Antecedents of Managers Moral Reasoning

Almerinda Forte

ABSTRACT: This research investigates the degree to which there are differences in the moral reasoning ability of business top, middle, and first-line managers in selected industries.

This study considered the influence of three independent variables: reported organizational ethical climate, locus of control, and selected demographic and institutional variables on managers reasoning ability. This researcher relies on Kohlberg's theory of moral development, Victor and Cullen's ethical work climate theory, and Rotter's theory of internal-external locus of control (which evolved from Carl Jung). A short form of Rest's DIT instrument measured the moral reasoning abilities of the participants. Selected demographic and institutional variables (age, work tenure, education, gender, management level and industry category) were also measured.

A survey questionnaire was sent to 400 managerial and executive level employees at a random sample of Fortune 500 firms throughout the United States: Dun & Bradstreet provided the researcher with a proportional stratified random sample of these 400 managerial and executive level employees at a variety of organizations.

Interestingly, women exhibited insignificant higher (more external) mean I-E scores and (more principled) higher mean "F" score than men. Statistically significant relationship between age and perceived organizational ethical climate types (Caring, Law and Code, Rule, Instrument, and Independence) and between management levels and organizational ethical climate were also found.

Business ethics, especially among top managers, has become a topic of concern to the public and business community. As a result, much attention has focused on the development of moral reasoning in corporate individuals. Past research examining individual and business decision behavior, indicates that organizational-level variables have a significant impact on individual decisions. Since managers' decisions impact organizational goals and organizational ethical behavior, this researcher investigated the degree to which there are differences in the moral reasoning ability of business managers of selected industries and whether there are significant differences between top, middle, and first-line management levels.

To determine the relationship between managers' locus of control and their moral reasoning ability, this study considered three independent variables: reported organizational ethical climate, locus of control, and selected demographic and institutional variables. For a foundation, this researcher relied on Kohlberg's theory of moral development, Victor and Cullen's ethical work climate theory, and Rotter's theory of internal-external locus of control (which evolved from Carl Jung). The short form of Rest's DIT instrument measured the moral reasoning abilities of the participants. The selected demographic and institutional variables (age, work tenure, education, gender, management level and industry category) provided the useful information to investigate these relation-

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ships of moral reasoning ability of individual managers (Figure 1).

Lawrence Kohlberg's theory of moral development

Kohlberg's theory of moral development hypothesized that individuals move sequentially from stage to stage in a uni-directional progression from lower to higher levels of morality. Moral development evolves throughout childhood and adolescence in predictable stages in Kohlberg's theory. Adults at the highest level of moral development are capable of moral reasoning using abstract universal principles, such as human rights and justice. Kohlberg found that most people do not reach the highest level of moral development, but instead function at the lower levels of their peers and legally supported expectations. Kohlberg's model consists of six stages that must be achieved to reach full moral development.

From Kohlberg's six stages of moral judgment, James Rest developed the Defining Issues Test (DIT), to determine the level of one's moral development and the reasons behind moral decisions.

The DIT presents a series of scenarios and offers the test taker solutions based on different rationales. Even though two individuals may arrive at the same response, their reasoning may reflect a substantial difference in moral development and level of critical thinking. The scenarios and responses represent fundamental, underlying structures of social thought instead of the fine descriptions of specific concepts and ideas.

Lawrence Kohlberg's theory of moral development has influenced several studies on ethical development. Kohlberg's work provided the theoretical framework for Snodgrass's (1993) research, which investigated whether there were significant differences in the principled moral reasoning between undergraduate business majors and non-business majors. He also investigated

Diagram of Research Variables

<table>
<thead>
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<th>Independent Variables</th>
<th>Dependent Variables</th>
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<td>Locus of Control</td>
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Demographics and Institutional Variables
- age
- work tenure
- education
- gender
- management level
- industry categories

Organizational Ethical Climate

Figure 1. Diagram of research variables.
whether there were significant differences between lower and upper division students. Snodgrass studied 669 undergraduate students enrolled in day classes in arts and humanities, social science, natural science, and business at two private colleges and one state university in Idaho. He used the short form of Rest’s Defining Issues Test (DIT) to assess the principled moral reasoning of the students.

Snodgrass found a significant difference in principled moral reasoning between lower and upper division status. However, he discovered no difference between business and non-business majors. The mean Principled Score (P) for upper division non-business majors was slightly higher than that of upper division business majors.

A significant difference at the 0.05 level between the majors was not found. The mean P score of upper division business majors was 2.6 points below the mean of upper division non-business majors. No significant difference in age was found between any of the groups in moral reasoning. Females had higher P scores than males in all groups. Snodgrass recommended that there should be additional and continued emphasis on ethics education for business students.

Fernandes’ (1995) research examined how an individual’s level of moral reasoning interacts with perceptions of inequity and procedural explanations to influence affective responses. The theoretical framework for Fernandes’ study was based on Adams’ (1963, 1965) theory of inequity and incorporated Leventhal’s (1976a) theory of procedural justice and Kohlberg’s (1969) theory of cognitive moral development. Fernandes used a scenario to determine perceptions of inequity and procedural justice. The scenario lead the participants to believe that they were either underrewarded or overrewarded in comparison to their colleagues participating in the same study. The sample for the study consisted of 127 men and 74 women. Fernandes reported that five subjects did not report gender. The participants were enrolled in management, hotel and restaurant introductory business courses.

The results of Fernandes’ research showed that perceptions of disadvantageous inequity, advantageous inequity, and procedural injustice cause individuals to report negative effects. The study also found that moral maturity did not have a significant influence on their emotional responses to situations of perceived inequity and knowledge of the procedures used to determine the distribution outcome. Fernandes’ research, which used the DIT to assess moral reasoning, found that 30 percent of the participants were characterized as having high moral reasoning. The majority of the participants in the study were about 21 years old and juniors. Fernandes finds it highly unlikely that 21 year old juniors can be justifiably credited with a high level of moral reasoning. She believes that her results were skewed toward the higher end of moral reasoning levels due to her contention that college students may be familiar with or, had experienced with the scenarios presented in the DIT and, thus sought the right answer or approval with their responses.

Moral Development in the Professions, edited by James R. Rest and Darcia Narvaez, documents the studies below, all of which utilized the Defining Issues Test (DIT).

Armstrong (1984, 1987) employed the Defining Issues Test (DIT) to explore accountants’ ethical reasoning and moral development. The participants in the study were from a sample of CPA’s and accounting students in southern California. Armstrong’s research method was a mail survey. The results of Armstrong’s research showed that CPAs and accounting students tended to be at lower levels of ethical reasoning than comparable groups of college-educated adults or college-aged students. She discerned this by examining and comparing Rest’s (1979a) published work to her study. Based on her results, she speculates that accounting education may inhibit development to higher stages of ethical reasoning.

Shaub (1989, 1994) measured the ethical sensitivity of CPA practitioners at all position levels. The participants in the study were from several offices of a Big-Six accounting firm located in the Midwest. Shaub related these ethical sensitivity measures to DIT P score results. He did not find a significant association between ethical reasoning (DIT P scores) and measured ethical sensitivity. The results of Shaub’s research
also found that CPAs’ DIT P scores also decreased in the manager and partner ranks. His study showed significant differences between men and women DIT P scores. Both female accounting students and female CPAs tended to have higher DIT P scores than men at the same level or rank within the firm. Shaub’s study also found a significant association between self-reported GPA and DIT P scores for both accounting students and practitioners. This finding is in accordance with the notion that ethical reasoning is linked to other intellectual capacities as well as school achievement.

Lampe and Finn (1992) studied accounting and CPAs in public firms but excluded partners. Lampe and Finn compared subjects’ DIT results to responses on a questionnaire containing seven short ethical scenarios.

The results of Lampe and Finn’s research found that both accounting students and practitioners tend to have lower DIT P scores than college-aged students, college-educated adults, and other professional groups such as laws and medicine. The results also showed that DIT stages measures were better predictors of ethical choice on the ethical scenarios than P scores. The research indicated that while DIT P scores were relatively low for most subjects their percentage Stage 4 scores tended to be higher than those reported by Rest’s (1986) research. Lampe and Finn concluded that these findings may indicate that Stage 4 moral orientation may be more important for professional accountants and auditors, than principled reasoning Stages 5 and 6 because of the profession’s rule-oriented nature.

Ponemon (1992a) examined the influence of accounting firm socialization upon the individual CPAs level of ethical reasoning. The selection-socialization phenomenon was examined by using a triangulated research design. The participants were based on a random cross-sectional sample of 180 CPAs, a longitudinal sample of 221 auditors in one national firm over a 2-year period, and an experimental study of 23 audit managers’ promotion assessments of 54 senior level auditors located in one large practice office. The results of all three studies corroborate the existence of ethical socialization. The results of Ponemon’s research indicates that those progressing to manager and partner positions within the firm tended to possess lower and more homogeneous DIT P scores. The experimental findings of the research also suggested that firm managers’ promotion decisions are biased in favor of individuals possessing ethical reasoning that is closer to their own capacity. Ponemon’s results implied that the ethical culture of the accounting firm determines an individual’s development to higher levels of ethical reasoning.

Ponemon and Gabhart (1993) examined the impact of cross-national differences upon the ethical judgments of individual auditing practitioners. The participants in the study were auditing professionals from two large accounting firms located in the United States and Canada. The results of Ponemon and Gabhart’s research showed clear evidence of wide differences between Canadian and U.S. accounting professionals with regard to average DIT P scores. The study found Canadian auditors at all position levels possessed higher and less homogeneous DIT P scores than the U.S. auditors. The results indicate that the process of selection-socialization may not exist in large Canadian firms. The results of this research enhance the importance of ethical reasoning as a determinant of ethical choice and professional behavior in a wide range of decisions such as the assessment of client competence and integrity, audit materiality, and audit risk.

Bernardi (1991) examined the relationship between ethical reasoning and the auditor’s ability to detect fraudulent financial statement information. The participants in the study totaled 494 experienced auditors. The subjects participated in an experimental study that required them to review a fairly complex and somewhat realistic set of contextual and financial cues regarding the quality of financial statement information from a fictitious client company.

One of the cues received by all the subjects contained a seeded error that unambiguously indicated the existence of material error and the real possibility of fraud. The results of the research found that experience, ethical reasoning, and the configuration of experience and ethical reasoning, all influence the individual’s ability to detect and frame the questionable accounting entry. The results showed that postconventional
(high DIT) auditors with relatively high levels of domain-specific experience were substantially better in detecting fraud than conventional and preconventional (low DIT) auditors.

**Corporate culture**

In 1968, Harvard University's research division of the Graduate School of Business published two books on organizational work climates: Tagiuri and Litwin's *Organizational Climate, Exploration of a Concept*, and Litwin and Stringer's *of Motivation and Organizational Climate*. Litwin constructed a questionnaire to measure organizational climate. Working independently, Tagiuri investigated how executives perceived the environment in which they functioned. Litwin and Tagiuri reached the same conclusion: organizational climate influences the behavior of people in an organization (McKenna, 1993, p. 37).

Litwin and Stringer developed an instrument to collect perceptions of organizational environment. They contended that the realities of an organization are understood only as they are perceived by members of the organization (p. 42). Litwin and Stringer defined organizational climate operationally as the sum of perceptions of individuals working in the organization (p. 66).

Of importance to this research was their conclusion that organizational climate properties can be perceived by members of an organization and reported on by them through an appropriate questionnaire (p. 187). This assumption that individuals in an organization can perceive organizational climate is a critical factor for this current research.

Climate, according to Litwin and Stringer, influences organizational decisions by creating certain kinds of beliefs about what kind of consequences will follow from various actions (Litwin and Stringer 1968, p. 188). These authors conclude that members of organizations can offer an accurate perception of their firm's ethical climate.

Victor and Cullen in 1987 and 1988 studied the linkage between corporate ethical standards and organizational behavior. They designed an instrument that measured perceptions of ethical climate by members of an organization. Victor and Cullen prototyped organizations into categories of distinct ethical climate types (Caring, Law and Code, Rule, Instrumental, and Independence).

The instrument they developed is a 36 statement survey questionnaire. Victor and Cullen not only concluded that corporations have distinct ethical climate types, but they also found that climate types influence managerial behavior and that climate types influence what ethical conflicts are considered and the process by which the conflicts are resolved.

**Locus of control**

Rotter's theory of internal-external locus of control evolved from Carl Jung's work. In *Psychological Types* (1923), Jung defined two opposing tendencies in personality: introversion and extroversion. While both tendencies are present in all individuals, one tends to dominate the other.

The internal-external control construct was conceived as a generalized expectancy to perceive reinforcement either as contingent upon one's own behaviors (internal control) or as the result of forces beyond one's control, such as chance, fate, or powerful others (external control) (Lefcourt, 1981, p. 15).

succeses and failures. Individuals are responsive to some external motivators (e.g. better jobs, promotions, higher salaries), but the more powerful are internal.

Locus of control refers to those causes to which individuals attribute their successes and failures. Individuals are responsive to some external motivators (e.g. better jobs, promotions, higher salaries), but the more powerful are internal pressures (the desire for increased job satisfaction, self-esteem, and quality of life). Research indicates that an individual's internal-external locus of control impacts their ethical behavior in an organization.

Rotter's I-E Scale (1966), a twenty-nine item forced choice instrument, is the most widely used instrument to measure the degree of internality.
versus externality. Each respondent's score for this scale had a potential range from zero to 23. As there are 6 filler items used to mask the intent of the questionnaire a score of 23 being extremely external in nature and a score of zero being extremely internal in nature. The I Scale (Internal Scale) measures the extent to which people believe that they have control over their own lives; the E scale (External Scale) measures the extent to which people believe that they do not have control over their own lives. This study utilized the I-E Scale.

Jones (1993) investigated the likelihood of an individual engaging in unethical behavior in an organization. Data for her study were collected from both undergraduate and graduate students. The undergraduate sample consisted of 283 upper-level students. The 141 males and 142 females were enrolled in a management course at a large northeastern university. Jones used two scenarios in her study. Each scenario depicted a different ethical dilemma. One scenario consisted of an inflated expense report and the other an illegal loan situation.

Jones found that cognitive moral development was not a predictor for the likelihood of engaging in unethical behavior. She also found that locus of control was not significantly correlated to behavioral intentions when undergraduates responded to the illegal loan situations scenario. However, locus of control was significantly correlated to behavioral intentions when undergraduates responded to inflating the expense report. The results showed that individuals with an external locus of control were more likely to inflate the expense report. The research also found that males were more likely than females to engage in unethical behavior. In Jones' study, individuals high on Machiavellianism were more likely to engage in unethical behavior.

Defumeri (1982) investigated the relationship between interpersonal trust and moral development in teachers. Defumeri used Rotter's I-E Index, the Rotter Interpersonal Trust Scale and Kohlberg's Moral Dilemma Interview to measure teachers' moral reasoning. The participants for the study consisted of 77 volunteer teachers from schools (K-12) in the Northeast. Defumeri found that internality does increase with moral maturity. The study also indicated the existence of a low-moderate link between degree of interpersonal trust and moral maturity.

Jones (1993) and Defumeri (1982) investigated the likelihood of an individual to engage in unethical behavior in an organization. This research suggests that when employees perceive that locus of control resides internally they themselves decide what is appropriate behavior, but with an external locus of control, employees will look at others to decide appropriate behavior. The researcher in this study investigated the relationship between managers' locus of control and their moral reasoning.

Demographic and institutional variables

The relevant demographic and institutional variables identified for this study include age, work tenure, education, gender, management levels, and industry categories. These variables evolved from the following information.

Mature managers may have more positive attitudes toward moral issues in business because of their more developed moral awareness. This explanation seems to be in accordance with Kohlberg's model of moral reasoning suggesting that individuals develop their capacity for moral reasoning over time (Kujala, 1995, p. 72). Therefore age may be an important factor.

Kelley, Ferrell, and Skinner (1990) suggest that employees after three to five years on a job may experience work frustration, which may cause them to compromise their ethical values to advance their careers. Harris (1990), on the other hand, found that managers employed by an organization for at least ten years, were less tolerant of fraudulent practices than other employees. Kujala's study of top managers' perceptions of moral issues in stakeholder relations found that younger respondents, respondents with lower income, and respondents with shorter managerial experience have less positive attitudes toward moral issues in stakeholder relations; whereas older respondents, respondents with the highest income, and respondents with longer managerial experience, have more positive attitudes toward moral issues in stakeholders rela-
tions (Kujela, 1995, p. 70). Work tenure was used in this study as a demographic variable. In this study the researcher asserted that career tenure is positively correlated with higher ethical orientation levels. The rationale is that this explanation seems to be in accordance with Kohlberg's model of moral reasoning suggesting that individuals develop this capacity for moral reasoning over time. Work tenure was the second variable examined.

Rest found that many studies “reveal that increased education is generally associated with higher levels of moral judgment” (Rest and Narvaez, 1994, p. 28). He also states that years of formal education proved a far greater predictor of ethical reasoning and moral development than just chronological age (Rest, 1986, p. 33). Rest concluded that “the evidence at hand suggests that adults in general do not show much advance beyond that accounted for by their level of education” (Rest, 1979, p. 113). Therefore, education was examined in this study. In this study the researcher asserted that higher education levels are positively correlated with higher ethical orientation scores on Rest's scale. Age was also expected to be positively correlated with ethical orientation in this study.

Gender plays an important role in ethical thinking, according to Gilligan (1977), who believes that Kohlberg's taxonomy is male-oriented. Gilligan (1982) states that women emphasize the notion of “caring” in the cognitive handling of ethical dilemmas whereas men operate more on Kohlberg's male-oriented "justice" concept. Male moral development is based on individuality whereas females' is based on connectedness, according to Gilligan (1977). She asserts that females are mis-scored on Kohlberg-type scales, thus causing women to manifest lower scores. Gilligan attributed this to the tests' inherent male bias.

Rest refutes Gilligan's statements by arguing that there is "no cross-sectional or longitudinal evidence that this is the case" (Rest, 1994, p. 12). He also stated that "while males and females may indeed have different social experiences, the resulting development of justice reasoning is remarkably similar" (Rest, 1986, p. 116).

Daniel, D'Andrea, and Heck (1995) conducted a study of Hawaiian youths and investigated possible differences in the moral development of male and female individuals. The fable method was used in this 1995 study and the participants totaled 80 children and adolescents of Hawaiian ancestry. The study concluded that gender differences in moral reasoning did not exist between male and female Hawaiian participants.

Skoe (1994) investigated Ethic of Care, Justice, Identity and Gender. The participants in Skoe’s study were 76 female and 58 male adult volunteers. The volunteers were recruited from several high school and university classrooms. The findings of this study indicate that both the care and justice aspects of moral development are related to identity for both men and women. Women had a stronger relationship between identity and care and than that between identity and justice. The study also found no significant gender effect.

What should also be noted is that it has been argued that at every educational level, women may be found to operate on a higher ethical plane than males (Rest and Narvaez, 1994). While Gilligan asserts that females may be under-scored, there is some evidence that they still outscore males. This study speculates that there will be no significant difference between gender and the moral reasoning of individual managers.

Lewin and Stephens (1994) state that post-conventional individuals are particularly likely to become leaders (Kohlberg et al., 1983), and as such they have a special opportunity for organizational impact. Post-conventional or principled individuals believe that principles outweigh specific rules and interests. These principles are universal, generalizable, and compelling. Principled individuals are very much concerned with right and wrong and with the dignity of the individual. Therefore, principled CEO's will establish a climate of ethicality throughout their organization. They will attempt to prevent wrongs committed in the name of the organization and not merely crimes against the organization, and they will develop policies and processes that embody principles of respect for the individual (Lewin and Stephens, 1994, p. 198).

D'Aquila's (1997) research indicated that
managers' integrity and ethical values impact the employees' decision-making process and that corporate culture must also include business ethics. Her study supports the notion that managers, especially top managers, set the tone of the organization's ethical values and behavior. This researcher hypothesizes that as management level rises moral reasoning increases.

An organization's strategies are selected and actions taken by individuals within that organization. The individuals most influential in determining these actions are top managers. These top managers have the requisite power and resources along with the responsibility to develop and implement organizational processes through which their expectations can be carried out. Top management sets the moral tone for the organization and is primarily responsible for establishing and maintaining the moral climate of the organization (Cohen, 1995).

Albrecht (1992) in his book states that an executive who applies a high level of moral reasoning in evaluating personal moral dilemmas is likely to use similar cognitive processes to deal with dilemmas facing the organization. Managers, especially top management, are further presumed to use these processes as a standard from which to develop expectations regarding the reasoning process of other individuals within the organization. For example, if a manager considers the legitimate rights and interests of customers beyond legal requirements when making a product safety decision, that manager tends to want organizational subordinates to also use post-conventional reasoning when making similar decisions. An executive who directs subordinates to cut corners on product safety because product quality cannot be easily detected would be an example of pre-conventional reasoning. This action communicates expectations of lower levels of moral development.

This researcher was not able to find any studies or information on the moral reasoning of managers in a variety of industries. However, numerous studies have been conducted on various professional fields such as accounting, nursing, teaching, and medicine. Accountants tended to act at lower levels of ethical reasoning than other college educated adults according to the research of Armstrong (1984, 1987), Lampe and Finn (1992), and Shaub (1989). Research also shows that nurses' scores are usually equal to or sometimes higher than scores of other groups with similar academic credentials. Crisham (1981a), Felton and Parsons (1987), Gail (1987), and Ketefian (1981) studied moral reasoning in nurses. Diessner (1991) found that most preservice and inservice teachers could recognize but were unable to produce post-conventional thinking. Husted (1978) found that medical students showed a preference for reasoning at stages five and six.

To summarize this study speculated that moral reasoning increases with age, work tenure, and educational levels, and that gender, management levels, and industry types (SIC codes) will not have a significant relationship to the moral reasoning ability of individual managers.

Hypotheses

No previous research was found that directly addressed the interaction of organizational ethical climate types and the moral reasoning ability of individual managers. Based on Kohlberg's theory of moral development and the theory of organizational climate, one can assume that there exists a relationship between the variables of a corporation's ethical climate type, managers' locus of control, selected demographics of management levels (age, education, work tenure, gender, and industry category) and the moral reasoning ability of individual managers.

1. There will be a significant relationship between a manager's internal locus of control and his/her moral reasoning ability.
2. There will be a significant relationship between age and the moral reasoning ability of individual managers.
3. There will be a significant relationship between work tenure and the moral reasoning ability of individual managers.
4. There will be a significant relationship between education and the moral reasoning ability of individual managers.
5. There will be no significant relationship...
between gender and the moral reasoning ability of individual managers.
6. There will be no significant relationship between management levels and the moral reasoning ability of individual managers.
7. There will be no significant relationship between industry categories and the moral reasoning ability of individual managers.
8. There will be no significant relationship between perceived organizational ethical work climate types (Caring, Law and Code, Rules, Instrumental, and Independence) and the moral reasoning ability of individual managers.
9. There will be no significant relationship between manager's locus of control and selected demographic and institutional variables (age, work tenure, management levels, education, gender and industry category).
10. There will be no significant relationship between an individual's locus of control and perceived organizational ethical work climate types (Caring, Law and Code, Rule, Instrumental, and Independent).
11. There will be no significant relationship between selected demographics (age, work tenure, education, gender, management levels and SIC codes) and organizational ethical climate types (Caring, Law and Code, Rule, Instrumental, and Independent).
12. There will be no significant relationship between an individual's locus of control, selected demographics, and organizational ethical climate to the moral reasoning ability of individual managers.

In summary this study investigated the problem of business ethics and managerial moral reasoning in business. Kohlberg's theory of moral development provided the theoretical rationale for the research study, and James Rest's Defining Issues Test (DIT) was used to determine managers' moral development level. The ethical work climate theory of Victor and Cullen helped to determine the impact that corporate culture has on individual managers' moral reasoning ability in selected industries. Victor and Cullen concluded that the perceived ethical climate has an influence on the types of ethical conflicts considered and the process by which such conflicts are resolved (McKenna, 1993, p. 32).

Victor and Cullen's theory was used to determine the degree to which there was a relationship between self-reported corporate climate influences and the moral reasoning of top, middle and first-line management; and to what degree does the corporate climate relate to a manager's locus of control with respect to moral reasoning ability. Rotter's I-E scale was used to determine the relationship between a manager's locus of control to his/her moral reasoning ability. The selected demographic and institutional variables (age, work tenure, education, gender, management level and industry category) provided the useful information to investigate the moral reasoning ability of individual managers.

The study investigated three independent variables: reported organizational ethical climate, locus of control and selected demographic and institutional variables. The moral reasoning ability of individual managers in these selected industries was measured by the short form of Rest's DIT, the dependent variable in this study.

Research method

The research method utilized in this study was a mail survey and analysis. A mail survey serves several purposes. First, a mail survey enables the study of a large sample, and in turn, increases the generalizability of the study. Second, as Dillman (1978) asserts, individuals tend to respond more honestly to surveys than to either telephone or personal interviews. Third, mail surveys can provide anonymity to survey respondents, which Babbie states, might increase the likelihood and honesty of responses (Babbie, 1990, p. 342). Fourth, the mail survey format tends to eliminate interviewer bias. Finally, survey research may be used to determine perceptions of persons (Borg and Gall, 1979, p. 27). Perceptions and opinions are vital to this study. Mail surveys do have disadvantages, however. They tend to have a low response rate, and they provide no assistance to respondents. They ask only standardized questions to all participants, and require valuable time to complete. By necessity, surveys must be
of limited length. Despite the disadvantages of mail surveys, for this study, the advantages outweigh the disadvantages

Population and setting

A random sample of 400 managerial and executive level employees at a variety of organizations throughout the United States served as subjects for the study. This sample size was appropriate based on the number of independent variables being examined along with the dependent variable in this study (Cohen, 1988). Dun & Bradstreet (D&B), a well-respected provider of financial information and business services with a database of ten million different-sized companies, drew the random sample for this study. D&B provided this researcher with a proportional stratified random sample of 400 managerial and executive level employees at a variety of organizations throughout the United States. The job titles included in this search were those at the managerial and executive levels. A proportional stratified random sample of Fortune 500 firms was supplied by D&B to insure that the surveyed managers work for organizations that have defined top, middle, and first-line management levels.

Organizations with Standard Industrial Classification (SIC) codes, which relate to agriculture, forestry, fishing, mining or construction were excluded from this study as these organizations tend to have different organizational structures from the traditional top, middle and first-line management types. Likewise, organizations whose SIC codes relate to governmental agencies were also excluded. These agencies employ many civil servants or appointed employees, and as the foregoing, these types of organizations tend to have different organizational structures from the traditional top, middle and first-line management.

The basic formula for calculating sample size in probability sampling assumes, at the extreme, an infinite population. A sample of 384 is sufficient to represent an infinite population (Cohen, 1988; and Wunsch, 1986). Based on the number of variables in this study and assuming that the researcher is drawing a sample from a very large population, a sample of 400 was an appropriate sample size for this study. The target alpha level of significance was set at 0.05 as this level is a tolerable significance criterion in social science and educational research (Kerlinger, 1973). The unit of analysis was the individual respondent.

Each participant in the survey received a packet containing the short form of James Rest's Defining Issues Test (DIT), Rotter's I-E Scale, a Demographic and Institutional Questionnaire, Victor and Cullen's Five Ethical Climate Types Defined, a response postcard, and a return self-addressed, stamped envelope. Dillman's Total Design Method (TDM) recommendations were followed.

Instruments

The study utilized the short form of James Rest’s Defining Issues Test (Rest, 1979), the responses to which determine the reasoning and the level of an individual’s moral development. Through a series of responses related to scenarios of ethical dilemmas, this instrument measures the moral reasoning development of an individual predicated on Kohlberg’s stages theory (Rest, 1986). Victor and Cullen’s ethical climate types questionnaire was used to identify managers’ perceptions of their organizations’ climate, and Rotter’s I-E Scale was used to assess the locus of control of individual subjects. The demographic questions inquired about management level, age, education, work tenure, and gender. D&B provided the respondent’s institutional information, which was confirmed by each respondent.

Findings and discussion relative to hypotheses tests

The following section presents findings from the testing of the twelve hypotheses. Each hypothesis and its corresponding research question will be restated; relevant data will be presented, and the findings associated with each research hypothesis will be discussed.
Hypotheses tests

The following discusses the testing and analyses of the hypotheses. The researcher used Pearson Correlation Coefficient (r), two tail t-tests, analysis of variance (ANOVA), and multiple regression analyses. The level of significance was set at 0.05.

Hypothesis 1

H1 There will be a significant relationship between a manager's internal locus of control and his/her moral reasoning. [The more internal the managers, the higher the DIT P score].

TABLE 33
Pearson Correlation P Scores and I-E Scale
(N = 214)

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<th>Variable</th>
<th>r</th>
<th>p value</th>
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<tr>
<td>“P” scores and I-E scale</td>
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<td>0.827</td>
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This hypothesis was tested by using Pearson Correlation Coefficient (r). Rotter's external and internal locus of control versus Kohlberg's six stages of moral development, as measured by James Rest's DIT test. The mean for this study's dependent variable, the “P” score, results presented in Table 33, did not indicate a statistical significance, r = -0.015 and p value was 0.827.

Contrary to Jones' (1993) finding that revealed that individuals with an external locus of control were more likely to inflate the expense report but in accordance with Jones' findings that cognitive moral development was not a predictor for the likelihood of engaging in unethical behavior when undergraduates responded to the illegal loan situations scenario and contrary to Deflumeri's (1982) study, which found a correlation between locus of control and moral maturity, this study did not find a significant relationship between a manager's internal locus of control and his/her moral reasoning. The findings of this study, therefore did not support hypothesis 1.

Hypothesis 2

H2 There will be a significant relationship between age and the moral reasoning of individual managers. [The older the higher the DIT P score].

TABLE 34
Pearson correlation P scores and age (N = 214)

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<th>Variables</th>
<th>r</th>
<th>p value</th>
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<tbody>
<tr>
<td>“P” scores and age</td>
<td>-0.090</td>
<td>0.191</td>
</tr>
</tbody>
</table>

This hypothesis was tested by using Pearson Correlation Coefficient (r). Age versus Kohlberg's six stages of moral development (measured by James Rest's DIT test) was tested for significance. The mean for this study's dependent variable, P-score (results presented in Table 34), did not indicate a statistical significance r = -0.090 and p value was 0.191.

While Kohlberg's model of moral reasoning suggests that individuals develop their capacity for moral reasoning over time, this study did not find such a relationship between age and ethical behavior.

This result may support Rest's (1986) belief that education is a greater predictor of ethical reasoning and moral development than chronological age. Rest surmised that "the evidence at hand suggests that adults in general do not show much advance beyond that accounted for by their level of education" (Rest, 1979, p. 113). Rest continued, "It is not specific moral experience as much as a growing awareness of the social world and one's place in it that seems to foster development in moral judgment. The people who develop in moral judgment are those who love to lead, who seek new challenges . . . are reflective . . . set goals . . . take risks . . . (Rest, 1986, p. 57). Therefore, the findings of this study did not support hypothesis 2.

Hypothesis 3

H3 There will be a significant relationship between work tenure and the moral reasoning of individual managers. [The
longer the work tenure the higher the DIT $P$ scores].

<table>
<thead>
<tr>
<th>Variables</th>
<th>$r$</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;$P$&quot; scores and work tenure</td>
<td>-0.126</td>
<td>0.065</td>
</tr>
</tbody>
</table>

This hypothesis was tested by using Pearson Correlation Coefficient ($r$). Work tenure versus Kohlberg's six stages of moral development was tested for significance. The mean for this study's dependent variable, $P$-Score (results presented in Table 35) did not indicate a statistical significance at the 0.05 level ($r = -0.126$ and $p$ value was 0.065).

While Kohlberg's model of moral reasoning suggests that ethical orientation increases with career tenure, this study did not find such a relationship between work tenure and ethical behavior. What should be noted, however, is that work tenure in this study was defined by the number of years or months participants had served in their most recent position.

Bigel (1998) investigated the ethical orientation of financial planners. His study showed a statistically significant decrease in ethical orientation from experienced (5–10 years) to established (10.1 + years). Harris (1990), on the other hand, found that managers employed for at least ten years were less tolerant of fraudulent practices than other employees. Kelley, Ferrell, and Skinner (1990) also found that respondents in their present positions for at least ten years reported their behavior to be more ethical than employees in their present position for three to five years.

Contrary to Harris (1990) and Kelley, Ferrell, and Skinner's (1990) findings, this study did not find a significant relationship between work tenure and the moral reasoning of individual managers. This finding, thus, supports Bigel's (1998) finding that the "$P$" scores were the lowest for greater than 10 years and, in this study did not support hypothesis 3.

Hypothesis 4

H4 There will be a significant relationship between education and the moral reasoning of individual managers. [The greater the degree of education the higher the DIT $P$ score].

<table>
<thead>
<tr>
<th>Variables</th>
<th>$r$</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;$P$&quot; scores and education</td>
<td>0.039</td>
<td>0.575</td>
</tr>
</tbody>
</table>

This hypothesis was tested by using Pearson Correlation Coefficient ($r$). Education versus Kohlberg's six stages of moral development was tested for significance. The mean for this study's results (presented in Table 36) did not have a statistical significance, $r = 0.039$ and $p$ value was 0.575. While Kohlberg's model of moral reasoning suggests that ethical behavior increases with higher levels of education, this study did not find a significant relationship between education and ethical behavior. Perhaps a statistical significance between education and $P$ scores did not result in this study due to the homogeneity of the participants (mostly college educated or beyond).

Rest found that many studies "revealed that increased education is associated with higher levels of moral judgment" (Rest and Narváez, 1994, p. 28). Rest summarized that "the evidence at hand suggests that adults in general do not show much advance beyond that accounted for by their level of education" (Rest, 1979, p. 113). Rest continued, "It is not specific moral experience as much as a growing awareness of the social world and one's place in it that seems to foster development in moral judgment. The people who develop in moral judgment are those who love to learn, who seek new challenges... are reflective... set goals... take risks..." (Rest, 1986, p. 57).

Contrary to Rest and Narváez's (1994) finding, this study did not find a significant relationship between education and the moral...
reasoning of individual managers, and this hypothesis was not supported.

**Hypothesis 5**

H5 There will be no significant relationship between gender and the moral reasoning of individual managers.

<table>
<thead>
<tr>
<th>Variables</th>
<th>t</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;P&quot; scores and Gender</td>
<td>1.363</td>
<td>0.174</td>
</tr>
</tbody>
</table>

This hypothesis was tested by using a two tailed t-test. The means of two separate groups (male and female) were compared for statistically significant differences. The mean for this study’s dependent variable (P-score results presented in Table 37), did not indicate statistical significance, $t = 1.363$ and $p$ value 0.174. This study is in accordance with Kohlberg's model which maintains that moral reasoning in males and females can be described by a single model of development.

While the mean “P” scores for females were higher than the mean “P” scores for males, no statistically significant correlations were found between gender and “P” scores. This finding is consistent with research conducted by Rest (1979, 1988), Derry (1989) and Harris (1990) and Pennino (2001). Rest found minimal differences between the moral reasoning scores of men and women. However, when differences did exist, females scored higher. Rest found that differences due to gender were not powerful when correlated with “P” scores. (Harris also found no differences between genders). Harris states, that with the exception of the self-interest construct, females, as a group, are not different from males in their degree of tolerance/intolerance to fraud, coercion, influence dealing, and deceit (1990, p. 744). Derry also found no moral reasoning differences between males and females. Derry’s theory is that if general difference exist between men and women, they do not carry over into strong organizational cultures where both women and men are trained to think and judge as corporate members (Derry, 1989, p. 859). Pennino (2001) also did not find any difference between the moral reasoning of men and women.

Gilligan (1979, 1982) suggested that gender differences exist in the ways that men and women approach and solve ethical problems. She has argued that males typically take a justice orientation towards conflicts, emphasizing the importance of rights, justice, and obligations in the resolution of conflicts. females, according to Gilligan, have a caring orientation, which emphasizes the importance of human relations and the welfare and well being of all parties involved. Gilligan also stresses that both males and females are capable of considering both perspectives, but one perspective or orientation predominates. Gilligan's position was not supported in this study. It should also be noted that there were only 39 women in this cell. Therefore, the statistical power of this test is relatively low. This finding is consistent with research conducted by Rest (1979) (1988), Derry (1989) Harris (1990) and Pennino (2001). The results support hypothesis 5.

**Hypothesis 6**

H6 There will be no significant relationship between management levels and the moral reasoning of individual managers.

<table>
<thead>
<tr>
<th>Variables</th>
<th>F</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;P&quot; scores and management levels</td>
<td>1.735</td>
<td>0.179</td>
</tr>
</tbody>
</table>

This hypothesis was tested by using analysis of variance (ANOVA). The means of each group (top, middle, and first-line) were compared. The mean for this study’s dependent variable results, P-score did not show a statistical significance, $F = 1.735$ and $p$ value 0.179. As indicated in Table 38.
While Kohlberg’s model of moral reasoning suggests that post-conventional individuals are particularly likely to become leaders. Ethical behavior increases with higher levels of management. This study did not find that ethical behavior increases with higher levels of management.

Contrary to Lewin and Stephens’ (1994) theory that executive level managers will establish a climate of ethicality throughout their organizations and are more ethical, this study did not find a significant relationship between management levels and the moral reasoning of individual managers.

What should be noted is that the majority, 59.8%, of the respondents from this study were from top management; 24.8% were from middle management and only 15.4% were from first-line management. The results support hypothesis 6.

**Hypothesis 7**

H7 There will be no significant relationship between industry types (SIC Codes) and the moral reasoning of individual managers.

<table>
<thead>
<tr>
<th>Variables</th>
<th>F</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;P&quot; scores and industry types</td>
<td>1.553</td>
<td>0.188</td>
</tr>
</tbody>
</table>

This hypothesis was tested by using analysis of variance (ANOVA). Industry types (SIC codes) versus Kohlberg’s six stages of moral development (as measured by James Rest’s DIT) was tested for significance. The mean for this study’s dependent variable, P-score (results presented in Table 39), did not have a statistical significance, $F = 1.553$ and $P = 0.188$. Armstrong (1984, 1987), Lampe and Finn (1992), Crisham (1981), Diessner’s (1991), and Husted (1978) found that some of the service professions are prone to different levels of moral reasoning. The findings of this study might suggest that there is something inherent in the industry’s process that causes individual thought mechanisms to develop or not to develop to higher modes of moral development. The results support hypothesis 7.

**Hypothesis 8**

H8 There will be no significant relationship between perceived organizational ethical work climate types (Caring, Law and Code, Rule, Instrumental, and Independence) and the moral reasoning of individual managers.

<table>
<thead>
<tr>
<th>TABLE 40</th>
<th>Analysis of variance of P scores between ethical climate types (N = 214)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>F</td>
</tr>
<tr>
<td>&quot;P&quot; scores and ethical climate types</td>
<td>1.422</td>
</tr>
</tbody>
</table>

This hypothesis was tested by using analysis of variance (ANOVA). The means of each group (Caring, Law and Code, Rule, Instrumental, and Independence) were compared. The mean for this study’s dependent variable, P-score, results did not have a statistical significance, $F = 1.422$ and $p = 0.228$, as presented in Table 40.

Kohlberg found that most individuals do not reach the highest level of moral development, but instead function at the lower levels of peers and legally supported expectations. Kohlberg’s model of moral reasoning suggests that a relationship exists between perceived organizational ethical work climate and the moral reasoning of individuals. Contrary to Kohlberg’s belief, this study did not find a relationship between perceived organizational ethical work climate and the moral reasoning of individuals.

Contrary to logic that the more perceived ethical organizational climate types would have managers and executive level employees with higher moral reasoning, this study did not find a significant relationship between perceived organizational ethical work climate types and moral reasoning of individual managers. The findings of this study support hypothesis 8.
**Hypothesis 9**

H9 There will be no significant relationship between manager’s locus of control and selected demographics (age, work tenure, management levels, gender, education and industry types).

This hypothesis was tested by using Pearson Correlation Coefficient (r), analysis of variance (ANOVA) and two tailed t-test.

| TABLE 41 |
| Pearson correlation locus of control and age |
| (N = 214) |
| Variables | r | p value |
| Locus of control and age | –0.116 | 0.091 |

H9a Locus of control versus age was tested by Pearson Correlation Coefficient (r). Locus of control and age were not statistically significant in this study \( r = –0.116 \) and \( p \) value = 0.091. See Table 41.

While Rotter’s theory argues that internal locus of control increases with age, this study did not find a significant relationship between locus of control and age.

Contrary to logic that older managers or executive level employees would have more internal locus of control and the younger managers would have more external locus of control, or would be less internal, this study did not find a significant relationship between locus of control and age.

What should be noted is that the ages of its respondents ranged from 25 to 68 and the respondents were largely internal on Rotter’s I-E scale. A statistical significance may not have resulted due to the homogeneity of the group’s internal locus of control. As indicated in the descriptive statistics, respondents reported a mean I-E score of 6.9 on a mean age of 46.9. The findings of this study support hypothesis 9a.

TABLE 42

Pearson correlation locus of control and work tenure (N = 214)

| Variables | r | p value |
| Locus of control and Work tenure | 0.023 | 0.743 |

H9b Locus of control versus work tenure was tested by Pearson Correlation Coefficient (r). Locus of control and work tenure were not statistically significant in this study, \( r = 0.023 \) and \( p \) value = 0.743, as indicated in Table 42.

Rotter’s theory maintains that the longer the work tenure and the older the manager, the more internal (locus of control) the individual will be and vice versa.

Contrary to logic that the longer the work tenure the older the manager and the more internal (locus of control) they would be or vice versa, this study did not find a significant relationship between locus of control and work tenure.

What should be noted is that respondents in this study were largely internal in nature. As indicated in the descriptive statistics, respondents who had worked for their present firm for 2 years exhibited the lowest I-E score of 5.6. However, it was impossible to determine earlier work experiences, which may have moderated this finding. The findings of this study support hypothesis 9b.

| TABLE 43 |
| Analysis of variance of locus of control and management levels (N = 214) |
| Variables | \( F \) | p value |
| Locus of control and management levels | 0.682 | 0.506 |
H9c Locus of control versus management levels was tested by analysis of variance (ANOVA). Locus of control and management were not statistically significant in this study, \( F = 0.682 \) and \( p \) value = 0.506, as indicated in Table 43.

Rotter’s theory argues that the higher the management level of an individual, the older the manager and the more internal the individual will be and vice versa.

Contrary to logic that the higher the management level of an individual the more internal (locus of control) they would be, this study did not find a significant relationship between locus of control and management levels.

What should be considered is that the majority of the respondents in this study were part of top management, 59.8%, and that most of the respondents were more internal in nature.

The descriptive statistics found that upper or executive level management exhibited the lowest (most internal) mean I-E scores of 6.6. Middle management reported mean I-E scores of 7.3, and first-line management reported mean I-E scores of 7.1. The findings of this study support hypothesis 9c.

**TABLE 44**
Independent sample \( t \)-test for equality of means: locus of control and gender \((N = 214)\)

<table>
<thead>
<tr>
<th>Variables</th>
<th>( t )</th>
<th>( p ) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of control gender</td>
<td>1.336</td>
<td>0.723</td>
</tr>
</tbody>
</table>

H9d Locus of control versus gender was tested by a two tailed \( t \)-test. Locus of control and gender were not statistically significant in this study, \( t = 1.336 \) and \( p \) value = 0.723, as indicated in Table 44.

According to Rotter’s theory, males are more internal (locus of control) than females. This study found that males were slightly more internal than females, but the results were not statistically significant.

The descriptive statistics found that, 175 male respondents exhibited lower mean I-E scores than 39 female respondents. The mean I-E scores were 6.7 and 7.6 respectively. Males were slightly more internal than females in this study. The findings of this study support hypothesis 9d.

**TABLE 45**
Pearson correlation between locus of control and education \((N = 214)\)

<table>
<thead>
<tr>
<th>Variables</th>
<th>( r )</th>
<th>( p ) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of control and education</td>
<td>0.029</td>
<td>0.670</td>
</tr>
</tbody>
</table>

H9e Locus of control versus education was tested by Pearson Correlation Coefficient \((r)\). Locus of control and education was not statistically significant in this study, \( r = 0.029 \) and \( p \) value = 0.670, as indicated in Table 45.

Rotter’s theory argues that internal locus of control increases with education.

Contrary to logic that the higher the level of education of managers and executive level employees the more internal (locus of control) they would be, this study did not find a significant relationship between locus of control and education. What should be kept in mind is that the majority of the respondents in this study were college educated with a relatively high degree of internality. The findings of this study support hypothesis 9e.

**TABLE 46**
Analysis of variance of locus of control and industry types \((N = 214)\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>( F )</th>
<th>( p ) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of control and industry type</td>
<td>0.821</td>
<td>0.513</td>
</tr>
</tbody>
</table>

H9f Locus of control versus industry types was tested by analysis of variance (ANOVA). Locus of control and industry types were not statistically significant in this study, \( F = 0.821 \) and \( p \) value = 0.513. See Table 46.
Based on the descriptive statistics that some industries are prone to lower or higher I-E scores, one would speculate that there is something inherent in the industry’s process that causes individual thought mechanisms to mature (have an internal locus of control) or not to evolve (external locus of control); however, this study did not find a significant relationship between locus of control and industry types.

The descriptive statistics indicates that, respondents from the transportation, communication, and utilities industry exhibited the lowest mean I-E score of 6.2, and respondents from the finance, insurance, and real estate industry exhibited the highest mean I-E score of 7.5. The findings of this study support hypothesis 9f.

**Hypothesis 10**

H10: There will be no significant relationship between an individual's locus of control and perceived organizational ethical work climate types (Caring, Law and Code, Rule, Instrumental, and Independent).

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of control and ethical climate type</td>
<td>0.783</td>
<td>0.537</td>
</tr>
</tbody>
</table>

This hypothesis was tested using analysis of variance (ANOVA). The multiple means were compared. Locus of control and perceived organizational ethical work climate types were not statistically significant in this study, $F = 0.783$ and $p = 0.537$. See Table 47. A statistical significance may not have resulted due to the homogeneity of the group’s internal locus of control.

The descriptive statistics indicates that, individuals who perceive that they work in more ethical climates have a lower degree of internal locus of control (scores between a 6.8–7.1) and individuals who perceive to work for the less ethical climate types have a higher degree of internal locus of control (scored 6). According to Rotter’s research findings, the mean I-E score was 11. So, I-E scores from 11 to zero would be more internal and above 11 to 23 would be more external. The descriptive statistics are contrary to logic that individuals who perceive to work in the more ethical climate types would be more proactive and thus more internal (locus of control), and the individuals who perceive to work for the less ethical climate types would be more external (locus of control) because they tend to look for powerful others for guidance. However, this study did not find a significant relationship between locus of control and perceived organizational ethical work climate types. The findings of this study support hypothesis 10.

**Hypothesis 11**

H11: There will be no significant relationship between selected demographics (age, work tenure, education, gender, management levels and industry types) and perceived organizational ethical climate types (Caring, Law and Code, Rule, Instrumental, and Independent).

This hypothesis was tested by using analysis of variance (ANOVA). The multiple means were compared.

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age and ethical climate type</td>
<td>1.981</td>
<td>0.002**</td>
</tr>
</tbody>
</table>

$^* p < 0.05$; $^** p < 0.01$.

H11a Age versus perceived ethical climate type had a statistical significant in this study, $F = 1.981$ and $p = 0.002$. As indicated in Table 48.

As indicated in the descriptive statistics the younger mean ages 44 (Caring), 45 (Law
Code), and 47 (Rule) are associated with the more perceived ethical organizational climate types. The findings of this study does not support Hypothesis 11a.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$F$</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work tenure and ethical</td>
<td>1.308</td>
<td>0.137</td>
</tr>
</tbody>
</table>

H11b Tenure versus perceived ethical climate type was not statistically significant in this study, the $F$ ratio was 1.308 and $p$ value = 0.137. See Table 49.

Logic suggests that the managers and executive level employees with the longest work tenure would be working for the more perceived ethical climate types, since according to Kelley (1990), moral maturity increase with age. However, this study did not find a significant relationship between tenure and perceived ethical climate types.

The descriptive statistics found that, the majority of the respondents, 134, perceived their organizational ethical work climate type as Rule and reported a mean work tenure of a little less than five years. Overall, the respondents reported a mean work tenure of approximately five years and two months. This may support Bigel's (1998) study that after 10 years a less ethical score was found. The findings of this study support hypotheses 11b.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-square value</th>
<th>df</th>
<th>$p$ value</th>
<th>Cramer's V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and ethical climate</td>
<td>2.897</td>
<td>4</td>
<td>0.575</td>
<td>0.116</td>
</tr>
</tbody>
</table>

H11c Education versus perceived ethical climate types was not statistically significant in this study, the $F$ ratio was 0.641 and $p$ value = 0.634. See Table 50.

According to logic, managers and executive level employees with a higher level of education will work for the more perceived ethical climate types, since according to Rest (1994), moral maturity increases with education. However, this study did not find a significant relationship between education and perceived ethical climate types. As indicated in the descriptive statistics, the overall education level of the respondents was between a Bachelor's degree and a Master's degree. The findings of this study support hypothesis 11c.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-square value</th>
<th>df</th>
<th>$p$ value</th>
<th>Cramer's V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and ethical climate</td>
<td>2.897</td>
<td>4</td>
<td>0.575</td>
<td>0.116</td>
</tr>
</tbody>
</table>

H11d Gender versus perceived ethical climate types was not statistically significant in this study; the Chi-Square value was 2.897 and $p$ value 0.575. See Table 51.

This finding supports the theory of Rest (1979, 1988), Derry (1989), Harris (1990) and Pennino (2001) that no differences exist in the moral reasoning of males and females in a corporate setting.

The descriptive statistics indicates that, the majority of both male and female respondents perceived their organizational ethical work climate type to be Rule. The findings of this study support hypothesis 11d.
TABLE 52
Analysis of variance of management levels and ethical climate types (N = 214)

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management levels and ethical climate types</td>
<td>4.773</td>
<td>0.009*</td>
</tr>
</tbody>
</table>

* p < 0.05;  ** p < 0.01.

H11e Management levels versus perceived ethical climate types was statistically significant in this study; the F ratio was 4.773 and p value = 0.009. See Table 52.

This finding supports D'Aquila (1997) and Lewin and Stephen’s (1994) theory that top management sets the tone of the organization.

The study indicates that both the majority of the executive respondents 85, and the majority of first-line management respondents, 14, perceived their organizational climate as Rule.

TABLE 53
Chi-square test and Cramer’s V for management levels and ethical climate types (N = 214)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-square</th>
<th>df</th>
<th>p value</th>
<th>Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management levels and ethical climate type</td>
<td>22.170</td>
<td>8</td>
<td>0.005**</td>
<td>0.228</td>
</tr>
</tbody>
</table>

* p < 0.05;  ** p < 0.01.

The researcher also examined the Chi-Square Test and Cramer’s V for additional information. The Chi-Square value of 22.170 and p value of 0.005 and Cramer’s V of 0.228 found a significance between management levels and perceived ethical climate type. See Table 53. The findings of this study do not support hypothesis 11e, which stated no significant difference.

TABLE 54
Chi-square test and Cramer’s V for industry types and ethical climate types (N = 214)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-square</th>
<th>df</th>
<th>p value</th>
<th>Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry types and ethical climate types</td>
<td>19.289</td>
<td>16</td>
<td>0.254</td>
<td>0.150</td>
</tr>
</tbody>
</table>

H11f Industry types versus perceived ethical climate types was not statistically significant in this study; the Chi-Square value was 19.289 and p value = 0.254. See Table 54.

Industry types versus perceived ethical climate types was not.

Certain industries may be prone to certain perceived ethical climate types due to the nature of the business or industry. However, this study did not find a significant relationship between industry and perceived ethical climate types. The findings of this study support hypothesis 11f.

Hypothesis 12

H12 There will be no significant relationship between an individual’s locus of control, selected demographics and perceived organizational ethical climate to the moral reasoning of individual managers.

TABLE 55
Analysis of variance of locus of control, selected demographics and ethical climate types to moral reasoning (N = 214)

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of control, selected demographics and ethical climate types</td>
<td>0.082</td>
<td>1.525</td>
<td>0.117</td>
</tr>
</tbody>
</table>

This hypothesis was tested by first sorting the information by industry type and then by per-
forming regression analysis on the data. The DIT test P score, which is the dependent variable, was a function of locus of control, age, work tenure, top management, middle management, lower management, education, gender, and the five perceived ethical climate types (Caring, Law and Code, Rule, Instrumental and Independence). Table 55 shows how the distribution varies as a function of all the variables, and the degree to which each variable impacts the result. As indicated in Table 55, the variables resulted in an $R^2$ square of 0.082, $F = 1.525$ and $p$ value of 0.117.

<table>
<thead>
<tr>
<th>TABLE 56</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple regression analysis results – coefficients</td>
</tr>
<tr>
<td>($N = 214$)</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>$R$ square</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Industry types</td>
</tr>
<tr>
<td>Industry type and Gender</td>
</tr>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>I-E Scale</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Age</td>
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* $p < 0.05$

As can be seen from Table 56, the strongest contributing factor to the variance in $P$ scores was industry types (Beta = $-1.827$, $p < 0.05$). The second strongest contributing factor was gender (Beta = $-5.735$, $p < 0.05$). The variables industry and gender explain 4.6% of the variations in the dependent variable $P$ score.

A reported $R^2$ square of 0.023 for industry types, $F = 4.995$ and $p$ value 0.026. A reported $R^2$ square for industry types and gender of 0.046, $F = 5.057$ and $p$ value 0.007. These independent variables found a weak statistical significance. See Table 56.

Conclusions and implications

The following section outlines the major conclusions and implications drawn from the findings of this study. This section will first outline the conclusions and implications drawn from the statistically significant relationships and then the relationships with no statistical significance.

Finding one

A statistically significant relationship was found between age and perceived organizational ethical climate types (Caring, Law and Code, Rule, Instrumental, and Independence).

The majority of the respondents, 134 or 62.6%, who perceived their organizational ethical work climate type as Rule, reported a mean age of 47. The 16 respondents or 7.5% who perceived their organizational ethical climate type to be Caring and the 38 respondents or 17.8% who perceived their organizational ethical climate type to be Law and Code reported a mean age of 44. The six respondents or 2.8% who perceived their organizational ethical climate type to be Instrumental reported a mean age of 52, while the 20 respondents or 9.3% who perceived their organizational ethical climate type to be Independent reported a mean age of 51.

McKenna’s (1993) research investigated fraudulent financial reporting by certified and non-certified management accountants in organizations with perceived different ethical work climates. He used the ethical climate construct of Victor and Cullen for his theoretical framework. The results of McKenna’s study found that the first most identified perceived organization was Law and Code, or 57% of returns out of a total of 185 responses. A Rule climate was the second most frequently identified perceived organizational climate type, representing 19% or 35 out of a total of 185 returns. Eight percent, or 15 of 185 returns, reflected a Caring type of perceived organizational climate, and 4%, or 8
of 185 returns, reflected an Instrumental type of perceived organizational climate. Slightly different from McKenna’s study, this study found that the first most identified perceived ethical organizational climate type was Rule, or 62.6% of returns, or 134 of 214 responses. Law and Code was the second most frequently identified perceived organizational climate type, at 17.8% or 38 of 214 returns and an Independence type of perceived organizational climate was reported on 9.3% of returns or 20 of 214 responses. A Caring type of perceived organizational climate was reported on 7.5% of returns, or 16 of 214 returns, and 2.8% or 6 of 214 returns reflected an Instrumental type of perceived ethical organizational climate.

The researcher in this study found a statistical significance between age and perceived organizational ethical climate type. Age versus ethical climate types had a statistical significance in this study, $F = 1.981$, and $p$ value 0.002. Slightly different from McKenna’s study, this study reports that the first most identified perceived ethical organizational climate type was Rule, followed by Law and Code, Independence, Caring, and Instrumental. What the results show is that the younger mean ages 44 (Caring), 45 (Law and Code), and 47 (Rule) are associated with the more perceived ethical organizational climate types. McKenna’s study found that the first most identified perceived ethical organization was Law and Code, followed by Rule, Independence, Caring, and Instrumental respectively.

Since the older managers and executive level employees have more work experience than the younger employees, they may have suffered more disappointments in their work careers, which may have affected their perception of their organizational ethical work climate. All managers and executive level employees, but especially more experienced managers, would benefit from training and workshops intended to enhance their ethical sensitivity.

The implication of this finding, regarding business education, reinforces the concept that business ethics should continue to be strongly emphasized in business curricula. All business subjects, including accounting, management and marketing, should challenge students with ethical dilemmas and moral reasoning issues. This will help emphasize that ethical soundness is of vital importance in corporate America.

Finding two

A statistically significant relationship was found between management levels and perceived organizational ethical climate; the $F$ ratio was 4.773 and $p$ value 0.009. This study found that both the majority of the executive respondents, 85, and the majority of first-line management respondents, 14, perceived their organizational climate to be Rule. Thirty-five middle managers, not a majority, reported a perceived organizational ethical work climate type of Rule. Three first-line managers, six middle managers, and seven executive managers reported a perceived organizational ethical work climate type of Caring. Thirteen first-line managers, eight middle managers, and 17 executive managers reported a perceived organizational ethical work climate type of Law and Code. Two first-line managers and, two middle managers reported a perceived organizational ethical work climate type of Instrumental. One first-line manager, two middle managers, and 17 executive managers reported a perceived organizational ethical work climate type of Independent.

Lewin and Stephens (1994) state that post-conventional individuals are particularly likely to become leaders (Kohlberg et al., 1983), and, as leaders, have a special opportunity for organizational impact. Post-conventional or principled individuals believe that principles outweigh specific rules and interests, and view principles as universal, generalizable, and compelling. Principled individuals are very much concerned with right and wrong and with the dignity of the individual. Therefore, principled CEOs, leaders at the highest levels, will establish a climate of ethicality throughout their organizations and develop policies and processes that embody principles of respect for the individual. They will attempt to prevent wrongs committed in the name of the organization and not merely crimes of the organization (Lewin and Stephens, 1994, p. 198).
What should be noted is that the majority of the respondents were part of top management. A large majority of the respondents perceive their organization to be part of one of the more perceived ethical climate types. D’Aquila (1997), as did Lewin and Stephens (1994), believes that top management sets the tone of the organization. This suggests that most top managers believe that their companies are striving to operate in an ethical manner.

These findings supports D’Aquila (1997) and Lewin and Stephen’s (1994) position that top management establishes the ethical tone of an organization. But ethical awareness needs to be reinforced by engaging top management in social and ethical audits of the company and by scheduling periodic seminars, which serve to maintain ethical thought processes.

Business educators should stress that successful corporate leaders establish a climate of ethicality in their organizations by developing policies and processes that embody principles of respect for all individuals. Students can experience this through role playing and other interactions and assignments.

Finding three

A statistically significant relationship was found between the selected demographics (industry types and gender) when regressed against the moral reasoning of individual managers. The regression analysis showed the strongest contributing factor to the variance in P scores was industry types ($Beta = -1.827$, $p < 0.05$). The second strongest contributing factor was gender ($Beta = -5.735$, $p < 0.05$). The variables industry and gender explains only 4.6% of the variations in the dependent variable, $P$ score from Rest’s DIT test.

A reported $R$ square of 0.023 for industry types, $F = 4.995$ and $p$ value 0.026. A reported $R$ square for industry types and gender of 0.046, $F = 5.057$ and $p$ value 0.007. The independent variables found a weak statistical significance.

No statistically significant relationship was found between an individual’s locus of control, age, work tenure, management levels, education and the five perceived ethical climate types to the moral reasoning ability of individual managers.

The implication of this finding is that managers or executive level employees should keep in mind that gender and the industry experience of a new employee might have an impact on his/her moral reasoning. However, age, work tenure, management levels, education, and the five perceived ethical climate types may have no impact on his/her moral reasoning.

Finding four

There were no significant differences between a manager’s internal locus of control and his/her moral reasoning. It should be noted that the majority of the managers in this study had a much more internal locus of control than external.

Deflemersi (1982) investigated the relationship between interpersonal trust and moral development in teachers. The study found a correlation between locus of control and moral maturity, and supported the concept that internality increases with moral maturity.

Jones (1993) researched the likelihood of an individual engaging in unethical behavior in an organization. The study found that cognitive moral development was not a predictor for the likelihood of engaging in unethical behavior. Jones also found that locus of control was not significantly correlated to behavioral intentions when responding to an illegal loan situation. However, locus of control was significantly correlated to behavioral intentions when responding to inflating the expense report. The results revealed that individuals with an external locus of control were more likely to inflate the expense report, and that males were more likely than females to engage in unethical behavior.

Given the research from Deflemersi (1982) and Jones (1993), corporations may seek to hire individuals with an internal locus of control in order to try to ensure an environment of moral maturity.
Finding five

No significant differences were found between age and the moral reasoning of individual managers in this study. This result may support Rest's (1986) belief that education is a greater predictor of ethical reasoning and moral development than chronological age.

Although this study found no significant correlation between age and the moral reasoning of individual managers based on Rest's (1986) research, managers looking to obtain personnel with higher levels of moral reasoning for their future management ranks, might consider individuals with solid educational achievements and sound work experiences.

Finding six

No significant differences were found between work tenure and the moral reasoning of individual managers.

Kelley, Ferrell, and Skinner (1990) found that respondents in their present positions for at least ten years reported their behavior as more ethical than employees in their present positions for three to five years.

Harris' (1990) study found that managers employed for at least ten years were less tolerant of fraudulent practices than other employees.

The results of this study mirrored Bigel's study, which found a statistically significant decrease in ethical orientation from experienced (5–10 years) to established (10.1+ years).

Since the results vary between work tenure and the moral reasoning of individual managers, executive and managerial level employees (especially those with longer tenures) might benefit from additional training to enhance ethical thought processes and decision-making.

The issue becomes more complicated and problematic if the culture of the organization encourages tenured or nontenured managers to act with less ethical sensitivity. In these circumstances, dramatic intervention, which may include changing management as well as training intervention, might be necessary.

Finding seven

This study did not find a statistically significant relationship between education and the moral reasoning of individual managers. The majority of the managers, however, were highly educated as the majority of the participants were college educated and beyond.

Even though this researcher did not find a statistically significant relationship between education and the moral reasoning of individual managers, other researchers have found that higher levels of education were associated with higher “P” scores. Those researchers, including Rest (1986) and Trevino (1992), believe there is something inherent in the educational process that results in the development of higher modes of moral development. The implication is that education through training may enhance the ability of individuals to operate at higher levels of principled moral reasoning. This study did not find a relationship between education and increased moral sensitivity, perhaps because of the homogeneity of the group.

Finding eight

Female respondents reported a higher mean “P” score than did male respondents. However, this study did not find a statistically significant relationship between male and female “P” scores. This finding is consistent with research conducted by Rest (1979, 1988), Derry (1989), and Harris (1990). Rest found minimal differences between the moral reasoning scores of men and women, but when differences did exist, females tended to score higher. Derry also found no moral reasoning differences between males and females. If a general difference exists, it does not carry over into strong organizational cultures where both women and men are trained to think, act, and evaluate as corporate members (Derry, 1989, p. 859). Harris, too, argues that women are not different from males in their degree of tolerance/intolerance to fraud, coercion influence dealing and deceit (1990, p. 744). Women only differ in their self-interest concept.

Gilligan (1982), on the other hand, believes
that males typically take a justice orientation toward conflicts, emphasizing the importance of rights, justice, and obligations in the resolution of conflicts. Females, according to Gilligan, have a “care,” orientation which emphasizes the importance of human relations and the welfare and well being of all parties involved. She also stresses that both males and females are capable of considering both perspectives; however, one perspective or orientation predominates. This study did not support Gilligan’s position.

The implication is that while there are two orientations to the approach of moral development, neither orientation is superior to the other. What seems more important is whether a specific ethical dilemma or decision is better solved by an individual with a justice or a caring orientation. Managers, for instance, may need a justice orientation as their decisions involve and impact many stakeholders. The interests of the group often must take precedence over individual priorities in corporate organizations (Pennino, 2001, p. 128).

Finding nine

No significant differences were found between management levels and the moral reasoning of individual managers. What should be noted is that 59.8% of the respondents were part of top management; 24.8% were part of middle management, and 15.4% were part of first-line management. Therefore the majority of respondents were part of top management.

Although this researcher found no significant correlation between management levels and higher principled moral reasoning scores, top managers usually are older, more educated, and, as leaders have the ability to establish a climate of ethicality throughout their organization by developing policies and processes that embody principles of respect for all individuals in the firm. According to D’Aquila (1997), Lewin and Stephens (1994), top managers set the tone of the organizational ethical climate. Top management and their organizations would therefore benefit from increased ethical training formulated to reinforce ethical thought processes and behavior.

Finding ten

No significant relationship was found between industry types (SIC codes) and the moral reasoning of individual managers.

Numerous studies have been conducted on various professional service fields, including accounting, nursing, teaching and medicine.

Armstrong (1984, 1987) explored accountants’ ethical reasoning and moral development and revealed that CPAs and accounting students tended to be at lower levels of ethical reasoning than comparable groups of college-educated adults or college-age students. Similarly, Lampe and Finn (1992) studied accounting students and CPAs in public firms, excluding partners. The results of Lampe and Finn’s research found that both accounting students and practitioners tend to have lower DIT “P” scores than college-aged students, college-educated adults, and other professional groups such as law and medicine.

Crisham’s (1981) research suggests that moral reasoning of nurses tends to increase with more formal education. The research showed that nurses’ scores are usually equal to or sometimes higher than scores of other groups with similar academic credentials.

Dissner’s (1991) research found that most preservice and inservice teachers could recognize but were unable to produce postconventional thinking. The research also indicated that moral thinking is subject to change depending upon school leaders or the atmosphere of the teachers’ schools. Husted’s (1978) research found that medical students showed a preference for reasoning at stages 5 and 6.

The manufacturing industry had the highest mean “P” score of 38, while the service industry had its lowest mean “P” score of 31. The transportation, communication, and utilities industry’s mean “P” score was 35.7, the finance, insurance and real estate industry’s mean “P” score was 33, and the wholesale and retail industry’s mean “P” score was 37.5.

The descriptive statistics seems to show that some of the service professions may be prone to operate at lower levels of moral reasoning. The implication of this finding suggest that there might be something inherent in the industry’s
process that causes individual thought mechanisms to develop or not to develop to higher modes of moral development. Corporations should examine closely their organizational work climate by reviewing carefully the policies, code of ethics, and all other processes that embody principles of respect for all individuals of their firm in order to enable possible improvements.

The manufacturing industry might demonstrate higher “P” scores than the service industry because of their strong policies and codes such as the Uniform Commercial Code. They also tend to interact less with the general public and may not be exposed to as many ethical dilemmas as those in the service industry.

Finding eleven

No statistically significant relationship was found between perceived organizational ethical work climate types (Caring, Law and Code, Rule, Instrumental, and Independence) and the moral reasoning of individual managers.

Overall, 134 respondents reported that they perceive their organizational ethical climate to be Rule with a mean “P” score of 35.9; 16 respondents perceived their organizational ethical climate to be Caring, which held the highest mean “P” score of 39.2; 38 respondents perceived their organizational ethical climate to be Law and Code with a mean “P” score of 31.2; six respondents perceived their organizational ethical climate to be Instrumental with a mean “P” score of 27.8, which was the lowest mean “P” score, and 20 respondents perceived their organizational ethical climate to be Independence with a mean “P” score of 35.5.

The implication of this finding from the perspective of a manager or executive level employee would be that the policies, procedures, and rituals of each of the perceived ethical climate types should be carefully investigated to see if they hinder the growth of moral development of employees. In order to secure a more ethical corporate America top management must reinforce the ethical policies and procedures of the firm.

Finding twelve

No statistically significant relationship was found between manager’s locus of control and selected demographics (age, work tenure, management levels, gender, education and industry types). Overall, respondents reported a mean I-E score of 6.9. The overall mean age reported by the respondents was 46.9. What should be noted is that this group of respondents was highly internal as well as an older sample and they may also have worked elsewhere.

Eighty-nine respondents had a Bachelor’s degree and had a mean I-E score of 6.9. Fifty-seven respondents had a Master’s degree plus, with a mean I-E score of 6.7. Fifty respondents had a Master’s degree and had a mean I-E score of 7.2, and fifteen respondents had some college and had a mean I-E score of 6.6.

Three respondents were high school graduates only, and they had a mean I-E score of 3.3, representing the lowest mean I-E score. Overall, respondents reported a high level of education and a relatively high degree of internality.

One hundred seventy-five male respondents exhibited lower (more internal) mean I-E scores than the 39 females respondents. The mean I-E scores were 6.7 and 7.6 respectively.

One hundred twenty-eight upper or executive level managers exhibited the lowest mean I-E scores of 6.6. Middle management reported mean I-E scores of 7.3 and first-line management reported mean I-E scores of 7.1. Overall, respondents reported a relatively high degree of internality. Not surprisingly, executive level employees exhibited the highest degree of internality. Individuals with a high desire for increased job satisfaction and high self-esteem tend to be motivated to improve their quality of life. These are the very individuals corporate America wants to place in top management positions.

Thirty respondents from the transportation, communication and utilities industry exhibited the lowest mean I-E scores of 6.2. Fifty-four respondents from the finance, insurance and real estate industry exhibited the highest mean I-E score of 7.5. The 51 respondents of the manufacturing industry reported a mean I-E score of 6.8. The 35 wholesale and retail industry respon-
dents reported a mean I-E score of 6.3, and the 39 respondents working in a service industry reported a mean I-E score of 7.1.

The implication of this finding from the perspective of a manager or executive level employee is that locus of control and selected demographics may not have any impact on the ethics of a newly hired employee.

Finding thirteen

No statistically significant relationship was found between an individual’s locus of control and perceived organizational ethical work climate type (Caring, Law and Code, Rule, Instrumental, and Independent). The majority of the respondents, 134, perceived their organizational ethical work climate type to be Rule and reported a mean I-E score of 6.8. The six respondents who perceived their organizational ethical work climate to be Instrumental and the 20 respondents who perceived their organizational ethical work climate to be Independent, reported the lowest mean I-E score of 6. The 16 respondents who perceived their organizational ethical work climate type to be Caring reported a mean I-E score of 7.1, and the 38 respondents who perceived their organizational ethical work climate type to be Law and Code reported a mean I-E score of 7.6.

The implication of this finding from the perspective of a manager or executive level employee is that locus of control and perceived organizational ethical work climate types may or may not have any impact on the success of matching the right employee with the right perceived organizational ethical climate type. Employees tend to gravitate to the ethical climate type of their ethical tendency. “Over time, an organization’s culture becomes perpetuated by its tendency to attract and retain people who fit its values and beliefs.” (Newstrom and Davis, 1997, p. 103)

Finding fourteen

No statistically significant relationships were found between selected demographics (work tenure, education, gender, and industry types) and perceived organizational ethical climate types (Caring, Law and Code, Rule, Instrumental, and Independent).

Logically managers and executive level employees who have the longest work tenure would be working for the more perceived ethical climate types since according to Kelley (1990) moral maturity increases with age.

The descriptive statistics indicates that the majority of the respondents, 134, perceived their organizational ethical work climate type as Rule and reported a mean work tenure of about five years. Overall, the respondents reported a mean work tenure of approximately five years and two months. The majority of the respondents perceived to work for one of the more ethical climate types. However, 6 respondents perceived their organizational ethical work climate type as Instrumental, one of the less perceived ethical climate types. They also had the longest work tenure of 11 years and five months. This is similar to Bigel's (1998) finding that a decrease in ethical orientation occurs from experienced (5–10 years) to established (10.1+ years).

The individuals with the longest work tenure perceived their ethical climate type to be Instrumental, one of the least ethical climate types. In a perceived Instrumental ethical climate type self interest is the key criterion in organizational decision making. This may suggest that these individuals believe that in the overwhelming majority of workplaces everyone looks after their self interest first. Therefore, these individuals remain with one organization since, to them, organizations are all very similar to one another, and these individuals believe they have already mastered survival techniques suitable for their current organization. Similarly, these individuals have become so comfortable in their workplace that they only focus on their self interest when making ethical decisions. These managers would benefit from training designed to enhance their ethical awareness.

Business educators should always stress that a successful corporate leader is one who has the ability to establish a climate of ethicality throughout their organization by developing policies and processes that embody principles of
respect for all the individuals. Role playing, cases, scenarios, debates and internships are just some ways this can be experienced by students.

As indicated in the descriptive statistics the overall education level of the respondents was between a Bachelor's degree and a Master's degree.

Logically the managers and executive level employees with a higher level of education would either hold higher ethical values or work for the more perceived ethical climate types, since according to Rest (1994), moral maturity increases with education.

The descriptive statistics indicate that individuals with higher levels of education are associated with the more perceived ethical climate types. So too, these individuals would be attracted to these types of perceived ethical climates. The individuals who perceived their ethical climate type to be Instrumental, which is one of the less perceived ethical climate types, had the lowest degree of education, which might be expected. The results might suggest that the 20 individuals who had the highest mean level of education and perceived their ethical climate type to be Independence, which is considered to be the least perceived ethical climate type, might attract individuals who tend to use their moral judgment as the foremost important tool when engaging in ethical decision making.

Contrary to these findings, others argue that education—whether traditional schooling or training—may enhance an individual's ability to operate at higher levels of principled moral reasoning. Corporate leaders, this would suggest, should seek to hire managers and staff employees who are well educated and well experienced in the field. This might help insures a more ethical work climate, since according to D'Aquila (1997), managers, especially top managers, set the tone of the organizational climate. These descriptive statistics might also suggest that managers and executive level employees might gravitate to the perceived ethical climate type of their ethical tendency since members of a corporation that do not fit tend to move to a corporate environment within which they feel comfortable.

Gender versus perceived ethical climate types was not statistically significant in this study. This finding supports Rest (1979, 1988), Derry (1989) and Harris' (1990) theory that no significant differences between males' and females' moral reasoning appears in a corporate setting.

As indicated in the descriptive statistics the majority of both male and female respondents perceived their organizational ethical work climate type to be Rule.

Industry types relative to perceived ethical climate types was not statistically significant in this study. As indicated in the descriptive statistics it seems that some industries might be prone to lower or higher levels of perceived ethical climate types; however, statistical significance for this was not found in this study.

The implication of this finding, from a managerial or executive level employee's stand-point, is that gender and the industry experience of a new manager may have no impact on the potential success of the new manager's ability to help set the organizational ethical tone of that desired corporation.

A number of significant correlations were found, as described in Chapter IV, that have the potential to impact individual managers and their organizations. A statistically significant relationship was found between age and perceived organizational ethical climate types (Caring, Law and Code, Rule, Instrumental, and Independence). Another major finding from this study indicates a statistically significant relationship between management levels and perceived organizational ethical climate. Also a statistically significant relationship was found between the selected demographics (industry types and gender) and the moral reasoning of individual managers.

Recommendations

The following recommendations are divided into two sections: recommendations for the field and recommendations for future research.

Recommendations for the Field

1. Managers and executive level employees of any age, especially older managers, may
benefit from training devoted to shaping managers' ethical thought processes and decision making.

Business education should continue to strongly emphasize business ethics in business curricula. All business subjects, such as accounting, management and marketing should challenge students with ethical dilemmas and situations requiring moral reasoning. Students should be made aware of the importance of ethical reasoning in corporate America.

2. Ethical soundness should be reinforced by engaging top management in social and ethical audits of the company. In addition, periodic ethical seminars should be organized to ensure ethical thought processes and decision making.

Business educators must stress that a successful corporate leader has the ability to establish a climate of ethicality throughout their organization. They accomplish this by developing policies and processes that embody principles of respect for all individuals. Students can experience this through role playing and related activities.

3. Corporations should examine closely their perceived organizational work climate by analyzing the policies, code of ethics and all other processes that embody principles of respect for all individuals of their firms. These policies should be under continual review and dissemination.

4. Corporate leaders, as D'Aquila (1997) suggests, should always try to hire managers and staff employees who are well educated and well experienced in their field. Since managers, especially top managers, set the tone of the organization's ethical work climate, this hiring practice would insure a more ethically sound work climate.

5. Managers or executive level employees should keep in mind that gender and the industry experience of a new manager may have an impact on his/her moral reasoning; knowing this, firms should take measures to offer new hired managers an extensive orientation program which clearly outlines the policies, code of ethics and all other processes which they expect each manager to subscribe.

6. Based on the varied results between work tenure and the moral reasoning of individual managers, all executive and managerial level employees would benefit from training to enhance their ethical sensitivity. However, dramatic intervention might be necessary if the actual culture of the organization encourages managers to think less ethically. In those cases, a change in management as well as training could be necessary.

7. This study found no significant correlation between education and the moral reasoning of individual managers. Rest (1986) and Trevino (1992), however, claim that there is something inherent in the educational process that causes individual thought mechanisms to develop to higher modes of moral development. Education, whether through traditional schooling or training, enhances the ability of individuals to operate at higher levels of principled moral reasoning.

8. This study did not find significant differences between males and females in strong organizational structures, perhaps because men and women are trained to think and judge as corporate members. Managers should therefore determine whether specific ethical dilemmas or decisions require solutions from managers with more of a justice or caring orientation.

9. Based on the findings of this study, managers or executive level employees may need to consider the locus of control and selected demographics of potential employees to better determine their ethical sensitivity.

10. Based on this study, from a managerial or executive level employees' standpoint, locus of control and perceived organizational ethical work climate types may have no impact on the success of matching the ethical orientation of the employee to the right perceived organizational ethical climate type.

11. Managers or executive level employees should keep in mind that gender and the industry experience of a new manager may have an impact on the potential success of the new manager's ability to help set or
change the organizational ethical tone desired of that corporation.

12. Managers or executive level employees should keep in mind that age, work tenure, management levels, education and the five ethical climate types may have little or no impact on his/her moral reasoning.

Recommendations for future research

Future research may be directed in addressing and answering the following issues and questions.

1. This study should be replicated in order to ascertain whether there have been any changes in the moral reasoning of business managers of selected industries with a different sample as well as over a period of time.

2. A study of this type should be conducted to investigate this issue from a global perspective. A sample of business managers in selected industries drawn from a group of Canadian, British, Italian, German, or any other foreign country should provide interesting results.

3. An analysis should be conducted of other professional organizations and groups, such as accountants, lawyers, doctors, and educators in order to see if the results would be replicated or if these professions differ from the results found in this study.

4. It would also be revealing to study individual managers from selected industries on a longitudinal basis to determine how changes in their levels, positions, and industries might impact their moral reasoning. Periodic examination over a number of years could prove insightful into determining how changes affect moral reasoning.

5. Further research is needed to investigate why the perceived ethical climate of some industries attract certain age groups while repelling others. For example, why is an individual with a mean age of 44 attracted to a Caring perceived organizational ethical climate type, and what experiences has a 55 year old individual experienced which may have affected his/her perception of their organizational ethical work climate causing a deviation from one perceived organizational climate type to another.

6. Additional research across industry types should be conducted to assess what, if any, differences occur in moral reasoning among those industries and identify possible characteristics and reasons.

7. Future research is needed to investigate further the relationship between tenure and perceived ethical climate type. Because of the different findings of Kelley, Ferrell, Skinner and Bigel a closer examination seems to be warranted.

8. Future research should investigate whether managers and executive level employees gravitate to the perceived ethical climate type of their ethical tendency. This is important since members of a corporation may move to a more comfortable ethical climate if they feel uncomfortable in one organization. On the other hand, if these members remain with the organization, they may change the ethical orientation of the organization.

9. Future research should investigate the relationship between industry types, gender, and moral reasoning. Managers who move from organization to organization travel with their professional baggage from previous positions, which may influence their moral reasoning. It would be beneficial to understand as much as possible the subtle variations that could affect a manager’s moral reasoning.

10. It would be interesting to further investigate the relationship between individual managers’ internal and external locus of control and the individual managers’ moral reasoning by conducting another study with a wider variance in I-E scores.

11. Additional research dealing with age and the moral reasoning of individual managers is needed. A sample with more of a variance in age may be drawn to measure a statistical significance, if any, observed.

12. A sample with more of a variance in education may be drawn to measure a statistical significant between education and P scores.

13. Given the varied research between managerial and executive women and men exist or do not exist. As Morrison (1997) recom-
mended, research should address specific factors and examine them from a qualitative approach rather than the quantitative one used in this study. Interviews could also prove useful in enhancing the findings of this research. Further studies should be undertaken to ascertain whether corporate culture, the nature of the management position or other variables cause men and women to demonstrate similar or different decision making processes when dealing with ethical dilemmas and moral reasoning in the work place. This study did not support Gilligan’s position; however, a larger sample should be obtained in future studies, in order to increase the statistical power of the analyses concerning gender.

14. Additional studies should be undertaken to assess if a relationship between management levels and moral reasoning might exist. A sample with more of a variance in management levels may be drawn to measure a statistical significance between managerial levels and $P$ scores. A statistical significance between management levels and $P$ scores did not result in this study possibly because the majority of the respondents were upper management. Dun & Bradstreet provided the researcher with a list consisting of a proportional stratified random sample of Fortune 500 firms but the majority of the respondents came from upper management.

15. Additional research across perceived ethical climate types should be conducted to assess what if any differences occur in moral reasoning among these types.

16. Further research should be conducted on how locus of control impacts the various factors of age, work tenure, management levels, gender, education and industry types.

17. It would be interesting to investigate the relationship between the individual’s locus of control and perceived organizational ethical work climate type (Caring, Law and Code, Rule, Instrumental, and Independent) by investigating the personality types of the individuals in the various perceived ethical climate types and their locus of control.

18. Future research should investigate the relationship between tenure, education, gender and industry types and perceived organizational ethical climate types. It would be beneficial to understand as much as possible how these variables affect variations in perceived ethical climate types.

19. Future research should investigate the relationship between age, work tenure, management levels, education, and the five ethical climate types and moral reasoning. It would be beneficial to understand as much as possible how these variables affect the subtle variations in a manager’s moral reasoning.

20. Future research should investigate the relationship between the perceived organizational ethical work climate type among individual industry types.

**Concluding comments**

The value of ethical reasoning is that it is a premise upon which our country and our business enterprises are founded. High moral reasoning and the continued development of ethical standards are goals to which our government, businesses, and educational system must aspire.

Corporate America today must have higher ethics than ever before to ensure ethical soundness. They must accept responsibilities with respect to the environment; and that product safety and healthier working conditions must continue to improve as they have immensely improved in comparison to years past; and that racial and gender discrimination must continue to decrease. This is why it would be beneficial to understand as much as possible how ethical considerations impact an organization’s strategies and actions.

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