

FOR THE ACCOUNTING PROFESSION, LEADERSHIP MATTERS REGARDING ETHICAL CLIMATE PERCEPTIONS

Jeffrey N. Barnes, Southern Utah University, USA
David S. Christensen, Southern Utah University, USA
Tyler F. Stillman, Southern Utah University, USA

Keywords: Accounting Profession, Leadership, Ethical Climate, Transformational Leadership

JEL: C30, L20, M40, Y10

Abstract¹

We tested the hypothesis advanced by Mannarelli (2006) and Early and Davenport (2010) that professional accounting organizations would benefit from a transformational leadership style. Eleven CPA firms were surveyed to test the correlative relationship between three perceived leadership styles (i.e., transformational, transactional, and passive-avoidant) and the workplace ethical climate (i.e., caring, law code, rules, instrumental, and independence). Using the Multifactor Leadership Questionnaire (Bass & Avolio, 2010) and the Ethical Climate Questionnaire (Victor & Cullen, 1988), data provided by 103 respondents showed that transformational leadership style is the most effective, transactional is not effective, and passive-avoidant leadership style is deleterious to subordinates' perception of the preferred ethical climates.

¹ Much of this material is from the principal author's recent dissertation.

INTRODUCTION

There are three leadership styles described in the full-range leadership theory (FRLT): transformational, transactional, and passive-avoidant leadership styles (Antonakis & House, 2002). The transactional leadership style is most commonly recognized by subordinates in the public accounting profession and the more preferred leadership style is the transformational leadership style (Early & Davenport, 2010). The least effective leadership style in public accounting is the passive-avoidant leadership style (Barnes, Christensen, & Stillman, 2013). The natural question arising from the prior accounting leadership research is which of the leadership styles might influence the positive ethical perceptions of the accounting workplace environment. A brief discussion about the three major leadership styles manifested under the FRLT follows.

Transactional Leadership vs. Transformational Leadership Style

Transactional leaders tend to create interpersonal relationships through self-interest exchange transactions. In contrast, transformational leaders use charisma, vision, and inspiration to create strong leader/subordinate relationships (Bass, 1985). Transactional leaders tend to operate more effectively in environments characterized by stability and predictability, while the transformational leaders operate better in environments characterized by high degree of change or opportunities for change (De Hoogh, Den Hartog, & Koopman, 2005). Transactional leaders move predictably along a course of action, while transformation leaders operate effectively in unpredictable and uncharted work environments. These differences have implications for leader/subordinate relationships and subordinate behavior. Transformational leaders demonstrate an ability to motivate employees in a superior manner to that of transactional leaders, such that subordinates, influenced by transactional leaders focus on achieving consistent performance through rewards and punishments, use of goals, and seek to resolve subordinate concerns that could potentially affect performance (Bryant, 2003).

Transactional leaders are contract-based and micromanagers of outcomes and believe subordinates can be motivated by contingent

rewards. Transactional leaders do not generally expect their subordinates to achieve beyond initial expectations, nor deviate from status quo procedures, nor provide creative recommendations (Jung, 2001). Transactional leaders are thought to be more apt to benefit others when the act benefits them (i.e., leaders) (Kanungo, 2001). Transformational leaders solicit members for teams that are competent and respond to charismatic leadership traits, such as inspiring motivation, visionary aspirations, or high collaborative work ethic. Bass (1985) and Yukl (1995) emphasized, “. . . that transformational leaders broaden and elevate subordinates interest, activate higher-order needs, and motivate subordinates to transcend their own self-interests for the good of the organization, resulting in performance beyond original expectations” (as cited in Viator, 2001, p. 100). Transformational leaders influence and motivate their subordinates by raising their subordinate’s expectations of themselves, such that they can attain objectives previously thought unattainable (Antonakis & House, 2002). The last leadership style, passive-avoidant leadership, lacks these more positive leadership traits, behaviors, and outcomes.

Passive-avoidant Leadership Style

Passive-avoidant style is a dimension of leadership marked by disengagement from subordinates. As this is widely considered inferior to both transactional and transformational leadership styles, it is not necessary to provide a lengthy explanation of this leadership style. Bass (1997) forcefully stated, “Transformational leadership tends to be more effective and satisfying than contingent rewarding, contingent rewarding is more effective and satisfying than managing by exception, and managing by exception is more effective and satisfying than passive-avoidant leadership” (p. 137). Passive-avoidant leadership generally respond only when workplace crises arise; promulgate the attitude, “if it ain’t broke, don’t fix it;” are generally absent when needed, and postpone involvement regarding urgent matters (Antonakis & House, 2002).

Leadership Styles in the Public Accounting Profession

An early accounting profession study identified attributes of effective managing partners of CPA firms (McThomas, 1987). The managing partners' leadership traits were similar to the description of the transformational leadership style, which described persons that were communicative, people-oriented, honest, and loyal. The 2000 AICPA Vision Project emphasized the necessity for the "CPA to develop the leadership skills necessary to influence, inspire, and motivate others to achieve results" (Viator, 2001, p. 100). These mentioned leadership skills or traits, leading to superior results, are found in the transformational leadership style. Consequently, Friedman, Langbert, and Giladi (2000) called for the accounting profession in the United States to embrace the transformational leadership style. In a nationwide survey by Viator (2001) the most desired leadership style was transformational, while the actual leadership style in place was transactional. Viator surveyed 416 AICPA members. He found that participants that worked in nontraditional accounting services, such as information systems assurance and business consulting, indicated that their immediate leaders exhibited transformational leadership traits, more so than did accounting firm personnel working in the traditional accounting firm services of tax and audit. In a foreign related study, Mannarelli (2006) described how the Chartered Accountants of Ireland teamed up with INSEAD, a global leading business school, to help launch a program of leadership training to instill the traits, skills, and behaviors that are associated with transformational leadership.

Leadership and Ethics in the Accounting Profession

The AICPA's CPA Horizons 2025 Report addresses both leadership and ethics for the accounting profession (AICPA, 2013). Leadership is identified as one of the profession's core competency and its top core value is integrity. The report further stated, "CPAs must uphold the integrity of the profession and maintain high standards in an ever changing environment and in cultures where business practices differ from U.S. practices" (p. 5). The purpose of the CPA's integrity, objectivity, and commitment to excellence is to

maintain the public's trust. Leadership is defined in this Horizons 2025 Report as, "CPAs are adept at influencing, inspiring, and motivating others to facilitate change and achieve excellence" (p. 18). Rather than promote a particular leadership style, form, theory, or pre-established leadership construct, the AICPA adds to this traits description of leadership, in their *Four Pillars of Effective Leadership*,

To lead effectively . . . you don't [always] have the answers, but you must have the capacity to work with others to find them. Good leaders empower others by encouraging them to see the talents and resources they bring to the table. If they are seen as authentic and instill a genuine sense of trust, they can enlist personal empowerment and commitment to drive transformative change. To do this, leaders must emphasize the four pillars of integrity, accountability, learning, and communication. (AICPA, 2013b)

Effective leadership in the accounting profession appears important for maintaining the public's trust and fostering the profession's highest value, integrity. This study is interested in focusing on whether a particular FRLT style (i.e., transformational, transactional, or passive-avoidant) supports the AICPA's CPA Horizons 2025 Report's leadership aspirations. Another study has provided evidence that transformational leadership increases the subordinates' perception that their leader inspires greater workplace efficiency, effectiveness, and subordinate satisfaction (Barnes, Christensen, & Stillman, 2013); however, can transformational leadership also inspire collegial integrity or a sense of importance to the workplace ethical climate? The present investigation sought to test this hypothesis.

Ethical Climate Type Perceptions

A validated and reliable model for workplace ethical climates is presented by Victor and Cullen's (1987) seminal research. The conceptual model for Victor and Cullen consists of nine possible ethical climate types, created by the logical association between three ethical criteria (i.e., egoism, benevolence, and principle) to the three

locus-of-analysis criteria (i.e., individual, local, and cosmopolitan). After factor analysis and other confirmatory meta-analyses, five empirically derived workplace ethical climate types have emerged. From Martin and Cullen’s (2006) meta-analysis, the five empirically derived workplace ethical climate types, that have remained stable since the theory’s inception, are shown in Table 1.

TABLE 1, Five Common Empirical Derivatives of Ethical Climate Theory

		Locus of Analysis		
		Individual	Local	Cosmopolitan
Ethical Criteria	Egoism	Instrumental	Instrumental	Caring
	Benevolence	Caring	Caring	Caring
	Principle	Independence	Rules	Lawcode

Source: Adapted from Martin and Cullen, 2006, p. 178.

An ethical climate research study for public accounting indicated correlative relationships between ethical climate perceptions and subordinate decision making (Buchan, 2005). An Asian study, Venezia, Venezia, and Hung (2010) demonstrated differing ethical climate perceptions between public and private Asian accountants. In an American study, Bobek, Hageman, and Radtke (2010) while studying CPA firms’ ethical climates, found an undesirable disconnect between the perceptions about the ethical workplace climate by partners from non-partners. This disconnect phenomenon may reinforce the notion that separate ethical workplace climates exist within certain hierarchal organizational structures. In a wider multi-industry study, Trevino, Weaver, and Brown (2008) also found that executives similarly had a “. . . significantly more positive perceptions of organizational ethics when compared to rank and file employees” (p. 243). Research is evidencing that ethical climate perceptions vary

within firm structure and that leadership affects ethical climate perceptions. Accounting firm subordinates make paramount ethical decisions within their perceived workplace ethical climate that impact and manifest professional integrity and concern for the public's trust.

The preferred ethical climate types would be those that persuade accounting subordinates to be concerned about their ethical behavior in relation to the public's trust, compliance with laws and regulations, as well as compliance with accounting's professional standards. Thus, the preferred ethical climate types, as per Table 1, for the accounting profession appear to be caring, rules, and lawcode. An accounting firm's leadership, knowing where its present perceived ethical climate type is set, within in its firm's culture, and knowing also where the ideal ethical climate type should be, can make action plans to close that ethical-climate-type perception gap. For lengthier descriptions of the five empirically derived ethical climate perceptions, see Appendix A, Table A1, *Descriptions of the Five Empirically Derived Ethical Climate Perceptions and the Profession's Ethical Climate Preference Arguments*.

METHODOLOGY

Overview

The purpose of this study was to examine the degree to which public accounting firm's FRLT leadership styles are associated to subordinates' perception their workplace ethical climate type. Web-based surveys were administered to accounting firm employees, of an acceptable sample size for organizations classified as local, small-, local, large-, and regionally-sized public accounting firms in the State of Utah. The first survey was the Multifactor Leadership Questionnaire (MLQ), or standard MLQ, or also known as the MLQ 5X short (MLQ, 1995). The MLQ was developed over time and has gone through several refinements (Avolio, Bass, & Jung, 1999). The validated MLQ is thought to be the best suited instrument for measuring the full-range of leadership behavior styles typically exhibited in the workplace (Avolio & Bass, 1999; Van Eeden, Cillers, & Van Deventer, 2008). The second survey was the Ethical Climate Questionnaire (ECQ). The validated ECQ was developed from the

ethical climate framework research promulgated by Victor and Cullen (1987, 1988).

Research Questions

Professional accounting leaders and business leaders, in general, seek to understand how best to improve the firm's leadership practices to effectively encourage within the accounting firm the highest level of ethical intention and behavior among its members. This study sought to explore answers to the following question: To what degree do partners, managers, and supervisors' various leadership styles potentially influence the ethical climate—as measured by subordinates' perceptions. A variety of hypotheses naturally derive from these research questions.

Quantitative Hypotheses

H1₀: A leader's transformational leadership style does not significantly correlate to the subordinate's perception of the firm's workplace ethical climate type.

H2₀: A leader's transactional leadership style does not significantly correlate to the subordinate's perception of the firm's workplace ethical climate type.

H3₀: A leader's passive-avoidant leadership style does not significantly correlate to the subordinate's perception of the firm's workplace ethical climate type.

The alternate hypothesis for each of the three null hypotheses is that certain leadership styles do potentially influence employee perceptions of workplace ethical climate type.

Population

The research was carried out in Utah. In late 2010, approximately 1,175 certified public accountants (CPAs) were in the practice of public accounting and members of their profession's state accounting association. These CPAs worked in a variety of different-sized firms, ranging from sole proprietorships to large professional international corporations. The number of CPAs per firm range from one to scores of CPAs, within a single geographically located firm.

There were 469 separate physical CPA firm offices in Utah at the time of the study, many with fewer than five CPAs. Of the 469 firms, only 41 firms had more than five CPAs or professional staff tracked to become CPAs.

Target Population

For this study, a relationship needed to exist between a subordinate and supervisor because it is within those leader/subordinate relationships that perceptions of firm's ethical climate type occur. Figure 1 shows the minimum practice structure sought for by this study.

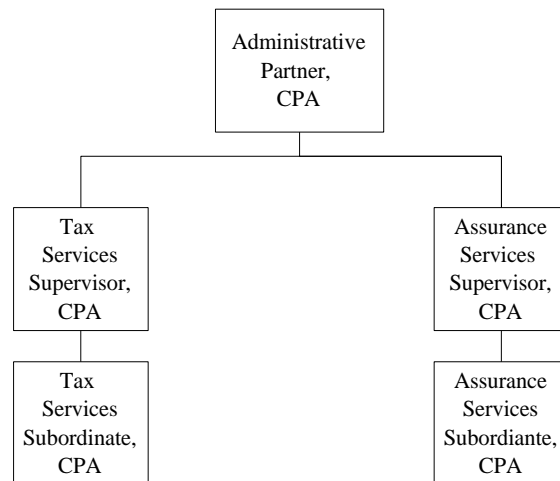


FIGURE 1, Minimum Practice Structure Sought form Population

Firms with five or more CPAs, or professional staff tracked to become CPAs, were deemed an acceptable target population firm from which to draw a sample. Firms with 5 or more CPAs were able to identify in which service function they more often worked, such as, tax, assurance services, or other engagements. Firms with such varied practice specialized professionals had at least two immediate supervisor levels for investigation. At the time of the study, 41 firms with five or more CPAs were listed in a professional directory. These

41 firms had 635 CPAs and prospective CPAs. This target population served as the source for the sample.

Sampling Frame

After initially telephoning and communicating with each of the 41 identified CPA firms with five or more professional staff, permission was received to contact organizational leadership for permission to conduct the surveys. After sending a packet of information and instructions about the proposed research, 11 CPA firms provided written permission to contact organization personnel, via email, for the administration of the electronic research survey. After three email requests, these 11 CPA firms provided 103 usable responses, garnering a 43.6% response rate.

Informed Consent and Confidentiality

After having received a signed authorization letter from each participating CPA firm, each prospective participant was electronically sent an introductory letter and an informed consent form. The informed consent form communicated that participation was voluntary, replies would be kept confidential, names of non-participants would not be disclosed, and all data from the surveys would be coded to eliminate the risk of identifying any single participant or firm. All those who participated electronically signed and returned the informed consent form.

Theoretical Model Design

This study used a published instrument for measuring the independent variables of leadership style and the dependent variables of subordinates' perception of the workplace ethical climate type. Figure 2, provides explanation of the proposed independent and dependent variables found in the integrated leadership and subordinate ethical climate type perception framework.

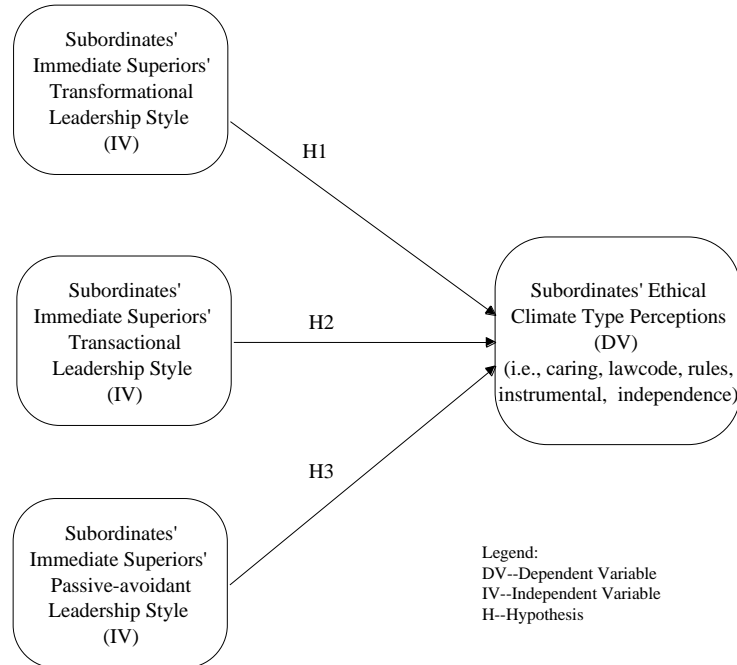


FIGURE 2, Conceptual Leadership and Subordinate Ethical Climate Type Perceptions

Overview of the Research Design Appropriateness

This quantitative research study, with a correlation design, investigated the relationships between independent and dependent variables (Creswell, 2005). To answer this study's research question, survey respondents selected discrete Likert-type scale choices, thus providing quantifiable data to measure the degree of their perceptions and correlative association among the variables. The public accounting subordinates quantified his or her immediate focal leader's full-range leadership style, which could be transformational (IV), transactional (IV), or passive-avoidant (IV). The public accounting subordinates then quantified his or her own perceptions of the accounting firm's workplace ethical climate type (DV) (i.e., caring, law code, rules, instrumental, or independence).

Validity and Reliability of MLQ and ECQ

Mind Garden, Inc. stated that since the MLQ, Form 5X was developed in 1995, “. . . it has been used in nearly 300 research programs, dissertations and masters’ theses around the globe” (MLQ, 2004, p. 33). In assessing the MLQ’s operational validity, meta-analysis reviews in the military and in the wider organizational psychology literature have established that the transformational leadership and the rated and objectively measured performance factors were more positive and stronger than with the transactional styles of leadership and the less active passive-avoidant leadership style (Dum dum, Lowe, & Avolio, 2002; Lowe, Kroeck, & Sivasubramaniam, 1996).

The MLQ has demonstrated stable factor structure using confirmatory factor analysis in several previous studies (Antonakis, Avolio, & Sivasubramaniam, 2003; Avolio, Bass, & Jung, 1999; Avolio 2002; Dum dum, Lowe, & Lowe, Kroeck, & Sivasubramaniam, 1996). The Cronbach’s alpha reliability coefficient ranges from .60 to .92 (MLQ, 2004). Mind Garden, Inc., the legal entity that sells the use of the MLQ instrument, stated, “For the last 25 years, the MLQ has been the principal means by which we were able to reliably differentiate highly effective from ineffective leaders in military, government, education, manufacturing, high technology, church, correctional, hospital, and volunteer organizations” (MLQ, 2004, p. 12). This study seeks partially to provide additional evidence about the accounting profession.

The ECQ has been widely used. Martin and Cullen (2006), in their meta-analytic review of the ethical climate theory (ECT) framework, stated, “Ethical climate theory (ECT) . . . is arguably one of the most influential conceptual foundations in the business ethics domain” (p. 175). The ethical climate type framework has been widely used in empirical research since its introduction, “. . . particularly [reported] through the *Journal of Business Ethics*” (p. 176). The empirically derived ethical climate types have shown some stability through many research projects, ranging from dissertations to peer-reviewed ethics journal articles. Martin and Cullen (2006) confirmed what Victor and Cullen (1987) had suggested that the

Ethical Climate Questionnaire scales are “. . . adequate for subsequent investigative research . . .” (as cited in Weber, 1995, p. 515).

RESULTS

Descriptive Statistics

Descriptive statistics show personalized information for each survey respondent and his or her relationship with the CPA firm, in Tables 2 and 3, respectively.

TABLE 2, Respondents’ Personal Information (N=103)

Age	Freq.	Gender	Freq.	Education	Freq.	CPA?	Freq.
26	6	Female	29	AS	3	Yes	79
26-40	74	Male	74	BS	17	No	24
41-55	19			MS	81		
>55	4			JD, etc.	2		

TABLE 3, Respondents’ Relationship to and CPA Firm Information (N=103)

Years with Firm	Freq.	Work Function	Freq.	Respons. Level	Freq.	Firm Size	Freq.
0-2	18	Assurance	61	Partner	11	Big 4	0
3-4	27	Tax	35	Manager	42	National	1
5-10	32	Consulting	2	Supervisor	31	Regional	32
> 10	26	Other	5	Staff	19	Loc-large	50
						Loc-asmall	20

The results of the descriptive statistical analysis indicate the socioeconomic parameters reflective of this state’s professional accounting population characteristics. The state-wide professional accounting socioeconomic parameters are not too dissimilar to the U.S. national population’s socioeconomic parameters for the accounting profession (Gold, 2007).

Cronbach’s Alpha

Cronbach’s alpha was conducted to assess reliability and internal consistency for each of the surveys’ scales. For instance, in Table 4, the transformational leadership construct or scale, under the Multifactor leadership Questionnaire (MLQ) has a Cronbach’s alpha of 92%. The 92% measurement is the percentage of variability of a composite score explained by the relationship of the 20 questions making up the transformational leadership scale. The higher the Cronbach’s alpha calculation, the better the scale is at representing what it purports to represent. The lower the Cronbach’s alpha calculation, the less reliable it is to draw associations with the data. For Cronbach’s alphas, George and Mallery (2003) suggested the following: “= > .9 – Excellent, = > .8 – Good, = > .7 – Acceptable, = > .6 – Questionable, = > .5 – Poor, and = < .4 – Unacceptable” (p. 231). Cronbach’s alpha for all scales used in this study are listed in Table 4.

TABLE 4, Cronbach’s Alpha for Surveys’ Scales

Survey/Scale	Cronbach’s alpha	<i>n</i>
MLQ		
Transformational	.92	20
Transactional	.49	8
Passive-avoidant	.71	7
ECQ		
Caring	.62	7
Lawcode	.67	4
Rules	.76	4
Instrumental	.83	7
Independence	.69	4

When assessing Cronbach’s alpha for deeper subscale reliability and validity, for transactional leadership, the following results, as presented in Table 5, were observed.

TABLE 5, Cronbach's Alpha for Transactional Leadership Subscales

Leadership Style/Subscale	Cronbach's alpha	<i>n</i>
Transactional		
Contingent Reward	.68	3
Management-by-Exception (Active)	.70	4

Correlation Analysis for Transformation Leadership to ECQ Scales

The Pearson Correlation (*r*), significance (*p*-value), and the number of items in the sample (*N*), for transformational leadership, are reported in Table 6.

TABLE 6, Bivariate Correlation Analysis, Transformational Leadership to ECQ Scales

Transformational (IV)	Caring (DV)	Lawcode (DV)	Rules (DV)	Instrumental (DV)	Independence (DV)
Pearson Correlation (<i>r</i>)	.411	.282	.402	-.525	.093
Sig. (2-tailed), <i>p</i> value	.000**	.004**	.000**	.000**	.349
<i>N</i>	103	103	103	103	103

** *p* value, correlation is significant at the .01 level (2-tailed).

The bivariate correlation analysis, reported that the dependent variables of caring, law code, and rules workplace ethical climate variables are positively and statistically correlated with the independent variable, transformational leadership at a high level of significance. On the other hand, the bivariate correlation analysis showed that the correlation between the dependent variable of instrumental workplace ethical climate with the transformational leadership style is negatively and statistically significant. The dependent variable of independence is not significantly correlated to the independent variable of transformational leadership.

The results of analysis of variance (ANOVA) between Transformational Leadership and all five empirically-derived ethical climate types are presented in Tables 7, 8, 9, 10, and 11, respectively.

The F_{crit} statistic and r^2 values are also presented for the ethical climate types, and thus, explaining to what degree transformational leadership influences the recognition of the various ethical climate types.

TABLE 7, ANOVA for Transformational Leadership (MLQ) to Caring (ECQ)

Model	Sum of Squares	<i>df</i>	<i>MS</i>	F_{crit}	R^2	<i>Sig.</i>
Regression	187.525	1	187.525	20.550	.169	.000**
Residual	921.678	101	9.126			
Total	1109.204	102				

** p value, correlation is significant at the .01 level (2-tailed).

TABLE 8, ANOVA for Transformational Leadership (MLQ) to Lawcode (ECQ)

Model	Sum of Squares	<i>df</i>	<i>MS</i>	F_{crit}	R^2	<i>Sig.</i>
Regression	28.873	1	28.873	8.718	.079	.004**
Residual	334.486	101	3.312			
Total	363.359	102				

** p value, correlation is significant at the .01 level (2-tailed).

TABLE 9, ANOVA for Transformational Leadership (MLQ) to Rules (ECQ)

Model	Sum of Squares	<i>df</i>	<i>MS</i>	F_{crit}	R^2	<i>Sig.</i>
Regression	72.129	1	72.129	19.504	.162	.000**
Residual	373.521	101	3.698			
Total	445.650	102				

** p value, correlation is significant at the .01 level (2-tailed).

TABLE 10, ANOVA for Transformational Leadership (MLQ) to Instrumental (ECQ)

Model	Sum of Squares	<i>df</i>	<i>MS</i>	<i>F_{crit}</i>	<i>R</i> ²	<i>Sig.</i>
Regression	648.221	1	648.221	38.361	.268	.000**
Residual	1706.692	101	16.898			
Total	2354.913	102				

** *p* value, correlation is significant at the .01 level (2-tailed).

Table 11, ANOVA for Transformational Leadership (MLQ) to Independence (ECQ)

Model	Sum of Squares	<i>df</i>	<i>MS</i>	<i>F_{crit}</i>	<i>R</i> ²	<i>Sig.</i>
Regression	5.514	1	5.514	0.884	.009	.349
Residual	629.942	101	6.237			
Total	635.456	102				

Analysis of Hypothesis 1

Transformational leadership was found to have a statistically significant relationship with the four ethical climate type perceptions (i.e., caring, law code, rules, and instrumental). Higher levels of transformational leadership corresponded to increased caring ethical climate type [$F_{crit}(1,101) = 20.550$; $r = .411$]. This relationship was statistically significant at 1% level of significance ($p < .000$). Transformational leadership accounted for about 17% of the variance in the caring ethical climate type perception.

The higher levels of transformational leadership likewise corresponded to an increased perception of the lawcode ethical climate type [$F_{crit}(1,101) = 8.718$; $r = .282$]. This relationship was statistically significant at 1% level of significance ($p < .004$). Transformational leadership accounted for about 8% of the variance in the law code ethical climate type perception.

The higher levels of transformational leadership was found to correspond to an increased perception of the rules ethical climate type [$F_{crit}(1,101) = 19.504$; $r = .402$]. This relationship was statistically significant at 1% level of significance ($p < .000$). Transformational

leadership accounted for about 16% of the variance in the rules ethical climate type perception.

Again, the higher levels of transformational leadership corresponded to a decreased perception of the instrumental ethical climate type [$F_{crit}(1,101) = 38.361$; $r = -.525$]. This relationship was statistically significant at 1% level of significance ($p < .000$). Transformational leadership accounted for about 27% of the variance in the Instrumental ethical climate type perception.

As discussed above, transformational leadership shows a statistically significant relationship with the four ethical climate type relationships (i.e., caring, lawcode, rules, and instrumental) at 1% level of significance. Therefore, the null hypotheses are rejected. The alternate hypotheses are accepted, and thus, the accounting leaders' transformational leadership style exerts statistically significant correlative relationship to the subordinate's perception of the firm's ethical climate types of caring, lawcode, rule, and instrumental. Preferentially, transformational leadership is positively correlated to subordinates perception of the preferred ethical climates types of caring, law code, and rules; while, preferentially, negatively correlated to the less desirable instrumental ethical climate type.

One non-significant statistical relationship exists between transformation leadership and the five empirically-derived ethical climate types. Higher levels of transformational leadership did not correspond to an increased perception of the independence ethical climate type [$F_{crit}(1,101) = .884$; $r = .093$]. This relationship was not statistically significant at either 1% or 5% level of significance ($p < .349$).

Because a non-significant statistical relationship exists between transformational leadership and the independence ethical climate, the null hypothesis cannot be rejected. It means that the accounting leaders' transformational leadership style does not exert statistically significant correlative relationship to the subordinate's perception of the firm's ethical climate of independence.

Correlation Analysis for Transactional Leadership to ECQ Scales

The second null hypothesis states that a leaders’ transactional leadership style does not significantly correlate to the subordinate’s perception of the firm’s ethical climate in Utah. The Pearson Correlation (*r*), significance (*p*-value), and the number of items in the sample (*N*), for transactional leadership, are reported in Table 12. The bivariate correlation analysis, run using SPSS, reported that the independent variable, transactional leadership is not significantly correlated, at the 1% or 5% level of significance with the ethical climate types. All probabilities are greater than .072.

**TABLE 12, Bivariate Correlation Analysis,
 Transactional Leadership to ECQ Scales**

Transactional (IV)	Caring (DV)	Lawcode (DV)	Rules (DV)	Instrumental (DV)	Independence (DV)
Pearson Correlation (<i>r</i>)	.054	.149	.152	.054	-.038
Sig. (2-tailed), <i>p</i> value	.591	.132	.125	.585	.072
<i>N</i>	103	103	103	103	103

Analysis of Hypothesis 2

The relationships between transactional leadership (IV) and the five ethical climate types (i.e., caring, lawcode, rules, instrumental, and independence) result in *p* values ranging from as low as .072 to .591. This finding suggests that the null hypothesis cannot be rejected. Null hypothesis stipulates that the leaders’ transactional leadership style does not have statistically significant correlative relationship to the subordinate’s perception of the firm’s ethical climate types.

Correlation Analysis for Passive-avoidant Leadership to ECQ Scales

The Pearson Correlation (*r*), significance (*p*-value), and the number of items in the sample (*N*), for passive-avoidant leadership, are reported in Table 13. The third null hypothesis states that a leaders’ passive-avoidant leadership style does not significantly correlate to the subordinate’s perception of the firm’s ethical climate.

Presented are the Pearson Correlation (r), significance (p value) and the number of items in the sample (N). The bivariate correlation analysis indicates that the independent variable, passive-avoidant leadership, is negatively and significantly correlated, at the 5% level with rules variable. Also, the bivariate correlation analysis reported that passive-avoidant leadership is positively and significantly correlated, at 5% level of significance, with instrumental variable. None of the other ethical climate types was significantly correlated to passive-avoidant leadership. The probability values for caring, lawcode, and independence were greater than .151.

TABLE 13, Bivariate Correlation Analysis, Passive-avoidant Leadership to ECQ Scales

Passive-avoidant (IV)	Caring (DV)	Lawcode (DV)	Rules (DV)	Instrumental (DV)	Independence (DV)
Pearson Correlation (r)	-.073	-.143	-.237	.247	.010
Sig. (2-tailed), p value	.462	.151	.016*	.012*	.919
N	103	103	103	103	103

* p value, correlation is significant at the .05 level (2-tailed).

Analysis of Hypothesis 3

The results of ANOVA analysis, using SPSS software, between Passive-avoidant Leadership (MLQ) to Rules (ECQ) and between Passive-avoidant Leadership (MLQ) to Instrumental (ECQ) are presented in Tables 14 and 15, respectively. The F_{crit} statistic and r^2 values are also presented for the ethical climate types possessing a statistical relationship, and thus, explaining to what degree passive-avoidant leadership influences the recognition of the various ethical climate types.

Passive-avoidant leadership was found to have a statistically significant relationship with two ethical climate type perceptions (i.e., rules, and instrumental). Higher levels of passive-avoidant leadership correspond to a decreased perception of the rules ethical climate type [$F_{crit}(1, 101) = 6.001$; $r = -.237$]. This relationship was statistically significant at 5% level of significance ($p = .016$). Passive-avoidant

leadership accounted for roughly 6% of the variance in the rules ethical climate type perception.

TABLE 14, ANOVA for Passive-avoidant Leadership (MLQ) to Rules (ECQ)

Model	Sum of Squares	<i>df</i>	<i>MS</i>	<i>F_{crit}</i>	<i>R</i> ²	<i>Sig.</i>
Regression	24.995	1	24.995	6.001	.056	.016*
Residual	420.655	101	4.165			
Total	445.650	102				

* *p* value, correlation is significant at the .05 level (2-tailed).

TABLE 15, ANOVA for Passive-avoidant Leadership (MLQ) to Instrumental (ECQ)

Model	Sum of Squares	<i>df</i>	<i>MS</i>	<i>F_{crit}</i>	<i>R</i> ²	<i>Sig.</i>
Regression	143.840	1	143.840	6.570	.061	.012*
Residual	2211.073	101	21.892			
Total	2354.913	102				

* *p* value, correlation is significant at the .05 level (2-tailed).

Similarly, the higher levels of passive-avoidant leadership corresponded to an increased perception of the instrumental ethical climate type [$F_{crit} (1,101) = 6.570$; $r = .247$]. This relationship was statistically significant at 5% level of significance ($p = .012$). Passive-avoidant leadership accounted for roughly 6% of the variance in the instrumental ethical climate type perception.

The results from Tables 14 and 15 indicate that passive-avoidant leadership shows a statistically significant association, at 5% level of significance, with the two ethical climate type relationships, of rules and instrumental. The presence of a statistically significant relationship suggests that the null hypothesis is rejected and the alternate hypothesis is accepted, and thus, the accounting leaders' passive-avoidant leadership style does exert statistically significant correlative relationship to the subordinate's perception of the firm's rules and instrumental ethical climates.

Three non-significant statistical relationships exist between passive-avoidant leadership and the five empirically-derived ethical climate types. The higher levels of passive-avoidant leadership does not show a statistically strong relationship with an increased perception of the caring [$F_{crit}(1,101) = 0.545$; $r = -.073$], with lawcode [$F_{crit}(1,101) = 2.094$; $r = -.143$], and with independence [$F_{crit}(1,101) = 0.011$; $r = .010$] ethical climate types. These relationships were not significant at $p < .462$, $p = .151$, and $p = .919$, respectively. Therefore, the null hypothesis cannot be rejected. The null hypothesis stipulates that the leaders' passive-avoidant leadership style does not have correlative relationship to the subordinate's perception of the firm's caring, lawcode, and independence ethical climate types.

Passive-avoidant leadership is potentially deleterious to the accounting firm. Subordinates' were less inclined to recognize the preferred ethical climate type of Rules; also, passive-avoidant leadership supported the subordinates' perception of the egoistic-oriented instrumental ethical climate type. Both of these ethical climate types can potentially create cognition that following policies and procedures is not critical and that self-interest considerations are acceptable behavior, possibly transcending concern for the public trust and acting with integrity.

LIMITATIONS

Size of Sample and Geographic Footprint

Although this research project is a very limited in scope, the findings are encouraging in identifying a leadership style that appears to have strong correlative associations with the preferred ethical climate types (i.e., caring, lawcode, and rules) perceived by professional accounting subordinates. In the accounting profession, immediate focal leaders matter and their ethics-oriented leadership style matters. This limitation can be eased by replicating this research model in other geographic locations to provide additional confirmatory or nonconfirmatory evidence about the public accounting profession. We have found no theoretical basis for predicting that other samples would produce substantially different findings.

Unbalanced Scale

In the course of creating the measurement scales for the ECQ instrument, we must acknowledge an unfortunate typographical error. The ECQ scale is negatively balanced with three “false” Likert measure items and two “true” Likert measure items. The term for this error is known as using an *unbalanced scale* for research measurement. The published Ethical Climate Questionnaire scale (Victor and Cullen, 1988) and the unbalanced version of the scale used in this study are compared in Table 16.

TABLE 16, Proper Ethical Climate Questionnaire Scale and Scale Used in This Study

Proper ECQ Measurement Scale	Measurement Scale of this Study
0—Completely false	1—Completely false
1—Mostly false	2—Mostly false
2—Somewhat false	3—Somewhat false
3—Somewhat true	
4—Mostly true	4—Mostly true
5—Completely true	5—Completely true

Using an unbalanced scale is not justified, unless it is “. . . known a priori that virtually all respondents are leaning in one direction” (Friedman and Amoo, 1999, p. 117). There was not an a priori expectation or evidence of biased responses expected from Utah’s public accounting professionals. This was simply a mistake of our doing.

There is not much literature guidance about how to correct existing data when the measuring scale is missing a Likert measurement item, in this case the “somewhat true” scale item. The fear was that the data may have become invalid and unreliable. However, according to Bart Victor, who is one the originators of the Ethical Climate Questionnaire (Victor and Cullen, 1988), this error would in no way limit the interpretation of the relationships amongst the constructs (personal communication, August 2, 2012, See Appendix B).

Data also supported this assertion, as we found that the calculated reliabilities of our unbalanced scale did not differ

substantially from the balanced version in other published research (Appendix C, Tables C1 and C2). Although we regret this error, we observe that ultimately participants in our study reported varying degrees of agreement and disagreement and that those differences were consistent with our hypotheses. This observation is consistent with recent research. This research supports the supposition that when end points on a scale are reasonable, the intermediate measures are not that critical in measuring perceptions of the true construct under consideration. Because the researcher error, in developing this study's ECQ survey instrument, does not disqualify the data as wholly invalid, recommendations and conclusions were developed for this study. This limitation can be ameliorated by simply correcting the scale in the next applications of this research.

Slight Heteroscedasticity

Also, because some relationship exhibited slight heteroscedasticity, generalizations about the sample results could be suspect. However, Schmidt, Le, and Oh (2013) provide guidance about inferring from non-normally distributed data, caused by a variety of circumstances, in human resource management and organizational behavior and applied psychology research. Their research suggests that valid inferences can be drawn from non-normally distributed data. This study's research results provide useful inferences of association that can benefit the accounting profession. This slight heteroscedasticity limitation can also be arrested by increasing sample sizes of additional applications of this research.

CONCLUSIONS AND RECOMMENDATIONS

This research study successfully found confirmatory evidence regarding the effects of leadership style's correlations on subordinates' perceptions of the preferred organizational ethical climate types (i.e., caring, law code, and rules). Accounting leaders, which employ transformational leadership, exhibit leader idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration. A review of the descriptive statistics indicates that the transformational leadership

style statistical mean exhibited by leaders was 2.53, as presented in Table 17. The MLQ Key of Frequency interprets 2.53 to be between “sometimes” (2.0) and “Fairly often” (3.0). Among the various leadership styles exhibited by the accounting subordinates’ focal leader, transformational leadership style was the most frequently recognized.

MLQ Frequency Key: 0.0 = Not at all, 1.0 = Once in a while, 2.0 = Sometimes, 3.0 = Fairly often, and 4.0 = Frequently, if not always

TABLE 17, Frequency Means of Leadership Style Recognized

Leadership Style	<i>M</i>	<i>SD</i>
Transformational	2.53	1.01
Transactional	2.16	1.06
Passive-avoidant	1.32	1.21

Transformational Leadership Practice Opportunities

Public accounting firm’s organization structure is a classic hierarchical structure. Partners/directors lead managers, managers lead supervisors, and supervisors lead staff. Throughout a given year, accounting firm leaders typically perform numerous singular engagements. Supervisors and staff are the personnel mix that more frequently changes between the various assigned engagements. In Viator’s (2001) study, transactional leadership is commonly exhibited with the accounting profession’s more routinized service functions, such as, audit and tax services. During these singular engagements, supervisors or focal leaders can practice for themselves and train their subordinates in transformational leadership attributes and behaviors. To increase transformation leadership style’s practice and recognition, even among routinized service functions, public accounting leaders may consider incorporating many recommendations listed in Table 18. Turning accounting leader/subordinate professional service engagements into worthwhile training opportunities was suggested by the AICPA’s Private Companies Practice Section’s 2011 Top Talent Study (El-Ramly, 2012).

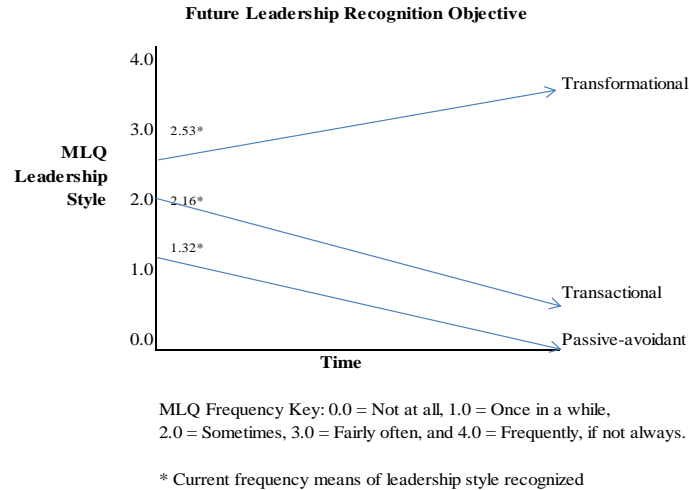


FIGURE 3, Utah’s Public Accounting Profession’s Future Leadership Objective

As shown in Figure 3, the objective is not to eradicate transactional leadership style, but rather to lessen its recognition, while enhancing the perception of transformational leadership style. Lessening transactional leadership style behaviors, while enhancing transformational leadership style behaviors can be accommodated by following the recommendations presented in Table 18, *Transformation Leadership Building Actions or Behaviors*. (Barnes, Christensen, Stillman, 2013). Many of these transformational actions and behaviors are easily integrated into the daily engagement activities of the professional accounting profession.

**TABLE 18, Transformational Leadership Building
Actions or Behaviors**

Transformational Leadership Style Scale	Scale Definition The leader . . .	An Example of How an Accounting Firm Leader Could Employ Transformational Behavior
Idealized Attributes	Instills pride	At the onset, during, and the end of an engagement activity, let your subordinate know how appreciative you are in leading an engagement activity with the subordinate and that both should grow from the experience
	Goes beyond self-interest	Always show personal interest in the subordinate's success by selflessly helping and advising work efficiencies in a timely manner
	Acts respectfully	Always act respectfully to others, at all times, and always show respect for the subordinate when interacting with clients or colleagues
	Displays confidence	At an appropriate time, discuss a sense of responsibility and loyalty to the accounting firm and confidence about the engagement's successful completion and purpose
Idealized Behaviors	Talks about values and beliefs	During engagement activities' reflective opportunities (i.e., during meals, reviewing subordinates' work, discussing client difficulties) share personal company-related, professional-related, or personal-related values and beliefs
	Specifies the importance of purpose	At appropriate times, express the importance of the professional accounting profession's responsibility to the public's interest and how the firm's services add to client efficiencies, compliance, and sustainability
	Considers the moral and ethical issues	At appropriate times, share your moral/ethical/legal decision-making processes, compliant with the accounting firm and or profession's recommended decision-making practices
	Emphasizes collective sense of mission	At the onset of an engagement activity, speak of the importance of team cohesion, problem-solving agreement, and efficient and effective completion of the engagement activity

TABLE 18 (cont.)

Transformational Leadership Style Scale	Scale Definition The leader . . .	An Example of How an Accounting Firm Leader Could Employ Transformational Behavior
Inspirational Motivation	Talks optimistically	When discussion allows, speak positively about the accounting firm's future growth opportunities and leadership opportunities for the subordinate
	Talks enthusiastically about work objectives	During each engagement, be enthusiastic about the engagement's objectives and work tasks to be completed by all involved
	Articulates a compelling vision	When occasion arises, communicate the strategic goals and objectives of the accounting firm and how the subordinate fits into the future success of the accounting firm
	Expresses confidence	At the onset of the engagement, express the potential work task difficulties and how the leader and subordinate will work together to complete the engagement successfully
Intellectual Stimulation	Re-examines critical assumptions	With each engagement, coach the subordinate about how the engagement procedures can be more efficiently performed, how worksheets should be organized and designed to evidence procedures have been properly performed, and how improvements from the prior engagement can be employed
	Seeks input	Always seek subordinate input for solving client engagement problems that arise
	Gets others to innovate	Coach the subordinate about how to solve client dilemmas, resolve accounting or tax measurement problems, or use current professional literature to bring another perspective to solving engagement difficulties
	Suggests new approaches	At the onset of the engagement, coach the subordinate about how up-line leaders might have changed or reasons for not changing the engagement approach

TABLE 18 (cont.)

Transformational Leadership Style Scale	Scale Definition The leader . . .	An Example of How an Accounting Firm Leader Could Employ Transformational Behavior
Idealized Consideration	Coaches	During the whole engagement, the leader should selflessly coach the subordinate how to improve the craft of performing the required engagement procedures
	Treats others as contributing individuals	Learn about your subordinate before commencing the engagement. Learn his/her name, family circumstances or status, interests, and past performance with an objective of helping the subordinate to improve KSAs (i.e., knowledge, skills, and abilities)
	Considers individual needs	Learn about the subordinate's needs, abilities, and aspirations to better coach his/her "career equity," so as to assist the subordinate in their desired career path
	Develops others	During the engagement and at the end, assist the subordinate in developing his or her strengths with during-the-engagement work practice recommendations and a meaningful performance evaluation

Adapted: Scale definitions as adapted from Avolio and Bass, 1999.

Transformational leadership style, concerning respectful, loyalty-building and attentive behavior, does not require additional leadership time; it takes a change in leadership interpersonal behavior approaches. For instance, transformational story-telling about values, beliefs, ethical successes, easily replaces talking about trivial issues; also, opportunities to express enthusiasm for the future or the successful completion of a task, or expressions of confidence are always available for each engagement. Including subordinates in important engagement decisions and kindly sharing how work product working papers can be better designed and organized are nearly always present with each engagement. Turning a transactional action into a transformational action is often in how the task requirement is communicated and collaboratively completed. The newer professional subordinate, at every level of the organization, always appreciates selfless coaching by his or her leader. Changing

transactional leadership style tendencies to the transformational leadership style is accomplished by changing one's mindset.

Changing the Leadership Mindset

A change in leadership mindset can be accomplished through training and improved procedures emphasizing transformational leadership (Scaletta, 2006). By becoming a process-based management entity, accounting firms must first (a) become aware that leadership changes are necessary, (b) commit to make leadership changes through approved leadership initiatives, (c) engage the whole accounting firm with structural support for the time-requiring transformational activities, as presented in Table 18, (d) ensure that management processes are operational and effective, (e) integrate transformational leadership into the strategy planning of the accounting firm, and (f) embed transformational leadership in its everyday language, presentations, newsletters, etc.

Additionally, each professional accounting firm leader is required to earn sufficient number of continuing professional education (CPE) hours to maintain CPA licensure. The State's accounting profession and firms should encourage taking CPE courses instructing how transformational leadership opportunities exist with the high-pressure and demanding public accounting profession and how transformational leadership knowledge can change into transformational leadership skills and abilities.

REFERENCES

- AICPA. (2013). *CPA Horizons 2025 Report*. Retrieved from <http://www.aicpa.org/Research/CPAHorizons2025/DownloadableDocuments/cpa-horizons-report-web.pdf>
- AICPA. (2013b). *Four pillars of effective leadership*. Retrieved from <https://www.aicpa.org/INTERESTAREAS/YOUNGCPANETWORK/RESOURCES/LEADERSHIP/Pages/TheFourPillarsofEffectiveLeadership.aspx>

- Antonakis, J. & House, R.J. (2002). Transformation and charismatic leadership: The road ahead. *The Full-Range Leadership Theory: The Way Forward*, section. JAI, Amsterdam. (2002). An Imprint of Elsevier Science. Aurelius, M. (170-180).
- Avolio, B. J., Bass, B. M. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72(4), 441-462.
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the multifactor leadership questionnaire. *Journal of Occupational & Organizational Psychology*, 72(4), 441-462.
- Barnes, J. N., Christensen, D. S., Stillman, T. (2013). Organizational leadership and subordinate effect in the Certified Public Accounting Profession. *The Journal of Applied Business Research*, 29(5), 1567-1582.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1997). Does the transactional-transformational leadership paradigm transcend organizational and national boundaries? *American Psychologist*, 52(2), 130-139.
- Bass, B. M., & Avolio, B. J. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72(4), 441-462.
- Bass, B. M., & Avolio, B. J. (2010). *MLQ Multifactor Leadership Questionnaire for Research Web Data Collection*. Retrieved from <http://www.mindgarden.com/products/mlqr.htm>
- Bobek, D. D., Hageman, A. M., & Radtke, R. R. (2010). The ethical environment of tax professionals: Partner and non-partner perceptions and experiences. *Journal of Business Ethics*, 92(4), 637-654.
- Bryant, S. E. (2003). The role of transformational and transactional leadership in creating, sharing, and exploiting organizational knowledge. *The Journal of Leadership and Organizational Studies*, 9(4), 32-44.

- Buchan, H. F. (2005). Ethical decision making in the public accounting profession: An extension of Ajzen's theory of planned behavior. *Journal of Business Ethics*, 61(2), 165-181.
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.
- De Hoogh, A. H. B., Den Hartog, D. N., & Koopman, P.L. (2005). Linking the big five-factors of personality to charismatic and transactional leadership; perceived dynamic work environment as a moderator. *Journal of Organizational Behavior*, 26(7), 839-865.
- Dum dum, U. R., Lowe, K. B., & Avolio, B. J. (2002). A meta-analysis of transformational and transactional leadership correlates of effectiveness and satisfaction: An update and extension (pp. 36-66). In B. J. Avolio & F. J. Yammarino (Eds.), *Transformational and charismatic leadership: The road ahead*. Oxford, U.K.: Elsevier Science.
- Early, J., & Davenport, J. B. (2010). Desired qualities of leaders within today's accounting firms. *The CPA Journal*, 80(3), 59-62.
- El-Ramly, Y. (April, 2012). Keep the best and brightest. *Journal of Accountancy*, 213(4), 18.
- Friedman, H. H., & Amoo, T. (1999). Rating the Rating Scales. *Journal of Marketing Management*, 9(3), 114-123.
- Friedman, H., Langbert, M., & Giladi, K. (2000). Transformational Leadership. *National Public Accountant*, 45(3), 8-11.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference*, (11.0 update, 4th ed.). Boston, MA: Allyn and Bacon.
- Gold, L. (2007). How far to the top? *Accounting Today*, 21(18), 35-37.
- Jung, D. I. (2001). Transformational and transactional leadership and their effects on creativity in groups. *Creativity Research Journal*, 13(2), 185-195.
- Kanungo, R. N. (2001). Ethical values of transactional and transformative leaders. *Canadian Journal of Administrative Sciences*, 18(4), 257-265.

- Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness of correlates of transformational and transactional leadership. *Leadership Quarterly*, 7(3), 385-425.
- Mannarelli, T. (2006). Accounting for leadership: Charismatic, transformational leadership through reflection and self-awareness. *Accountancy, Ireland*, 38(6), 46-48.
- Martin, K., & Cullen, J. B. (2006). Continuities and extensions of ethical climate theory: A meta-analytic review. *Journal of Business Ethics*, 69(2), 175-194.
- McThomas, D. W. (1987). Management of an accounting practice. *The CPA Journal*, 57(10), 120-123.
- MLQ. (1995). *Multifactor Leadership Questionnaire*. Retrieved September 30, 2010 from <http://www.mindgarden.com/products/mlq.htm#ascales>
- MLQ. (2004). *Multifactor Leadership Questionnaire* (3rd ed.). Manual and Sampler Set. Retrieved from <https://www.mindgarden.com>
- Scalleta, T. (2006). Beyond process improvement: The pathway to process-based management. *CMA Management*, 80(4), 22/25.
- Schmidt, F., Le, H., & Oh, I.-S. (2012). Are true scores and construct scores the same? A critical examination of their substitutability and the implications for research results. *International Journal of Selection and Assessment* (Accepted July 30, 2013).
- Trevino, L. K., Weaver, G. R., & Brown, M. (2008). It's lovely at the top: Comparing senior managers' and employees' perceptions of organizational ethics. *Business Ethics Quarterly*, 18(2), 233-252.
- Van Eeden, R., Cillers, F., & Van Deventer, V. (2008). Leadership styles and associated personality traits: Support for the conceptualization of transactional and transformational leadership. *South African Journal of Psychology*, 38(2), 253-267.
- Venezia, G., Venezia, C. C., & Hung, C. (2010). A comparative study of ethical work climates among public and private sector Asian accountants. *International Business & Economics Research Journal*, 9(4), 77-85

- Viator, R. E. (2001). The relevance of transformational leadership to nontraditional accounting services: Information systems assurance and business consulting. *Journal of Information Systems, 15*(2), 99-125.
- Victor, B., & Cullen, J. B. (1987). A theory and measure of ethical climate in organizations. In W. C. Frederick (Eds.), *Research in Corporate Social Performance and Policy* (JAI Press, Greenwich, CT, 54-71.
- Victor, B., & Cullen, J. B. (1988). The organizational bases of ethical work climates. *Administrative Science Quarterly, 33*(1), 101-125.
- Weber, J. (1995). Influences upon organizational ethical subclimates: A multi-departmental analysis of a single firm. *Organizational Science, 6*(5), 509-523.

APPENDIX A

TABLE A1, Descriptions of the Five Empirically Derived Ethical Climate Perceptions and the Profession’s Ethical Climate Preference Arguments

Ethical Climate Perception	Factor Definitions in the Context of Working at a Company	Beneficial Ethical Climate Definitions for the Accounting Profession
Caring	The caring ethical climate typifies persons who think, of what is best for everyone is a major consideration; the most important concern is that of everyone; people look out for each other’s good; you will do what is right for the customers and public; and or, working efficiently is important.	Preferred for the climate’s potential for contributing to a culture of concern for the public’s trust.
Lawcode	The lawcode ethical climate typifies persons who think, complying with the law and professional standards over and above other considerations is expected; the law and ethical code of the profession is a major consideration; following the legal or professional standards is expected; and or, the first consideration is whether a decision violates the law.	Preferred for the climate’s potential for contributing to a culture of concern, seeing value in, and complying with professional ethical code and standards.
Rule	The rules ethical climate typifies persons who believe, following the company’s rules and procedures is important; everyone is expected to comply with rules and procedures; being a successful is to “Go by the book”; and or, people strictly obey the company policies.	Preferred for the climate’s potential for contributing to a culture of following company rules and procedures; so long as such rules and procedures are congruent with professional Quality Control standards, the Code of Ethical Conduct and standards.
Instrumental	The instrumental climate typifies persons who are, protecting their own interests above all else; people out mostly for themselves; people concerned with the company’s interests—to the exclusion of all else; believing work is considered substandard only when it hurts the company; and or, thinking the major responsibility of people is to control costs.	Not preferred for its deleterious contributions to the ethical permissions, prescriptions, and proscription of an accounting firm’s culture.

TABLE A1, (cont.)

Ethical Climate Perception	Factor Definitions in the Context of Working at a Company	Beneficial Ethical Climate Definitions for the Accounting Profession
Independence	The independence climate typifies persons who, follow their own personal and moral beliefs; are persons deciding for themselves what is right and wrong; believe the most important concern is each person's own sense of right and wrong; and or, believe people are guided by their own personal ethics.	Neutrally preferred as a concern can arise from ignorance of the public's trust expectations; lack of understanding the profession's or client's industrial law, regulation, and standards; or lack of understanding the company's aligned rules and procedure safeguarding the company from deviation from professional standards.

Adapted: Victor and Cullen (1988).

APPENDIX B

Personal Guidance from Bart Victor, PhD

In a personal telephone conversation, on August 2, 2012, Bart Victor, PhD, the Carl Turner Professor of Moral Leadership, was very gracious and kind about how I should proceed, he stated,

. . . the data collection need not be reperformed; to address the scale error in the 'Methods' section of the dissertation; to state that the existing data means, variances, and correlations are meaningful and reportable; to suggest that the scale errors do not cause a systemic or universal disqualifying error, because the recorded survey respondents' impressions about the perceived ethical climate types are still valid; to not transform the data, thus, to use the existing data as is; and to check for similar intercorrelations and reliability.

APPENDIX C

Intercorrelations and Reliability of Ethical Climate Scale Scores

The intercorrelations and reliability reported by Victor and Cullen in their seminal ethical climate research study is presented in Table C1. This study's ECQ (modified) climate scales' intercorrelations and Cronbach's alpha coefficients for measuring internal reliability are presented in Table C2.

TABLE C1, Intercorrelations and Reliability of Scale Scores with Balanced Scale

Climate Scales	2	3	4	5	Cronbach's alpha
1. Caring	.45	.42	-.40	.19	.80
2. Law and code		.55	-.14	.07	.79
3. Rules			-.09	-.07	.79
4. Instrumental				.05	.71
5. Independence					.60
R > .06 (p < .05)					

Source: Victor & Cullen, 1988, p. 113.

TABLE C2, Intercorrelations and Reliability of Scale Scores with Unbalanced Scale

Climate Scales	2	3	4	5	Cronbach's alpha
1. Caring	.35	.49	-.16	.18	.62
2. Law and code		.68	-.38	.04	.68
3. Rules			-.39	.10	.76
4. Instrumental				.10	.83
5. Independence					.69

Source: This study's intercorrelations and reliability, SPSS 19.

The intercorrelations and reliabilities appear reasonably close. The researcher's Table C2 scale results showed the similar pattern of independence as the Victor and Cullen's Table C1 scales and their independence. The only exception is with rules intercorrelations with independence. Victor and Cullen's work showed slight and small

negative intercorrelations, while researcher's information, presented in Table C2, demonstrated slight and small positive intercorrelations. Within the Utah professional accounting firms, as Victor and Cullen's work demonstrated, there are multiple recognized ethical climate types. Additionally, the researcher's Table C2 reported Cronbach's alphas, which measure the internal reliability of the items in the ethical climate scales, are less but generally acceptable for reliance (George & Mallery, 2003). For Cronbach's alphas, George and Mallery (2003) suggested the following: " $= > .9$ – Excellent, $= > .8$ – Good, $= > .7$ – Acceptable, $= > .6$ – Questionable, $= > .5$ – Poor, and $= < .5$ – Unacceptable" (p. 231).