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The Effects of Codes of Ethics on the Supply Chain: A Comparison of LEs and SMEs

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Abstract

This paper focuses on comparing the experiences of Large Enterprises (LEs) and Small and Medium Enterprises (SMEs) in the U.S. to determine whether codes of ethics have (a) created ethical environments that lead to good behaviors, (b) been shared with members of the supply chain, and (c) impacted behaviors of members of the supply chain. The research utilized survey methodology. We used ANOVA and Factor Analysis as the tools for analyzing the data in the study. Results showed that most LEs and SMEs have formal codes of ethics, communicate their codes to employees, and provide training on these codes. However, the beneficial impact of ethics codes is more pronounced when codes are formally communicated to others and when management and employees are perceived as committed to responsible behaviors. More LEs share codes with members of their supply chains than do SMEs. However, sharing one's code of ethics has limited impacts on the behaviors of either vendor or customer employees. The extant research on the effectiveness of ethics codes has concentrated on experiences of LEs and has not been conclusive. Research addressing the experiences of SMEs is severely limited and primarily relates to European firms. These are critical shortcomings because: (a) the majority of firms in the U.S. and Europe are SMEs, and (b) the characteristics, structures, and operations of SMEs are different from those of large firms, thus making extrapolation to SMEs inappropriate. Our research is original because it addresses these two issues specifically in the context of the supply chain function.

Keywords: Codes of Ethics, Supply Chain, Large Enterprises, Small and Medium Enterprises
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Introduction

The issue of unethical and illegal activities in the business environment is one that no business can afford to take lightly. The results of corporate misconduct (intentional and unintentional) have already had dramatic negative impacts on society and on corporate performance. In the late 1990s, Estes (1996) estimated that the social costs associated with unethical and socially irresponsible corporate decisions were approximately 2.5 trillion dollars annually. Now, more than a decade later, the costs are inevitably higher.

The need for strong ethical standards and actions is greater now than ever before. Today's global business environment is even more heavily impacted by corruption, high taxes, and intense competition, making firms vulnerable to unethical or illegal actions and practices (e.g., bribery, inappropriate labor practices, etc.) (Salam, 2009). In addition, in difficult economic environments, the pressures to survive (individually as well as organizationally) often result in ethical concerns being ignored (Vykarnam, Bailey, Myers, & Burnett 1997). To address these concerns, increasing numbers of firms are adopting formal measures to regulate themselves by creating corporate codes of ethics (Center for Business Ethics, 1992; Ethics Research Center, 1990, 1994).

Early attempts to define ethics approached the concept as a field of study related to deliberate behaviors of individuals that could be evaluated on the basis of their causes (Barry, 1979) or their correctness (Thomas, 1984). Subsequent definitions of ethics centered on the appropriateness of individuals' decisions and choices from the perspective of whether such decisions and consequent actions were perceived as being good or bad (Chonko, 1995; Thompson, 2005). In the context of the business environment, ethics is viewed from the perspective of how individuals' behaviors and actions affect organizations or as the set of principles that should serve to influence individuals' behaviors within the business organization (Ferrell, Fraedrich, & Ferrell (2005).

Codes of ethics are referred to by a variety of names in the literature, including codes of conduct, codes of practice, corporate credos, mission statements, and values statements (Schwartz, 2001). Schwartz also synthesized the many definitions of codes used in the literature and defined a code of ethics as "a written, distinct and formal document which consists of moral standards used to guide employee or corporate behavior" (p. 248). For the purposes of this study, the phrase "code of ethics" and Schwartz's definition of code of ethics will be used.

Codes of ethics have evolved according to business and societal needs. Toward the beginning of the 20th century, businesses functioned under the assumption that our societal norms and personal values were sufficient to drive appropriate behaviors in organizations. But as organizations became more complex by mid-century, it became evident that people needed more specific guidance on how to deal with the types of situations they were encountering in the workplace. As a result, businesses found it necessary to create formal written corporate codes of ethics (Baumhart, 1961; Mathews, 1987).

In the latter half of the century, with the advent of the computer, the Internet, international travel, multi-national corporations, access to global resources, and a host of other events, organizational environments had become so complex that the need for standards to guide behaviors and actions in an international context was apparent. While typical corporate codes addressed the basic ethical issues businesses in the U.S. were likely to encounter (e.g., integrity, confidentiality, and sexual harassment), the international business environment exposed businesses to issues with which firms had little or no experience, for example, human rights, child labor, bribery, quality of life, and sweatshops (Drake, 1998). These needs called for major revisions or expansions to existing codes of ethics to ensure that they could be effective in the international business context (Asgary & Mitschow, 2002).

Each decade's ethical scandals seemed to draw attention to another sphere of unethical behaviors. Events like Watergate in the 1970s, corporate raiding in the 1980s, abusive labor practices that dominated the textile and sportswear industries in the 1990s, and financial and accounting debacles around the turn of the century spurred the creation of different types of codes to address different organizational ethical issues. Toward the end of the 20th century, standards by governmental and non-governmental organizations were being created to address basic rights and moral behaviors that would span national and international boundaries and guide the actions and behaviors of people around the world (e.g., the International Labour Organization, the World Health Organization, the International Standards Organization [ISO]). Around the same time businesses realized that one set of codes did not necessarily meet the needs of an entire organization, so sub-organization codes began to be developed to address the needs of parent companies and subsidiaries more effectively.

Media attention in the past two decades also revealed that certain industries and professions were susceptible to inappropriate ethical behaviors more frequently than others (e.g., the textile industry, the accounting profession, and the purchasing process). These conditions led to the creation not only of industry-wide codes of ethics (e.g., purchasing standards) but also of laws and statues designed to prevent such violations from occurring again (e.g., Sarbanes-Oxley Act). Similar awareness was developing within businesses as they began to recognize that the three business functions (finance, marketing, and operations) faced different situations and contexts and, therefore, codes of ethics were needed for these functional areas. The shift toward functional codes is no longer in its infancy, but codes have evolved more quickly for the finance and marketing functions than for the operations function.

The last stage of code evolution, to date, appears to be the growing awareness that codes within organizations (e.g., corporate codes or marketing codes) or as umbrellas over organizations (e.g., industry codes or international standards) cannot lead to the type of sustainable behaviors by all of the relevant players to achieve the goals of businesses and society at large. These types of codes, which are only beginning to be created, recognize the inter-related needs of business organizations along the supply chain as well as the needs of the communities and societies affected by the operations of these business organizations. Hence, there is the recognition that codes of ethics for ethical and moral behaviors affect far more than the single organization that may have crafted the code and that these codes must work in concert with each other (Pruess, 2010) to produce effective results in terms of appropriate behaviors and decisions that will benefit the triple bottom line (profits, people, and planet).

The evolution of the codes themselves has been mirrored to some degree by the patterns in scholarly research. Earlier business ethics research concentrated on corporate-level codes and the corporation's overall responsibility for good citizenship. In the past two decades, research directed to the social obligations and responsibilities of firms increased. Research on sub-organizational codes has finally begun.

Several elements exist that create the basis for the research reported in this study: the increased awareness of the important role that the supply chain plays in affecting socially responsible and ethical behaviors (Kolk & van Tulder, 2002; Isaksson, Johansson, & Fischer, 2010; Salam, 2004; Yu, 2008), the paucity of ethics research that considers SMEs (Longenecker, Moore, Petty, Palich, & McKinney, 2006), and the fact that current research has not established the effectiveness of codes of ethics (McKinney, Emerson, & Neubert, 2010; Schwartz, 2001;Valentine & Barnett, 2002; Vyakernam et al, 1997).

The role of the supply chain in determining firms' abilities to achieve their ethical and social responsibility goals has increased dramatically in the past decade (Amaeshi, Osoouji, & Nnodim, 2008; Maloni & Brown, 2006; Salam, 2009; Strand, 2001). The supply chain function is an obvious one for influencing ethics initiatives simply because the supply chain has the ability to influence virtually all of the activities that would typically affect socially responsible behaviors.

Very few studies have addressed SMEs or compared the experiences of SMEs with LEs, and most of this work relates to European firms (Graafland, van de Ven, & Stoffele, 2003; Perrini, Russo, & Tencati, 2007; Russo & Tencati, 2009). This is a severe shortcoming in the research for several reasons: (a1) the overwhelming majority of firms in the U.S. and Europe are small- to medium-sized, but this majority has been effectively ignored in the research; and (b) the characteristics, structures, and operations of SMEs are sufficiently different from those of LEs that it is most likely inappropriate to extrapolate from most research and apply conclusions to SMEs' behaviors. The limited research that specifically addresses SMEs suggests that their behaviors, philosophies, and perceptions are considerably different from those of LEs. This observation needs to be further tested.

Researchers have struggled to determine whether codes of ethics have had the desired impact on corporate decision-making and employee behaviors. Considerable research has already been undertaken to address code effectiveness in LEs (Allen & Davis, 1993; Badaracco & Webb, 1995; Brief, Dukerich, Brown, & Brett, 1996; Egels-Zanden, 2007; Ferrell & Skinner, 1988; Jiang, 2009 Murphy, Smith, & Daley, 1992; Pierce & Henry, 1996; Roberts, 2003; Valentine & Barnett, 2002; Weeks & Nantel, 1992;). Unfortunately the results from these studies have been mixed, suggesting that this issue has not been resolved.

The purpose of this study was to compare the effectiveness of codes of ethics for LEs with the effectiveness of codes in SMEs. Code effectiveness was assessed by determining whether the existence of corporate codes of ethics have created environments that encourage ethical behaviors, whether these codes are being disseminated to the upward and downward members of the supply chain, and whether these codes have affected the behaviors of the company's own employees as well as the employees of the company's supply chain partners.

Methodology

Questionnaire Development

We developed our questionnaire in a six-step process. The first step was a comprehensive review of the literature on ethics and the supply chain. Based on the literature review, the second step was to draft the survey instrument. The third step of the questionnaire development process was an initial test for clarity by graduate students at a major U.S. university. Using information from this test, the questionnaire was modified to improve understandability. The next step was a test for clarity, relevance, and technical accuracy and was administered to members of the Supply Chain Management Institute (SCMI) affiliated with a West Coast university. The final step was a refinement of the survey instrument based on the results of the survey responses from these SCMI members.

The survey instrument contained a series of questions to capture demographic information about the respondents and their respective firms. An important demographic for this study was firm size. Two questions were included for this purpose: average annual sales and number of employees. The other questions in the survey were designed to capture information about firms' actions relevant to ethics and social responsibility. Most of these questions utilized a 5-point Likert scale with *five* representing the strongest or most positive response and *one* representing the weakest or most negative response. Another set of questions was designed to assess observed behaviors, to which respondents answered *yes* (coded as 1) or *no* (coded as 0).

Sample Selection and Characteristics

The population for the survey was comprised of supply chain professionals/members of the Institute for Supply Management ISM). A random sample of 5,000 members, representing 12 major industries, was provided by ISM from its membership list.

Sixty-three names were eliminated from the 5,000 because of incomplete mailing addresses. Hard copy surveys were mailed to the remaining 4,937 addressees obtained from the sample draw. Nine surveys were returned to sender, reducing the population size to 4,928. Of these, a total of 421 were completed and usable survey forms were returned, for a response rate of 8.5%.

Responding firms represent both multinational and U.S.-based companies: 61.1% of the respondents indicated their company was a multinational company and 35.1% indicated their companies were not multinational. A small portion (3.8%) indicated they did not know whether their companies were multinational. The vast majority of the respondents' companies were headquartered in North America (89.7%); 8.6% of respondents' companies were headquartered in Western Europe. The remaining companies had headquarters scattered in Central and South America, Eastern Europe, or Asia. The vast majority of respondents' firms (90.2%) identified North America as their primary sales region; 84.7% indicated that their firms' primary sources of purchases were also from North America. The majority of respondents were employed in two industries: Manufacturing (45.3%) and Utilities (14.2%). A test by industry type revealed no significant differences.

SME is the accepted abbreviation for Small and Medium Sized Enterprises, even though the definition of what constitutes an SME is not standardized, either nationally or internationally (University of Strathclyde, n.d.). In Europe, SMEs are firms with fewer than 250 employees (European Commission, n.d.; Hauser, 2005). The World Bank defines SMEs as firms with fewer than 300 employees (Gibson & van der Vaart, 2008). In the U.S., a small business can have as many as 1,500 employees (in the manufacturing sector) or as few as 100 (in the wholesale sector) (U.S. Small Business Administration, n.d.). For this study, we took a middle-of-the-road approach and defined SMEs as firms having 500 or fewer employees. This decision was made because the majority of the respondents in our survey represented firms headquartered in the U.S. Based on this classification, SMEs (firms having 500 employees or fewer) constituted 21.7% of respondents, and LEs (firms having more than 500 employees) constituted 78.3% of the respondents.

Findings and Discussion

Written codes of ethics are the primary mechanism that firms can use to influence the ethical behaviors of employees (Valentine & Barnett, 2002). Schwartz (2001) maintained that the effectiveness of codes of ethics depends upon the degree to which the code is communicated to employees. Furthermore, studies have also revealed that top management commitment plays a critical role in determining whether codes of ethics will influence employee behaviors (Tucker, Stathakopolous, & Patti, 1999). Working from these constructs, the first set of questions in our survey was designed to capture the ethical environment of responding firms.

To determine whether companies recognized the need to have a means for communicating their corporate values to employees and members of their supply chain, respondents were asked to indicate whether their companies had a written policy addressing business ethics and social responsibility. For LEs, 97.8% of the respondents indicated what their companies had written policies in one of the following forms: a code of ethics, a policy statement on ethics, a code of conduct, or a set of guidelines addressing ethical behavior. Only 76.7% of SMEs had written policies on business ethics. ANOVA revealed that the existence of a written code of ethics was significantly influenced by firm size (p=.000).

Schwartz (2001) indicated, however, that having a written policy on ethics and social responsibility is a necessary component for influencing the behaviors of employees, but is not sufficient if the code is not effectively communicated to employees. Furthermore, if the firm's ethics policy is not perceived as being valued by management, then employees will tend not to embrace the code. Tucker et al (1999) suggested that managers can demonstrate commitment to their codes of ethics by investing in their success (i.e., devoting human and financial resources to train employees on the codes).

We used several questions to assess the prevalence of the dissemination of companies' codes of ethics to employees. First, respondents were asked to identify the proportion of employees to whom the company's code of ethics had been communicated. Over 94% of respondents from LEs indicated that their company's code of ethics had been communicated to at least 76% of its employees. In contrast, only 72.5% of respondents from SMEs indicated that their company's code of conduct had been communicated to at least 76% of its employees. This difference is significant (p=.000).

Secondly, when asked whether training was provided on the company's code of ethics, 83.4% of respondents from LEs indicated that code training was mandatory. In contrast, only 38.8% of respondents from SMEs indicated that mandatory training occurred. This difference was significant (p=.000).

Previous studies have shown that the existence of codes of ethics contributes to the corporate culture by creating an ethical environment for employees that is conducive to ethical decision-making (Hunt & Vitell, 1986; Schwartz, 2001; Valentine & Barnett, 2002; Victor & Cullen, 1988;). Firms embrace codes of ethics for a number of reasons, but an important one is to institutionalize corporate values into the culture and create an environment that will help socialize employees into behaviors consistent with this culture. Tucker, et al (1999) argued that the existence of codes will not eliminate bad behavior on the parts of employees unless the firm can show that top management is committed to supporting these codes (financially and with human resources). Working from these frameworks, we utilized a set of questions to determine whether the existence of a code of ethics (an attempt to institutionalize corporate values) or training on the code (a significant commitment of human and financial resources) had impacted the perception that employees and managers are committed to social responsibility and ethical standards.

As indicated above, the vast majority (97.8%) of LEs have written codes, while a smaller majority (76.7%) of SMEs have written codes. Perceptions of the level of commitment to social responsibility were obtained using a 5-point Likert scale, with 1 representing *not committed* and 5 representing *completely committed.* Separate questions were used to assess perceptions about employee commitment and top management's commitment to social responsibility. ANOVA was used to compare the responses to these questions by LEs and SMEs.

For LEs, having a written code of ethics has a very significant (p=.000) impact on the perception that top management is committed to social responsibility. A written code also correlated positively to the perception that employees are committed to social responsibility but this difference was not significant. Interestingly, for SMEs, the existence of written codes had no impact on perceptions that either employees or top management is committed to social responsibility and ethical standards. SMEs with written codes were only slightly more likely to perceive employees or top management as committed to socially responsible behaviors than were firms without written codes.

Since Schwartz (2001) maintained that employee perceptions and code effectiveness would be impacted by the degree of training on the code, we felt it would be more insightful to see if mandatory training on the company's code strengthened the perception of commitment to ethical and socially responsible behavior. The relationship between mandatory training on corporate codes of ethics and perceived commitment to socially responsible behavior was evaluated for each firm size. ANOVA revealed that for LEs, mandatory training has a significant impact (*p*=.000) on perceptions about both employee and top management commitment to socially responsible behaviors. In the case of SMEs, mandatory training did not lead to significantly higher perceptions that either top management or employees are committed to socially responsible behaviors.

Next we were interested in whether the existence of a formal written code, the practice of mandatory training, and the perception of employee and top management commitment to social responsibility have affected behavior in the workplace. To assess these impacts, respondents were asked how often they had observed conduct at their company that either violated the law or their company's code of conduct. A 5-point Likert scale with the following options was used for responses: 1 = *never observing violating behaviors*; 2 = *rarely observing behavior violations*, 3 = *occasionally observing behavior violations but not on a regular basis*, and 4 – *occasionally observing behavior violations but on a regular basis*, and 5 = *frequent observations of behavior violations*. Respondents were also asked to indicate the type of illegal or inappropriate behaviors they had witnessed at their companies.

Almost all (97.8%) of LEs had a written code of ethics. ANOVA showed that LEs that have a written code of ethics experienced significantly lower levels of behavioral misconduct than did firms without a written code (*p*=.01). Mandatory training on ethics also had a positive impact on behavior. Over 83% of LEs had mandatory training on their codes. ANOVA results comparing the prevalence of mandatory training with the frequency of occurrence of misconduct by employees indicated that mandatory training had a significant beneficial effect on behavior (*p*=.000). Both top management commitment and employee commitment to social responsibility impacted how often misconduct was observed in LEs. The stronger the commitment by employees and top management, the lower the frequency of misconduct. Each of these differences was significant (*p*=.000).

For SMEs, results were not comparable. Recall that a smaller proportion (76.7%) of SMEs have a formal written code of conduct or ethics policy. SMEs that do not have a written code of ethics experienced only slightly higher levels of misbehavior than was seen in firms with written codes. The difference was not significant. With respect to the impact of training, SMEs garnered no beneficial results from mandatory training on their codes of ethics. There was no significant reduction in misconduct for SMEs with mandatory training compared with those without mandatory training. And finally, with respect to the impact that employee and top management commitment to ethical standards had on the occurrence of misconduct, SMEs experienced reductions in the frequency of misconduct but only as a result of employee commitment to CSR (*p*=.05). Top management commitment had no impact on misconduct.

Concern about the ethicality of actions by members of a company's supply chain have grown in the years since the sweatshop scandals in the 1990s. Increasingly, companies have begun sharing their codes of ethics with others in their supply chains. To assess the prevalence of this practice by the firms represented in this survey, respondents were asked whether a code of conduct has been provided to their suppliers and/or their B2B customers as well as whether these members of the supply chain were expected to adhere to the code. The comparison of LE and SME practices showed that 77.4% percent of LEs provide vendors with a copy of their respective codes of ethics while only 48.8% of SMEs share their codes with vendors. This difference is significant (*p*=.000). Interestingly, 99.6% of respondents from LEs and 100% of SMEs expect their vendors to respect their codes, even though not all of the firms in either size category actually share their codes with vendors. Not surprisingly, this difference is not significant.

The sharing of codes in the other direction of the supply chain (i.e., to B2B customers) follows similar trends. Significantly different (p=.000) proportions of LEs (74.6%) than SMEs (40.0%) share their codes of ethics with B2B customers. As with their vendors, both LEs and SMEs expect higher proportions of their B2B customers to respect corporate codes of ethics during business transactions (98.1% of LEs vs. 92.3% of SMEs), though in this case, the difference is significant (p=.05).

The last set of questions in this study attempted to assess whether the company's efforts to create an environment conducive to ethical behavior has an impact on the occurrence of misconduct within the supply chain. Based on the literature, 11 types of misconduct associated with social responsibility and ethical conduct were identified and used in the questionnaire (see Table 1). These behaviors were evaluated to determine whether they had been impacted by top management or employee commitment to ethically responsible behaviors or by the level of training on codes of ethics.

Table 1. ***Types of Illegal Conduct or Code Violations***

By Company or Vendor Employees:
Abusing drugs or alcohol
Engaging in sexual harassment
Giving or accepting bribes, kickbacks, or inappropriate gifts
Falsifying records and reports
Lying to employees, customers, vendors, or the public
Withholding needed information from customers, vendors, or the public
Misreporting actual time or hours worked
Stealing, theft, or related fraud
Breaking environment and safety laws or regulations
Abusing or intimidating other company employees
Discriminating on the basis of race, color, gender, age, or similar categories
By Customer Employees:
Abusing drugs or alcohol
Engaging in sexual harassment
Giving or accepting bribes, kickbacks, or inappropriate gifts
Discriminating on the basis of race, color, gender, age, or similar categories

To assess how these behaviors may have been impacted, we evaluated whether sharing one's code of conduct with members of one's supply chain affected behaviors by supply chain employees. ANOVA was used to assess the impacts (See Table 2. Note that Tables 2–5 contain only items with significant differences.). For LEs, sharing their codes of ethics with their vendors resulted in significant reductions in only one type of misconduct among vendor employees: *giving or accepting bribes, kickbacks, or inappropriate gifts* (p=.05). When LEs shared their codes with B2B customers, there was no significant impact on the behaviors of B2B employees. For SMEs, sharing codes of ethics with vendors significantly reduced occurrences of *misreporting actual time or hours worked* (p=.05) whereas sharing their codes with B2B customers significantly reduced the occurrences of *engaging in sexual harassment* (p=05).

Table 2. ***Impact That Sharing Code Has on Illegal Conduct or Code Violations***

Illegal Conduct or Code Violation	Sign. Lg.	Sign. Sm.
By Vendor Employees:		
Giving or accepting bribes, kickbacks, or inappropriate gifts	*	
Misreporting actual time or hours worked		*
By Customer Employees:		
Engaging in sexual harassment		*

*p=.05

Next, we sought to determine whether a company's internal ethical environment (as evidenced by top management or employee commitment to ethically responsible behavior or by mandatory training on codes of ethics) has had an impact on the 11 types of misconduct. We evaluated the impacts of top management commitment, employee commitment, and mandatory training on the illegal conduct or code violations by the company's own employees, its vendors' employees, and its B2B customers' employees.

Based on the literature, top management commitment has been shown consistently to be a critical element in the successful implementation of most corporate initiatives, for example, JIT, TQM, ISO 9000 (Carter & Jennings 2004; Crawford & Cox, 1991; Ebrahimpour & Withers, 1993; Mamic, 2005; Schonberger, 1982; Withers, Ebrahimpour, & Hikmet, 1997;). For this reason, it is assumed that top management commitment to social responsibility would set the tone for establishing an environment perceived to encourage and support ethical behaviors. To see if this were the case, we examined the perception of top management commitment to socially responsible behaviors with responses about the occurrences of inappropriate behaviors by employees within their own firms, as well as by vendor and B2B employees.

Among respondents from LEs, we found that higher top management commitment to socially responsible behavior resulted in significantly lower incidences of misconduct by employees within their own companies for 8 of the 11 types of illegal conducts or code violations (See Table 3). However, this breadth of significant impacts did not occur in SMEs. Higher levels of top management commitment in SMEs significantly reduced only two behaviors: *breaking environmental and safety laws or regulations* and *abusing or intimidating other company employees*.

Table 3. *Impact of Top Management Commitment on Illegal Conduct or Code Violations*

Illegal Conduct or Code Violation	Sign. Lg.	Sign. Sm.
By Company Employees:		
Abusing drugs or alcohol	*	
Giving or accepting bribes, kickbacks, or inappropriate gifts	****	
Falsifying records and reports	*	
Lying to employees, customers, vendors, or the public	****	
Withholding needed information from customers, vendors, or the public	****	
Breaking environmental and safety laws or regulations	****	***
Abusing or intimidating other company employees	****	*
Discriminating on the basis of race, color, gender, age, or similar categories	*	
By Vendor Employees:		
Giving or accepting bribes, kickbacks, or inappropriate gifts	**	
Lying to employees, customers, vendors, or the public	**	
Stealing, theft, or related fraud	*	
Discriminating on the basis of race, color, gender, age, or similar categories	*	

*p=.05
**p=.01
***p=.001
****p=.000

Since top management is so important for setting the tone within organizations, we felt it would be interesting to see if the level of top management commitment to socially responsible behaviors would influence the occurrence of unethical behaviors in the supply chain. In LEs, top management commitment had a significant beneficial impact on only four types of misconduct (see Table 3). For SMEs, top management commitment to socially responsible behaviors had no impact on any type of misconduct. Top management commitment also had no impact on the behaviors of B2B customers' employees for either firm size.

The level of employee commitment to socially responsible and ethical behaviors should manifest itself in appropriate behaviors within the company. Furthermore, it seems reasonable to expect that employees with high levels of commitment to responsible behavior would interact with members of the supply chain in ways that would encourage appropriate behaviors on their parts. To see if this were the case, the level of employee commitment to ethical and responsible behaviors was compared with the incidences of misconduct by employees within the respondents' companies as well as by employees in the supply chain. Results are shown in Table 4.

Table 4. ***Impact of Employee Commitment on Illegal Conduct or Code Violations***

Illegal Conduct or Code Violation	Sign. Lg.	Sign. Sm.
By Company Employees:		
Engaging in sexual harassment	****	
Giving or accepting bribes, kickbacks, or inappropriate gifts	**	
Falsifying records and reports	****	
Lying to employees, customers, vendors, or the public	****	*
Withholding needed information from customers, vendors, or the public	**	
Misreporting actual time or hours worked	*	
Breaking environmental and safety laws or regulations	****	**
Abusing or intimidating other company employees	****	*
Discriminating on the basis of race, color, gender, age, or similar categories		**
By Vendor Employees:		
Engaging in sexual harassment	**	
Giving or accepting bribes, kickbacks, or inappropriate gifts	**	
Stealing, theft, or related fraud	*	
By Customer Employees:		
Engaging in sexual harassment	**	
Falsifying records and reports	*	

*p=.05
**p=.01
****p=.000

Once again, we see evidence that the perception of a more positive ethical environment within LEs seems to manifest itself in improved behaviors by their employees. Higher levels of employee commitment to ethical standards significantly reduced the occurrences of most ethically questionable behaviors (see Table 4). Only three types of misconduct (*abusing drugs or alcohol; stealing, theft, or related fraud;* and *discriminating on the basis of race, color, gender, age, or similar categories*) did not benefit from higher levels of employee commitment to ethical standards. For SMEs, the level of employee commitment to ethical standards had more limited impacts on curbing misbehavior by employees: only 4 of the 11 types of illegal conduct or code violations were significantly reduced (see Table 4).

In terms of whether employee commitment to ethical standards has any influence on the behaviors of employees in the supply chain, there appears to have been some "carry over" effect. For LEs, with respect to vendor employees' behaviors, three types of vendor misconduct were significantly reduced as a result of higher employee commitment to ethical standards: *engaging in sexual harassment; giving or accepting bribes, kickbacks, or gifts;* and *stealing, theft or related fraud* (Table 4). For SMEs, higher employee commitment to ethical standards had no significant impacts on vendor employee behaviors.

Employee commitment to ethical standards had limited impact on B2B customers' employees' behaviors. For LEs, stronger employee commitment to ethical standards was significantly correlated to reductions in *engaging in sexual harassment* and *falsifying records and reports*. For SMEs, employee commitment to ethical standards did not have any impacts on B2B customers' misbehaviors.

The next issue related to determining whether training one's own employees on the company's code of conduct "rubs off" on others, both inside and outside of the firm. Of particular interest was whether code training for employees within a firm affects the behaviors of employees in the supply chain. Evidence in the literature indicates that vendor employees modify their behaviors in the presence of customer representatives (Egels-Zanden, 2007; Yu, 2008, 2009). To assess the impacts of training on behaviors, the frequency of mandatory training of employees within respondents' firms was compared to the types of inappropriate behaviors observed among company employees, vendor employees, and B2B employees.

With respect to the behaviors of employees at respondents' firms, the results revealed that for LEs, 8 of the 11 types of illegal conduct or code violations were significantly reduced as a result of mandatory code training (see Table 5). There was virtually no impact on the behaviors of vendor or B2B employees for either LEs or SMEs. For vendor employees, LEs saw a significant reduction in *giving or accepting bribes, kickbacks, or inappropriate gifts*, whereas SMEs experienced significant reductions in *abusing or intimidating other company employees*. The impacts on B2B customer employees were almost non-existent: only SMEs experienced significant decreases in *giving or accepting bribes, kickbacks, or inappropriate gifts*.

Table 5. ***Impact of Mandatory Training on Illegal Conduct or Code Violations***

Illegal Conduct or Code Violation	Sign. Lg.	Sign. Sm.
By Company Employees:		
Engaging in sexual harassment	***	
Giving or accepting bribes, kickbacks, or inappropriate gifts	**	
Falsifying records and reports	***	
Lying to employees, customers, vendors, or the public	*	
Misreporting actual time or hours worked	*	
Stealing, theft, or related fraud	****	
Breaking environmental and safety laws or regulations	****	
Abusing or intimidating other company employees	*	
By Vendor Employees:		
Giving or accepting bribes, kickbacks, or inappropriate gifts	*	
Abusing or intimidating other company employees		*
By Customer Employees:		
Giving or accepting bribes, kickbacks, or inappropriate gifts		***

*p=.05
**p=.01
***p=.001
****p=.000

Conclusion

Overall, the findings of this study showed dramatic differences between the responses of LEs and SMEs. Starting with the existence of written codes of ethics, we found codes to be common in LEs and far less common in SMEs. In addition, codes were communicated more formally to employees in LEs than in SMEs, and in LEs mandatory training was used to ensure that employees were knowledgeable about the corporate codes and values. One possible explanation for these differences is that in SMEs, there is less formality in the workplace, leading to more frequent interactions between employees and management. This type of communication and interaction would reduce the necessity for formal written codes. In contrast, in LEs, employees are more removed from management and must rely on written documents to learn about corporate values. These conclusions are similar to those drawn by Spence and Lozano (2000), Vyakarnam et al. (1997), Perrini et al. (2007), and Graafland (2003) in their work comparing SMEs and LEs.

Since SMEs indicated that written codes of ethics are not critical to their awareness of corporate values, it follows that neither the written codes nor mandatory training would be needed to demonstrate top management or employee commitment to ethical standards of behavior. In contrast, the mere existence of formal codes in LEs influenced perceptions that employees and top management are committed to socially responsible standards of behavior. Our findings suggest that the prevalence of mandatory training in LEs strengthens these perceptions. The impacts that the code and training had on perceptions of commitment in LEs makes sense if one considers that both of these undertakings represent a significant investment on the part of the LEs, thereby signaling to employees the importance that management places on ethics and social responsibility. These findings are consistent with the findings of Graafland et al. (2003) and Spence and Lozano (2000). Since mandatory training did strengthen perceptions of employees in LEs, it can be argued that perceptions about employee and top management commitment to socially responsible and ethical standards of behavior in SMEs could be strengthened if mandatory training were utilized.

Our study results indicate that both LEs and SMEs expect vendors and B2B customers to behave ethically even when no formal communication or sharing of corporate codes of ethics has occurred. These results seem to imply a general belief and expectation that personal values should be the force driving behaviors in the business environment.

With respect the whether mandatory training, top management commitment, and employee commitment affects the effectiveness of corporate codes of ethics, we found that these three conditions had the strongest impacts on a company's own employees. For LEs, these conditions led to significant impacts on 8 of the 11 types of misconduct. In contrast, for SMEs, the impacts of these three conditions were far less. Mandatory training had no impacts on SMEs' employees. However, employee and top management commitment consistently reduced the occurrences of *breaking environmental and safety laws or regulations* and *abusing or intimidating other company employees*.

In terms of whether these three conditions (mandatory training, top management commitment, or employee commitment) impacted the behaviors of vendor employees, we discovered that for LEs mandatory training on codes of ethics for one's own employees has no impact on vendor employees' behaviors whereas employee and top management commitment to ethical standards did have major impacts. For SMEs, only one type of misconduct (*discriminating on the basis of race, color, gender, age, or similar categories*) was impacted by mandatory training, top management commitment, or employee commitment.

Our study suggests several important conclusions with respect to the influence that corporate codes of ethics can have. First, the range of influence of these codes is fairly restrictive, primarily limited to the employees within one's own company. This occurrence is particularly the case for LEs. Second, the greater the formality of codes, the stronger the influence the codes will have on behaviors. Written codes that are officially shared with employees, including training, significantly increase the beneficial impacts the codes have on employees' behaviors and perceptions. Third, top management and employee commitment to the firm's codes of ethics influences the positive impacts that these codes have in the firm. This finding is consistent with results of other studies that have demonstrated that top management commitment is critical to the successful implementation of other corporate initiatives, such as ISO 9000 series, Lean Manufacturing, Six Sigma, and so forth. Fourth, sharing corporate codes of ethics with members of ones' supply chain has virtually no positive impacts on the behaviors of vendor or B2B customer employees. This result may be closely tied to the previous conclusion that successful implementation of any initiative within an organization hinges on the commitment and support of top management. Thus, codes of ethics obtained from or imposed by other companies are unlikely to be embraced by supply chain partners. This outcome suggests that imposing codes of ethics on vendor firms may have limited chance of success and argues for a collaborative approach to the creation of codes for vendor firms that their own management can embrace and support.

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