am certain that I would not have been successful had it not been for both Dr. McCollum and Dr. Lolas. Dr. McCollum, my chair, advisor, mentor, and closest ally, to this day continues to challenge me on leadership and provide me with opportunities to position myself in academia. His almost immediate review of and response to any submitted work, whether it was a prospectus, proposal, literature review, or post, were exemplarary and insightful. Without his wisdom on time management and his newly created dissertation checklist, this accomplishment would have been next to impossible. A special thank you must also go out to the cohort, whose members reminded me to be accountable on a weekly basis. I am also thankful to Dr. Lolas, who expressed a sincere interest in my research from day one. His appointment and notation as my committee member do not do him justice. He forecasted potential issues in my research strategy that came to fruition, and I was able to implement contingency plans to avert delays. His advice was indeed on point.

Lastly, I am grateful for a supporting wife who has sacrificed everything, from long walks, to vacations, to going for ice cream, to quality time together. My dream became her dream, and together we were able to accomplish this monumental milestone.

My daughter Simone, who 4 years ago gave me a book called *Finish Your Dissertation Once and for All: How to Overcome Psychological Barriers, Get Results, and Move on With Your Life*, was a motivational force for this journey. My daughter Brittney—who every night asked, "Are you working on your dissertation?"—kept me grounded and focused. For the countless teachers, professors, friends, and mentors along the way, I say thanks, for I am truly blessed.

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Chapter 1: Introduction to the Study

If reducing greenhouse gas (GHG) emissions is too challenging, then the alternative may be the collapse of civilization. A warmer climate caused by GHG emission may be incapable of supporting explosive population growth and life on Earth in future decades (Worldwatch Institute, 2014). An increase in the temperature of the Earth's atmosphere by 4 °C will cause rising sea levels and massive storms that will disrupt food production, public health, water systems, energy delivery, and emergency response (United Nations Environmental Programme, 2015). B. D. Smith and Zeder (2013**)** reported that the world has entered the age of Anthropocene, which is a geological era in which humans have significantly changed the Earth's ecosystem due to GHG emissions. While reducing the Earth's population might seem like an option, the more pragmatic but somewhat difficult solution is a sharp reduction of GHG emissions to near zero.

Recognition of the problem by world and corporate leaders is beginning to occur but will require more effective business strategies. The 2015 adoption of the Paris Agreement by 200 world leaders who recognized that climate change represents an irreversible threat to society (United Nations, 2015) and a commitment by 52% of chief executive officers (CEOs) to increase investments in securing renewable energy sources between 2015 and 2018 (Preston & Scott, 2015) are good signs. Consequently, there should be a renewed interest in corporate social responsibility (CSR) initiatives and environmental management systems (EMSs) in support of the recognition and investments. Because climate change has become a legitimate business concern, there has

been an emergence of corporate carbon strategies (S.-Y. Lee, 2012). Although these strategies are promising with regard to improved technology and a systems approach, they have not been effective for various reasons, as explored in the following paragraph.

The leaders of some corporations lack interest in integrating CSR within their business strategies and tend to deploy a disjointed concept. Rangan, Chase, and Karim (2015) described multifaceted, uncoordinated approaches to CSR by corporate leaders that range from pure philanthropy to environmental sustainability to the pursuit of shared value. Although poor integration and a lack of leadership engagement might be reasons for ineffective CSR programs, O'Donohue and Torugsa (2014) cited a reactive, compliance-minded stance toward CSR-related legal requirements in maintaining legitimacy as another reason. The larger concern is involvement of stakeholders, specifically employees, which was the focus of this study.

CSR and EMS strategies rely heavily on the human system and behaviors, which are difficult to predict and almost impossible to control. Organizational leaders should nevertheless have a greater understanding of how to motivate employees toward their objectives to maintain their competitive advantage. In this study, I evaluated the role of employee voluntary proenvironmental behavior toward a proactive form of CSR that goes beyond compliance to enhance a firm's performance as well as contribute broadly and positively to society. In the subsequent paragraphs, I highlight the background, problem statement, and purpose of the study. I also include the nature, the research questions, the theoretical framework, and the significance of the study. Operational definitions, assumptions, limitations, and a conclusion end the chapter.

Background

The expectation for public officials and leaders to enable sustainability initiatives, protect the environment, and be socially responsible continues, even 40 years after the environmental movement began. Corporations rely heavily on natural resources and are the cause of many environmental issues such as climate change, water scarcity, toxic waste, habitat destruction, and species extinction (Hoffman & Georg, 2013). The Canadian government allowing fishermen to drive the Atlantic cod stock to collapse; the U.S. government allowing fracking of oil shale; and the Brazilian, Malaysian, and Indonesian governments allowing the harvesting of the world's largest rainforests indicate the extent of the problem (Worldwatch Institute, 2013). Approximately 7 million people died from air-pollution-related diseases in 2012, which made climate change the largest environmental health risk and most defining issue for the 21st century (World Health Organization, 2015). A need exists for effective programs dedicated to reversing, or at least stopping, the current trend of environmental degradation and natural resource depletion.

A resurgence of strategies and best practices toward climate changed caused by environmental pollution is necessary. Schwab (2008), the founder and executive chair of the World Economic Forum, expressed an imperative for leaders in the business community to commit to sustainable development by considering the impact of their operations on the environment and society, best described as *global corporate citizenship*. Robertson and Barling (2013) pointed to anthropogenic or human activity as the cause of environmental concerns, whereas Hoffman and Georg (2013) pointed to

corporations as the main cause for many of the world's environmental issues, such as climate change, water scarcity, toxic waste, and species extinction. These events continue to lead to CSR programs and the development of ethical leadership theories designed to bring about societal and environmental improvements (Belu & Manescu, 2012; Lamm, Tosti-Kharas, & Williams, 2013).

An agreed-upon definitional concept of CSR does not exist, even after a decade of academic research. However, experts from over 75 countries agreed on a standard definition of CSR, as outlined in the International Organization for Standardization (ISO) 26000 guidance document as "responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behavior" (American Society for Quality [ASQ] & Manpower Professional, 2010, p. 2). The intent of CSR programs is to bring about sustainable development, including the health and the welfare of society, by taking into account the expectations of stakeholders. Aguinis and Glavas (2013) indicated that embedding CSR into a company's core business leads to a better path toward societal, financial, and organizational excellence. However, Ormiston and Wong (2013) indicated that companies whose leaders are actively posturing as being socially responsible are more likely than leaders of other businesses to behave in socially irresponsible ways. The posturing of being socially responsible fuels the opposition to CSR and environmental regulations by those who believe that CSR will stifle profit motivation, erode capitalism, and undermine the free market system.

The relationship between business success and environmental protection continues to be the subject of much attention and is primarily an oppositional, zero-sum term. Economists such as Friedman (1970) and Palmer, Oates, and Portney (1995) argued against the notion that stringent environmental regulation of any kind is good for business as well as the environment. Rexhäuser and Rammer (2014) referenced the Porter hypothesis and identified a positive and significant effect of environmental innovations on firm profitability, whether regulation-induced or non-regulation-induced. Porter, a Harvard Business School economist and strategy professor, declared that well-designed regulation could induce innovation and competitiveness in organizations. Beyond compliance, however, is the EMS that invokes the quality approach of plan–do–act–check with the intent of increasing environmental performance. Similar to CSR, the ISO 14001:2015 standard (ISO, 2015) prescribes evidence in demonstrating that an organization is meeting its environmental targets and objectives. The system is a comprehensive framework designed to help organizational leaders achieve environmental goals through consistent review, evaluation, and improvement of environmental performance and protection.

A number of researchers have pointed to the poor integration of CSR. Asif, Searcy, Zutshi, and Fisscher (2013) called for further research on integrating CSR with core business processes at every level of a corporation to have a meaningful impact. Asif et al. introduced a framework that encompasses a top-down strategic level and bottom-up approach linking the organization's efforts to broader initiatives in the community. Martinuzzi and Krumay (2013) also referenced a number of CSR integration models

based on theoretical concepts that were reactive and had a direct link to core business operations. Martinuzzi and Krumay provided a CSR framework consisting of the stages of CSR integration within existing business operations to highlight their strengths, weaknesses, opportunities, and threats. Although these frameworks provide a good understanding of how integration can be successful, they do not address employee involvement and proenvironmental behavior in support of such initiatives.

A reliance on formal CSR integration approaches and on reactive EMSs aimed solely at regulatory compliance is indicative of the general problem. Potoski and Prakash (2013) assessed the extent to which an association existed between the ISO 14001 (EMS) and a reduction in regulated air and water pollution and did not find a statistically significant relationship. The analyses included a panel of 138 countries (72 for water pollution) over the period 1991–2005. On the other end of the spectrum, Boiral and Henri (2012) analyzed 303 organizations to determine which theoretical model determined the extent to which ISO 14001 certification and management practices might explain the environmental performance of the organizations. Boiral and Henri indicated that even when organizations integrate environmental management correctly, the issue of environmental performance remains. The authors proposed three models: an instrumental model that addresses organizational efficiency, a legitimacy model that reflects social pressures and client expectations, and a hybrid model that combines elements of the two preceding models. The preferable model is the hybrid model, according to the authors.

More researchers are addressing the complexities of the human system in proenvironmental behaviors. Researchers have studied the prediction of employee

proenvironmental behavior using various psychological and behavioral variables, such as daily affect and environmental attitudes (Bissing-Olson, Iyer, Fielding, & Zacher, 2013), self-interest and environmental spillover (Evans et al., 2013), formal sustainability policies and work climate (Norton, Zacher, & Ashkanasy, 2014), and leaders' influence (Robertson & Barling, 2013), to gain a better understanding of the phenomenon. Lulfs and Hahn (2013) noted that EMSs can only be effective when employees engage with and focus on the determinants of decentralized voluntary proenvironmental behaviors. Although this line of inquiry has advanced knowledge in the area of proenvironmental behavior, the subject remains relatively underdeveloped.

Employees bring unique attitudes, perspectives, and sets of expectations to the workplace that may not align with the organization's mission. Ojala (2012) indicated that hope or emotions might have a significant impact on proenvironmental behaviors because of the fear of climate change; however, a better understanding of antecedents and context is needed. Aguinis and Glavas (2012) noted the need to look at CSR research from a multilevel perspective that includes individual, organizational, and institutional perspectives. Likewise, Raineri and Paillé (2015) recognized the limitations of formal management practices, systems, and technologies in corporate greening activities. Raineri and Paillé pointed to a lack of full comprehension of the social-psychological processes that lead individuals to engage in informal environmental initiatives in the work context.

The study of proenvironmental behavior continues to receive a lot of attention. In this study, I considered both the contextual work environment and the motivational aspects of employees to expand the current literature. Increasing the understanding of

organizational leaders regarding the underlying mechanism and motivation for when, how, and why employees engage in proenvironmental behaviors might be the key to the effective deployment of CSR and EMS programs and may ultimately support a sustainable future.

Problem Statement

Climate change is a serious threat to humankind. Increasing warming of Earth, caused by a compromised natural environment, threatens its existence (Worldwatch Institute, 2013). The general problem is that despite an increased focus on CSR intended to minimize adverse environmental and societal impacts, evidence indicates that CSR is ineffective. Organizational leaders have not fully integrated and executed CSR in business operations (Martinuzzi & Krumay, 2013). The specific problem is that organizational leaders do not know how to motivate employees to undertake proenvironmental behaviors to enable CSR initiatives in their operations (Laughland & Bansal, 2011). Involving employees in CSR activities is critical in promoting positive, environmentally sustainable behaviors (Buciuniene & Kazlauskaite, 2012). Researchers have focused on the effects of CSR on customers and on organizational performance, but empirical evidence of proenvironmental behavior as a common business practice is lacking (Raineri & Paillé, 2015). The purpose of this correlational study was to determine the extent to which employee protection motivation, employees' organizational identification (OID), and employees' perception and knowledge of their organization's CSR and EMS relate to proenvironmental behaviors at American-based organizations.

Purpose of the Study

Corporate greening initiatives include an EMS as a core aspect of CSR efforts. These formal programs rely heavily on employees' proenvironmental behaviors to be effective (Paillé, Boiral, & Chen, 2013). The purpose of this quantitative study was to determine the extent to which the independent variables—employee protection motivation, employees' OID, and employees' perception and knowledge of their organization's CSR and EMS—relate to the dependent variable, employee proenvironmental behavior. *Employee protection motivation* refers to the idea that fear motivates individuals to engage in adaptive behaviors when they are confronted with perceived risks, which in this study was possible devastation caused by climate change. *Employee OID* is the sense of belonging to an organization and defining oneself in terms of the organization. I further operationalized each independent variable into subdimensions, which I discuss in the next subsection and in Chapter 3. This study included a descriptive correlational research design to examine the association and predictive relationships between the variables.

The focus of the study was on intermediate (i.e., nonsupervisory and nonmanagement) employees at U.S.-based companies that have a certified EMS or are on the Dow Jones Sustainability Index. As a secondary objective, the intent of the study was to provide organizational leaders and practitioners with a better understanding of how to motivate employees toward proenvironmental behaviors so that they might deploy more effective and longer lasting intervention methods to preserve the natural environment. I approached the relationship between perceived CSR, knowledge of the EMS, employee

protection motivation, employees' OID, and proenvironmental behaviors through the theoretical lens of social identity theory. Researchers have employed this theory in a limited number of studies as a potential underlying mechanism compared to social exchange theory. The study fills a gap in the literature by examining proenvironmental behavior as a social-psychological process and from a multilevel individual and organizational perspective.

Research Questions and Hypotheses

The intent for this quantitative correlational study was to provide more insight into the extent to which employees' protection motivation, employees' OID, and employees' perception and knowledge of their organization's CSR and EMS (independent variables) relate to employees' proenvironmental behavior (dependent variable). I operationalized the dependent variable, proenvironmental behavior, using three dimensions of organizational citizenship behavior toward the environment—eco-helping, eco-civic engagement, and eco-initiatives—as constructed and validated by Boiral and Paillé (2012). I operationalized the independent variable perceived CSR using four-dimensional constructs identified in the literature as economic, legal, ethical, and discretionary CSR and validated by Y.-K. Lee, Kim, Lee, and Li (2012). I operationalized the independent variable employees' knowledge of their organization's EMS through an assessment of employees' understanding of the organization's proactive environmental posture with such elements as a policy, specific environmental targets, and environmental training. Ramus and Steger (2000) successfully used and validated this construct. The basis of the multidimensional construct of protection motivation consists

of the components perceived severity, perceived susceptibility, response efficacy, and self-efficacy, as developed and validated by Plotnikoff and Higginbotham (2002). Lastly, I measured the employees' OID using Mael and Ashforth's (1992) measurement scale. The concept of OID captures the perception of belongingness to an organization, where individuals define themselves in terms of the organizations in which they are members. This study included four central questions and eight hypotheses:

RQ_1: What is the relationship between perceived CSR and employee proenvironmental behavior?

$H1_0$: Perceived CSR will have no correlation with employee proenvironmental behavior.

$H1_a$: Perceived CSR will have a positive correlation with employee proenvironmental behavior.

RQ_2: What is the relationship between EMS and employee proenvironmental behavior?

$H2_0$: EMS will have no correlation with employee proenvironmental behavior.

$H2_a$: EMS will have a positive correlation with employee proenvironmental behavior.

RQ_3: How does employees' protection motivation influence their proenvironmental behavior?

$H3_0$: Employees' protection motivation will have no correlation with their proenvironmental behavior.

$H3_a$: Employees' protection motivation will have a positive correlation with their proenvironmental behavior.

RQ_4: How does employees' OID influence their proenvironmental behavior?

$H4_0$: Employees' OID will have no correlation with their proenvironmental behavior.

$H4_a$: Employees' OID will have a positive correlation with their proenvironmental behavior.

Theoretical Framework for the Study

One prosocial theory and one motivational theory formed the basis for this research study on proenvironmental behaviors. The first theoretical framework was social identity theory, which indicates that a firm's CSR actions can trigger employees' intrinsic motivations for developing an OID and thus their engagement (Farooq, Payaud, Merunka, & Valette-Florence, 2014). The other theory was protection motivation, referenced by S. Kim, Jeong, and Hwang (2013), which relates to the likelihood that perceived threats, such as climate change and environmental disasters, can change behavior. A short summary of both theories appears below, and a full explanation appears in the literature review in Chapter 2.

According to social identity theory, employees promote their organization's identity when they perceive themselves as members of a prestigious group and strive cognitively to achieve or maintain that status. As described by Hogg (2004), social identity theory is a social psychological theory of self-concept, group membership and behavior, and intergroup relations. Hogg defined individuals' social identity as an

evaluation of themselves regarding the shared defining attributes of the specific groups to which they belong. The motivational factor for behavioral change lies in the self-categorization process that Tajfel (1974), the original theorist, explained as a psychological ordering of the social environment meaningful to the subject. Social categorization creates and defines individuals' place in society; as such, individuals behave in a manner they can feel good about or join another group that is more favorable. Moon, Hur, Ko, Kim, and Yoon (2014) used social identity as their theoretical framework to show how organizational CSR activities could lead to compassionate acts by employees in the workplace. As the focus of this study was employees' proenvironmental behaviors within organizations, the theory served as a strong basis for understanding the underlying mechanism for such behavior.

Protection motivation theory dominates public health campaigns and communications, but it also provides some value in predicting and explaining motivations underlying proenvironmental behaviors. The theory has its foundation in the work of Rogers (1975), who investigated the effects of fear appeals in the form of persuasive communication depicting noxious consequences that occur after a specified course of action on attitudes. The focus of protection motivation theory is individuals' evaluation of fear along the lines of severity, susceptibility, self-efficacy, and response efficacy, which in turn motivates them to behave in a specific way (Mongeau, 2012). This motivation drives and sustains the behavioral intention to change when either the threat is weak or the coping response is ineffective. This motivation also extends beyond persuasive messaging and includes other information sources, such as social and

intrapersonal, as demonstrated by S. Kim et al. (2013). S. Kim et al. (2013) used media coverage of environment-related information to show that protection motivation theory can explain and predict proenvironmental behaviors. As such, protection motivation theory was appropriate for explaining the underlying mechanism for individual motivation toward proenvironmental behaviors.

Nature of the Study

The focus of this research was determining the extent to which relationships exist between employees' protection motivation, employees' OID, employees' perception of their organization's CSR, and employees' knowledge of their organization's EMS and proenvironmental behavior. As such, a quantitative research method was appropriate. Unlike qualitative research, which involves gathering verbal data to provide a detailed description of a phenomenon, this quantitative research study involved measuring data and counting features to construct statistical models to extrapolate behavior. The study included surveys and measurements to collect numerical data rather than in-depth interviews, focus groups, narratives, or participant observation, which are usually associated with qualitative research.

Although qualitative research could potentially add value to efforts to understand proenvironmental behavior in greater depth and breadth, it did not fit the intent of the research. Arendt et al. (2012) noted that qualitative research is not about sample size or graphical representation, but instead involves analyzing a phenomenon by thoroughly studying participants until no new themes emerge during data analysis. Arendt et al. contended that pure qualitative research (i.e., ethnographic research) tends to occur early

in the inquiry spectrum, when few studies exist on the phenomenon. In the realm of social work, qualitative researchers focus on the complexities associated with participants' daily social interaction and the meaning participants assign to these experiences in offering pragmatic solutions (Marshall & Rossman, 2016). Despite these benefits, the quantitative method was the preferred choice because I did not intend to introduce any new theoretical concepts or explore the lived experiences of those who exhibit proenvironmental behavior. As the phenomenon is further along the inquiry continuum, having been researched extensively before, the quantitative method was ideal.

A descriptive correlational research design was a suitable subset of the quantitative research method to determine the association and predictive relationships between the variables in the study. According to Odom and Lane (2014), researchers conducting descriptive research can employ either a qualitative or a correlational methodology in characterizing the context and magnitude of a phenomenon in certain populations, which can lead to theory formalization. The goal is not amassing and tabulating facts but includes conducting the proper analyses, interpretation, and comparisons to determine whether statistical support exists for the hypothesized relationship or effect (Salaria, 2012). In using the correlational aspect of the research design, I explored the relationships between a number of facts to recognize trends and patterns in the data to explain which changes in one or more variables had an association with or predicted changes in other variables. De Vaus (2014) cautioned that when making interpretations, researchers should consider the time frame, geographic location, subgroup implication, and phenomenon in question. Even if a researcher cannot infer

causality, the design includes an opportunity to reveal the amount of variability explained by the relationship. As such, the descriptive correlation research design was preferable for addressing the research question regarding the context in which proenvironmental behaviors of frontline or intermediate (i.e., nonsupervisory or nonmanagement) employees exist.

Although the classical experimental research design provides the strongest logical proof to establish a cause-and-effect relationship among variables, researchers seldom use it in the social sciences in most real-world contexts because of the difficulty in isolating one specific variable. The experimental design is intrusive and relies on setting up an artificial situation so that researchers can assess the causal relationship with high internal validity, normally at the expense of generalizability. Steele (2012) indicated that both the experimental and the quasi-experimental research designs require randomized group assignment and assigning subjects to at least one experimental group that receives the intervention and one control group that does not. Experimental design also requires the participants to be identical in all other traits that might cause the outcomes to vary independent of the program intervention. Although useful in laboratory research, such a design is difficult to obtain and sustain throughout the course of an experiment and was not suitable for this study. As the intent of this research was not to assess any intervention or treatment method or to determine cause or effect, the experimental research design was not the preferred choice.

The population in this study consisted of intermediate (i.e., nonsupervisory or nonmanagement) employees from U.S.-based companies that had maintained a certified

EMS (i.e., ISO 14001) for at least 2 years or had received recognition for sustainable practices on the Dow Jones Sustainability Index. The primary interest was in employees' proenvironmental behaviors and attitudes, which I measured using previously validated web-based self-administered surveys. Multiple regression was suitable for analyzing the data to determine which independent variables had the largest influence over the dependent variable.

Definitions

Corporate social responsibility: The business principles that guide managerial decision making in addressing the entire spectrum of obligations business has to society, which include economic, legal, and ethical obligations (Carroll, 1991).

Employee proenvironmental behavior: All types of voluntary or prescribed activity undertaken by individuals at work to protect the natural environment or improve organizational environmental practices (Boiral, Paillé, & Raineri, 2015).

Environmental management system (EMS): An organization's comprehensive and planned approach to improving environmental performance and environmental protection by reducing its environmental impact without compromising its economic productivity (Barrow & Matthews, 2014).

Organizational citizenship behavior toward the environment: Voluntary behavior not specified in official job descriptions that, through the combined efforts of individual employees, helps to make an organization or society more sustainable (Lamm et al., 2013).

Organizational identification (OID): The perception of oneness with or belongingness to an organization, where individuals define themselves in terms of the organizations in which they are members (Mael & Ashforth, 1992).

Protection motivation theory: A theory based on the idea of performing adaptive behavior based on the appraisal of, and ability to cope with, a perceived threat (Maddux & Rogers, 1983).

Social identity theory: A theory used to describe an evaluation of oneself in terms of the shared defining attributes of specific groups to which one belongs, unlike personal identity, which has ties to the personal self (Tajfel, 1974).

Assumptions

Assumptions are statements presumed to be true and outside of a researcher's control (Simon & Goes, 2013). The assumptions for this study were as follows:

1. The Dow Jones Sustainability Index accurately captures the multidimensional aspect of firms' CSR efforts, ranks them based on actual performance, and has gained the acceptance and respect of researchers.
2. Organizational leaders integrated the certification of the firm's EMS (i.e., ISO 14001) into the business operations out of concern for true environmental performance, not just out of concern for legitimacy.
3. The participants would respond truthfully to the survey questions. Some of the questions on the measures included behaviors that are socially undesirable, and people might not have wanted to admit they had these traits or behaviors.

I employed anonymity and used a voluntary participant pool in the sampling methodology.

4. Awareness of the perils of climate change has increased, and people believe that it is necessary to alter their current activities toward responsible behavior in preserving the natural environment for future generations. Knowing the relationship between CSR and proenvironmental behavior may help advance this cause.

Scope and Delimitations

The delimitations of a study refer to the criteria for participants enrolled in a study, the geographic region covered in a study, and the profession or organizations involved (Simon & Goes, 2013, p. 246). The study only included participants from U.S.-based companies that were listed on the Dow Jones Sustainability Index or that had a certified EMS. As the focus of the study was the relationship between proenvironmental behavior, CSR, and the EMS, some assurance that the organizational leaders conducted sustainable practices was necessary. The Dow Jones Sustainability Index and the EMS both provide that assurance. Although these indices and certifications are voluntary and many other firms may be practicing sustainable activities and could have contributed to the study, they were beyond the scope of this study.

Another delimitation was the selection of only frontline or intermediate employees described as nonsupervisory or nonmanagement for the research in an effort to understand their role in CSR initiatives. Although managers play an important role in carrying out or leading CSR initiatives or demonstrating proenvironmental behaviors,

their motivation for doing so may be notably different from that of frontline or intermediate employees. Social identity theory also bounded the study. Many researchers have explored other behavioral theories related to norms, attitudes, values, and beliefs, and I excluded them from the study. Due to increased awareness and mass communication of climate change, I thought protection motivation might offer new insight.

Limitations

The goal of this study was to shed light on the relationship between the contextual factors of the organization's CSR and EMSs as perceived and known by the employees and their proenvironmental behaviors. I sought to understand the role of employees' intrapersonal factors such as protection motivation and OID in influencing employees' proenvironmental behavior. This research involved analyzing self-reported responses to an online survey. The key limitations in the study were as follows. First, the basis of the study was employees' perception of organizational CSR efforts and EMS effectiveness at a single point in time (i.e., at the completion of the survey), and therefore the data did not reflect changes over time. The employees' awareness or lack of awareness of the organizations' CSR efforts or EMS activity might have affected the resulting data. To minimize this effect, I sought only full-time employees who had been with the company more than 2 years to ensure that they were familiar with the company's values and norms. The United States has more than 8.6 million frontline, nonsupervisory employees in manufacturing (U.S. Department of Labor, 2016). A sample of 120 employees was suitable based on a medium effect size, a confidence level of 95%, and a power of 0.8.

Another limitation was the ambiguity of the term *CSR*. Some survey participants might have felt inclined to look specifically for the organization's CSR policy, which might not have existed, although activities such as social governance, corporate philanthropy, social entrepreneurial programs, or pollution reduction components of CSR might have existed. Participants who indicated that the firm did not have a CSR strategy might have affected the results of the research.

The sample was from U.S.-based companies, which might have been another limitation of the study. The sample might not have been representative of global employees. However, the sampling strategy did address a limitation highlighted by Raineri and Paillé (2015), who called for more research to examine systematically how individual and organizational factors influence employee engagement in environmental affairs within the same region to affirm the generalizability of the findings.

Another potential limitation was the survey instrument and analytical technique. To minimize the limitation of the reliability of the survey instrument, I used previously validated measuring scales appropriate for the study. Researchers had used these scales extensively for studies both inside and outside the workplace. The quantitative statistical models used in the study indicated the relationship between CSR, EMS, protection motivation, OID, and proenvironmental behaviors but not causation. Lastly, as with all major projects and research of this magnitude, time and resources were potential limiting factors. Time was a critically important factor, as respondents from various U.S.-based companies completed the questionnaire.

Significance of the Study

Some researchers have noted that it will be difficult to sustain humankind if political and organizational leaders do not address the critical issue of environmental degradation and natural resource depletion. Organizational leaders should consider the impact of their operations on the environment (ASQ & Manpower Professional, 2010). An estimated 7 million people died from air-pollution-related diseases in 2012, making their deaths the number one environmental health risk and defining issue for the 21st century (World Health Organization, 2015). In response to dramatic environmental and social challenges, the discussion of CSR implementation in business practices and its impact on companies' behavior has become one of the most important directions in academic literature in the 21st century (Valmohammadi, 2014). Despite increasing efforts to incorporate CSR initiatives into organizational operations, CSR appears to be ineffective or difficult to implement.

The lack of employee perspectives in CSR execution and research might account for the difficulty in operationalizing effective CSR. Researchers have focused on the effects of CSR on consumers (Öberseder, Schlegelmilch, Murphy, & Gruber, 2014); competitiveness (Boulouta & Pitelis, 2014; Valmohammadi, 2014); and employees' job satisfaction, turnover, commitment, and trust (Brammer, He, & Mellahi, 2015; Dhanesh, 2014; Vlachos, Panagopoulos, & Rapp, 2013). Few researchers have addressed the influencing factors of employees' discretionary proenvironmental behaviors toward organizational sustainability (Lamm et al., 2013). Identifying the role employee proenvironmental behaviors play in CSR implementation might unleash the potential for

organizational excellence. Aguinis and Glavas (2013) indicated that embedding CSR into a company's core business allows for a better path toward social, financial, and organizational excellence. More important than embedding CSR into a company's core business is the idea of including all stakeholders, particularly employees, early in the decision-making process. This study built on past research that demonstrated that, under certain conditions, individuals would go beyond their in-role behaviors to perform discretionary behaviors on behalf of an organization.

The study contributes to research on CSR implementation by identifying conditions in which individuals would perform proenvironmental discretionary behaviors on behalf of the organization, which could provide leaders with increased knowledge of how to motivate employees toward CSR, green their organization, and balance stakeholders and shareholders' interest. The study contributes to the management field by supporting the environmental management aspects of organizations through employee proenvironmental behaviors and stewardship. Positive environmental sustainability occurs when organizational leaders change their delivery or the manufacturing of their products, processes, or services to mitigate impact on the natural environment. The findings might lead organizational leaders to help their organizations become more environmentally sustainable and improve the societal conditions of the places where they operate. As such, the findings support positive social change related to preserving natural resources, reducing waste in communities, and playing a critical part in efforts to secure a sustainable future.

Summary

This chapter included a background on the specific problem of a lack of effective CSR programs due to inability to engage employees in proenvironmental behaviors and the possibility of an unsustainable society. Understanding the impact of employee proenvironmental behaviors in support of CSR programs can lead to significant financial gains, increased employee retention, and a better image. Organizational leaders and other functional practitioners play a significant role in greening their organizations. More important is the engagement of employees as major stakeholders in these initiatives as a common business practice (Delmas & Pekovic, 2013; Dhanesh, 2014). The current research represents a pivotal link between theory and practical application with a better understanding of motivation and behavior that may exist after the implementation of effective interventions.

An extensive review of the literature follows in Chapter 2, where I discuss findings from previous research and applicable theories on proenvironmental behavior, perceived CSR, and organizations' EMS. The discussion also includes the theoretical framework of social identity and protection motivation theory. Chapter 3 includes a discussion of the research design, methodology, data collection, and analysis. In Chapter 4, I present the results of the survey, while in Chapter 5, I interpret the findings, make recommendations for future studies, and describe implications for managerial practice and positive social change.

Chapter 2: Literature Review

Managers' inability to engage employees in undertaking proenvironmental behavior toward CSR initiatives was the focus of this study. Employees involved in CSR activities reciprocate positive attitudinal and environmentally sustainable behaviors (Buciuniene & Kazlauskaite, 2012). A better understanding of how employees feel motivated toward proenvironmental behavior in support of CSR activities may help managers deploy effective intervention methods to reduce corporate emissions and preserve the natural environment. The purpose of this quantitative study was to determine the extent to which employee protection motivation, employees' OID, and employees' perception and knowledge of their organization's CSR and EMS relate to their proenvironmental behavior.

I provide a contextual and theoretical background for the study in this chapter by examining and synthesizing multiple scholarly studies related to employee proenvironmental behavior. The literature review begins with a link to the problem statement and the overarching premise that CSR programs rely heavily on employees' proenvironmental behaviors to be effective (Paillé et al., 2013). I selected protection motivation theory and social identity theory as the components of the theoretical framework for the study because proenvironmental behaviors usually occur in contextual fashion.

Using a thematic approach, I explore each of the research variables and their interconnectedness after distinguishing between workplace and general population proenvironmental behavior. The primary objective of the literature review is to show

where this research fits into the existing body of knowledge and to provide practitioners with better intervention techniques toward proenvironmental behavior. The chapter ends with a summary and conclusion of the literature review, as well as a transition to Chapter 3.

Literature Search Strategy

To understand the challenge of motivating employees to undertake proenvironmental behaviors, I reviewed scholarly peer-reviewed journals, reports, standards, regulations, encyclopedias, and symposium proceedings related to employee proenvironmental behaviors, CSR, and EMSs. I searched the following terms to ensure that I included all relevant topics in the review: *corporate citizenship, corporate governance, corporate sustainability, ecological citizenship, eco-centric* with respect to leadership, *eco-initiatives*, *eco-helping*, *eco-civic*, *employee green behaviors, environmental citizenship behavior*, *environmentally responsible organizational citizenship behaviors*, *environmentally responsible workplace behaviors*, *environmentally significant behavior*, *environmental sustainability at work, greening the organizations, organization citizenship behaviors toward the environment*, *organizational citizenship behavior toward sustainability*, *voluntary proenvironmental behaviors of employees*, *voluntary workplace green behavior*, *ISO 26000 (CSR)*, *ISO 14001 (EMS)*, and *sustainability*. I also applied practices drawn from texts by leading authors relevant to the theoretical framework of the study, which consisted of social identity theory and protection motivation theory.

I searched databases related to the fields of business, management, and psychology to gain insight on human environmental behavior. I obtained scholarly literature through the Walden University Library and the George Washington University Library using Boolean search strategies in the following databases: Thoreau Multi-Database Search, Business Source Complete, Science Direct, SAGE Premiere, ProQuest, ABI Inform Complete, SocINDEX, PsycARTICLES, PsycINFO, Academic Search Complete, and others. I also reviewed website reports from global institutions such as the United Nations Environmental Programme, the World Health Organization, and the Intergovernmental Panel on Climate Change, as well as U.S. government websites such as those of the Environmental Protection Agency, the U.S. Department of Energy, and the White House Council on Environmental Quality. I also reviewed the ASQ website.

I attempted to limit the scope of the literature review to scholarly journals, periodicals, reports, and dissertations published between 2012 and 2016, but I included some older sources to support some aspects of the study. Although there may be more than 800 articles on the topic of employee proenvironmental behavior within the time period of the study, no one source included all of the variables proposed in this study. I included some seminal literature pertaining to the original authors of the theoretical framework of this study. After an exhaustive search for the various combinations of variables associated with employee proenvironmental behavior, I reviewed and included 144 scholarly works that I found relevant. The publication dates of source material used in the literature review appear in Table 1. Eighty-five percent of the sources reviewed had publication dates between 2012 and 2016. Articles, journals, dissertations, and research

reports published during the same time period accounted for 83% of the material used in the literature review. Texts authored by subject matter experts accounted for 9% of the literature review. Items published prior to 2007 accounted for 11% of the literature review materials.

Table 1

Publication Dates of Source Material Used in the Literature Review

Date of references	Texts and books	Articles and journals	Reports and dissertations	Number of references	Percentage of references
2012 to 2016	9	104	9	122	85
2011 to 2007	0	3	2	5	4
Prior to 2007	4	12	1	17	11
Total references	13	119	12	144	
Percent type reference	9	83	8		

Link to the Problem Statement

Despite some corporate and political efforts to cast doubt on the issue of climate change, the effects are undeniable. An estimated 7 million people died from air-pollution-related diseases in 2012, which made climate change the largest environmental health risk and defining issue for the 21st century (World Health Organization, 2015). The mean global average temperature will likely increase by 0.7 °C by 2035, which will affect economic growth and food security due to rising sea levels and extreme weather events (United Nations Environmental Programme, 2015). Approximately $45 billion, in 2005 dollars, is necessary in infrastructure cost to produce and transmit electricity in the Western United States due to climate change (U.S. Department of Energy, 2013). Ojala

(2012) noted that climate change is a serious threat, and the need exists to involve young people and to explore the possibility of hope (emotions) as a significant impact on proenvironmental behaviors. Climate change continues to be a focus of attention because it is a precursor for many other global challenges, such as health risks, economic risks, energy risks, and environmental risks.

Researchers from several studies and recognized institutions have pointed to human activity as the cause of climate change. The Intergovernmental Panel on Climate Change (2015) is 95% certain that humans are the main cause of current global warming. Institutional leaders also indicated that the more human activities disrupt the climate, the greater the risks of severe, long-lasting, pervasive, and irreversible impacts to people and ecosystems. Leaders at the National Academy of Sciences, Climate Change Science, the American Meteorological Society, the American Geophysical Union, and the American Association for the Advancement of Science have all issued statements indicating that the evidence for human modification of climate is compelling (Oreskes, 2004). Robertson and Barling (2013) pointed to anthropogenic or human activity as the main cause for many of the world's environmental issues. Climate change caused by human activities is undeniable and requires a further look at the specific precursors.

Such human activities involve burning fossil fuels, environmental pollution, and other industrial activities that emit carbon dioxide, GHGs, and other heat-trapping gases into the atmosphere. This issue has propelled the discussion of sustainable development, which leaders at the United Nations (1987) defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (p. 2).

Hoffman and Georg (2013) and Gutowski, Allwood, Herrmann, and Sahni (2013) associated climate change, water scarcity, toxic waste, species extinction, natural resource depletion, and GHG emissions with corporations and identified these phenomena as significant consequences of industrialization and economic growth.

Despite this acknowledgment and an increased focus on CSR intended to minimize environmental and social impacts, evidence indicates that the problem is worsening. Researchers at the Worldwatch Institute (2013) pointed to an increasingly warming earth, decreasing natural resources, and a compromised natural environment that hosts 10 billion people as threatening the existence of humankind. The specific problem is that organizational leaders do not know how to integrate CSR into their operations effectively (Martinuzzi & Krumay, 2013) or how best to motivate employees to undertake proenvironmental behaviors (Laughland & Bansal, 2011). The deployment of EMSs has been largely for purposes of organizational legitimacy rather than environmental performance. Ones and Dilchert (2012) suggested that industrial psychologists gain a better understanding of human behavior in relation to environmental sustainability, which they defined as living within the regenerative capacity of the biosphere. This continues to be a central guiding principle of the United Nations, governments, private institutions, organizations, and enterprises.

Theoretical Framework

A prosocial theory and a motivational theory framed this study on proenvironmental behavior. The first theory was social identity theory, which indicates that organizations' CSR actions can trigger employees' intrinsic motivations for

developing their OID and thus their engagement (Farooq, Payaud, et al., 2014). The other theory used in the study was the protection motivation theory referenced by S. Kim et al. (2013) as involving the use of perceived threats such as climate change and environmental disasters to induce behavioral changes. Elaborations of both theories appear below.

Social Identity Theory

Social interaction and identification with members of a work group determine employee proenvironmental behaviors in large part. Tajfel (1974) defined social identity theory as involving "that part of an individual's self concept which derives his knowledge of his membership of a social group (or groups) together with an emotional significance attached to the membership" (p. 69). Hogg (2004) further characterized social identity as a social psychological theory of group membership and intergroup relations that offers a unique perspective in understanding the mechanism of individuals' behavior. Researchers use this multifaceted theory to address a number of societal problems, such as ethical conflict, political activism, and workplace behavior, and offer a framework to analyze effective intervention methods. Haslam, Knippenberg, Platow, and Ellemers (2003) referenced the original work of Tajfel and highlighted *social categorization* (viewing oneself and others in terms of a particular social category), *social comparison* (assessing the relative worth of one group against another), and *social identification* (implicating identity in perceptions of and responses to social situations) as foundational elements of social identity theory. A closer look at each element with a focus on workplace behavior follows.

Social categorization. The essence of social categorization is that individuals view themselves and others as no longer unique but instead as members of a group. The motivational factor for behavioral change lies in the self-categorization process that Tajfel (1974) referred to as a psychological ordering of social environments that is meaningful to the individual. Billig and Tajfel (1973) noted that individuals' social self-categorization of *them* and *us* provides a better understanding of behaviors such as favoritism, stereotyping, and discrimination. The depersonalization and characterization of self and others by group norms produce conformity, liking, trust, and solidarity within groups (Hogg, 2004). Social categorization refers to a process of liking social groups similar to an individual's actions, intentions, attitudes, and system of beliefs and therefore defines an individual's place in society.

Employees' stereotyping of themselves or others has a direct effect on their behaviors. Rabinovich, Morton, Postmes, and Verplanken (2012) focused on how self and group stereotyping affected individual intentions and behavior change. Rabinovich et al. conducted a two-phase study of British adults that indicated that participants exposed to a downward (unenvironmental) intergroup comparison shifted their in-group environmental stereotype upward, whereas participants exposed to upward (proenvironmental) comparisons shifted their in-group stereotypes in the direction of lower sustainability. The chain of events wherein intergroup comparisons influence in-group stereotypes, which, in turn, influence how individuals perceive themselves and subsequently their behavioral intentions, fully supports self-categorization theory.

Social comparison. The drive to evaluate oneself against others seems inherent in human beings. Foundational theorist Festinger (1954) contended that people conduct subjective evaluations of their opinions and abilities by comparing them with the opinions and abilities of others in similar groups. To maintain secure inclusion, achieve positive valuation, and protect the in-group boundary, individuals make social comparisons with similar outgroups to enhance or maintain the group's identity. The struggle for differentiation among groups for self-appraisal or to motivate self-correction leads to intergroup competition, referred to as *social comparison*. Individuals align themselves with certain groups to elicit a positive image of themselves and behave in a manner that is beneficial to the group over outgroups and that they can feel good about. They can also join another group that people look at more favorably. Haslam et al. (2003) explained that individuals' unfavorable intergroup comparison might cause them to improve the group standing through social competition or social creativity toward changing the group's values. Social comparison insinuates a sense of belonging to a group (in-group) that is clearly distinct from and perceived as better than another group in some respect.

Researchers have also had mixed results when using social comparison to gain a better understanding of proenvironmental behaviors. Robertson and Barling (2013) studied 225 Canadian business school students and determined that a leader's environmental descriptive norms, which are influenced by friends, family, and colleagues (similar others), act as an antecedent of environmentally specific transformational leadership and subsequently workplace proenvironmental behaviors. Soyez (2012)

referred to social comparison theory to indicate that comparing oneself with relevant others who share certain values and subjective norms will trigger specific behavior. Soyez demonstrated that national cultural value orientation (relevant others) toward organic foods influenced the attitudes and social norms in their study of participants from USA, Canada, Australia, Germany and Russia. However, Karlin, Zinger, and Ford (2015) found the result not significant when they analyzed energy feedback interventions using social comparisons for normative framing. Karlin et al. hypothesized that providing households with consumption data from others such as friends, neighbors, or the community (social comparison) might positively moderate the effectiveness of energy feedback (historic consumption and goals) and proenvironmental behaviors. One possible reason for the lack of a significant relationship in the Karlin et al. study is the chosen alignment group, specifically the neighbor. Despite the results obtained by Karlin et al., individuals usually feel motivated to adhere to descriptive norms of similar others to whom they feel aligned.

Social identification. Individuals define themselves by the group to which they feel closely aligned, such as an ethnic group, sports team, activist group, or organization. The degree to which these individuals promote or contribute to their organization's performance depends mostly on how much they identify with the group, or more specifically, how salient the identity is (Haslam et al., 2003). Thus, salience triggers the effect of psychological group membership and behavior. A number of researchers have explored the relationship of social identity with environmental attitudes and behaviors with promising results, as highlighted below.

Self, group, and functional identification plays a pivotal role in behaviors. Prati, Albanesi, and Pietrantoni (2015) hypothesized that interplay exists between *environmental social identity* (i.e., part of an individual's self-concept derived from perceived membership in a group that cares for the environment) and proenvironmental attitudes, as captured by the new ecological paradigm scale. Prati et al. used longitudinal data on 308 university students and found support for a reciprocal relationship between social identity and environmental attitudes but not toward proenvironmental behaviors. Likewise, van der Werff, Steg, and Keizer (2013a) studied the process through which *environmental self-identity*, which is the extent to which one sees oneself acting in an environmentally friendly way, relates to environmental behavior. Through three separate empirical studies, van der Werff et al. showed that the stronger the environmental self-identity, the more likely individuals were to demonstrate proenvironmental behaviors because they were intrinsically motivated or obligated to do so. One of the difficulties in applying the social identity construct is the number of constructs for identification, such as environmental self-identity as used in van der Werff's study and environmental social identity as used in the Prati et al. (2015) study.

Identification with sports teams and political orientation are also important to behaviors. Inoue and Kent (2012) focused on understanding how sport organizations induce consumers to engage in proenvironmental behavior through internalization and team identification, which is a cognitive state of self-categorization that requires an attachment through sharing values and attitudes. Inoue and Kent showed that a team's positive environmental practices increased fans internalizing the team's values, and fans

were likely to support the team's environmental initiative and behave pro-environmentally. Another example of social identity playing a significant role in the attitudes and beliefs toward climate change is in a person's political orientation. Unsworth and Fielding (2014) conducted experimental research that tested the causal relationship between political identity and climate change beliefs and attitudes by drawing on the social identity theory and self-categorization. Unsworth and Fielding conducted two studies in Australia and showed that the perceived human contribution to climate change was significantly lower for people who identified with right-wing politics and whose political identity was salient than for people who identified with right-wing politics but whose political identity was not salient. For those in the left wing, there was no significant difference between those whose identity was salient versus nonsalient and believed in the perception of human contribution to climate change.

Protection Motivational Theory

What motivates employees to engage in proenvironmental behaviors continues to be the focus of much attention and research. Cofer and Appley (1967) defined motivation as an urge, feeling, or, instinct precipitated by an *environmental determinant* that gives rise to an action that attracts or repels an organism. Rogers, the original theorist of the protection motivational theory, focused on the reaction of individuals from perceived threats sparked by fear. The theory was therefore a solid basis for this study. Protection motivation theory is a conceptual framework to understand the impact of fear appeals and persuasive communication on attitudes and behavioral change (Maddux & Rogers, 1983; Rogers, 1975). The idea that fear motivates individuals to engage in adaptive behaviors

when confronted with perceived risks is the basis of the theory. Rogers (1975) examined whether the effect of persuasively communicating fear (i.e., fear appeals) could influence attitudes and behaviors by itself. As the basis of the theory is the motivating factor of fear, an in-depth discussion of the topic follows.

Fear appeal. Researchers have historically looked upon fear as a response to some physically or emotionally dangerous situation. Although this description fits the affective state of fear, the motivational state of fear was an intervening variable dedicated to avoiding or running away from a noxious event (Rogers, 1975). The degree to which fear appeal can affect behavioral change lies in the cognitive appraisal of the magnitude of the danger; that is, the probability it will occur and the effectiveness of the coping response (Maddux & Rogers, 1983; Rogers, 1975). According to Mongeau (2012), an individual's evaluation of the fear message drives and sustains the behavioral intention to change when the threat is weak or the coping response is ineffective. These cognitive processes mediate the fear appeal by arousing protection motivation, which is an intervening variable, to direct activity or behaviors to protect the individuals. Maddux and Rogers (1983) later added *self-efficacy expectancy* as a fourth cognitive factor of the protection motivation theory in an experimental study of six to 12 members assigned randomly on the issue of cigarette smoking.

Although the theory dominates the public health domain on a wide variety of topics, including cigarette smoking, dental hygiene, tuberculosis, and the use of fallout shelters, recent research refers to its predictive and explanatory value underlying proenvironmental behavior. S. Kim et al. (2013) used the media coverage of climate

change to indicate that protection motivation theory (i.e., perceived severity, perceived susceptibility, response efficacy, and self-efficacy) can explain and predict the underlying mechanism for proenvironmental behaviors. Through a quantitative study of U.S. and Korean undergraduate students, S. Kim et al. showed that perceived severity and self-efficacy positively predicted proenvironmental behaviors. Bockarjova and Steg (2014) used the protection motivation theory to identify barriers and facilitators to adopting electric vehicles in the Netherlands as a step toward sustainable mobility. Results indicated that higher perceived risk severity and vulnerability posed by using conventional vehicles promoted the adoption of electric vehicles.

Several researchers have noted the utility of the theory for both consumers and the tourist industry. Zhao, Cavusgil, and Zhao (2016) examined how the threat from environmental deterioration and a lack of ability to cope with the threat influenced Chinese consumers' intention to engage in proenvironmental behaviors. The empirical study of 402 consumers revealed that perceived severity and vulnerability significantly influenced their intention to engage in household green behaviors for all socioeconomic classes. Horng, Hu, Teng, and Lin (2014) used behavior modification theories focused on fear appeals to examine antecedents of tourists' intentions to adopt energy-saving and carbon-reducing behaviors. The findings from a quantitative survey of 109 visitors to Taiwan revealed that the most predictive factors of tourism energy-saving and carbon-reducing behaviors were behavioral intention and, more surprising, self-efficacy as a coping appraisal rather than threat appraisal.

Rationale for Theoretical Choice

Both the social identity and protection motivation theories comprise a solid framework from which I can fully understand proenvironmental behaviors. Researchers have shown that a sense of belonging to a group label with a positive green identity could trigger environmental social identity. The more emotionally committed individuals are to a proenvironmentalorganization, the more likely they will endorse proenvironmentalattitudes and behaviors. Positive group identity enhances individuals' self-esteem, which motivates them to establish and perform more positive value differences to maintain the group's positive social identity. The other potential motivating factor revealed in the literature was fear or the perception of a threat that could trigger individuals to adopt more proenvironmental behaviors after removing or reducing barriers. A vast number of studies point to the threat of fear and coping mechanisms as a strong motivation for proenvironmental behaviors.

Relationship With Present Study

The current state of the world's natural resources, environmental degradation, and climate change requires an exploration of human behaviors in an effort to reverse the trend. Although the proposed framework may seem to have a strong focus on consumers and public health behaviors, its applicability to employees provides fertile ground for understanding proenvironmental behaviors. The challenge in this study is to provide organizational leaders a better understanding of how to motivate employees toward these behaviors in support of their CSR programs and as such fills an important gap. Operationalizing key variables such as the salience of social identity to engender the

internalization of, and conformity to, group values, goals, and norms, along with understating the role of perceived severity, perceived susceptibility, response efficacy, and self-efficacy, could provide a good basis for understanding proenvironmental behaviors. An in-depth discussion on proenvironmental behaviors follows.

Employee Proenvironmental Behavior

At the core of any successful strategy implementation is the human system, which includes the collective behavior of people in organizations. The same holds true for strategies aimed at ecological sustainability, which requires looking beyond formal EMSs and technology. Organizations contribute to climate change through environmental pollution and GHG emissions, which Cahill et al. (2013) described as anthropogenic. To reverse this trend, researchers have focused on understanding the mechanism underlying individual proenvironmental behaviors (Lo, Peters, & Kok, 2012; Raineri & Paillé, 2015). The goal is better environmental performance, as indicated by Zhang, Wang, and Zhou (2013), who researched factors associated with behavior for promoting energy saving and reducing energy consumption in Beijing, China. The challenge that researchers face is the multitude of terms, concepts, and definitions used to describe proenvironmental behaviors.

Examples of Proenvironmental Behaviors

From an individual or consumer perspective, some examples of proenvironmental behavior include saving energy; recycling waste paper, bottles, and cans; separating biodegradable trash; saving packaging materials; printing doubled sided on paper; using more ecological modes of transportation; purchasing recycled goods; and reducing water

use. Stern, Dietz, Abel, Guagnano, and Kalof (1999) referenced individuals who become active in professional environmental organizations, petition environmental issues, make suggestions for improving environmental practices, or question the ecologically harmful practices of corporations and governments. From an organizational perspective, Boiral et al. (2015) associated proenvironmental behaviors with three main issues: pollution prevention, internalizing EMSs and eco-innovations, and knowledge management. Proenvironmental behaviors might include substituting toxic material with less hazardous material, eliminating sources of contaminant emissions, changing the process in reducing waste materials, or designing more ecological products.

While defining proenvironmental behavior using examples might suffice, researchers have made several distinctions to explain the concept from the perspective of employees (Bissing-Olson, Zacher, Fielding, & Iyer, 2012), the organization (Norton, Zacher, & Ashkanasy, 2015), the consumer (Saphores, Ogunseitan, & Shapiro, 2012), and even the human resources profession (Mehta & Chugan, 2015). A broad overview of the various definitions of proenvironmental behavior follows, with a special emphasis on employees' behavior and the organizational context.

Defining and Conceptualizing Proenvironmental Behavior

Unlike the concept of CSR, the prevailing constructs of proenvironmental behavior, though numerous, seem to have a little more consensus. Bamberg and Möser (2007) portrayed proenvironmental behavior as a mixture of self-interest (e.g., minimizing one's own health risk) and of concern for other people, the next generation, other species, or whole ecosystems (e.g., preventing air pollution from causing climate

change and risks to others or the Earth). Proenvironmental behaviors are human activities that harm the environment as little as possible or, as noted by Osbaldiston and Schott (2012), that are comparatively better for the environment. Unsworth, Dmitrieva, and Adriasola (2013) defined employee proenvironmental(green) behavior as scalable actions individuals engage in that link with, and contribute to, environmental sustainability. Azhar (2012) indicated that public employees consciously or unconsciously undertake proenvironmental behaviors to benefit the environment in their workplace and nonworkplace settings. Proenvironmental behavior appears to be an overarching concept that describes a variety of actions directed toward benefiting, preserving, or protecting the environment or reducing environmental deterioration. The goal is to promote the health and long-term sustainability of the Earth's ecosystem.

Terms such as conservation behaviors, environmentally friendly behaviors, environmentally significant behaviors, environmentally sustainable behaviors, and responsible environmental behaviors refer to proenvironmental behaviors. Lulfs and Hahn (2013) used the term voluntary proenvironmental behavior of employees to indicate employees' involvement in or challenging their corporations' ecological policies. Likewise, A. M. Smith and O'Sullivan (2012) concluded that employees' proenvironmental behavior benefits organizations' environmental values and objectives but falls outside the formal role requirements of the employees. A. M. Smith and O'Sullivan referred to this behavior as environmentally responsible organizational citizenship behaviors, in contrast to environmentally responsible workplace behaviors derived from organizational environmental policies and formal roles. A. Kim, Kim, Han,

Jackson, and Ployhart (2014) used the term volunteer workplace green behavior to describe a type of eco-friendly behavior based on civic citizenship that benefits the organization directly by conserving resources and energy and indirectly by preserving the natural environment. As the focus of the study is employee proenvironmental behavior, I expand this distinction below to include organizational and inter- and intrapersonal attributes that contribute to such behavior, along with the underlying mechanism to explain the behavior.

Workplace proenvironmental behaviors. Before deploying intervention methods in the organization to encourage proenvironmental behavior, an understanding of the underlying mechanism that drives such behavior is necessary. Bissing-Olson et al. (2013) highlighted the growing concern for environmental sustainability that resulted in the need for a greater understanding of predicting proenvironmental behaviors. McDonald (2014) provided a framework that distinguished between organizational and individual antecedents such as attitudes, intentions, and personal norms as possible antecedents to proenvironmental behavior. There is some disagreement regarding whether these proenvironmental behaviors are strictly voluntary or a combination of voluntary and nonvoluntary actions, as explored below.

Voluntary. Several researchers linked proenvironmental behavior with the voluntary aspect of the organizational citizenship behavior phenomenon. Lamm et al. (2013) used psychometric exploratory factor analysis and confirmatory factor analysis to show that proenvironmental behavior was a distinct element of organizational citizenship behavior in the form of organizational citizenship behavior toward the environment. A.

Kim et al. (2014) indicated that voluntary workplace green behavior is a subset of organizational citizenship behavior not specified in any job descriptions, systematically monitored, or rewarded. Similarly, Lulfs and Hahn (2013) proposed that the voluntary proenvironmental behavior of employees is a specific type of organizational citizenship behavior targeted directly or indirectly toward the environment. Lulfs and Hahn also noted that organizations do not prescribe, mandate, or explicitly include proenvironmental behavior in any formal role descriptions, expectations, or job requirements. However, such voluntary behavior can still have a connection with employees' job (e.g., switching off the lights in the office when going to lunch), which indicates a choice for the employees.

Organizational citizenship behavior is a strong reference point to proenvironmental behavior in the literature because of its demonstrated ties to improving operational performance based solely on employees' voluntary involvement. Dekas, Bauer, Welle, Kurkoski, and Sullivan (2013) referenced various studies that indicated how organizational citizenship behaviors enhanced productivity through greater coordination among employees, lower employee turnover, organizational adaptability, profitability, and customer satisfaction. Organ and Konovsky (1989) indicated that organizational citizenship behavior derives its practical importance from the premise that operational excellence is a result of employees' voluntary behavior and not any formal or explicit role obligations or reward system. Advocates of organizational citizenship behavior hope to convey the linkage and similarity between proenvironmental behavior

and environmental performance, just as organizational citizenship behavior relates to organizational performance.

Boiral and Paillé (2012) measured and validated the five dimensions of *helping, sportsmanship, organizational loyalty, individual intiatives and self-development* as integral to organizational citizenship behaviors toward the environment. The authors defined *helping* as collaboration and encouraging other workers to consider environmental issues while *sportsmanship* referred to the positive attitude toward the inconveniences associated with environmental practices. They went on to describe *organizational loyalty* as support to the environmental policies and actions of the organization, and *individual initiative* as discretionary suggestions and initiatives in the workplace. Lastly, the authors identified *self-development* as acquisition of environmental knowledge. The authors removed the dimension *organizational compliance* from the original construct because of the strong argument that compliance could not be voluntary or discretionary. Boiral and Paillé also categorized and validated these five dimensions into *eco-initiatives* or discrete individual behaviors taken to improve the environmental performance of the company, from the concept of Lamm et al. (2013), and *eco-civic engagement* and *eco-helping* based on A. M. Smith and O'Sullivan's (2012) concept of direct behavior.

Voluntary and nonvoluntary. Researchers discussed in this section introduced a description of proenvironmental behaviors that is both voluntary and nonvoluntary. Bissing-Olson et al. (2013) identified proenvironmental behavior as both *task-related* (nonvoluntary) and *proactive* such as *ecopreneurship* (voluntary) behavior. Ones and

Dilchert (2012) categorized the term employee green behavior into five broad areas: avoiding harm, conserving, working sustainability, influencing others, and taking initiative. Ones and Dilchert noted that these efforts may contribute to or detract from environmental sustainability consisting of both in-role and extra-role behaviors. Similarly, Norton, Parker, Zacher, and Ashkanasy (2015) segregated employee green behavior into required employee green behavior, which includes measurable individual behavior that contributes to environmental sustainability goals within the work context, and voluntary employee green behavior, which involves personal initiatives exceeding the firm's expectation. Employee green behavior, highlighted by Boiral et al. (2015), encompasses both voluntary and required behavior that instead targets the natural environment. Table 2 summaries the three main types of proenvironmental behaviors.

Table 2

Proenvironmental Behavior Classification

Workplace proenvironmental behaviors		Nonworkplace pro-environmental behaviors
Voluntary behaviors	Nonvoluntary behaviors	
Discretionary behaviors	Environmentally responsible workplace behavior	Ecological citizenship
Eco-civic	Required employee green behavior	Environmentalism
Eco-friendly	Task-related behavior	Environmental activism
Eco-initiatives		Environmental citizenship
Environmentally responsible organizational citizenship behavior		Sustainable purchasing
Organizational citizenship behavior toward the environment		

Proactive behavior ecopreneurship
Voluntary employee green behavior
Volunteer proenvironmental behavior of employees
Voluntary workplace green behavior

Nonworkplace Proenvironmental Behavior

Public proenvironmental behaviors appear to take on a much different form and in some cases have different motivations than in the workplace. One such behavior is *ecological citizenship*, which Jagers, Martinsson, and Matti (2013) noted derives from a sense of global environmental responsibility and is likely to change one's specific behavior, such as purchasing decisions, in reducing unjust impacts to others. This concept appears to be part of a larger construct called *environmentally significant behavior*, which differs in terms of impact and intent. These activities range from active involvement in organizations and demonstrations (environmental activism) to nonactivist behaviors (environmental citizenship or support for public environmental policies) and private environmentalism (i.e., purchase, use, and disposal of items that have an environmental impact; Stern, 2000). These behaviors have their foundation in morality and norms; however, an ethical approach also plays a significant role in proenvironmental behaviors.

Unlike employees, consumers are able to monitor their energy consumption at home or in their transportation choices and alter their behavior for an immediate reward of lower energy costs, which often reinforces the behavior. Wells, Manika, Gregory-

Smith, Taheri, and McCowlen (2015) and Zhang et al. (2013) highlighted the economic factor of adopting proenvironmental behaviors as a significant motivator for the public or consumers. Since consumers, like employees, are a subset of the larger population a discussion on behavioral spillover follows to understand when and how proenvironmental behavior may lead to similar type behaviors.

There is growing interest in proenvironmental behavior spillover because of the possibility that the behavior could lead to similar activities in the workplace. Proenvironmental behavior spillover refers to the likelihood that encouraging one proenvironmental behavior can lead to other proenvironmental behaviors (Evans et al., 2013; Lanzini & Thøgersen, 2014; Truelove, Carrico, Weber, Raimi, & Vandenbergh, 2014). Researchers have shown that economic-based decisions will have no net proenvironmental behavior spillover, while those with active environmental identities (environmentalists) will exhibit positive spillover in the energy, environmental policy, conservation, and efficiency domains. Although economic-based decisions hold promise, the ethical normative values approach provides a more solid predictability of proenvironmental behavior, and an exploration follows.

Factors Influencing Proenvironmental Behavior

The degree to which leaders initiate and sustain environmental activities depends not only on individuals' value, attitude, and belief toward the activity, but also on the organizational culture toward environmental sustainability and green leadership. Boiral et al. (2015) indicated that many environmental initiatives, such as recycling materials, turning off lights, and powering down electronics at the end of the day, rely almost

entirely on employees' goodwill. Norton et al. (2014) highlighted the need for a green work climate to influence employee perceptions regarding the organizational behavioral norms toward environmental sustainability. Robertson and Barling (2013) developed and tested a model of leaders' environmental descriptive norms (green leadership) that predicted their environmentally specific transformational leadership style, which in turn encouraged and predicted employees' environmental passion and behavior toward greening organizations. I explore each of these attributes below.

The role of values, goals, and self-identity. A number of researchers have described individuals' environmental values and attitudes as a key determinant and a source of motivation for their proenvironmental behavior. Through three separate consecutive quantitative studies in the Netherlands, Van der Werff, Steg, and Keizer (2013b) analyzed the mediating effects of environmental self-identity (view of self acting pro-environmentally) on the relationship between biospheric values, which are deeply held beliefs of preserving the environment, and environmental behaviors, such as energy use. Likewise, Hahnel, Ortmann, Korcaj, and Spada (2014) focused on the issue of protecting the environment and unity with nature, similar to egoistic, altruistic, and biospheric values, which when activated increase the attractiveness of sustainable products, specifically electric vehicles. Hahnel et al. examined the influence of factors inherent to consumers' environmental values on internal price threshold and price sensitivity toward electric vehicles. The authors of both studies showed that stronger biospheric value led to stronger environmental self-identity, which motivated consumers

to act in accordance with their proenvironmentalvalues, such as purchasing green products.

Values are transsituational goals that serve as guiding principles and a reflection of how individuals see themselves, which in turn influences their behavior. Steg, Bolderdijk, Keizer, and Perlaviciute (2014) proposed the Integrated Framework for Encouraging Proenvironmental behavior built on the goal-framing theory that indicated hedonic goals (enjoyable) and gain goals (saves money) should be compatible with normative goals (perceived as the right thing to do). Steg et al. also indicated that a shift in focus toward self-enhancement (hedonic and egoistic) and self-transcendent (altruistic and biospheric) values is necessary to encourage proenvironmental behavior. However, a clash between values is more likely, as indicated by Evans et al. (2013), who noted the opposing values of self-interest (power, wealth) with community welfare or self-transcending values (protecting the environment) with the status quo. Results from the direct effect of self-interest, self-transcendent, or both on proenvironmental behavior in two separate experiments of human resource participants from Cardiff University on the motives for car sharing and the likelihood of spillover revealed competing motivational behaviors. The opposing values can be problematic because they inhibit self-transcending, proenvironmental behaviors and spillover for the sake of self-interest values.

The role of affect and attitudes. Attitudes typically refer to an evaluation individuals make of objects, events, or in some cases other people and will influence their behavior. Individuals' attitudes about the world from an ecological perspective will also

play a significant role as an antecedent to proenvironmental behavior. Bissing-Olson et al. (2013) conducted a quantitative study on 56 eastern Australian employees in various functions at different organizations who participated in a daily diary over 10 consecutive workdays. Results showed that proenvironmentalattitude (a person's tendency to be concerned with the environment) positively related to both task-related and proactive (ecopreneurship) proenvironmental behaviors both independently of and in interaction with daily affect. The intrapersonal factors of environmental values, attitudes, and goals played a significant part in predicting employees' proenvironmental behavior.

The role of personal norms and moral obligation. Like values, norms, and self-identity provide good predictability for understanding proenvironmental behaviors. Zhang et al. (2013) conducted an empirical study of 344 employees working in the financial consulting sector in Beijing and concluded that personal norm positively related to electricity savings behavior. Similarly, van der Werff et al. (2013a) showed that one's personal norms, defined as feeling morally obligated to perform the behavior, mediate the relationship between environmental self-identity and proenvironmental behavior. A. Kim et al. (2014) examined whether conscientiousness and moral reflectiveness act as antecedents of volunteer workplace green behavior at the individual level, similar to the framework of organizational citizenship behavior toward CSR engagement. Through an analysis of 80 group leaders and 325 members from three companies that represent the construction, information technology, and financial industries in South Korea, A. Kim et al. indicated that conscientiousness positively related to employees' reflections about the

moral implications of environmental degradation, which in turn leads to voluntary workplace green behavior.

The role of personality. Personality traits continue to receive a lot of attention in relation to proenvironmental behavior because researchers widely use them to describe individuals. Researchers use traits as a descriptive term that generally refer to a consistent pattern of behavior that an individual shows over a wide spectrum of situations and time (Cofer & Appley, 1967). Personality traits are excellent predictors of future actions. A model widely used in describing personality traits, as referenced by Gifford and Nilsson (2014), is the *big five*, which defines the degree to which an individual is open to experience, conscientious, extraverted, agreeable, and emotionally stable (neuroticism). *Openness* reflects an appreciation for abstract thinking and unusual experiences, *conscientiousness* indicates a high level of self-discipline and respect for duty, *extraversion* refers to an energetic engagement and sociability, *agreeableness* is the tendency to value social harmony and getting along with others, and *emotional stability* reflects emotions such as anger or depression (Brick & Lewis, 2014). A number of the attributes on the surface seem to indicate a direct correlation with proenvironmentalvalues such as agreeableness and conscientiousness.

Several researchers have shown a strong positive relationship between various components of the big five personality traits, in particular openness, to proenvironmental behaviors. For example, Wuertz (2014) concluded in a quantitative study of 98 Walden University students, faculty members, and staff that the personality traits of openness and agreeableness produced a significant correlation with proenvironmental behavior, while

openness alone correlated with both ecological behavior intention and environmental concern. Unlike proenvironmental behaviors, Wuertz did not find a correlation of proenvironmentalattitudes toward openness or conscientiousness. Brick and Lewis (2014) used the HEXACO personality model, which includes a sixth trait of *honesty-humility* that reflects a sense of sincerity, fairness, greed avoidance, and modesty to the big five model. Through a quantitative study of 345 U.S. adults, Brick and Lewis showed that conscientiousness and openness were independently the strongest predictors of self-reported emissions-reducing behaviors and showed that environmental attitudes mediated the predicted effects.

Similarly, Markowitz, Goldberg, Ashton, and Lee (2012) revealed proenvironmental behaviors, as measured by the environmental practice scale, strongly correlated with openness and weakly correlated with extraversion, even when they removed the effects of age, education, and intelligence from two separate U.S. studies. Lastly, a similar study among 370 tourists randomly approached using specific quotas with regard to nationality, age, and gender in the Republic of Cyprus revealed all personality traits correlated with eco-friendly actions except for openness, which contradicted almost all other previous studies (Kvasova, 2015). The studies by Wuertz (2014), Brick and Lewis (2014), and Markowitz et al. reflected a U.S. population only, which might not be representative of other cultures. Although Kvasova's (2015) finding deviated from most in the literature, most researchers would still contend that personality is a significant driver of proenvironmental behaviors.

The role of age and gender. To incorporate effective intervening behavioral strategies, organizational leaders must understand how various socioeconomic and demographic groups differ in their attitudes toward proenvironmentalactivities. Results on the relationship between age and proenvironmental behaviors are conflicting. Markowitz et al. (2012) referenced a number of studies in which researchers indicated that proenvironmentalindividuals are more likely to be female, younger, relatively more affluent, and better educated than individuals that are considered non-pro-environmental. S. Kim et al. (2013) also noted that women reported a greater intent to support proenvironmental behaviors, but older and more liberal participants did not. Wiernik, Ones, and Dilchert (2013) used a psychometric meta-analysis of four decades of psychological research on environmental sustainability to indicate that age does not appreciably relate to environmental concern, values, commitment, intention, or attitudes. In contrast, Saphores et al. (2012), who also referenced several studies, indicated that older people are more likely to recycle, as confirmed in their research of 3,048 panelists that individuals over 60 were more likely to recycle electronic waste but not household waste.

With regard to gender, conflicting studies exist. Although Saphores et al. (2012) showed females had a greater willingness to recycle, Vicente-Molina, Fernández-Sáinz, and Izagirre-Olaizola (2013) referenced several conflicting studies on the relationship between gender and proenvironmental behaviors. In their research of university students in Mexico, Brazil, United States, and Spain, Vicente-Molina et al. confirmed that women are more likely to carry out environmentally friendly activities in both advanced and

emerging countries. Conflicting reports for both gender and age are a significant challenge to organizational practitioners, who must use different proenvironmentalstrategies to accommodate group differences toward environmental sustainability.

The role of habit. The aspect of habit as routine actions versus deliberate actions framed in the theory of planned behavior (TPB) required a different model based on current research. Klöckner (2013) revealed that the strongest predictor of environmental behavior was intentions, followed by habit strength. Similarly, Lavelle, Rau, and Fahy (2015) conducted a study of 1,500 urban households in the Republic of Ireland and Northern Ireland and found two distinct types of proenvironmental behaviors associated with habitual behavior and occasional actions. Lavelle et al. distinguished between habitual behavior as recurring activities that require limited planning and cognitive effort and occasional actions as nonroutine actions that involve conscious planning and decision making, such as purchasing energy-efficient technologies and appliances. The concept of habit as a precursor to proenvironmental behavior is significant because it goes against the notion of behavioral intentions as the only precursors to behavior.

Organizational context. An important organizational context in promoting proenvironmental behaviors is organizational climate. Organizational climate is a group-level concept of employees' shared perceptions that form from their social interactions and of the leader's influence in shaping the members' meaning to their work environment (Norton, Zacher, & Ashkanasy, 2012). There is little dispute surrounding the belief that the work environment is a determinant factor for employee motivation, retention,

absenteeism, and behavior. Work climate is a key functional link that mediates the relationship between organizational context and individual responses and provides the basis for behavior and affect. Norton et al. (2012) pleaded for a separate proenvironmentalclimate construct to understand how employees' knowledge, attitudes, and subjective norms on environmental sustainability engage them in green behaviors. Based on the literature, an emerging argument could be that organizational climate, and not culture, should be the emphasis in moving organizations to excellence.

***Organizational climate*.** Motivating employees toward proenvironmental behavior so they can contribute to environmental sustainability and incorporate environmental considerations within business needs requires both a supportive work climate and leadership. Norton, Zacher, et al. (2015) conducted a mixed study of the Sierra Nevada company with a strong proenvironmentalorganizational culture and climate and found employees' perceptions of their organization's injunctive norms fully mediated the relationship between employees' perception of the organization sustainability policy and task-related proenvironmental behavior. The same relationship held for descriptive norms and voluntary proenvironmental behaviors but had no effect on task-related behavior. The integrated model indicated that culture influences behavior through employees' perceptions of artifacts (climate), which translate organizational beliefs and values into behavioral norms.

The literature on organizational citizenship behavior indicated that organizational climate and perceived organizational support act as antecedents to volunteer-based behaviors. Qadeer and Jaffery (2014) highlighted the importance of organizational

citizenship behavior but were unable to conclude, in their study of 108 employees from a multinational consulting corporation in Pakistan, that organizational climate predicted organizational citizenship behavior. Qadeer and Jaffery did show how an individual's psychological capital, defined as the positive state of development characterized by self-efficacy, optimism, hope, and resiliency, positively mediated the relationship. Paillé and Mejía-Morelos (2014) focused on perceived organizational support as a motivating factor for employees to conduct voluntary actions, performed a cross-sectional field study of 1,500 working individuals in Mexico, and revealed through quantitative analysis that perceived organizational support positively related to employee commitment and job satisfaction, which in turn positively related to proenvironmental behavior. Azhar (2012) concluded in a study of government employees from two Florida cities chosen for their activity toward energy and climate change that an organizational green culture had a significant association with both workplace and nonworkplace proenvironmental behavior. Positive organizational support is inherent in any nurturing work climate where employees feel a sense of commitment to behave beyond the call of job responsibility.

Organizational green leadership. Several researchers have identified relational and causal factors of green leadership to proenvironmental behavior. Robertson and Barling (2013) provided a theoretical model for greening organizations by conducting a quantitative study to determine how environmentally specific transformational leaders affect workers' proenvironmental behavior. The study of 139 leader–subordinate pairs in the United States and Canada concluded that environmentally specific transformational leaders positively affect employees' proenvironmentalpassion and behaviors. Similarly,

Azhar (2012) found a significant and positive association of transformational leadership with both workplace and nonworkplace proenvironmental behavior. A. Kim et al. (2014) showed that a leader's engagement in voluntary workplace green behaviors increases the likelihood that employees will follow suit through an analysis of 80 group leaders and 325 members from three companies representing the construction, information technology, and financial industries in South Korea. The findings indicated the importance of environmentally specific transformational leadership on employees' behaviors and the likelihood that the behavior could spill over outside the organization.

Underlying Mechanisms of Proenvironmental Behavior

Although norms, values, attitudes, habits, organizational climate, and green leadership provide insight in predicting proenvironmental behaviors, they do not indicate the underlying mechanism by which employees form these behaviors. The following paragraphs include a discussion on three mechanisms and their supporting studies that further explain proenvironmental behaviors. One of the most popular models for predicting social behavior, including proenvironmental behaviors, is the TPB. The theory builds upon the theory of reasoned action by encompassing the motivational factors of behavioral control, subjective norms, and attitudes as a direct influence to behavioral intentions and ultimately behavior (Ajzen, 1991). Unlike other behavioral theories, TPB includes a rational decision-making process, rather than moral conviction, to understand proenvironmental behaviors.

Three studies in particular demonstrate the value of TPB in predicting proenvironmental behavior. Greaves, Zibarras, and Stride (2013) surveyed 25,000

individuals from the United Kingdom and revealed that the TPB construct accounted for 55% to 68% of the variance in employee intentions to engage in three environmental behaviors. Likewise, Graham-Rowe, Jessop, and Sparks (2015) surveyed 373 participants in the United Kingdom, showed that the TPB elements were significant predictors of positive intentions to reduce household fruit and vegetable waste, and accounted for an additional 54.71% of the variance. Lastly, S. Kim et al. (2013) examined the willingness of U.S. and Korean undergraduate students to engage in proenvironmental behaviors. Results revealed that cultural differences did not affect the predictive power of subjective norms between the two countries, but prevention attitudes remained a significant predictor for Koreans, unlike Americans. The findings indicated how cultural differences in a collectivistic culture versus an individualistic culture might affect the prediction of behavioral change.

Another more likely mechanism is value-belief-norm theory, in which moral obligation and values play a significant role in predicting proenvironmental behaviors. The value-belief-norm theory is an integrative theory that includes an assumption that personal norms determine behavior directly based on the norm activation model developed for understanding altruism and helping behavior (Klöckner, 2013). Zhang et al. (2013) defined the norm activation model as pro-social activities brought on by individuals' personal norms or moral obligation, awareness of consequences, and ascription of responsibility in benefiting other persons or the environment through helping and sharing. Through an empirical study of 344 employees working in the financial consulting sector in Beijing, Zhang et al. concluded that personal norm

positively relates to electricity savings behavior. This moral obligation derives from activating the personal norm reflecting employees' personal value system in a given situation before becoming relevant as a determinant of behavior.

To activate the personal norm in the value-belief-norm theory, an awareness of the consequences and ascription of responsibility is necessary. As such, the general ecological worldview prescribed in the new environmental paradigm supports the theory (McDonald, 2014). According to this ecological worldview, human activity is part of and endangers the natural equilibrium and natural resources are limited. This level of awareness correlates to general value orientations such as biospheric, altruistic, egoistic, or self-transcendence and self-enhancement, which ultimately leads to concern and a key to environmental behavior (Klöckner, 2013). A graphical depiction of the comprehensive action determination model, which is an integrated approach by Klöckner (2013), appears in Figure 1.

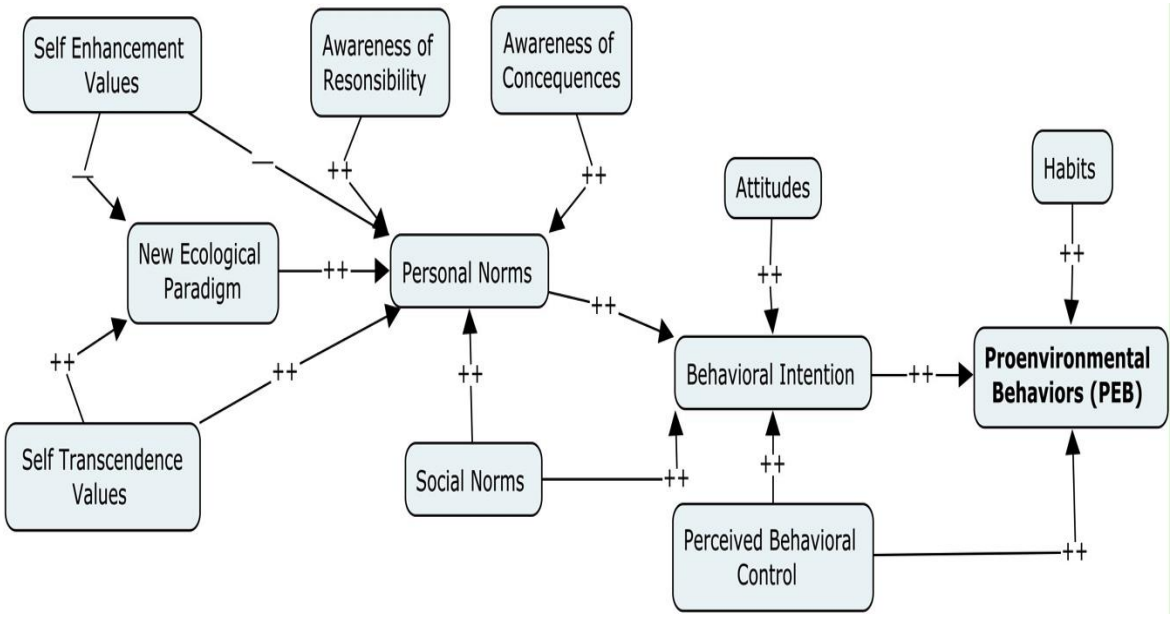

Figure 1. Graphical depiction of the comprehensive action determination model. From "A Comprehensive Model of the Psychology of Environmental Behaviour—A Meta-analysis," by C. A. Klöckner, 2013, *Global Environmental Change, 23*, p. 1032. Copyright by Elsevier. Reprinted with permission (see Appendix A).

Lastly, the social exchange theory goes beyond individuals' norms, values, and attitudes, and researchers instead consider the facilitating environment to explain proenvironmental behaviors. Blau (as cited in Colquitt, Baer, Long, & Halvorsen-Ganepola, 2014) described the social exchange as a mutual relationship between parties in which obligatory exchanges of unspecified favors tend to be a bigger motivator. The strength of this social exchange is the voluntary behavior exhibited by one exchange partner and the expectation that the other partner will reciprocate. When employees feel supported and valued in the workplace, they are likely to return the favor by demonstrating desirable work outcomes, such as proactive or extra-role behavior giving rise to citizenship.

Researchers use the social exchange theory more extensively in the work setting because they can attempt to explain employees' behavior, which is often voluntary, resulting from the expected reciprocity of coworkers or employers. Paillé and Mejía-Morelos (2014) defined social exchange theory as the willingness of employees to engage in proenvironmental behaviors if they perceive that their organizational leaders initiate, develop, and maintain favorable work conditions. As alluded to in the organizational climate discussion, perceived organizational support, which is a subset of the social exchange theory, had a positive relationship with employee commitment and job satisfaction, which in turn positively related to proenvironmental behavior and organization citizenship behaviors toward the environment (Paillé et al., 2013; Paillé &

Mejía-Morelos, 2014). Likewise, Raineri, Mejía-Morelos, Francoeur, and Paillé (2016) validated a model of a workplace social exchange network involving perceived organizational support, perceived coworker support, and perceived supervisory support on 1,500 alumni of a major Mexican university and its eco-initiatives. Lastly, Colquitt et al. (2014) validated a social exchange theory measurement scale using perceived support, affective commitment (emotional attachment), psychological contract fulfillment, and trust among 400 undergraduate students at a large southeastern university. This overview of the theoretical framework included a comprehensive look at the factors for predicting proenvironmental behaviors because it included the personal and work environment.

Corporate Social Responsibility (CSR)

Although corporate executives have struggled with the issue of organizations' responsibility to society, there is a growing sense that CSR is necessary for businesses to be sustainable. Schwab (2008), founder and CEO of the World Economic Forum, appealed to the business community to act as global corporate citizens because they are a major stakeholder in the communities they serve. Business leaders are beginning to incorporate socially responsible operations and investments into their strategic plans because of growing empirical evidence that CSR can increase both stakeholder and shareholder wealth (Liang & Renneboog, 2014). The focus of this CSR literature review is the benefits of CSR and its relationship with employee proenvironmental behavior, preceded by an outline of the various CSR concepts and an appreciation of the challenges involved in operationalizing the concept.

Defining CSR

Consensus on the definition of CSR is lacking, which makes it difficult for both practitioners and scholars to indicate what it means for corporations to be socially and environmentally responsible. Carroll (1991) indicated that CSR implies a willingness for leaders of corporations to include ethical and discretionary (philanthropic) responsibilities along with their economic and legal obligations. According to ISO 26000, CSR is "the responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behavior" (ASQ & Manpower Professional, 2010). Bowen (as cited in Pop, Gogozan, & Marinela, 2012) defined CSR as organizations' pursuit of policies and decisions that are congruent with the objectives and values of society. Others have defined CSR as context-specific organizational practices that include stakeholders' expectations; the triple bottom line of economic growth, social cohesion and equity; and environmental integrity and protection (Aguinis & Glavas, 2012, 2013; O'Donohue & Torugsa, 2014). These definitions indicate that leaders of socially responsible organizations must address the entire spectrum of obligations to society and the natural environment.

In addition to the multitude of terms that apply to the CSR concept, such as corporate sustainability, corporate citizenship, social performance, corporate governance, and corporate philanthropy, is the issue of complexity and one compelling theory against CSR. Liang and Renneboog (2014) indicated that CSR is a multidimensional concept that includes various stakeholders' interests, such as employee satisfaction, environmental protection, corporate philanthropy, and consumer satisfaction. Isa and Reast (2014)

derived eight dimensions from prior literature on the CSR construct: process, policy, values, environment, personal, profit, people, and politics. Some researchers vehemently oppose the concept of social responsibility. For example, Friedman (1970) contended that corporations do not have a social conscience and therefore have no responsibility toward societal progress. This notion was derived from early interpretation of the instrumental theory where CSR is only a strategic tool to achieve economic objectives and wealth at the expense of stakeholders' interest (Garriga & Melé, 2013). The CSR concept has not received full support and has undergone poor execution (Rangan et al., 2015; Wang, 2015). The result is a concept that is difficult to operationalize, and any attempt to measure and model it from only one perspective or specific centered interest can be problematic.

CSR Concept and Communication

Most CSR constructs involve a process by which leaders engage with shareholders and stakeholders and comply with environmental (climate change, etc.), societal (diversity, human rights, etc.), and corporate (employee relations, anticorruption measures, etc.) governance. Some researchers have argued that CSR refers to a company's discretionary business practices that extend beyond compliance and the immediate interests of the firm and its shareholders (Vlachos et al., 2013). Although four out of 10 people believe CSR is a communication campaign to improve the company image similar to *greenwashing* (Moratis, 2015), Christensen, Morsing, and Thyssen (2013) considered it aspirational, even if words do not fit actual behaviors. Christensen et al. concluded that the difference between talk and action might be an inspirational

message for developing organizational CSR engagement and organizational benefits. A description of some of these benefits, with a special emphasis on employees, follows.

Benefits of CSR

Empirical evidence that CSR can substantially enhance organizational and financial performance to include employee engagement toward sustainability is growing. From a national perspective, Boulouta and Pitelis (2014) indicated that a positive correlation exists between national CSR performance and competitiveness measured as gross domestic product per capita through an examination of companies from 19 developed countries over a 6-year period. An in-depth look at the various organizational benefits from CSR follows.

Financial performance. A positive relationship exists between CSR and corporate financial performance. O'Donohue and Torugsa (2014) and Tang, Hull, and Rothenberg (2012) indicated that the firm's human resource management functions and CSR engagement strategy positively relate to, and moderate, CSR and corporate financial performance. Stanley (2011) conducted a quantitative research study based on 359 U.S.-based companies and revealed a significant relationship existed between social responsibility using the Kinder, Lydenberg, and Domini index and financial performance represented by market capitalization. The findings in these studies indicated a positive correlation existed between CSR and corporate financial performance but did not imply a causal interpretation, and other researchers presented a different picture, as shown below.

The total cost of strategic CSR may balance out its total benefit, as contended by the authors of the studies described in this paragraph. Flammer (2015) conducted a quasi-

natural experiment and found larger value gains for companies with relatively low levels of CSR, which suggested that the initial efforts to improve CSR efforts might lead to a decrease in financial performance return over time. Belu and Manescu (2012) investigated the impact a firm's strategic CSR index has on its economic performance using both return on assets (a profitability measure) and Tobin's Q (a projection of expected profits that is less prone to managerial manipulation) and found a neutral relationship between strategic CSR and organizational profit. Choi and Yu (2014) did not find any direct correlation of CSR practices and financial performance measured as a variation of the balanced scorecard method of profitability, growth, cost saving and efficiency, market value created, and brand improvement. More important, Choi and Yu found that organizational commitment was an indirect mediator of CSR and performance through organizational citizenship behavior. Although the evidence on the nature of the value expected from CSR initiatives remains mixed, most organizational leaders would agree that not considering it can lead to significant repercussions. Customer branding, organizational efficiency and employee satisfaction are less controversial, as noted below.

Consumer loyalty. Another tangible benefit derived from the perception of organizational CSR legitimacy is brand equity, which refers to the value of an organization's product and services. Liu, Wong, Shi, Chu, and Brock (2014) showed that each element of CSR dimensions (i.e., environmental, societal, and stakeholder) positively relates to brand preferences and is partially mediated by perceived brand quality. Liu et al. found that CSR stakeholders had the strongest influence on Chinese

customers' brand preference among the three CSR domains analyzed. Öberseder et al. (2014) referenced research that indicated consumers' interest in organizational CSR activity is steadily increasing. However, Moisescu (2014), who looked at consumers' behavior with regard to loyalty and their perception of the firms' CSR efforts, revealed that it is unclear how consumers perceive CSR. Moisescu also contended that there is no universally accepted tool to measure CSR perception. Although people are likely to support the CSR initiatives of green companies and products, there appears to be a threshold to their support.

Improved operations. The basis of the CSR guidance document ISO 26000 is the quality management principle of plan–do–act–check with the intended result of producing continuous improvement. Hahn (2013) indicated that ISO 26000 should be useful for companies at every phase of the strategic management planning process. The document can provide assistance with internal and external assessments and can help with implementing respective measures. Valmohammadi (2014) validated a CSR construct and a measurement instrument based on the seven core aspects of the ISO 26000 standard and examined the effects of these seven core aspects on Iranian organizations. Results from a quantitative survey of 275 manufacturing and services organizations indicated that a positive association existed between each aspect and organizational performance, especially for community involvement and labor practice. Similarly, Ranängen, Zobel, and Bergström (2014) conducted a CSR implementation case study in the South African mining sector to address the considerable concern for local economic, environmental, and health and safety impacts to mineworkers. Unlike

Valmohammadi, Ranängen et al. focused on the health and wellness aspects and revealed that the ISO 26000 standard could be useful in evaluating and improving a company's CSR practice in developing countries. The ISO 26000 standard provides an invaluable tool to help organizational leaders move toward strategic sustainable management and improved efficiency.

Employee engagement. One less controversial benefit realized from CSR programs is employee satisfaction, retention, and organizational commitment. Vlachos et al. (2013) used a variety of theoretical frameworks in their evaluation of how employees' subjective interpretations of CSR-induced motives influence their feelings of job satisfaction. Results from a qualitative survey of 489 employees from three leading European manufacturing organizations engaged in CSR initiatives revealed a positive relationship between employee CSR-induced intrinsic attributions and employee job satisfaction. Zhu, Hang, Liu, and Lai (2014) noted that employee satisfaction mediates the direct effect of perceived CSR activity and employee commitment on four Chinese firms, and Moon et al. (2014) confirmed that organizational justice (distributive, procedural, and interactional) and affective commitment mediate employees' positive perception of CSR and compassion at work. These researchers all indicated that positive job satisfaction and commitment lead to compassionate acts among employees.

Perceived CSR can also lead to employees' OID, which has a positive link to job and organizational performance. Korschun, Bhattacharya, and Swain (2014) and Brammer et al. (2015) indicated a positive relationship existed between perceived management support for CSR and employee OID. This identification to the organization

is a strong motivating force by which employees perform both in-role and extra-role behaviors on behalf of the organization and is based on the social identity theory. Slack, Corlett, and Morris (2015) studied employee engagement in organizational CSR activities and found a complex mix of both organizational values and personal attitudes toward CSR that indicated the level of engagement by employees depends on how salient the CSR norms and values are within the organization.

Relationship Between CSR and Proenvironmental Behavior

Although there are many studies on the relationship between CSR and organizational citizenship behaviors, literature on the relationship between CSR and proenvironmental behavior is lacking. Norton et al. (2014) showed that organizational sustainability policies were precursors to employee green behaviors in a quantitative study of 168 full-time employees. Wells et al. (2015) conducted a two-stage mixed methods study and indicated knowledge and awareness of issues and perceived information adequacy were important in relation to satisfaction with current behavior, self-efficacy, and perceived potential to change the behavior.

Because organizational citizenship behavior is similar to proenvironmental behaviors in a number of ways, extrapolating the relevant literature on the relationship between CSR and organizational citizenship behavior is an option for understanding the underlying mechanism. Fu, Ye, and Law (2014) explored the intraorganizational impact of CSR activities on employees' attitudes and behavior in five Chinese hotels in terms of organizational identity, organizational commitment, and organizational citizenship behavior using the social identification perspective. Results indicated that CSR had a

positive effect on organizational citizenship behavior and was partially mediated by organizational identity and organizational commitment. Likewise, Bozkurt and Bal (2012), through empirical analysis of employees in the pharmacy, fast-moving consumer, and banking sectors, indicated a positive relationship existed between CSR and organizational citizenship behavior. Bozkurt and Bal also found very little statistical difference existed between genders relative to perceived CSR but they did find women more inclined to demonstrate organizational citizenship behavior. In the telecommunications industry in Pakistan, the results were the same. H. A. Khan, Zahoor, and Irum (2014) found a positive relationship between CSR and organizational citizenship behavior and a negative relationship to employees' turnover intention.

Environmental Management System

Despite the scientific facts about climate change, corporation and government leaders continue to pollute the planet. The environmental impact from GHG emissions; air, land, and water pollution; and hazardous waste from businesses costs the global economy $4.7 trillion annually (Fellow, 2013) at a time when corporate profits were at their highest in 85 years, reaching $2.5 trillion in 2013 (Norris, 2014). Aragon-Correa, Marcus, and Hurtado-Torres (2015) noted that greater corporate environmental disclosure, once thought to improve environmental performance, might instead serve as a smoke screen for poor environmental performance. Aragon-Correa et al. found that 95% of the largest global companies listed on Bloomberg's environmental, social, and governance database published a sustainability report but also had lower environmental performance than their noninternational counterparts.

Critics have mounted a formidable political and marketing campaign against scientific evidence on global warming. Exxon Mobil received a subpoena by state officials in 2015 seeking documents from as far back as the 1970s to determine whether leaders of the organization lied to investors and consumers or withheld information about the effects of climate change (Smythe, 2015). Public officials are also to blame for ecological damage caused by driving the Atlantic cod stock to collapse, fracking oil shale, and harvesting rainforests (Worldwatch Institute, 2014). Moving the discussion away from economics and a lack of socially conscious organizations toward an EMS offers an opportunity to engage individuals whose concern is the well-being of self, society, and the environment rather than corporations, government, and institutions. This section of the literature review includes an in-depth analysis of the relationship between EMSs and proenvironmental behavior, preceded by a discussion on a renewed sense of urgency and the concept and benefits of an EMS.

A Renewed Sense of Urgency

A meeting of global leaders in Paris in 2015 adopting a framework on climate change and new U.S. federal guidance attests to the renewed urgency regarding the issue of climate change. The new agreement indicates that climate change is an urgent and irreversible threat to humans and the planet that requires an effective and appropriate international response to accelerate the reduction of global GHG emissions (United Nations, 2015). The agreement also calls for actions to be respectful of human rights, including the right to health and the rights of indigenous peoples, local communities,

migrants, children, persons with disabilities, and people in vulnerable situations, including gender equality and intergenerational equity.

Citing the White House Council on Environmental Quality (2015), President Obama called for leaders of federal agencies to lead, be accountable, plan, and provide continuous improvement in achieving recommended sustainability goals in their operations, policies, and programs. Along with a recommended governing body, the president called for the head of each agency to establish agency-wide GHG emission reduction targets and sustainability goals of 25% in absolute terms by the end of Fiscal Year 2025 relative to a Fiscal Year 2008 baseline. Although the focus is on technology, systems, and procedures, it does not account for the one aspect that is critical for the reversal of any environmental degradation, which is human behavior. The EMS might be the possible link.

Degrowth economics refers to a scaling down of the amount of raw material taken from the earth through pollution minimization efforts or by stopping the development. Cattaneo, D'Alisa, Kallis, and Zografos (2012) warned about the limits of exponential population and economic growth in a planet of finite resources that has grown to a scale that is overshooting planetary boundaries and tearing apart the biogeochemical cycles of the planet. Making degrowth a reality will require economic activism and an awakening of different forms of democracy and democratic institutions that is possible and socially sustainable. A system response to environmental management could reduce the potential risk, as explained below.

Environmental Management

Organizational leaders continue to treat the relationship between business success and environmental protection primarily as a zero-sum term, which indicates that the investment in environmental protection is likely to undermine corporate competitiveness. Hoffman and Georg (2013) referenced previous studies in which researchers indicated this is a false dichotomy based on a static view of competitiveness and suggested that adopting stringent environmental regulations can spur competitive advantage. The EMS is a comprehensive framework designed to help organizational leaders achieve environmental goals through consistent review, evaluation, and improvement of organizations' environmental performance and environmental protection. Barrow and Matthews (2014) added that the intent of the EMS is to reduce an organization's environmental impact without compromising its economic productivity. One of the most recognized internationally agreed upon frameworks for EMSs is ISO 14001, used by organizational leaders to improve environmental performance through using resources efficiently, reducing waste, and gaining stakeholder trust (ISO, 2015). The basis of these systems is the quality principle of plan–do–check–act with the intent of identifying opportunities for improvement and implementation.

Organizational leaders use the EMS to institute continuous environmental performance by focusing their efforts on their own environmental objectives and targets. Despite some sector pressure (aerospace, manufacturing, etc.) to mandate the EMS, it is still voluntary for many organizations and considered to be a best practice. The same is true for certifying the systems. Searcy et al. (2012) identified elements of the EMS as

establishing objectives and targets linked to the business plan, developing an effective auditing program, and effectively integrating it into the organization's management system. Boiral and Henri (2012) analyzed three models of the ISO 14001 standards adoption: an instrumental model (certification might explain organizational efficiency), a legitimacy model (response to external pressures aimed at social and client expectations), and a hybrid model. Through an empirical test of 1,500 Canadian manufacturing firms, Boiral and Henri concluded that the hybrid model had a better explanation of the environmental performance of the organizations.

Environmental dimensionality. Despite the overwhelming use of CSR ratings, there is little consensus on what these indicators really represent. The situation for corporate environmental performance is similar from the standpoint of both content and construct validity. Delmas, Etzion, and Nairn-Birch (2013) focused on providing nonfinancial data in the form of environmental performance indicators in support of socially responsible investing. The Kinder, Lydenberg, Domini Research & Analytics Environmental, Social, and Governance ratings; Newsweek Green Rankings; and Dow Jones Sustainability Index revealed two dimensions for an environmental index: environmental process (in reducing its environmental impact) and environmental outcomes (harm or releases). Trumpp, Endrikat, Zopf, and Guenther (2015) noted that corporate environmental performance is a multidimensional construct consisting of environmental management performance (environmental policies, objectives, processes, monitoring, and organizational structure) and environmental operational performance (outcome). As such, measures for environmental performance should entail both

environmental and operational performance indicators that reflect organizational leaders' management of their environmental aspects.

Benefits of an EMS

Adopting any EMS will require increased employee training and employee engagement resulting in improved organizational effectiveness and financial performance. Delmas and Pekovic (2013) analyzed the relationship between the adoption of ISO 14001 (EMS) and labor productivity using employees' social identification as the framework. An analysis of survey data obtained from 10,663 employees representing 5,220 French firms revealed that the adoption of ISO 14001 correlates with higher levels of labor productivity by 16%, mediated by improved training and interpersonal contacts. Pop et al. (2012) examined CSR and benchmarking practices with a special emphasis on whether the environmental component can provide a distinction between effective and ineffective efforts in organizations. Pop et al. used the concept of data envelopment analysis to model how the environmental investment affected the financial performance at two major brewery and dairy companies in Romania and found that environmental investments and training significantly correlated with financial performances. Wong, Lai, Shang, Lu, and Leung (2012) evaluated the moderating effects of the environmental management capability (i.e., EMS) on upstream suppliers to electronics manufacturers in Taiwan by using the natural-resource-based view. Wong et al. found product stewardship had a negative impact on both environmental and financial performance and secondarily pollution reduction had no impact on financial performance. However, Wong et al. indicated that both product and process stewardship had a significant positive influence

on pollution reduction when the environmental management capability of the suppliers was high. Although the implementation of an EMS does not guarantee improved performance, it should provide a means for continuous improvement financially and in other areas.

Research has also shown the importance of strategic human resource management in adopting EMSs that result in improved organizational performance. Bauer, Erdogan, and Taylor (2012) highlighted a number of studies in which researchers linked environmentally conscious firms to being more attractive to highly qualified prospective candidates. Bauer et al. also noted the significant role of employees' ecological orientations: *egocentric* (dedicated to sustainability), *eco-centric* (care about the environment), *anthropocentric* (believe nature serves humans and needs protection), or *apathetic* (believe researchers and scientist have exaggerated environmental concerns). Mehta and Chugan (2015) attributed the EMS benefits of employer desirability, top talent retention, and improved sales to the interaction between strategic human resource management and environmental management professionals, while Paillé, Chen, Boiral, and Jin (2014) pointed to organizational citizenship behavior toward the environment. Paillé et al. conducted a quantitative study with 2,250 frontline workers and 310 senior executives of Chinese corporations and revealed that organizational citizenship behavior toward the environment fully mediates the effect of strategic human resource management on environmental performance. Core components of human resource management that might lead to organizational citizenship behavior toward the environment and that are critical for EMS deployment include the development of green

abilities (selecting, recruiting, on-boarding, and training), motivation of green employees (appraisals and rewards), and employee involvement.

Relationship Between EMS and Proenvironmental Behaviors

Although economic benefit, environmental benefit (waste minimization), and social benefit (stewardship) derived from EMS are likely, such a program would be difficult to engage without employees' voluntary proenvironmental behaviors. Paillé et al. (2013) analyzed the relationships between environmental management practices and organizational citizenship behavior toward the environment. Paillé et al. used the social exchange theory as their theoretical framework in an empirical study of 404 employees in a Canadian University executive master's in business administration program and found environmental management practices positively related to organizational citizenship behavior toward the environment and the social exchange theory conditions perceived organizational support and employer commitment moderated environmental management practices. In a similar study, Raineri and Paillé (2015) examined employee willingness to engage in environment citizenship behaviors through a conceptual framework of commitment experienced as a psychological state that gives behavioral direction (e.g., a cause) with more or less recourse to cognitive appraisal. Through an online survey of 3,233 employees enrolled in bachelor's and master's programs at a French business school, Raineri and Paillé revealed that employee environmental commitment mediated the positive relationships between personal environmental beliefs, perceived corporate environmental policy (part of the EMS), and supervisory support with environmental

citizenship behaviors. The authors of these studies noted the underlying mechanism of the relationship between the EMS and proenvironmental behaviors.

Gap in the Literature

Research on the relationship between employees' protection motivation and organizational identity, their perception of CSR, and their knowledge of EMS on proenvironmental behavior is lacking. Although researchers have focused on the effects of CSR on customers and organizational performance, few researchers have used empirical evidence to show proenvironmental behavior is a common business practice (Raineri & Paillé, 2015). Research thus far has been on the effects of CSR on consumers (Öberseder et al., 2014); competitiveness (Boulouta & Pitelis, 2014; Valmohammadi, 2014); and employees' job satisfaction, turnover, commitment, and trust (Dhanesh, 2014; Vlachos et al., 2013). Few researchers have addressed the influencing factors of employees' discretionary proenvironmental behaviors toward organizational sustainability (Lamm et al., 2013). The limited research that exists included other theories such as the value-belief-norm theory or TPB. I conducted this study to address the gap in the literature by paying specific attention to the underlying motivational factors involved with protection, fear appeals, and social identity.

Identifying the motivating factors that employee proenvironmental behaviors play in CSR and EMS implementation can unleash the potential for organizational excellence and address the specific problem of leaders' inability to engage employees. Involving employees in CSR activities is critical for them to reciprocate positive attitudinal and environmentally sustainable behaviors (Buciuniene & Kazlauskaite, 2012).

Organizational practitioners with a better understanding of how to motivate employees toward proenvironmental behavior in support of CSR activities may deploy effective intervention methods to reduce corporate emissions and preserve the natural environment. Therefore, the purpose of this quantitative correlational study is to determine the extent to which employees' perceived CSR, knowledge of EMS, and protection motivation relate to proenvironmental behavior. Aguinis and Glavas (2013) indicated that embedding CSR into a company's core business may lead to a better path toward social, financial, and organizational excellence. More important than embedding CSR into a company's core business is the idea of including all stakeholders, in particular employees, early in the decision-making process.

Summary and Conclusion

This chapter included insight into the difficulty of conceptualizing and therefore implementing CSR initiatives. Organizational leaders' motivation for EMS implementation appears to be one of legitimacy versus improved environmental performance. The combination of poor CSR operationalization and organizational leaders not fully embracing the utility of effective EMSs has led to environmental pollution and the depletion of scarce natural resources. The current trajectory puts the human species at risk, as evidenced in the chapter. Researchers have pointed to employees' proenvironmental behaviors as the most likely means of reversing the current impact to the environment rather than management systems and technology. I explored a number of prosocial behavioral theories, including value-based-norm and social exchange theories, as a way to predict proenvironmental behaviors. The social identity theory served as the

theoretical framework because it refers to the notion that a firm's CSR actions can trigger employees' intrinsic motivations for developing their organizational identity and thus their engagement.

Organizational leaders; human resources; CSR; environmental, health, and safety professionals; and other organizational behaviorist practitioners play a significant role in the greening of their organization. Mehta and Chugan (2015) highlighted the significance of a green human resource management subspecialty built on motivating employees toward proenvironmental behaviors, whereas Delmas and Pekovic (2013) emphasized employee involvement in strengthening EMS by environmental, health, and safety professionals. Organizational leaders should engage with employees as a major stakeholder to implement effective CSR initiatives and to overcome this lack of common business practice (Dhanesh, 2014). The current research may create a pivotal link between theory and the practical application of green practices when leaders better understand motivation and behavior and can institute behavioral interventions for the betterment of the environment.

Chapter 3 includes a review of the research design for this study, as well as the sample selection and sample size. The chapter includes step-by-step research procedures and a description of the scales used to assess proenvironmental behaviors, CSR, and EMSs. Lastly, the chapter includes statistical procedures used for data analysis.

Chapter 3: Research Method

The question of whether civilization can continue on its current path of environmental deterioration without undermining prospects for future well-being was the impetus for this research. Researchers at the Worldwatch Institute (2013) reported that the emission of GHGs and fossil-fuel-based carbon dioxide is higher than ever before and increasing at an accelerating pace, which has led some scientists to suggest that it may be too late to bring global warming to safe levels. Studies have indicated that human activities are the main source of global warming.

Purpose Statement

The purpose of this quantitative study was to determine the extent to which employee protection motivation, employees' OID, and employees' perception and knowledge of their organization's CSR and EMS relate to employee proenvironmental behavior. This research addressed the specific problem of the inability of organizational leaders to integrate CSR into their operations effectively (Martinuzzi & Krumay, 2013) and, more explicitly, how best to motivate employees to undertake proenvironmental behaviors (Laughland & Bansal, 2011). The lack of employee perspectives in CSR execution might account for the difficulty in operationalizing CSR effectively.

Secondarily, the objective was to increase managers' understanding of the underlying mechanism that motivates employees toward proenvironmental behaviors so that they might deploy effective intervention methods toward greening their organization. In this chapter, I present the research questions and provide justification for the selected research method and design, the sampling strategy, and the data collection instruments

and technique. A description of the data analysis process, a discussion of the reliability and validity of the study, and a summary complete the chapter.

Research Questions

The central question for the study was as follows: What are the relationships between contextual and interpersonal factors and proenvironmental behaviors? The study included four research questions and eight hypotheses. A graphical depiction of the relationships among individual and organizational variables appears in Figure 2.

RQ_1: What is the relationship between perceived CSR and employee proenvironmental behavior?

- $H1_0$: Perceived CSR will have no correlation with employee proenvironmental behavior.
- $H1_a$: Perceived CSR will have a positive correlation with employee proenvironmental behavior.

RQ_2: What is the relationship between EMS and employee proenvironmental behavior?

- $H2_0$: EMS will have no correlation with employee proenvironmental behavior.
- $H2_a$: EMS will have a positive correlation with employee proenvironmental behavior.

RQ_3: How does employees' protection motivation influence their proenvironmental behavior?

$H3_0$: Employees' protection motivation will have no correlation with their proenvironmental behavior.

$H3_a$: Employees' protection motivation will have a positive correlation with their proenvironmental behavior.

RQ_4: How does employees' OID influence their proenvironmental behavior?

$H4_0$: Employees' OID will have no correlation with their proenvironmental behavior.

$H4_a$: Employees' OID will have a positive correlation with their proenvironmental behavior.

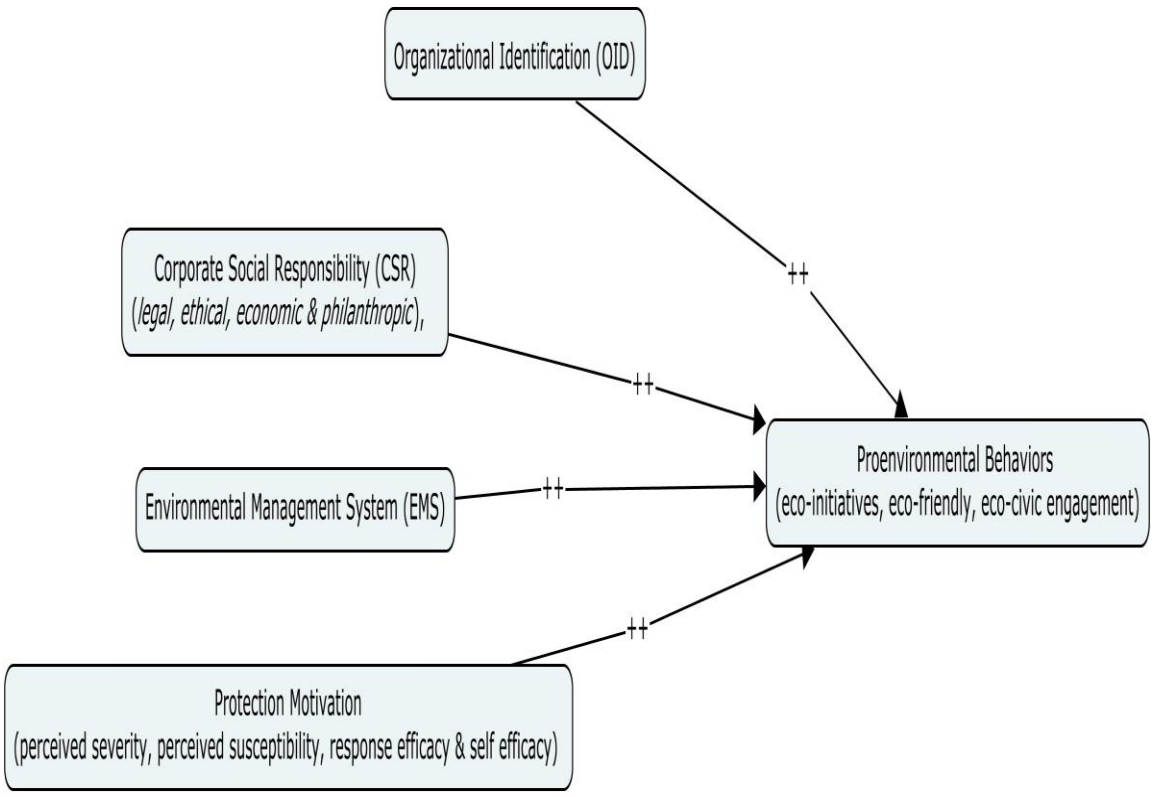

Figure 2. Individual and organizational factors influencing proenvironmental behavior.

Research Method and Design

I designed the research to determine the extent to which employee protection motivation, OID, employees' perception of CSR, and employees' knowledge of the EMS (the independent variables) related to proenvironmental behavior (the dependent variable). I used a quantitative research method and a correlational research design. Unlike qualitative research, which involves gathering verbal data to provide a detailed description of a phenomenon, I measured data and counted features in constructing statistical models to extrapolate behavior. I also used surveys, measurements, and other equipment to collect numerical data rather than conducting the in-depth interviews, focus groups, narratives, or participant observation normally associated with qualitative research. The descriptive correlational research design was suitable to determine the association and predictive relationships between the variables in the study. Descriptive research answers questions of *how* and *what* rather than *why* (Simon & Goes, 2013). Descriptive research involves describing the status of an identified variable and providing systematic information about a phenomenon.

Justification for the Research Method

Although a qualitative research method could have added value to efforts to understanding proenvironmental behavior in greater depth and breadth, it did not fit the intent of this research. Arendt et al. (2012) noted that qualitative research is not about the sample size or graphical representation but is instead an analysis of a phenomenon that involves thoroughly studying participants until no new themes emerge during data analysis. Arendt et al. contended that pure qualitative research (i.e., ethnographic

research) tends to occur early in the inquiry spectrum, when there are very few studies on the phenomenon. In the realm of social work, qualitative researchers focus on the complexities associated with participants' daily social interaction and the meaning participants assign to these experiences to offer pragmatic solutions (Marshall & Rossman, 2016). As my intent was not to propose a new theoretical framework or capture the lived experiences of employees who exhibit proenvironmental behavior, a qualitative research method was not suitable for this study. As the phenomenon was further along the inquiry continuum, having undergone extensive research before, the quantitative method was ideal.

Justification for the Research Design

Using the correlational aspect of the research design, I explored the relationships between a number of facts to recognize trends and patterns in the data with the intent of explaining which changes in one or more variables have an association with or predict changes in other variables. Researchers use the classical experimental research design to provide strong logical proof to establish a cause-and-effect relationship among variables, but researchers seldom use it in the social sciences. Steele (2012) indicated that quasi-experimental and experimental research designs require randomized assignment to an experimental group for the intervention as well as a control group, thereby creating an artificial situation. While useful in producing high internal validity in laboratory research, usually at the expense of generalizability, the design is intrusive and difficult to establish and sustain throughout the course of an experiment.

As the intent of this research was not to assess any intervention or treatment method or to determine cause or effect, the quasi-experimental or experimental research design was not the preferred choice. Even if causality was not the intent, the design was suitable for revealing the amount of variability explained by the relationship and to identify potential predictive correlations among the study variables that could inform future experimental research. The descriptive correlational research design was preferable to address the research question to determine the extent to which a relationship existed between organizational and individual factors and proenvironmental behaviors.

Sampling Strategy

A sampling strategy includes three elements: the targeted population, the sample size, and the sample design. Nachmias and Nachmias (2008) indicated that sample size determination is an essential component of any study because it ensures that a researcher can extrapolate the results to the general population with a certain level of confidence. The following paragraphs include an in-depth discussion of the three components.

Target Population

The population for this study consisted of intermediate (i.e., nonsupervisory or nonmanagement) employees from U.S.-based companies. The companies had had a certified EMS (ISO 14001) for at least 2 years or were on the Dow Jones Sustainability Index due to their environmental, social, and governance practices. The rationale for including these two provisions was to have some reassurance that the organizations had CSR and EMS policies and procedures in place in an effort to integrate them into their operations. The Dow Jones Sustainability Index is the first global index to track

companies worldwide based on an analysis of financially material environmental, social, and governance factors and is the gold standard for corporate sustainability (S&P Dow Jones Indices & Robecosam, 2015). Although there may be hundreds of certified EMS manufacturing organizations in North America, only 50 appear on the Dow Jones Sustainability Index. As such, the preferred sample organization was one listed on the Dow Jones Sustainability Index.

With regard to the target population, the primary focus was employees' behavior and attitudes based on the perception of their organization's CSR initiatives and knowledge of their organization's EMS deployment. The further refined target population was frontline or intermediate employees who were at least 20 years old, who worked at least 40 hours per week, and who had been in the organization for at least 2 years. These criteria provided some assurance that the employees had formed job attitudes toward their organizations in response to organizational policy, rules, and structure. Based on the established criteria, the target population was in the millions. The selected employees comprised the sampling unit or unit of analysis. The sample was from a list of accessible employees who met the established criteria (i.e., the sampling frame).

Sample Size

To calculate the sample size, an effect size of the expected behavior is necessary. Cohen (as cited in Osbaldiston & Schott, 2012) noted that effect size indicates how much more people in the treatment group performed a behavior compared with the average person in the control group. Based on a meta-analysis of 253 proenvironmental behaviors, Osbaldiston and Schott (2012) estimated an effect size of 0.45 with a 95%

confidence level. Another important factor to consider in computing the sample size is the significance or alpha level, which refers to the odds that the observed behavior is due to chance. To minimize the chance of a Type I error, which involves concluding that an effect exists when there is none, a smaller significance level is preferable. Simon and Goes (2013) stated that a significance level of .05 indicates that the findings have a 95% chance of being true. The last consideration is statistical power, which refers to the odds that a researcher will observe a treatment effect. Determining statistical power requires a delicate balance because any increase in power is likely increase to the probability that the researcher will observe an effect (Nachmias & Nachmias, 2008).

In line with proposing a rigorous research study, I used an anticipated medium effect size of 0.15, a significance level (alpha) of .05, and a statistical power of 0.8. I computed the sample size of 85 using the G*Power statistical analysis tool for a priori power analysis for regression, which may be found at http://www.gpower.hhu.de/en.html. To accommodate for incomplete surveys, absenteeism, and the dropout rate while ensuring that I obtained the number of participants necessary, I used 120 participants in the study. Based on the target population, this sample size did not to pose a significant threat to the study.

Sample Design

Because researchers conduct quantitative descriptive research in natural real-life settings, probability sampling is suitable, increases the external validity of the study, and makes statistical inferences to the population much more justifiable. However, access to participants for probability sampling was problematic and resulted in the use of a

nonprobability, convenience sampling strategy instead. Because the study took place in U.S.-based companies, participants represented U.S. workers. I conducted a nonprobability convenience sampling technique to obtain representation of frontline or intermediate employees from workers based in U.S. companies.

Justification for Sampling Design

Although nonprobability convenience sampling may not be representative of the general population and does not have the same statistical precision as simple random probability sampling, making it difficult to generalize or draw statistical inferences, it was used in this study for the following reasons. Because probability sampling in social research might not be feasible or practical, nonprobability convenience sampling received consideration. From a practical standpoint, nonprobability convenience sampling is easier, quicker, and more economical when compared to probability sampling, and therefore I used it instead. Accessibility, resources, and time are issues in probability purposive sampling. This type of research involves relying on a researcher's judgment and experience to select sampling units that appear to be representative of the population (Nachmias & Nachmias, 2008). The advantage of this technique is that it allowed me to reach a targeted sample quickly, and sampling for proportionality was not the primary concern. Simon and Goes (2013) cautioned that purposive sampling might capture the opinions of a population that is more readily accessible and therefore outweighs other subgroups of the target population, thereby limiting generalization.

Instrumentation and Operationalizing of the Variables

I designed the study to determine the extent to which perceived CSR, knowledge of EMS, OID, and employee protection motivation can predict the level of proenvironmental behaviors expressed as eco-initiatives, eco-civic engagement, and eco-helping. As discussed in Chapter 2, *eco-initiatives* refer to employee-driven initiatives, *eco-civic engagement* relates to contributions to an organization's environmental initiatives, and *eco-helping* refers to helping colleagues to take environmental concerns into account (Boiral & Paillé, 2012). The study involved collecting data about these variables from frontline or intermediate employees using the following survey measurements.

Proenvironmental Behavior Measure

Researchers operationalize proenvironmental behavior using three dimensions of organizational citizenship behavior toward the environment: eco-helping, eco-civic engagement, and eco-initiatives. Boiral and Paillé (2012) developed and validated the measurement scale through two independent studies by using an exploratory factor analysis of one sample as a precursor to a confirmatory factor analysis of another sample. Both studies took place at a large Canadian university where the participants self-reported. The first study included graduate students, and the second study included employees enrolled in an executive master's in business administration program. The measure included 10 items on a Likert-type response scale subsequently divided into the three subscales mentioned previously. Convergent and discriminant validity were .94 and .95, respectively, for eco-initiatives; .95 and .90, respectively, for eco-civic engagement;

and .87 and .90, respectively, for eco-helping, and Cronbach's alpha reliabilities ranged from .81 to .92 (Boiral & Paillé, 2012). Results provided evidence of the measures' reliability and validity.

Perceived CSR Measure

I operationalized the perceived CSR measurement using four-dimensional constructs identified in the literature as economic, legal, ethical, and discretionary and validated by Y.-K. Lee et al. (2012). Y.-K. Lee et al. collected data from 276 respondents representing 21 franchised foodservice enterprises in Seoul, South Korea, to examine the impact of different dimensions of CSR on service employees' quality relationship and outcomes. The measure consisted of responses to 29 items using a 7-point scale anchored by *strongly disagree* and *strongly agree* across the four dimensions notated above. Cronbach's alpha reliability ranged from .82 to .94, and convergent and discriminant validity were .92 and .65, respectively, for economic CSR; .92 and .65, respectively, for legal CSR; .94 and .68, respectively, for ethical CSR; and .93 and.65, respectively, for philanthropic CSR. These measurements indicated evidence for both validity and reliability. This study included an abbreviated 12-item measure validated by Moon et al. (2014), who revealed a reliability of the constructs using Cronbach's alpha coefficient ranging from .82 to .86.

Environmental Management System (EMS) Measure

I adapted the independent variable EMS from Ramus and Steger's (2000) measurement scale to assess employees' knowledge of the existence of seven items normally associated with environmental practices in the organization. Ramus and Steger

sampled 353 mid- and low-level employees from six European companies representing various nationally ranked industries in terms of their sales and environmental recognition. The object of the study was to examine the relationship between environmental policies and employee self-directed environmental initiatives. Ramus and Steger used a 13-item questionnaire to capture employees' knowledge and perception of the company's commitment to the policy on a 5-point scale where 2 = *strongly agree*, 1 = *partially agree*, 0 = *don't know*, -1 = *partially disagree*, and -2 = *strongly disagree*. Results indicated that having a well-communicated and convincing environmental policy was the most important factor associated with employee eco-initiatives. In a later study, Paillé et al. (2013) used an abbreviated seven-item measure and a 6-point Likert-type scale that resulted in an internal consistency of .88 (Cronbach's alpha), a composite reliability ranging from .72 to .86, and a discriminant reliability of .63, which indicated that the measure model provided evidence of reliability, convergent validity, and discriminant validity. This study included the seven-item measure and questions that concerned employees' perceptions of policies.

Protection Motivation Measure

I adapted the employee protection motivation survey instrument from Plotnikoff and Higginbotham (2002) that includes the multidimensional construct of *perceived severity, perceived susceptibility, response efficacy,* and *self-efficacy.* Plotnikoff and Higginbotham validated a 22-item protection motivation instrument in their study on the cognitive process of exercise behavior change to prevent chronic vascular disease in the adult population. Eight hundred adults from the Hunter Region of Australia, which has

high rates of chronic vascular disease, participated in the survey. Results showed a strong internal consistency by way of Cronbach's alpha ranging from .80 to .91. A follow-up study by S. Kim et al. (2013), who used an abbreviated eight-item version of the scale to assess the fear of climate change, indicated an internal consistency using Cronbach's alpha from .72 to .95. The researchers of both studies failed to provide the reliability results of their measure. I employed the eight-item measure highlighted by S. Kim et al. because of the increased emphasis on climate change as a specific motivating factor.

Organizational Identification (OID) Measure

I measured OID using the widely used scale of Mael and Ashforth (1992), who addressed the confusion over OID to other related constructs such as organizational commitment and organizational citizenship behaviors. As such, Mael and Ashford proposed a reconceptualization of OID based on social identity theory. Organizational identification is the perception of oneness with or belongingness to an organization, where individuals define themselves in terms of the organizations in which they are a member. Previous studies on the OID measurement scale produced a coefficient alpha of .81 in a sample of employed business and psychology students, .83 in a sample of managers from a variety of organizations, .83 to .84 when using only the first five items of the scale, and .87 to .89 in two samples of U.S. Army squad members on a six-item Likert-type scale ranging from 1 = *strongly agree* to 5 = *strongly disagree*. Table 3 includes a summary of the variable types, definitions, and ways I operationalized them, and permission letters to use these instruments are in Appendix A.

Table 3

Variables Construct

Variable	Type and level of measurement	Definition of the variable (construct)	How I operationalized the variable (measure)[a]
Employee proenvironmental behavior	Dependent and interval	A 3-dimensional scale consisting of eco-helping, eco-civic engagement, and eco-initiatives used in organizational citizenship behavior toward the environment	A self-report on 10 items on the organization citizenship behaviors toward the environment scale indicating the extent of agreement with each item. Sample item: I stay informed of my company's environmental initiatives.
Perceived CSR	Independent and interval	A four-dimensional scale consisting of philanthropic, ethical, legal, and economic.	A self-report on 12 items indicating perceptions of agreement with each item. Sample item: We are recognized as a trustworthy company.
Environmental management system (ISO 14001)	Independent and interval	The organization's environmental practice that ranges from environmental policy to EMS to environmental training is used.	A self-report on 6 items indicating the extent of agreement with each item. Sample item: My company publishes an annual environmental report.
Employee protection motivation	Independent and interval	A four-dimensional scale consisting of perceived severity, perceived susceptibility, response efficacy, and self-efficacy is used.	A self-report on 8 items indicating the extent of agreement with each item. Sample item: Global climate change is a serious problem.
Organizational identification	Independent and interval	A perception of belongingness to organizations, where individuals define themselves in terms of the organizations of which they are members.	A self-report on 6 items indicating the extent of agreement with each item. Sample item: When someone criticizes (name of (organization), it feels like a personal insult.

[a] Each item measured using a Likert-type scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). A mean score item on the respective scale and subscale represented the variable.

Data Collection Procedures

A self-administered closed-ended questionnaire (see Appendix B) deployed via the intranet to the employees of a global organization was the primary data collection method. This data collection method was suitable because of the ease of deployment and retrieval from a large sample. Nachmias and Nachmias (2008) indicated that conducting surveys through e-mail is substantially more common and includes several advantages, such as a quicker turnaround and lower costs than mailing or interviewing. Internet surveys can incorporate difficult skip patterns, pop-up instructions, and drop-down menus with a list of choices.

Recruitment

After receiving approval from Walden University's Institutional Review Board, I petitioned SurveyMonkey's audience convenience population. From SurveyMonkey's audience pool, I selected 120 full-time, intermediate employees who were 20 years old and worked for U.S.-based companies. The initial communication to the selected participants was via the Internet through an online survey hosted on SurveyMonkey's website. The initial contact included a survey invite (see Appendix C) indicating the purpose and potential benefits of the research study and included my contact information and Walden Institutional Review Board (IRB). Selecting yes on the electronic informed consent opened the online survey to the employee.

Two inclusion criteria subsequently used for screening candidates in the online survey were the questions "Have you worked for the company for at least two years?" and "Does the company have an environmental management system or corporate social

responsibility policy?" All responses needed to be yes for the survey to be valid. I collected preliminary demographic data such as age, gender, and years of employment at the onset of the survey. I did not conduct any specific employee debriefing or follow-up action after participants completed the survey. The study involved capturing all responses electronically on the website without any identifying marks indicating who the employee was.

Protection of Participants

Participants received a guarantee of confidentiality and assurance that participation in the study would have minimal personal impact, as noted in the consent form (see Appendix D). The participants also received some assurance that they were free to withdraw from the study at any time during the study or to choose not to complete the survey at any time during the process. The participants remained unknown to me, and their responses remained anonymous.

Data Analysis Plan

The study involved merging the electronic data retrieved from the collection phase directly into IBM's Statistical Package for Social Sciences (SPSS) Version 21.0 for Macintosh. Before doing so, I conducted a number of measures to ensure the integrity of the data. First, the directions and questions on the survey were easy to follow and easily understandable, which included making sure the vocabulary suited the participants' background and education level. Second, the online survey was formatted so participants could indicate the level of agreement to a survey question by checking a box. Third, I downloaded the survey data weekly from the online system onto an Excel worksheet to

monitor completion rates. At the same time, I conducted a thorough screening of the survey for accuracy and completeness so I could immediately identify any problems, questions, or technology issues. I eliminated from the analysis any record that was missing data.

After I reviewed the data set and found it acceptable, I uploaded it into SPSS for analysis to avoid double entry or transcription errors as much as possible. The worksheet also had a description of each variable by name, type (categorical, ordinal, nominal, or interval), format, definition, and any comments. I will maintain the original worksheet containing the data from the online survey for at least 5 years, in case there is a need to trace the result from the analysis back to the original online survey.

Descriptive Statistics

I used the participants' demographic variables such as gender, age, and years in the company not as independent variables, but instead to shed light on the general description of the participants and to add to the discussion of the mixed results in previous research. Gender was a categorical variable, whereas age and years with the company were continuous variables to report the mean and standard deviation. I tabulated the means, standard deviations, and number of participants for proenvironmental behavior, CSR, EMS, OID, and protection motivation scale measures. I also included a zero-order correlation matrix to show how the dimensional aspects of CSR, EMS, and protection motivation correlated with the three dimensions of proenvironmental behavior.

Inferential Statistics

The study involved correlational statistical tests to measure the relationships between the independent variables employees' perception of their organization's CSR, employees' knowledge of the organization's EMS, employees' protection motivation, and employees' OID and the dependent variable proenvironmental behavior. I conducted a two-tailed test of significance and Pearson's product–moment correlation coefficient (*r*). According to Nachmias and Nachmias (2008), researchers use Pearson's *r* to measure the association between interval variables, and Pearson's *r* ranges between -1.0 and +1.0 to reflect the direction of the relationship. Because the hypothesis includes more than two independent variables, a multiple regression analysis will be suitable to test the significance of the relationship using a Cronbach's coefficient alpha value of .05 to indicate significance. Researchers conduct multiple regression analysis to assess the relationship between two variables while controlling for the effect of others (Nachmias & Nachmias, 2008).

Researchers use SPSS to calculate various regression coefficients and residuals analysis in multiple regression, including estimates, model fit, R^2, change statistics, descriptive, parts and partial correlation, collinearity diagnostic, Durbin-Watson, and Casewise diagnostics. The two critical components of the tests were the estimates, which provide the coefficients of the regression model, and the model fit, which provides both the ability to predict the outcome variable and the value of R, R^2, and adjusted R^2. The R value is the multiple correlation coefficient between the independent variables and the dependent variable and is between -1.0 and +1.0 (Field, 2013). R^2 indicates how much

variability (i.e., percentage increase or decrease) in the outcome the independent variable accounts for, while adjusted R^2 indicates how well the model generalizes. The closer R^2 is to the adjusted R^2, the better the model. The change statistic is important because it indicates whether the change in R^2 is significant and if adding a new model or variable makes a difference. Both the Durbin-Watson and collinearity tests indicate the assumptions of the data, while the Pearson correlation captures the zero-order correlation.

I selected multiple regression analysis rather than analysis of variance because I could use multiple regression analysis to predict the combined effect and the individual effect of the independent variables on proenvironmental behaviors. In contrast, although analysis of variance is also a linear model, it tests the significance of group differences between two or more groups, where the independent variable has two or more categories (Field, 2013). The other limitation was that analysis of variance only determines that a difference exists between groups but does not indicate what is different.

Assumptions

To ensure the results obtained were valid, I verified all assumptions for carrying out multiple regression were met. Field (2013) identified independence of observations, linearity, homoscedasticity, multicollinearity, and normality as assumptions that need verifying before carrying out analysis. Independence refers to the assumption that one data point does not influence another. Linearity refers to the relationship between (a) the dependent variable and each of the independent variables and (b) the dependent variable and the independent variables collectively. Homoscedasticity refers to an assumption that the residuals at each level of the independent variables have similar variances, while

multicollinearity occurs when two or more independent variables highly correlate with each other, which researchers must avoid. Field provided several options if violations to these assumptions occur. For example, if the distribution of residuals (errors) is not normal, a multilevel mode (logistic regression) might be necessary.

Reliability and Validity

The research methodology and design presented in this study provided both reliable and valid results, which are critical to social science research; however, some threats remain. Nachmias and Nachmias (2008) distinguished reliability and validity by defining reliability as the extent to which a set of measures is the same as others drawn from the same population, whereas validity addresses whether a researcher measured what he or she intended to measure. Simon and Goes (2013) defined validity as the extent to which researchers can draw accurate conclusions about relationships, whereas reliability is the extent to which the measure is repeatable or consistent. A discussion on threats to validity follows.

External validity refers to the generalizability to which the findings in the study are relevant to individuals and settings beyond those in the study. Drawing a nonprobability convenience sample makes representation to the population somewhat challenging and poses a probable threat to external validity. The data represented a single point in time, which limited their use only for the time of the study and not to the past or any future time phase.

Internal validity refers to extent to which researchers can make conclusions about the causal effects of one variable on another (Simon & Goes, 2013). Another threat,

though weak, was the survey instrumentation and analysis. The issue is related to generalizing not to the population but to the phenomenon by determining if the survey instrument captured the concept of proenvironmental behavior. This process refers to determining the construct validity (Nachmias & Nachmias, 2008). In this regard, researchers had used the survey instruments proposed in this study extensively in prior research and had indicated the instruments were both reliable and valid. Both the convergent and the discriminant validity measures provide some assurance that a researcher is operationalizing the concept adequately. An accurate sample size, an assurance that the data analysis met the statistical testing assumptions and the use of a sufficient statistical power also minimized internal threats to construct validity.

Ethical Issues

This study entailed few ethical considerations. All participants were working adults, I did not gather or provide sensitive information, the study did not involve a treatment of human participants, and I did not provide incentives for participating in the survey. I did not conduct the study in my own workplace, which eliminated any conflict of interest. As mentioned previously, the data collection procedures involved seeking approval from Walden University's IRB before the study began to ensure I addressed all ethical concerns. After receiving approval, I solicited employees from SurveyMonkey's audience pool for the study, starting with a copy of the invite and informed consent to the participants, which they signed prior to gaining access to the online survey. The online signed informed consent provided assurance that the participants' responses would remain anonymous and that participants were free to withdraw from the study or to

decline to complete the survey at any time during the process. I will maintain the original worksheet containing the data from the online survey for at least 5 years in case a need arises to trace the result from the analysis to the original online survey. I protected the worksheet with a password and stored it in a password-protected cloud application accessible only by me.

Summary

This chapter included a discussion on the research methodology chosen to study how organizational leaders can effectively motivate and engage employees toward proenvironmental behaviors in support of their CSR initiatives. Although organizational leaders and other functional practitioners play a significant role in greening their organization, employee engagement should be a common business practice (Delmas & Pekovic, 2013; Dhanesh, 2014). My goal was to determine the extent to which employee protection motivation, perceived CSR, and knowledge of EMSs relate to proenvironmental behaviors in an effort to deploy effective interventions. Therefore, I used a quantitative research method with a descriptive correlational research design. Intermediate employees (i.e., nonsupervisory or nonmanagement) from U.S.-based companies participated in the study. The chapter included a description and the operationalization of each variable, as well as the previously validated and reliable survey instruments selected to collect and analyze the data. I also highlighted ethical considerations. Because the study involved two or more independent variables, I chose to use a multiple regression analysis to determine the strength and direction of the relationship for each combination of variables. Chapter 4 includes the results of the study,

followed by the findings, limitations, and implications for positive social change in Chapter 5.

Chapter 4: Results

Introduction

The primary purpose of this nonexperimental quantitative research study was to determine the extent to which employees' perception and knowledge of their organization's CSR and EMS relate to their proenvironmental behavior. Secondarily, the study involved examining whether the employees' protection motivation in relation to the fear of climate change and OID motivates them toward proenvironmental behavior. The basis of the research was social identity theory, which indicates that the CSR actions in a firm can trigger employees' intrinsic motivations for developing an organizational identity and thus their engagement (Farooq, Payaud, et al., 2014). Employees who identify with an organization tend to have a stronger emotional attachment and might behave in a manner commensurate with the company's environmental and social values.

Researchers have shown a positive link between CSR and employees' job satisfaction, turnover, commitment, trust (Brammer et al., 2015; Dhanesh, 2014; Vlachos et al., 2013), and organizational citizenship behaviors (Abdullah, Rashid, & Ramli, 2012; H. A. Khan et al., 2014). The intent in this study was to determine whether the same positive relations exist between CSR and employee proenvironmental behavior. If a positive relationship exists between perceived CSR and employees' proenvironmental behavior, then organizational leaders can allocate more resources to CSR programs and EMS implementation to become more socially and environmentally sustainable. This aspect of greening an organization must include employees as a major stakeholder.

This chapter includes the results, beginning with demographic data on the study participants. The next section includes the descriptive statistics of the variables and the reliability testing of the survey instrument. The analysis included a number of assumptions to ensure that the correlation test and multiple regression were suitable. The results of the statistical analysis precede a summary of the findings as they relate to each of the proposed hypotheses. The research questions were as follows:

RQ_1: What is the relationship between perceived CSR and employee proenvironmental behavior?

RQ_2: What is the relationship between EMS and employee proenvironmental behavior?

RQ_3: How does employees' protection motivation influence their proenvironmental behavior?

RQ_4: How does employees' OID influence their proenvironmental behavior?

Data Collection

I collected data during a 2-week period from intermediate employees working in the United States after receiving approval from Walden University's IRB (Approval No. 05-27-16-0426250). I defined intermediate workers as frontline employees who were nonsupervisory and nonmanagement personnel. The participants were from SurveyMonkey's audience, which is a pool of active survey participants representing the general population. To qualify for the sample, individuals must have been at least 20 years old and employed full-time with their organization for at least 2 years. Another

inclusion criterion was that the organization must have had a CSR program or policy or an EMS.

Prospective participants received an invitation from SurveyMonkey to provide input into the study (Appendix C). A consent form (Appendix D) served as an introduction to the study and highlighted the purpose of the study and the voluntary nature of participation. The consent form also indicated how participants could withdraw from the study and how their participation would remain confidential and anonymous. After the participants consented, they completed an online survey hosted on SurveyMonkey's website, estimated to take approximately 15 to 20 minutes. Participants underwent a screening process to ensure that they met the inclusion criteria of working for the same organization for at least 2 years, being at least 20 years old, and working for an organization that had a CSR policy or EMS. These data provided some assurance that participating employees had exposure to their organization's social or environmental responsibility. I downloaded the survey data daily on my personal computer to verify inclusion criteria, data integrity, and completeness.

Data Screening

Only two of 122 SurveyMonkey audience participants did not complete the survey, and I removed them from the sample, which resulted in a completion rate of 98% for the study. The 120 participants all met the inclusion criteria of having knowledge of their organization's CSR policy or EMS, being older than 20 years, and having worked for their organization for more than 2 years. The completion rate appeared to be acceptable when compared to similar CSR and proenvironmental behavioral studies,

which had response rates between 34% (Azhar, 2012) and 96% (Farooq, Farooq, & Jasimuddin, 2014; Korschun et al., 2014; Norton et al., 2014). The number of valid participants also exceeded the calculated minimum sample size of 85 presented in Chapter 3.

Demographic Characteristics of Sample

Table 4 includes demographic information for the 120 participants. Sixty-three participants were female, and 57 were male. Fifty-six percent of participants reported an organizational tenure of between 2 and 10 years, while 44% had worked for the target organizations for more than 10 years. Participants represented the education (15.8%), health care (15%), manufacturing (11.7%), retail consumer durables (9.2%), government (8.3%), and telecommunications (8.3%) industries. Of the sample, 33 participants were in their 50s (27.5%), 29 were in their 40s (24.2%), and 28 were in their 30s (23.3%). Fifteen respondents (12.5%) were between the ages of 20 and 29 years, and 15 (12.5%) were older than 60 years. Furthermore, 34.2% had a bachelor's degree, and 17.5% had a graduate degree. Over 20% of the participants had completed some college courses without attaining a degree, and 12.5% had a high school diploma or equivalent, such as a GED. The sample size was representative of employees who worked in U.S.-based companies.

Table 4

Demographic Profile of Participants

Characteristics	*N*	%
Gender		
Male	57	47.5
Female	63	52.5
Age		
20–29 years	15	12.5
30–39 years	28	23.3
40–49 years	29	24.2
50–59 years	33	27.5
60 years or older	15	12.5
Educational level		
Less than a high school diploma	1	0.8
High school diploma or equivalent (GED)	15	12.5
Some college	26	21.7
Associate degree	16	13.3
Undergraduate degree	41	34.2
Graduate degree	21	17.5
Employment tenure		
2–5 years	34	28.3
5–10 years	34	28.3
10–15 years	20	16.7
15–20 years	15	12.5
More than 20 years	17	14.2
Industry		
Education	19	15.8
Health care and pharmaceutical	18	15.0
Manufacturing	14	11.7
Retail consumer and durables	11	9.2
Telecommunication and technology	10	8.3
Government	10	8.3
Others	38	32.7

Note. *N* = 120.

Descriptive Statistics of the Variables

Table 5 includes a summary of the descriptive statistics for the independent and dependent variables in this study. As discussed in Chapter 3, the dependent variable proenvironmental behavior is a measure comprised of three subscales, eco-helping, eco-engagement, and eco-initiative. The average of the participants' responses to the proenvironmental behavior questions represented the participants' proenvironmental behavior measure, and the average of the participants' responses to the subscale questions represented the participants' subscale proenvironmental behavior measure. The five-item Likert-type scale ranged from *strongly agree* = 1 to *strongly disagree* = 5. The independent variables perceived CSR and protection motivation received the same treatment. The economic dimension, legal dimension, ethical dimension, and philanthropy dimension subscales comprised the CSR measure, and perceived severity, perceived susceptibility, response efficacy, and self-efficacy comprised the protection motivation measure. There were no subscales for the independent variables EMS awareness and OID.

To classify the participants' responses to the scale, I classified the variables that had values equal to or less than 2.5 as positive responses to the variable. The closer the variable was to 1, the more agreement the participants had with the statement. If the value for the independent variable protection motivation was 2.13, the participant believed climate change poses a near-term serious threat to humankind, was willing to participate in prevention behaviors, and believed those behaviors would work. Mertler and Vannatta (2013) indicated that for normal distribution, kurtosis and skewness values will be closer

to zero but can range between -1 and +1. The skewness of items used ranged from .158 to .615, and the values for kurtosis ranged from -.984 to .726, which indicated that the response distribution was normal.

Table 5

Descriptive Statistics of the Variables

Variable	Mean	*SD*	Skewness	Kurtosis	% positive response
Proenvironmental behavior	2.6358	.82470	.412	.600	48.33
Eco-helping	2.6056	.88875	.368	.118	
Eco-engagement	2.6854	.88551	.442	.514	
Eco-initiative	2.6000	.87990	.580	.468	
Protection motivation	2.3135	.77531	.539	.651	65.83
Perceived severity	2.1708	.91094	.615	.228	
Perceived susceptibility	2.4583	.95834	.390	-.021	
Response efficacy	2.4125	.94971	.562	-.007	
Self-efficacy	2.2125	.75777	.440	.726	
Organizational identification	2.3806	.84244	.384	-.206	59.17
Environmental management system	2.4153	.75252	.158	.197	53.33
Corporate social responsibility	1.8694	.58175	.267	-.792	87.50
Economic dimension	1.9556	.67354	.179	-.984	
Legal dimension	1.6472	.62068	.603	-.540	
Ethical dimension	1.7444	.65499	.411	-.943	
Discretionary dimension	2.1306	.79482	.375	-.068	

Note. $N = 120$.

Dependent Variables

The dependent variable proenvironmental behavior had the highest mean value and the lowest number of positive responses compared to all other independent variables, which indicated that employees were not usually concerned about or did not behave in a manner commensurate with protecting the environment. In particular, 48.3% of the participants reported positive proenvironmental behaviors, which resulted in a mean value of 2.64 (*SD* = .82). Eco-initiatives, which were within the domain of proenvironmental behavior, had a lower mean value at 2.60 (*SD* = .88), which indicated that participants demonstrated more of these types of behaviors than the other two subscales of proenvironmental behaviors, namely eco-helping and eco-engagement. Researchers in previous proenvironmental behavior studies used similar scales, such as Azhar (2012), who allocated points in reverse (i.e., *strongly disagree* = 1 to *strongly agree* = 5). The results in this study were almost inverted at 3.22 (*SD* = .75). The proenvironmental behavior values in the present study were comparable with the range of values obtained in similar studies.

Independent Variables

The mean scores for protection motivation, OID, perceived CSR, and EMS awareness were 2.31 (*SD* = .78), 2.38 (*SD* = .84), 1.87 (*SD* = .58), and 2.41 (*SD* = .75), respectively. Participants had a more positive outlook on their organization's CSR effort, as indicated with the lowest mean score of all the variables and a higher percentage of participants who responded positively at 87.5%. This perception derived primarily from the participants' belief that organizational leaders were acting in accordance with laws

and regulations, with a mean value of 1.65 (*SD* = .62), rather than a discretionary or philanthropy aspect of CSR with a mean value of 2.13 (*SD* = .79). The lower the score was, the more agreeable the participants believed behavior or perception was to the statement. As shown in Table 5, 65.3% of the participants indicated that the fear of climate change could motivate them to engage in a proenvironmental behavior.

Reliability Analysis

Table 6 includes the results of the internal consistency reliability analysis using Cronbach's alpha. This analysis evaluated the consistency of the items in each subscale used to measure the independent and dependent variables. Acceptable values for Cronbach's alpha coefficients are above .70 (Santos, 1999; Saphores et al., 2012). The computed Cronbach's alpha coefficient for all variables was .94 and ranged between .89 and .93 for the subscales, which yielded values well over the .70 cut-off. These results showed that the subscales used to evaluate the variables were internally consistent. Y.-K. Lee et al. (2012) used a somewhat similar CSR measure of 29 items from 276 respondents representing 21 franchised foodservice enterprises in Seoul, South Korea, and revealed Cronbach's alpha reliability results from .82 to .94. Likewise, Boiral and Paillé (2012) developed and validated a proenvironmental behavior measurement scale that produced Cronbach's alpha reliabilities that ranged from .81 to .92. The use of the scales in this study did not produce an appreciable change in reliability.

Table 6

Cronbach's Alpha Reliability for All Measures

	Number of items	Reliability statistics
Proenvironmental behaviors	10	.93
Eco-helping	3	.84
Eco-civic engagement	4	.87
Eco-initiatives	3	.79
Protection motivation	8	.92
Perceived severity	2	.81
Perceived susceptibility	2	.76
Response efficacy	2	.91
Self-efficacy	2	.73
Organizational identification	6	.89
Perceived corporate social responsibility	12	.90
Economic dimension	3	.68
Legal dimension	3	.77
Ethical dimension	3	.81
Discretionary dimension	3	.73
Environmental management system awareness	6	.90

Note. $N = 120$.

Evaluating Assumptions

Because my analysis involved correlation and multiple regression, the data had to meet assumptions to ensure that I could analyze the data using these methods. Not meeting the assumptions could have affected the relationship and predictive accuracy of the results, as well as the statistical significance. Assumptions for both correlations and multiple regression were as follows.

Correlation Assumptions

Assumptions for the Pearson product–moment correlation coefficient underwent testing to ensure the measure of the strength and direction of association between the variables was valid. The Pearson's correlation is used to draw a line of best fit through the data of two variables, and the Pearson correlation coefficient, *r*, indicated how far away all the data points were to this line of best fit (Field, 2013). I tested four assumptions to determine if there were any violations. The study met the first assumption of measuring the variables at the interval or ratio level. Although there is some debate on using Likert-type scales as an ordinal variable versus an interval measurement, researchers, including me, have treated the sum of Likert-type items as being a reasonable approximation of an interval data point (Norman, 2010). The second assumption requires there be a minimum number of significant outliers, whch was also met as indicated in the boxplot at Figure 3. All the responses were within the possible range of 1 to 5 and three out of 120 responses were outside the respondents' general range related to proenvironmental behavior.

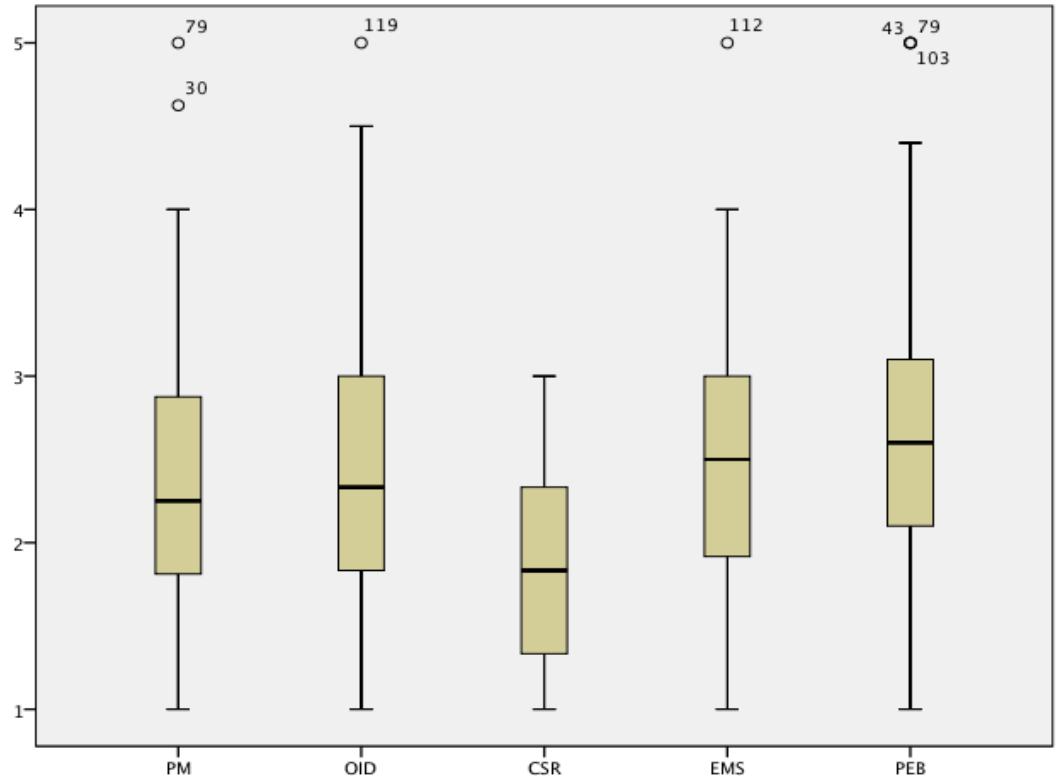

Figure 3. Boxplots of the research variables, where PM = protection motivation, OID = organizational identification, CSR = corporate social responsibility, EMS = environmental management system, and PEB = proenvironmental behavior.

The third assumption referred to ensuring the approximate normal distribution of my variables. I used probability–probability plot graphs to spot normality, as shown in Appendix E. The graphs indicated that the distribution of variables was normal because all the data points fell very close to the ideal diagonal line, with little to no skewness or kurtosis. Field (2013) cautioned about using the Kolmogorov-Smirnov or Shapiro-Wilk tests because their basis is null hypothesis significance testing, where in large or small samples, they could be significant for small effects or lack power to detect the violation of assumptions, respectively. The fourth and final assumption was also met, which required a linear relationship among the dependent variables, perceived CSR, EMS,

protection motivation, and OID on the dependent variable proenvironmental behavior. The proenvironmental behavior column of the scatter plot matrix in Figure 4 shows a positive linear relationship.

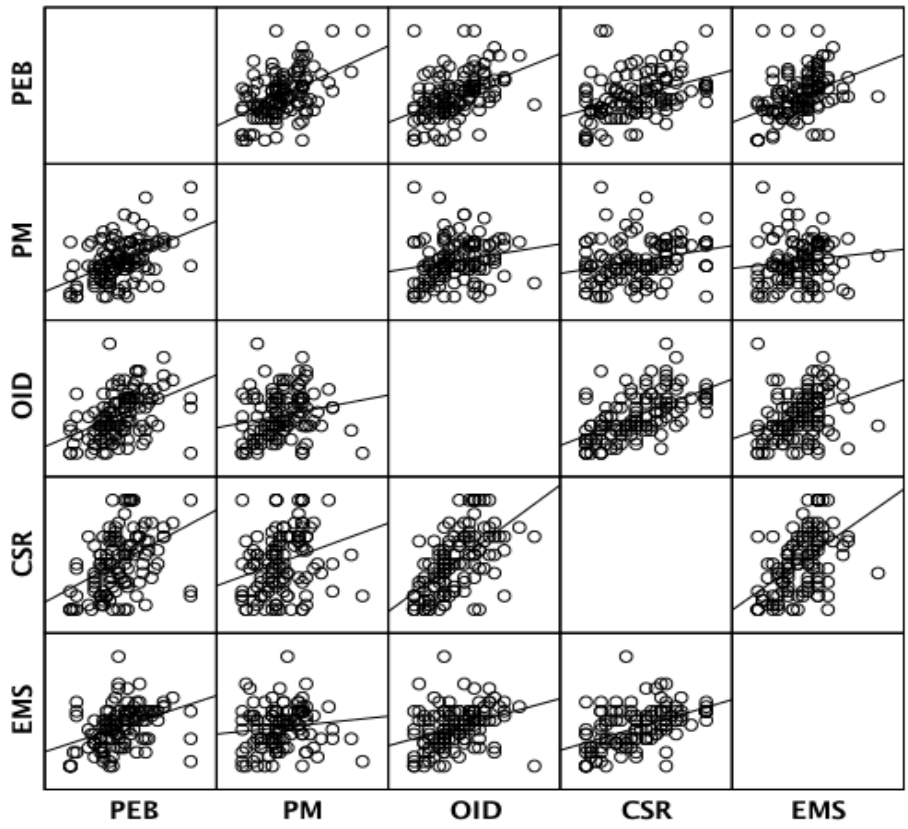

Figure 4. Scatter plot matrix of the independent and dependent variables, where PEB = proenvironmental behavior, PM = protection motivation, OID = organizational identification, CSR = corporate social responsibility, and EMS = environmental management system.

Multiple Regression Assumptions

Pedhazur & Schmelkin (2013) highlighted eight assumptions that researchers need to meet for results to be valid pg.389. Three of the assumptions address the raw scale variables, while five address the residual or predictable errors, namely portions of scores not accounted for. The assumptions previously addressed and met in the Pearson

correlation discussion were (a) I measured my dependent variable on a continuous scale; (b) a linear relationship existed between my dependent variable and each of my independent variables and the independent variables collectively; and (c) no significant outliers, high leverage points, or highly influential points existed.

A discussion of the next five assumptions in multiple regression follows. The first of the five assumptions was having two or more independent variables, which I met, and the second was the need to have independence of observations, which included a test used to identify if the residuals from the multiple regression were independent. The independence of observation check involved using the Durbin-Watson section of the model summary in SPSS (see Table 7). Since the measure was not less than critical value of 1.5 or greater than the critical value of 2.5, the assumption is met.

Table 7

Model Summary[a] Consisting of the Durbin-Watson Section

Model	*R*	R^2	Adjusted R^2	Std. error of the estimate	Durbin-Watson
1	.419[b]	.175	.168	.75217	
2	.647[c]	.419	.399	.63933	1.708

[a]Dependent variable: proenvironmental behavior. [b]Predictors: corporate social responsibility. [c]Predictors: corporate social responsibility, protection motivation , environmental management system, organizational identification.

The third of the five assumptions tested was homoscedasticity. Field (2013) noted that homoscedasticity is an assumption where the variances of the outcome variable are stable at all levels of the predictor variable and the line of best-fit remains constant while moving along the line. I verified this using a scatter plot between residuals and independent variables, as shown in Figure 5. The graph indicated the randomness of the

data points that were evenly dispersed, which indicated an assumption of both linearity and homoscedasticity. By including a histogram (with a superimposed normal curve) and a normal probability–probability plot, I was also able to verify the next assumption that the distribution of the residuals was approximately normal, as depicted in Figures 6 and 7. The review of these figures confirmed that the assumptions of normal distribution, linearity, and homoscedasticity were met and in compliance with the right assumptions

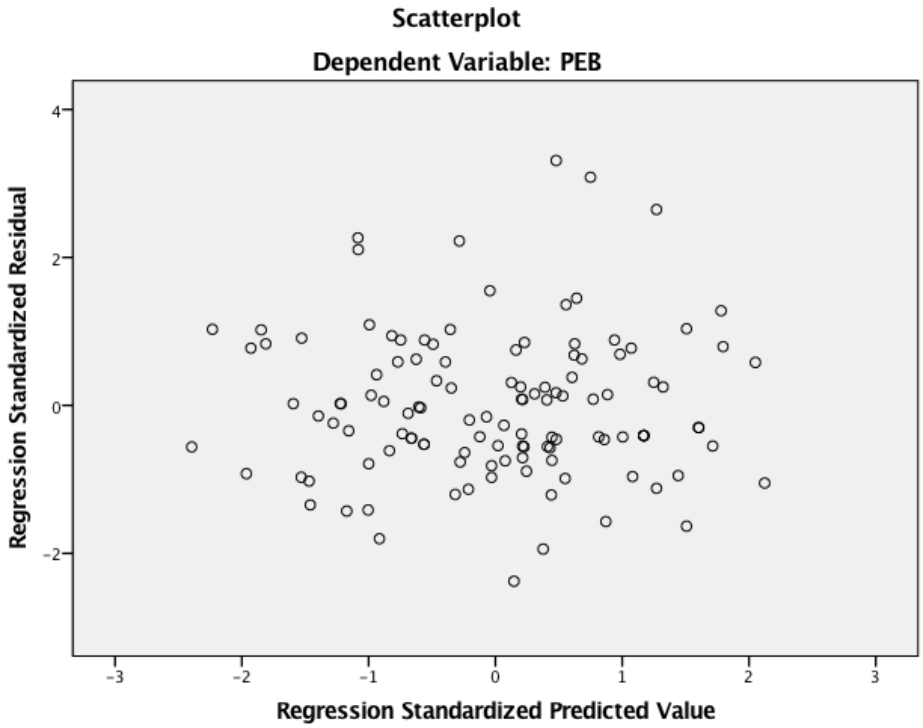

Figure 5. Scatter plot of residual indicating linearity and homoscedasticity assumptions are met.

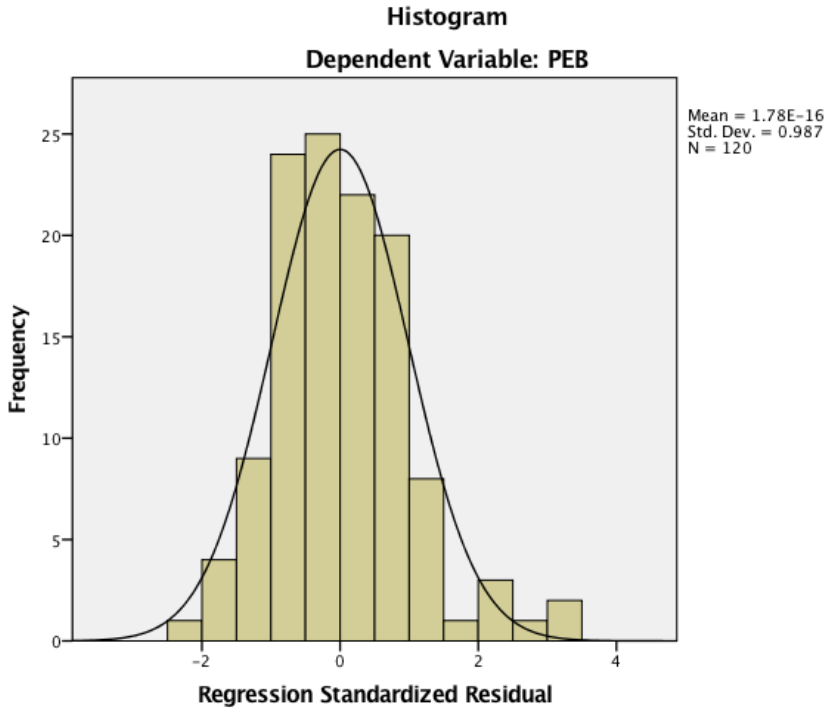

Figure 6. Histogram of the normally distributed errors.

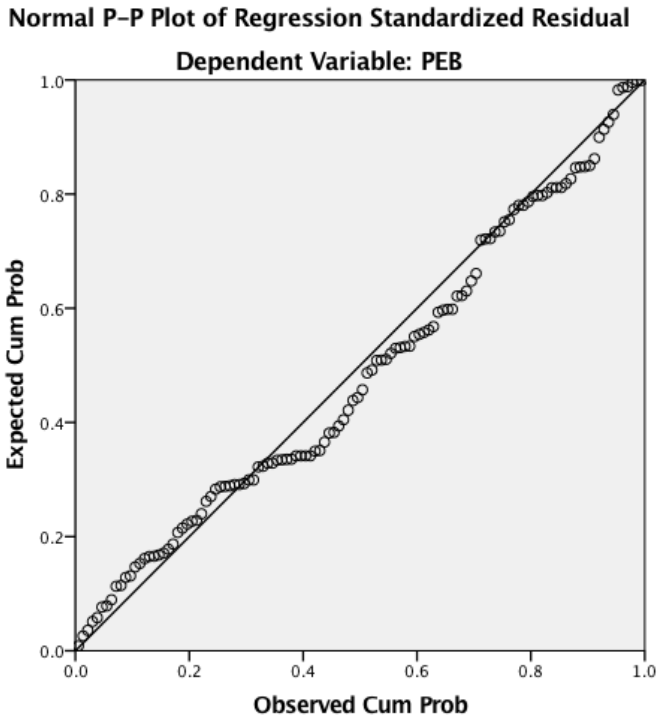

Figure 7. Probability–probability plot indicating no tendency in the error terms.

The last of the five assumptions was multicollinearity, which occurs when two or more independent variables highly correlate with each other. Multicollinearity leads to problems in understanding which independent variable contributes to the variance explained in the dependent variable (Mertler & Vannatta, 2013). None of the correlations between predictor variables in the data set were higher than .8 ($r > .8$), which Field (2013) indicated is a good estimate that the regression does not model multicollinearity. Table 8 shows the results for multicollinearity through an inspection of correlation coefficients and their tolerance and variance inflation factor values. Field (2013) noted that tolerance values of less than .10 indicate multiple correlations with other variables are high, a serious problem, and the possibility of multicollinearity. Values of variance inflation factor above 10 indicate multicollinearity. All the predictors presented in Table 8 had tolerance values higher than .10 and variance inflation factor values lower than 10, which indicated there was no collinearity within the data and the assumptions of multicollinearity was met.

Table 8

Multicollinearity Analysis of Independent Variables

		Correlations			Collinearity statistics	
		Zero				Variance
Model	Sig.	order	Partial	Part	Tolerance	inflation factor
1. Corporate social responsibility	.000	.419	.419	.419	1.000	1.000
2. Corporate social responsibility	.716	.419	.034	.026	.535	1.870
Environmental management system	.005	.394	.260	.205	.746	1.340
Protection motivation	.000	.481	.443	.376	.926	1.079
Organizational identification	.002	.449	.278	.221	.653	1.531

Note. Dependent variable was proenvironmental behavior.

Correlation Matrix of the Variables

Correlation analysis involved examining the basic relationships among all the variables and checking if possible multicollinearity problems existed among the variables for hypothesis testing. The matrix correlation analysis appears in Table 9. As expected, all independent variables had a statistically positive significant relationship with the dependent variables proenvironmental behavior and its subscales. In particular, the correlation between proenvironmental behavior and protection motivation had the highest correlation coefficient, $r(120) = .481$, $p < .01$, and more notably proenvironmental eco-civic engagement, $r(120) = .475$, $p < .01$. The results indicated that employees' fear of climate change might have a bigger impact on the proenvironmental behaviors of employees who may be more willing to participate in prevention behaviors and believe those behaviors will have an effect. The correlations of organizational factors such as CSR, $r(120) = .419$, $p < .01$, and EMS, $r(120) = .394$, $p < .01$, to proenvironmental behaviors were also less than the employees' OID at $r(120) = .449$, $p < .01$. This result would indicate that the intrapersonal factors of protection motivation and OID might have more of a positive effect on proenvironmental behaviors than organizational factors do.

Table 9

Correlation Between Proenvironmental Behaviors and Organizational Intrapersonal Factors

	1	2	3	4	5	6	7	8
1. Proenvironmental behavior	1							
2. Eco-helping	.933**	1						
3. Eco-engagement	.939**	.806**	1					
4. Eco-initiative	.921**	.825**	.779**	1				

5. Corporate social responsibility	.419**	.450**	.388**	.333**	1			
6. Protection motivation	.481**	.441**	.475**	.420**	.267**	1		
7. Organizational identification	.449**	.465**	.389**	.412**	.585**	.192*	1	
8. Environmental management system	.394**	.350**	.411**	.326**	.500**	.118	.338**	1

Note. Proenvironmental behavior and all subscales (eco-helping, eco-engagement, and eco-initiative) were the dependent (outcome) variables. $N = 120$.
* Significant at the .05 level (two-tailed). ** Significant at the .01 level (two-tailed).

Research Question 1

RQ_1 was as follows: What is the relationship between perceived CSR and employee proenvironmental behavior? The Pearson correlation in Table 9 supported the prediction that employees' perception of the organizations' CSR efforts would have a positive correlation with employee proenvironmental behavior. The correlation between CSR and proenvironmental behavior, $r(120) = .419$, $p < .01$. Similar studies on the correlation between perceived corporate sustainability policies and proenvironmental behavior indicated a comparable value of $r = .45$, $p = .05$ (Norton et al., 2014) and between environmental management practices and organizational citizenship behavior toward the environment at $r = .19$, $p = .01$ (Paillé et al., 2013). The results of the correlation analysis performed in this study, as compared with other previously published results, are sound and comparable to those found in other studies.

Kelley and Preacher (2012) defined effect size as "a quantitative reflection of the magnitude of some phenomenon that is used for the purpose of addressing a question of interest." Based on a meta-analysis of 253 proenvironmental behaviors, Osbaldiston and Schott (2012) estimated an effect size of 0.45 with a 95% confidence level. Lo et al.

(2012) referenced Rosenthal's and Kirk's guidelines in describing effect sizes in qualitative terms. For example, for Pearson's correlations, $r = .10$ is a weak effect size, $r = .30$ is a moderate effect size, and $r = .50$ is a large effect size. Therefore, the correlation of $r = .419$ represents a moderate correlation between the variables studied under RQ_1. Based on the correlation analysis, I rejected $H1_0$ and accepted $H1_a$ (i.e., perceived CSR would have a positive correlation with employee proenvironmental behavior).

To determine which dimension of CSR (i.e., economic, legal, ethical, or discretionary (philanthropy)) predicted proenvironmental behavior, the study included a regression analysis. Results obtained from the regression analysis showed that all dimensions were significant predictors of proenvironmental behaviors (see Table 10). Corporate social responsibility as an aggregate score of all elements was significant, $F(1, 118) = 25.058$, $p < .001$, $r = .419$. The economical dimension of CSR was also a significant predictor, $F(1, 118) = 27.47$, $p < .001$, $r = .435$, as was the legal dimension of CSR, $F(1, 118) = 7.106$, $p < .05$, $r = .238$. Similarly, the ethical dimension of CSR was a significant predictor, $F(1, 118) = 20.053$, $p < .001$, $r = .381$, as was the discretionary dimension of CSR, $F(1, 118) = 17.224$, $p < .001$, $r = .357$.

Table 10

Regression Analysis of CSR Predictability on Proenvironmental Behaviors

Predictors	R^2	Adjusted R^2	B	SE	ß	*t*	Sig
CSR	.175	.168	.593	.119	.419	5.006	< .000
CSR—economic	.189	.182	.532	.102	.435	5.241	< .000
CSR—legal	.057	.049	.317	.119	.238	2.666	.009
CSR—ethical	.145	.138	.480	.107	.381	4.478	< .000
CSR—discretionary	.127	.120	.370	.089	.357	4.150	< .000

Note. $N = 120$.
[a] Dependent variable: proenvironmental behavior.

To determine which predictors contribute significantly to the model, I conducted a multiple regression (see Table 11). The overall tested model was significant, $F(4, 115) = 8.887$, $p < .001$, $r = .486$, and accounted for 23.6% of variances in proenvironmental behaviors. Table 11 also indicated that the economic dimension of CSR ($\beta = .300$, $p = .014$) was the only variable that significantly contributed to the model. The legal ($\beta = .251$, $p = .061$), ethical ($\beta = .249$, $p = .085$), and discretionary ($\beta = .197$, $p = .067$) dimensions did not significantly contribute to the model. The data not only highlighted the predictability between CSR and proenvironmental engagement but also indicated that the higher the employees' perception of the CSR efforts, specifically the economic aspects, and the more proenvironmental actions they may undertake in the workplace, controlling for the effects of other predictors in the model.

Table 11

Multiple Regression Analysis Predicting CSR Toward Proenvironmental Behavior

Predictors	B	SE	ß	*t*	Sig
CSR—economic	.368	.148	.300	2.489	.014
CSR—legal	-.333	.176	-.251	-1.893	.061
CSR—ethical	.314	.180	.249	1.740	.085
CSR—discretionary	.204	.110	.197	1.849	.067

Note. Dependent variable: proenvironmental behavior.

Research Question 2

RQ_2 was as follows: What is the relationship between EMS and employee proenvironmental behavior? I hypothesized that an organization's EMS would positively relate with employee proenvironmental behavior. The Pearson correlation results in Table 9 indicated a positive correlation exists between EMS and proenvironmental behavior, $r(120) = .394$, $p < .01$. To determine if EMS can predict proenvironmental behaviors, the study included a regression analysis. The overall model emerged as significant, $F(1, 118) = 21.654$, $p < .001$, $r = .394$. Based on the correlation analysis, I rejected $H2_0$ and accepted $H2_a$ (i.e., an organization's EMS will have a positive correlation with employee proenvironmental behavior). These findings indicated that the higher the employees' awareness is of their corporation's EMS, the more proenvironmental actions they may undertake in the workplace, controlling for the effects of other predictors in the model. Similar studies on the correlation between perceived environmental policy and employee environmental commitment produced comparable values at $r = .11$, $p < .05$, which led to environmental citizenship behavior at $r = .50$, $p < .001$ (Raineri & Paillé, 2015). The

results of the correlation analysis performed in this study, compared with other previously published results, were sound and comparable to those found in other studies.

Research Question 3

RQ_3 was as follows: How does employees' protection motivation influence their proenvironmental behavior? I hypothesized that an employee's protection motivation would positively relate to proenvironmental behavior. The Pearson correlation results in Table 9 indicated a positive correlation exists between protection motivation and proenvironmental behavior, $r(120) = .481$, $p < .01$. Based on the correlation analysis, I rejected $H3_0$ and accepted $H3_a$ (i.e., an organization's EMS will have a positive correlation with employee proenvironmental behavior). These results are within comparable range of values from similar studies on the correlation between the employees' attitudes toward climate change and their adaptive proenvironmental behavior resulting from their protection motivation. Bockarjova and Steg (2014) reported values on the extent to which protection motivation theory explained the decision to purchase an electric vehicle from $r = .50$ to $r = .58$, $p < .05$, while S. Kim et al. (2013) reported values of $r = .36$, $p < .001$ as the variances explained for proenvironmental behaviors when modeled with the theory of reasoned action. The results of the correlation analysis performed in this study, as compared with other previously published results, were sound and comparable to those found in other studies.

To determine which dimension of protection motivation (i.e., perceived severity, perceived susceptibility, response efficacy, and self-efficacy) predicted proenvironmental behavior, I conducted a regression analysis. Results obtained from the regression analysis

showed that all dimensions were significant predictors of proenvironmental behaviors (see Table 12). Employees' protection motivation as an aggregate score of all elements was significant, $F(1, 118) = 35.526$, $p < .001$, $r = .481$. The results for the dimensions were as follows: perceived severity at $F(1, 118) = 27.152$, $p < .001$, $r = .433$; perceived susceptibility at $F(1, 118) = 12.904$, $p < .001$, $r = .314$; response efficacy at $F(1, 118) = 30.658$, $p < .001$, $r = .454$; and self-efficacy at $F(1, 118) = 35.818$, $p < .001$, $r = .483$. The data highlighted the relationship between the employees' induced protection motivation from fear of climate change and proenvironmental behaviors. The data indicated that the higher the protection motivation, the more inclined employees are to engage in proenvironmental behaviors in the workplace, controlling for the effects of other predictors in the model.

Table 12

Regression Analysis of Protection Motivation on Proenvironmental Behaviors

Predictors	R^2	Adjusted R^2	*B*	*SE*	β	*t*	Sig.
Protection motivation	.231	.225	.512	.086	.481	5.960	< .000
Perceived severity	.187	.180	.392	.075	.433	5.211	< .000
Perceived susceptibility	.099	.091	.270	.075	.314	3.592	< .000
Response efficacy	.454	.200	.394	.071	.454	5.537	< .000
Self-efficacy	.233	.226	.525	.088	.483	5.985	< .000

Note. N =120. Dependent variable: proenvironmental behavior.

Table 13 highlights the results of the multiple regression to see which protection motivation dimensions contributed significantly to the model. The overall tested model was significant, $F(4, 115) = 10.266$, $p < .001$, $r = .513$, and accounted for 26.3% of variances in proenvironmental behaviors. Although all dimensions of the employee's protection motivation predicted proenvironmental behaviors, self-efficacy was the only

dimension that significantly contributed to the model at β = .269, p = .037 when I entered all four. No other dimensions significantly contributed to the model: severity at β = .174, p = .244; susceptibility at β = -.059, p = .634; or response efficacy at β = .169, p = .197.

Table 13

Multiple Regression Analysis of Protection Motivation Toward Proenvironmental Behavior

Predictors	*B*	*SE*	β	*t*	Sig.
Protection motivation—perceived severity	.157	.221	.174	1.171	.244
Protection motivation—perceived susceptibility	-.051	.107	-.059	-.477	.634
Protection motivation—response efficacy	.147	.113	.169	1.298	.197
Protection motivation—self-efficacy	.293	.139	.269	2.109	.037

Note. N = 120. Dependent variable: proenvironmental behavior.

Research Question 4

RQ_4 was as follows: How does employees' OID influence their proenvironmental behavior? I hypothesized that employees' OID would positively relate with proenvironmental behavior. The Pearson correlation results in Table 9 indicated a positive correlation between OID and proenvironmental behavior, $r(120) = .449$, $p < .01$. To determine if OID can predict proenvironmental behaviors, I conducted a regression analysis. The overall model was significant, $F(1, 118) = 29.846$, $p < .001$, $r = .449$. Based on the correlation analysis, I rejected $H4_0$ and accepted $H4_a$ (i.e., employees' OID positively correlates with employees' proenvironmental behavior). These findings indicated that the more that employees identify with the organization, the more proenvironmental actions they may undertake in the workplace, controlling for the effects of other predictors in the model.

Brammer et al. (2015) conducted a similar study and demonstrated that a positive relationship exists between CSR and OID, $r = .43$, $p < .001$, which in turn leads to employee creative effort at $r = .29$, $p < .001$. Farooq, Payaud, et al. (2014) showed that the dimensions of consumer, employee, and community CSR all positively influenced employee OID at $r = .16$, .39, and .25, $p < .01$, respectively. The environmental dimension of CSR depicted their study did not indicate any positive influence. The results of the correlation analysis performed in this study, as compared with other previously published results, were sound and comparable to those found in other studies.

Control Variables

I controlled for some of the demographic characteristics of the employees, such as gender, age, education, and industry represented. The study included a Pearson chi-square test to examine the relationship toward workplace proenvironmental behavior. Results revealed that only gender (chi-square value = 4.122, $df = 1$, $p = .042$) significantly related with workplace proenvironmental behavior. Female workers (62.1%) were more likely to display proenvironmental behavior than were their male counterparts. This finding has strong theoretical linkages with other studies such as Markowitz et al. (2012), who referenced a number of studies indicating that proenvironmental individuals are more likely to be female, younger, relatively more affluent, and better educated than are non-proenvironmental individuals. S. Kim et al. (2013) also noted that women reported a greater intent to support proenvironmental behaviors, but older and more liberal participants did not. Saphores et al. (2012) showed females had a greater willingness to recycle, and Vicente-Molina et al. (2013) referenced in their research of

university students in Mexico, Brazil, United States, and Spain that women are more likely to carry out environmentally friendly activities in both advanced and emerging countries.

None of the other control variables significantly related to proenvironmental behaviors. The findings from Wiernik et al.'s (2013) psychometric meta-analysis of four decades of data that indicated age does not appreciably relate to environmental concern, values, commitment, intention, or attitudes supported the result regarding age in this study. However, the finding is contradictory to the studies referenced in the previous paragraph that showed younger individuals and individuals with higher levels of education are more likely to engage in proenvironmental behavior. In contrast, Saphores et al. (2012), who also referenced several studies, indicated that older people are more likely to recycle, as confirmed in their research of 3,048 panelists that individuals over 60 were more likely to recycle electronic waste but not household waste.

Summary

This chapter included the results of the study, along with the study demographics, data collection, and data analysis. The purpose was to answer the overarching research question of what organizational factors such as CSR or EMS or intrapersonal factors such as protection motivation or OID motivate employees toward proenvironmental behaviors. The results indicated that employees' perception and knowledge of their organization's CSR and EMS have a significant positive correlation with the employees' proenvironmental behaviors. The results of Pearson's correlation analysis indicated a strong positive correlation between employees' protection motivation and OID with

proenvironmental behavior. I evaluated the consistency of the items in each of the subscales used to measure the independent and dependent variables. These results confirmed that the subscales used to evaluate the variables are reliable instruments.

Based on regression analysis, employees' protection motivation, and perception of their organization's CSR and all of their subdimensions individually, knowledge of their organization's EMS, and employees' OID all positively predicted employees' proenvironmental behaviors. The multiple regression analysis indicated that only the economic dimensions of CSR and the self-efficacy dimension of employees' protection motivation contributed significantly as the only predictors of employees' proenvironmental behavior. The next chapter includes a summary of the presented results, and I will discuss the conclusions from this study, along with the interpretation of the findings, limitations of the study, and recommendations. Chapter 5 also includes recommendations for future research, as well as the value of this study in furthering positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The primary purpose of this quantitative, nonexperimental, cross-sectional research study was to determine the extent to which employees' perception and knowledge of their organization's CSR and EMS relate to their proenvironmental behavior. The secondary purpose was to examine whether the employees' protection motivation in relation to the fear of climate change and OID motivates them toward proenvironmental behavior. A research model integrating the individual and organizational factors that can influence proenvironmental behavior helped to address these questions and helped to close the gap identified in the literature review. Filling the knowledge gap might lead to employee-driven corporate greening initiatives, might help direct future research, and might result in effective environmental behavioral interventions.

In Chapter 3, I indicated that I had operationalized all the variables and provided background information on the reliability of the survey instruments. I collected data from U.S.-based, full-time, intermediate employees who voluntarily completed a survey containing measures of the studied variables. Regression analysis was suitable to determine which dimensions of the CSR and protection motivation variables significantly contributed to the model for predicting proenvironmental behaviors following a complete description and analysis of the survey results in Chapter 4. The analysis revealed that both CSR and protection motivation correlate significantly with employee proenvironmental behaviors. The new approach calls for employers to engage employees

in proenvironmental behaviors by focusing on the economic aspects of CSR, which include customer responsiveness, quality, continuous improvement, and long-term business strategies.

In this final chapter, I interpret the key findings of the study and acknowledge how the results can contribute to understanding the relationship that CSR, EMS, OID, and protection motivation have with proenvironmental behaviors. A discussion of the major results appears in further detail first, followed by an explanation of theoretical contributions. The discussion also includes the research limitations, recommendations, and conclusions. The final topics of discussion are the implications for positive social change and suggestions for future research.

Interpretation of the Findings

The evidence obtained in this study supported accepting all the alternative hypotheses. In response to RQ_1, the data indicated that employees' perception of their organization's CSR had a significant positive relationship with their proenvironmental behaviors. The results indicated that as employees' perception of CSR increases, so does the employees' willingness to engage in proenvironmental behaviors. The research built on past studies showing a significant relationship between CSR and energy-saving actions in Asian developing countries (Hori, Shinozaki, Nogata, & Fujita, 2014) and between job satisfaction and CSR-induced intrinsic attributions (Vlachos et al., 2013). My result offers an exciting finding and demonstrates that a corporate culture of caring for the environment and society has a positive association with employee proenvironmental behaviors. Because proenvironmental behaviors are primarily

voluntary acts not linked to employees' work obligations, similar to organizational citizenship behavior, organizational leaders' CSR efforts might be able to shape employees' personal values and ultimately proenvironmentalactions. As such, organizational leaders who create visible socially responsible activities and demonstrate caring for the environment could help support employees' engagement in proenvironmentalactivities. Employee proenvironmental behavior and CSR share a similar value base in terms of environmental protection.

Additionally, the results of this study indicated that the economic dimension of CSR was the only dimension that contributed significantly to predicting employees' proenvironmental behavior, which is surprising, as the economic dimension of CSR relates primarily to an organization's customer concern, quality, continuous improvement, and long-term strategic process. The result is contrary to a study by A. Khan, Latif, Jalal, Anjum, and Rizwan (2014), which showed that customer complaints and product disclosure had an insignificant relationship to employee motivation, as well as a study by Abdullah et al. (2012), which showed that CSR for both government and society is a nonsignificant predictor of organizational citizenship behavior. I would have expected the discretionary dimension of CSR to be a much more powerful correlation, as it entails philanthropy and encouraging employees to engage with the community, which demonstrates more involvement and caring for the community. The legal and ethical dimensions of CSR could be viewed as compliance driven and not representative of the organization's core values; from this perspective, one would not expect CSR to contribute greatly to the predictive model. Employees may believe that the legal and

ethical dimensions of CSR are a cost of doing business. One plausible explanation for the significant contribution of the economic dimension might be that frontline workers such as the study participants experience quality and continuous improvement efforts to a much greater degree than the other CSR dimensions.

Like organizational citizenship behavior, proenvironmental behavior is a discretionary or voluntary act not explicitly recognized in any formal reward system that promotes the efficiency and effectiveness of the organization. Abdullah et al. (2012) concluded that organizational citizenship behavior is significantly and positively related to the implementation of a CSR program geared toward the employee, the environment, and the customer. The results obtained in this study further support the notion that the implementation of a CSR program could engage voluntary behaviors such as organizational citizenship behavior and proenvironmental behavior.

The results for RQ_2 indicated that employees' knowledge of their organization's EMS significantly correlated with employees' proenvironmentalengagement. These results indicated that employers could increase employees' proenvironmental behaviors by implementing an effective EMS. Despite the classical definition of the EMS being a voluntary comprehensive planning process used to improve an organization's environmental performance (Barrow & Matthews, 2014), previous studies would indicate that results were not consistent and significant (Hertin, Berkhout, Wagner, & Tyteca, 2008). Researchers in previous studies have indicated that a corporate environmental strategy positively relates to employees' environmental involvement, which in turn positively relates to environmental performance (Chen, Tang, Jin, Li, & Paillé, 2014;

Paillé et al., 2014). The conflicting results on the relationship of environmental strategy versus EMS with environmental performance may be due to how well both aspects, strategy and EMS, engage employees toward proenvironmental behaviors. As such, employees' proenvironmental behavior may be a significant predictor of environmental performance in the workplace.

The positive correlation of employee proenvironmental behavior to EMS in this study was not surprising. Despite the challenges of engaging employees and maintaining environmental awareness throughout the organization from an ISO 14001 EMS, Searcy et al. (2012) recognized increased employee motivation as a tremendous benefit. Jurgita, Ieva, and Dalia (2015) showed that employees' prosocial and intrinsic motivation significantly predicts organizational citizenship behavior. As proenvironmental behavior is a type of OCB and indicates a pro-social desire to help the organization, it should positively relate to motivation derived from an EMS, whether intrinsic or extrinsic. Young et al. (2013) showed how organizational culture shapes employee behavior and highlighted how exclusive environmental communication influences employee perception and enforces socially accepted norms. Leaders of organizations who frequently communicate their environmental initiatives as a major component of their EMS create a culture of environmental norms and values that employees internalize and that motivate them toward proenvironmental behavior.

The results for RQ_3 indicated that employee protection motivation as a result of the fear of climate change has a significant correlation with employees' proenvironmental behavior. This result was not surprising, given the increased amount of effective

communication occurring on the perceived threat of climate change. Protection motivation involves appraising the perceived threat and assessing the coping mechanism, such as adaptive behavior or intention (Rogers, 1975). As such, employees are now more motivated toward protecting themselves through proenvironmental behaviors in avoiding any potential negative outcome. Previous research showing how the protection motivation theory explains consumers' intentions to engage in household green behaviors (Zhao et al., 2016), tourists' intentions to adopt energy-saving and carbon-reduction behavior (Horng et al., 2014), and the adoption of full battery electric vehicles (Bockarjova & Steg, 2014) supported the results.

Research has shown self-efficacy to be an important influencing agent in motivational, cognitive, and affective processes in protection motivation theory. However, it is surprising that self-efficacy was the only dimension that significantly contributed to the model of predicting employee proenvironmental behaviors in this study. *Self-efficacy* is a person's perceived ability to carry out an adaptive response, such as participating in behaviors to help prevent climate change, which implies that the coping appraisal is a better predictor of proenvironmental behavior than the threat appraisal is. The dimensions of perceived threat severity and vulnerability did not significantly contribute to the model in predicting proenvironmental behavior as expected, although these dimensions are usually the basis of the adaptive behavior. Similarly, the dimension of response efficacy, which is the belief that the adaptive behavior will be effective against climate change, was also not significant.

This finding was puzzling, because the belief that an individual is vulnerable to some harm, in this case climate change, and that performing the coping response will avoid the danger usually motivates the decision to initiate coping protective behavior. The results of Horng et al. (2014) were similar to mine and showed that threat appraisal is not an effective predictor of proenvironmental behavior. A probable explanation for this result centers on the difference between health-related behavior and disease prevention, where individuals perceive an immediate and urgent impact versus the effect of climate change and environmental protection. Like tourists who do not generally believe that tourism poses a serious threat to the environment, employees do not generally believe that climate change poses a significant and imminent threat to humankind.

The topic of RQ_4 was the relationship between employees' organizational identification and their proenvironmental behaviors. The results indicated that employees' organizational identification significantly correlates with proenvironmental behavior. Specifically, the more employees identify with their organization's pro-social activities, the more likely they will be to engage in activities that will protect the environment. Employees tend to act in concert with their organization's values when these values align with their own moral norms. While Zibarras, Judson, and Barnes (2012) pointed to the perception of management involvement as the most important facilitator of encouraging employee green behavior, Lo et al. (2012) instead pointed to the combined motivational effects of self-interest and concern for others and the environment as distinctive features of green behaviors. Because a person's moral norm is

a significant determinant of proenvironmental behavior (Klöckner, 2013), an organizational green culture is likely to influence employees to carry out green practices.

While the environmental commitment of the organization through an ISO 14001 certification is likely to increase employees' organizational commitment, it is worth pointing out the difference between employee organizational commitment and OID. While the former refers to a sense of obligation or responsibility to remain in an organization, the latter provides a stronger emotional connection between the employee and the organization. The basis of OID rests on the social identity theory of Tajfel (1974), which indicates that employees experience a sense of belonging to an organization that shares their values. As such, when employees perceive themselves as being members of a socially responsible organization, they begin to act in a pro-social manner, specifically using proenvironmental behaviors, to maintain or elevate the organization's status or reputation.

Theoretical Contribution

Leaders continue to place a lot of attention on greening their organization, not from an environmental sustainability perspective, but with a view toward survivability. Life might not be sustainable at the current rate of GHG, environmental pollution, and natural resource depletion. The concept of greening the organization continues to receive a lot of attention from both practitioners and academics in the social sciences, organizational psychology, and public policy. Some organizational leaders have begun to address the issue through corporate citizenry and social responsibility efforts. However, corporate greening initiatives rest heavily on employees' voluntary proenvironmental

behaviors. While a number of studies have included the adoption of social responsibility or sustainability practices at the corporate level as the focus, which indicates a positive relationship with proenvironmental behavior (Norton et al., 2014), research on the individual level has been scant (Lo et al., 2012; A. M. Smith & O'Sullivan, 2012). This study involved examining a mixture of self-interest (i.e., minimization of one's own health risk) and pro-social motives (i.e., concern for others, species, and ecosystems through pollution prevention) to develop a better understanding of possible antecedents of employees' proenvironmental behavior. The study filled a gap by providing empirical evidence on the extent to which both aspects contribute to employees' willingness to engage in proenvironmental behaviors.

The study makes several theoretical contributions on the subject of employees' proenvironmental behavior. It is the first study to provide empirical data, within the same research model, on perceived CSR, EMS, organizational identity, and protection motivation. The research contributes to the understanding of proenvironmental behavior by confirming how each of the organizational and intrapersonal variables studied significantly relates to and predicts proenvironmental behavior differently. Previous research has shown how daily affect and environmental attitudes (Bissing-Olson et al., 2013), self-interest and environmental spillover (Evans et al., 2013), formal sustainability policies and work climate (Norton et al., 2014), and leaders' influence (Robertson & Barling, 2013) predict employee proenvironmental behavior. My research builds on those studies by adding CSR and an effective EMS as workplace strategies that can potentially

affect employees' willingness to initiate, sustain, and support environmental initiatives in the workplace beyond their work roles.

From a social identity theoretical perspective, the study by Prati et al. (2015) study was the only study I found that includes this theoretical foundation to explain proenvironmental behavior. Prati et al. based their research on students' behavior, but my research contributes to the theory by examining employees' motivation to behave pro-environmentally. Employees believe that they must act in accordance with the organization's values, goals, and norms to maintain a positive concept of themselves and an organization they believe is socially responsible. The perception of belonging to an organization that provides a positive social identity might engender similar pro-social behaviors such as proenvironmental behaviors in employees. As such, there is compelling evidence that social identity influences proenvironmental behavior.

From a protection motivation theoretical perspective, researchers have used the theory extensively as a framework for understanding health-related behaviors (Maddux & Rogers, 1983) and rarely for understanding proenvironmental behaviors, until now. A number of researchers have used protection motivation theory to explain proenvironmental behavior in consumers (Zhao et al., 2016), tourists (Horng et al., 2014), and students (S. Kim et al., 2013). I may be the first to use protection motivation theory to explain proenvironmental behavior in the workplace, and therefore the study contributes to the theoretical understanding. I showed that the protection motivation dimensions, specifically self-efficacy, were statistically significant, in the predicted directions, in explaining changes in proenvironmental behaviors. The theory models an

understanding of why attitudes and behavior can change when people face threats such as climate change.

Limitations of the Study

While the study might have achieved the purpose for which it was developed, the research design, and consequently the results, had some limitations. A key limitation was that it was a cross-sectional study, which meant that the employees' beliefs and associated results were only representative of the time of the study. As such, the study provided the employees' perception of organizational CSR efforts and EMS effectiveness at a single point in time and did not reflect changes in attitudes or belief over time, as might appear in a longitudinal study. Another limitation was the ambiguity of the term *CSR*. Some survey participants might have felt inclined to look specifically for an organization's CSR policy, which might not have existed, although activities such as social governance, corporate philanthropy, social entrepreneurial programs, or pollution reduction components of CSR might have existed. Participants who indicated that the firm did not have a CSR strategy may have affected the results of the research. Similarly, employees' lack of awareness of the organizations' CSR efforts or EMS activity might have affected the resulting data. To minimize this effect, I sought only full-time employees who had been with the company for more than 2 years to ensure that they were familiar with the company's values and norms.

Another major limitation was that the focus was on a convenience sample of employees from the United States only. Therefore, it represented attitudes and behaviors shaped by U.S. societal and political culture toward sustainability that may lead to

different results in terms of the magnitude and direction of relationships for the global workforce. While this study may have filled a gap identified by Raineri and Paillé (2015) to examine how individual and organizational factors influence employee engagement in environmental affairs within the same region to increase generalizability, the findings represent just one country. Since the basis of the study was a convenience sample of employees who might not have been representative of the U.S. working population, much less the global working population, the generalizability of results may be limited. The psychological and behavioral characteristics of employees from countries such as China or Japan are likely to be different from employees based in the United States. However, the relationships between psychological predictors such as self-efficacy and proenvironmental behaviors are likely to hold for both segments of the population, as demonstrated by S. Kim et al. (2013), which shows very little cross-cultural difference in the predictive power of subjective norms between Korean and U.S.-based students.

Other potential limitations were the survey instrument, data collection methodology, and research method. The concern of the survey instrument was reliability in measuring the true construct of the variables. To minimize this limitation, I used previously validated measuring instruments that researches have used extensively for like studies, both in and outside the workplace. I also corroborated the reliability measures of each survey instrument. Another concern about the survey instrument was that it was only suitable for measuring the studied variables and not for investigating why participants held certain viewpoints, for example the effects of climate change, which limited the participants' responses only to the elements that I measured in the study.

With regard to the survey collection tool, as data collection involved a self-report survey, the issue of the employees presenting themselves in a more positive light might have played a role in their response. The tendency to overreport behaviors viewed as appropriate and underreport behaviors considered inappropriate threatens the validity of the research. To overcome such social desirability bias, I informed employees from the onset of the study that I was collecting the response data anonymously and that I was asking for honest feedback, and I provided assurance that there was no right or wrong answer. The measures of central tendency indicated that the responses were not skewed and quite close to the averages (see Table 5). Similarly, the measures for standard deviation showed reasonable variation among responses. No latent variable had high variation in responses.

Recommendations

The urgency of climate change continues to spur research on CSR and the motivational aspect of proenvironmental behaviors. In this study, I built on previous research while at the same time providing an opportunity to confirm an existing conceptual framework or develop a new theoretical foundation. Researchers could enhance this study on proenvironmental behavior with the following future studies.

First, researchers should replicate the results of this exploratory research to confirm the relationships of the organizational and intrapersonal factors on proenvironmental behaviors. Second, to improve generalizability of the study to a global workforce, researchers might consider measuring employee participation from more than one country. Along the same lines, a longitudinal study might be suitable to determine if

changes in beliefs occur over time, which will require repeated surveys of employees at multiple points in time. This will shed light on the cause and effect of the studied variables. Third, as this study included companies with existing CSR policies or EMSs, the companies might employ or attract employees with preexisting proenvironmentalvalues. As such, researchers could conduct a future study in which they control for these personal values and for the effect of social desirability bias in the sample methodology. Therefore, a future survey study that controls for bias toward support for proenvironmental behaviors and directly addresses social desirability issues could generate some interesting data for comparison.

Fourth, researchers could study proenvironmental behaviors against other organizational pro-social programs such as a fully mature occupational health and safety management system (ISO 18001), a quality management system (ISO 9000), or organizational climate. These studies could provide some comparison between the levels of proenvironmental behaviors in these different programs compared to ones in this study and the specific factors associated with their relationship. Finally, since proenvironmental behavior encompasses so many dimensions, such as workplace versus nonworkplace, voluntary versus required, and consumer versus employee, future researchers should consider a qualitative approach to have a better understanding of the phenomenon. Alternatively, a correlational study could include an exploration of the various dimensions of proenvironmental behavior, such as eco-helping, eco-initiatives, and eco-civic engagement, as the dependent variables.

Implications

This research includes both practical and social implications to organizational and political leaders who have begun to recognize that climate change is a significant irreversible threat to society. The adoption of the Paris Agreement by 200 world leaders (United Nations, 2015) and a commitment by 52% of CEOs to increase investments in securing renewable energy sources (Preston & Scott, 2015) point to the renewed interests. President Obama issued a 10% reduction goal as part of a sustainability reduction goal for all federal facilities by 2020 (White House Council on Environmental Quality, 2015). As such, the implications are as follows.

Practical Implications

The findings of the study provide insights that leaders and politicians should consider to enable an environmentally sustainable organization to meet the federal mandate. The focus should be for employers to motivate employee proenvironmental behaviors through the development of quality continuous improvement and long-term strategic management goals as part of their CSR efforts. The other organizational factor identified in the study as critical to promoting employee proenvironmental behavior was the development and effective communication of the organizational EMS and policies.

The research showed a positive and significant relationship between CSR and proenvironmental behavior supported through the mechanism of social identity. This finding may provide managers with important information on the need to embed ecological dimensions and environmental work practices as a core value within an organization. After leaders effectively communicate this and it becomes the

organizational norm, employees can then identify and internalize these values and act accordingly in support of the organization. From a practical solution perspective, promoting green culture involves clear communication of ecological values practiced in organizations along with leadership engagement.

Although the protection motivation theory might be useful in promoting adaptive behaviors in the realm of public health, such as healthy diet, exercise, and smoking cessation (Floyd, Prentice-Dunn, & Rogers, 2000), some dimensions of the theory may not be effective in predicting proenvironmental behaviors. Specifically, leaders should not expect employees to adopt proenvironmental behavior because of the threat of climate change alone, because they still do not believe that global climate change is a severe and imminent threat. Based on the survey findings, a need exists for more efficacy-enhancing information in climate change messages to engage employees in proenvironmental behaviors.

Positive Social Change Implications

Climate change is real, caused by is humans, and requires a deeper understanding of the traits, motivation, and contextual factors that engage ecological human behaviors. Previous study has agrued that employees' proenvironmental behavior is a significant predictor of environmental performance in the workplace. This represents a potential impact for positive social change at both the organizational and the societal level. Employers that implement and communicate effective CSR programs and EMSs might motivate employees to engage in proenvironmental behavior, which may lead to better organizational environmental performance in the form of decreased pollution, efficient

use of natural resources, and reduction in greenhouse gasses emission. As a result, communities that house these organizations can benefit from a more environmentally healthy and sustainable society.

Conclusion

Corporate social responsibility, as outlined in the IOS guidance document, is the "responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behavior" (ASQ & Manpower Professional, 2010, p. 2). This concept rests heavily on employees' voluntary proenvironmental behavior. The increased focus from some political and organizational leaders stems from a realization that the effects of climate change can lead to an unsustainable society (Worldwatch Institute, 2014). The problem is leaders do not know how to motivate employees to undertake proenvironmental behaviors to enable CSR initiatives (Laughland & Bansal, 2011). This study involved examining how organizational factors, including CSR, and intrapersonal factors motivate employees toward proenvironmental behavior and practical ways of engaging employees.

This study involved exploring and synthesizing the concept of proenvironmental behavior and its multidimensional facets of eco-initiatives, eco-helping, and eco-civic engagement, voluntary, nonvoluntary, workplace, and consumers. Although most of the previous research on the predictors and correlations to proenvironmental behavior included the social exchange theory as the framework, this study included the social identity theoretical framework instead. Likewise, whereas most of the previous research on the predictors and correlation to proenvironmental behavior included the general

population, consumers, and students as the basis of the study, this study included employees based in the United States. The intent was to build on existing research by filling the gap on proenvironmental behavior.

The literature review revealed possible antecedents to proenvironmental behaviors. I analyzed the relationship of several personal and organizational factors toward proenvironmental behavior to provide a more comprehensive understanding of why and how some predictors influence behaviors in the workplace. The results revealed that CSR, EMS, and the intrapersonal factors of protection motivation and organizational identity all play a significant role in influencing proenvironmental behavior in the workplace. The findings included two surprising results. The first was the economic dimension of CSR, which focuses on the customer, quality, continuous improvement, and long-term strategic planning and was the only one to predict proenvironmental behavior in the model, unlike the discretionary (philanthropy) dimension. The second was that the threat of climate change from the protection motivation is not enough by itself to motivate employees toward proenvironmental behaviors; only the dimension of self-efficacy predicted the behavior.

This study aligned with the proposed hypothesis that employees who identify themselves with a socially responsible organization (i.e., a caring organization) and are motivated by protection for themselves (i.e., concern for oneself) would engage in proenvironmental behavior. This organizational climate of caring for the environment and society is the motivating force necessary for employees to engage in proenvironmental behavior because it gives employees the opportunity to assimilate these

values into theirs and subsequently behave accordingly. The findings are significant from theoretical and practical perspectives, because they provide organizational leaders, and even politicians, insight on how best to integrate corporate greening strategies in their operation toward a more sustainable organization. The study included a unique perspective on how to engage employees toward proenvironmental behaviors and included evidence showing how it directly links to improved environmental performance. This is the key to maintaining a sustainable society.

Climate change is the most prominent environmental health risk and most defining issue for the 21st century (World Health Organization, 2015). There is a need for effective programs dedicated to reversing or at least stopping, the current trend of environmental degradation and natural resource depletion by the actions of humans. This line of research needs to continue and deserves attention by organizational psychologists, scientists, human resources, and management to unravel the proenvironmentalphenomenon.

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Appendix B: Employee Proenvironmental Survey

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Please indicate the level of agreement you have with the following statements.					
Proenvironmental behaviors					
EH1: I spontaneously give my time to help my colleagues take the environment into account in everything they do at work.					
EH2: I encourage my colleagues to adopt more environmentally conscious behavior.					
EH3: I encourage my colleagues to express their ideas and opinions on environmental issues.					
EE1: I actively participate in environmental events organized in and /or by my company.					
EE2: I undertake environmental actions that contribute positively to the image of my organization.					
EE3: I volunteer for projects, endeavors or events that address environmental issues in my organization.					
EE4: I stay informed of my company's environmental initiatives.					
EI1: In my work, I weigh the consequences of my actions before doing something that could affect the environment.					
EI2: I voluntarily carry out environmental actions and initiatives in my daily work activities					
EI3: I make suggestions to my colleagues about ways to protect the environment more effectively, even when it is not my direct responsibility.					

Protection Motivation					
PS1: Global climate change is a serious problem.					
PS2: Global climate change poses a threat to me.					
PSS1: My chances of being affected by global climate change in my lifetime are high.					
PSS2: If I don't participate in global climate change prevention activities, I may face serious climate problems in the future.					
RE1: Participating in global climate change prevention is effective in preventing global climate change.					
RE2: Participating in global climate change prevention will help prevent global climate change.					
SE1: I will take steps to participate in behaviors that help prevent global climate change, even if it causes daily inconveniences.					
SE2: I can participate in behaviors that help prevent global climate change, if I really wanted to.					
Organizational Identification					
OID1: When someone criticizes my organization it feels like a personal insult.					
OID2: I am very interested in what others think about my organization.					
OID3: When I talk about my organization, I usually say "we rather than 'they.'					
OID4: This organization's successes are my successes.					
OID5: When someone praises this organization, it feels like a personal compliment.					

OID6: If a story in the media criticized the organization, I would feel embarrassed.					
Perceived Corporate Social Responsibility					
CSRE1: Our business has a procedure in place to respond to every customer complaint.					
CSRE2: We continually improve the quality of our products or services.					
CSRE3: Top management establishes long-term strategies for our business.					
CSRL1: The managers of this organization try to comply with the law.					
CSRL2: Our company seeks to comply with all laws regulating hiring and employee benefits					
CSRL3: We have programs that encourage the diversity of our workforce.					
CSRET1: Our business has a comprehensive code of conduct.					
CSRET2: Members of our organization follow professional standards.					
CSRET3: Top managers monitor the potential negative impacts of our activities on our community					
CSRP1: Our business encourages employees to join civic organizations that support our community.					
CSRP2: Flexible company policies enable employees to better coordinate work personal life.					
CSRP3: Our business gives adequate contributions to charities.					
Organizational Environmental Management System Awareness					
EMS1: My organization publishes an environmental policy.					

EMS2: My organization establishes specific targets for environmental performance.					
EMS3: My organization publishes an annual environmental report.					
EMS4: My organization uses an environmental management system.					
EMS5: My organization applies environmental consideration to purchasing decisions					
EMS6: My organization makes employees responsible for company environmental performance.					
Additional Comments:					

Appendix C: Invitation to Participate

"Dear *XXXXX*,

There is a new short survey waiting for you for which we would appreciate your valuable input. It will take you about *X* minutes to complete and you will earn $0.50 towards a participating charity of your choice. If you have any problems, please reach out to support@surveymonkey.com.

Please click here to access the survey: survey link."

Appendix D: Informed Consent Letter

Dear Participant,

I am a doctoral student under the supervision of Professor Walter McCollum in the School of Management at Walden University and working on a research project on employee proenvironmental behavior. The purpose of the study is to determine if a relationship exist between corporations that are socially and environmentally responsible and employee's willingness to engage in proenvironmental behaviors. Example survey questions include: (1) to what degree do you actively participate in environmental events organized by your company and (2) to what degree does your organization encourage employees to join civic organizations that support the community.

The online survey should take no more than 20 minutes to complete, however, you may refuse or withdraw from the survey at any time, including at the end of the survey, without any penalty or discrimination. Your selection is based on my interest in the views of full-time intermediate employees, i.e. non-supervisory or managerial, older than 20 years and who have worked for organizations in the United States for at least two (2) years. My goal is to select employees who work in organizations that have a Corporate Social Responsibility Policy or Environmental Management System.

There is no potential conflict of interest from this study and you could expect little discomfort during the course of the survey. Although the study provides no compensation, participants could benefit indirectly from this study by gaining a better understanding of proenvironmental behaviors and a rewarding feeling of advancing our knowledge of societal environmental sustainability.

No personal information will be collected by neither SurveyMonkey nor I in creating respondents' profile or during the survey collection respectively. In safeguarding the privacy of the profile information SurveyMonkey will not disclose the profile data unless they have provided you notice and obtained your consent. Any information given will be anonymized so that you cannot reasonably be identified. Please see SurveyMonkey's Privacy Policy at https://www.surveymonkey.com/mp/policy/privacy-policy/ for more privacy information.

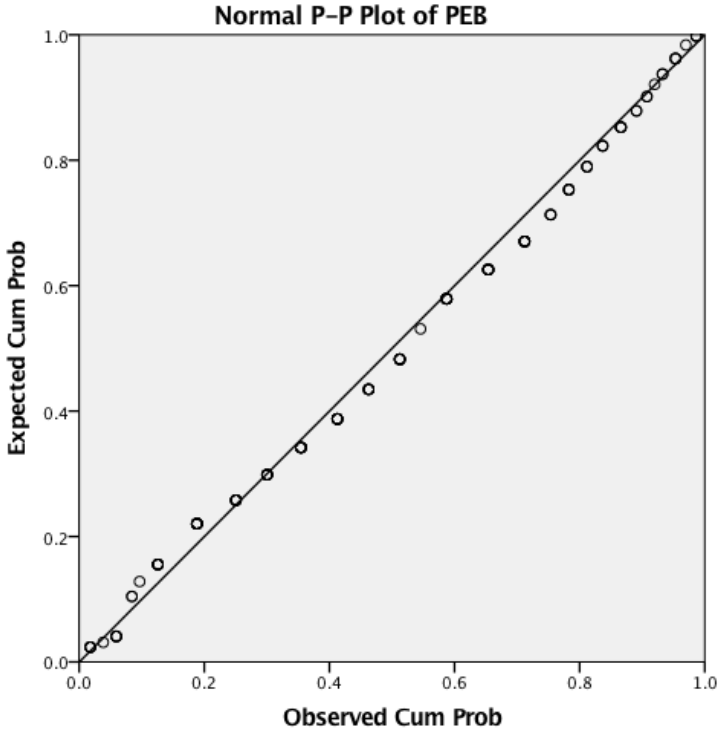
If you have general questions about the survey or feel you have been placed at risk please feel free to contact me at 1-813-468-4007 or brian.warrick@waldenu.edu. If you are concerned about your rights as a participant in this research, please feel free to reach out to the university's Research Participant Advocate at 1-612-312-1210 or IRB@waldenu.edu. After indicating "Yes"

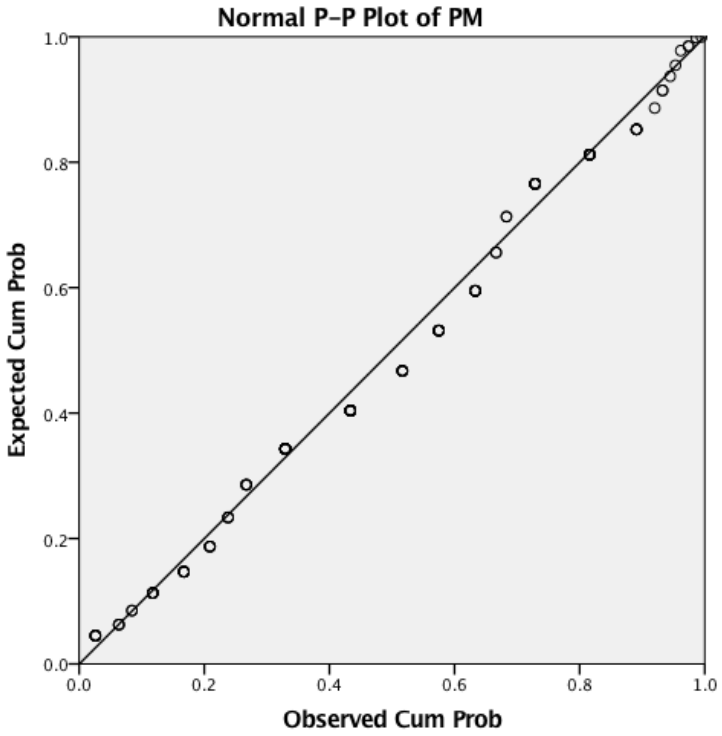
to this consent form, the online survey will capture your candid response. Thanks in advance for your time.

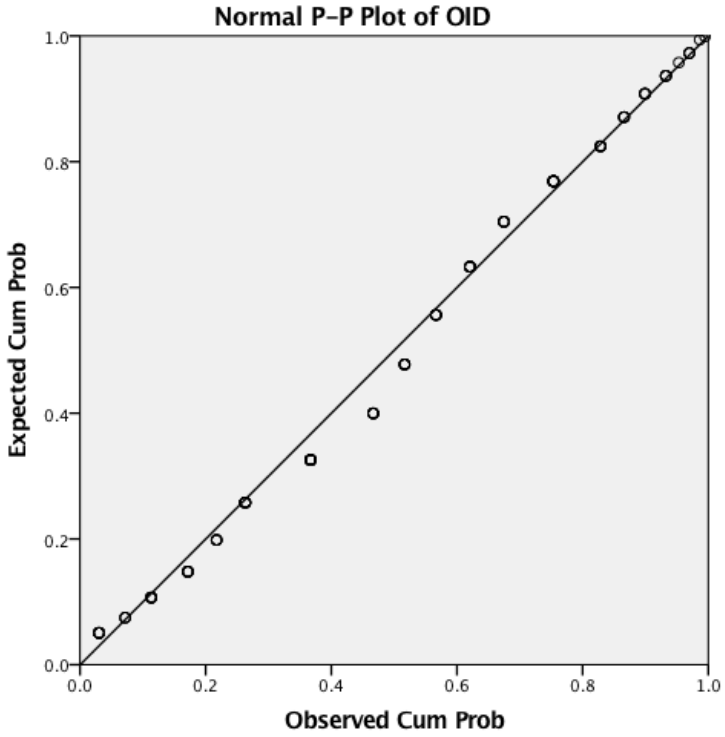
Sincerely,

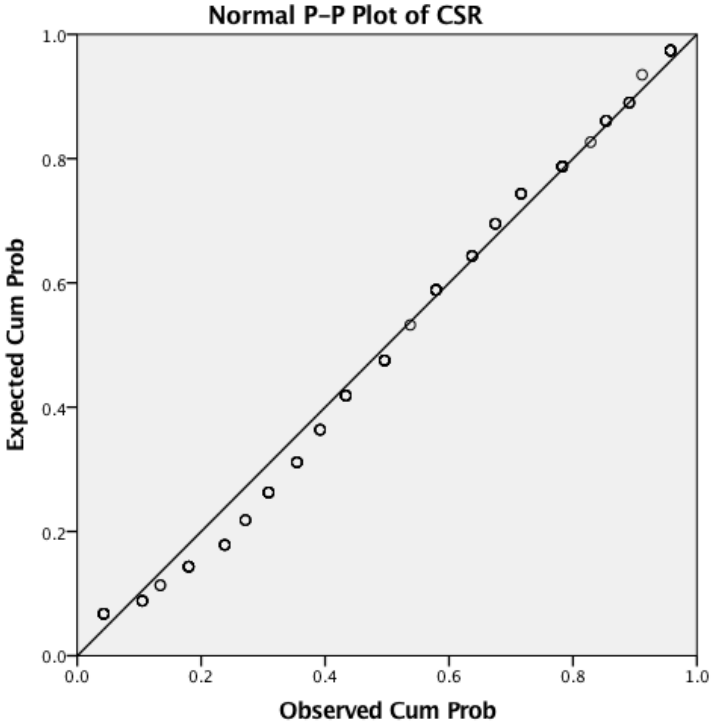
Brian Warrick
Doctoral Candidate,
Walden University

Appendix E: P-P Plot of the Research Variables






Normal P-P Plot of OID
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Normal P-P Plot of CSR
Expected Cum Prob
Observed Cum Prob
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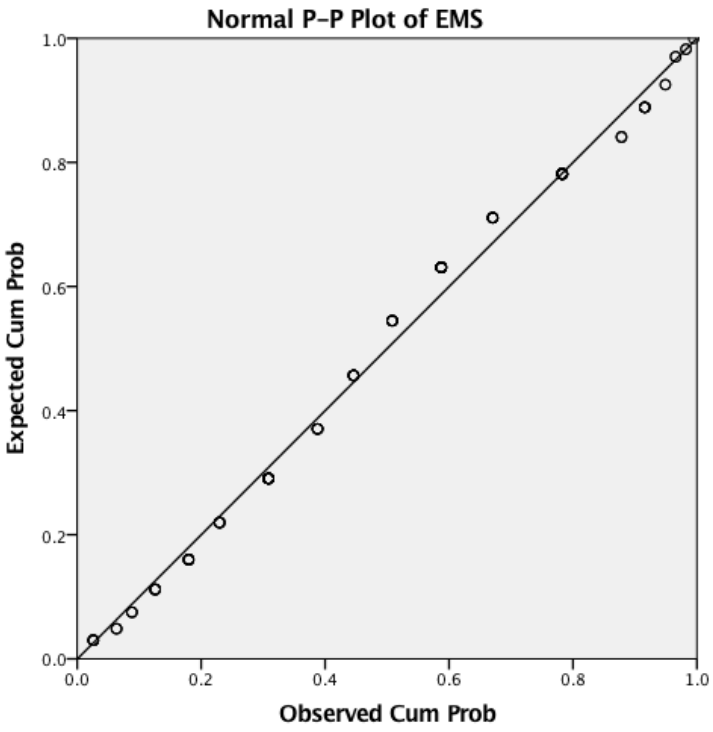
0.4
0.6
0.8
1.0


Normal P-P Plot of EMS
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0