

# Diversity As A Predictor Of Leadership Effectiveness

Richard Herrera, Ph.D., Texas A&M University, Texarkana, USA  
Phyllis Duncan, Ph.D., Our Lady of the Lake University, USA  
Malcolm Ree, Ph.D., Our Lady of the Lake University, USA  
Kevin Williams, D.Sc., Texas A&M University, Texarkana, USA

## ABSTRACT

*Drawing upon the existing literature, this study investigated the significance of Diversity as a predictor of leadership effectiveness, as it relates to the Multidimensional Measure of Leader-Member Exchange (LMX-MDM). A study of 300 working adults found that there was a significant positive relationship between Diversity and the four LMX dimensions of Contribution, Loyalty, Affect, and Professional Respect. Collectivism and religious affiliation were both strong predictors with regard to Contribution. With regard to the dimension of Loyalty; collectivism, gender egalitarianism, and age helped to increase ratings of the supervisor and perceptions of leadership. Affect only had one significant predictor, collectivism. The LMX dimension of Professional Respect was found to have four significant predictors, including collectivism, religious affiliation, age, and years as a manager. Further regression analysis indicated that the Diversity dimension, Collectivism, was the driving factor of the relationship. This outcome indicated that Collectivism was a strong predictor of how positively participants rated their attitudes toward their immediate supervisor and perceptions of leadership. The results of this study indicate that diversity, particularly with regard to collectivism, is a positive predictor of leadership effectiveness using the LMX model. Furthermore, it strengthens the argument that organizations must be prepared to re-evaluate their policies with regard to diversity in the organization, particularly with respect to Collectivism.*

**Keywords:** Diversity; Leadership Effectiveness; Leader-Member Exchange; GLOBE Study

## INTRODUCTION

Literature in organizational behavior and industrial and organizational psychology have generally been mixed on the effects of diversity as a predictor of leadership effectiveness. Previous studies (Williams and Bauer, 1994; Gilbert and Stead, 1999; and Avery, 2003) overlooked the quality of applicants who are attracted to diversity management. Other studies, such as Cox and Blake, 1991; Agocs and Burr, 1996; and Robinson and Dechant, 1997) proposed that diversity management reduces turnover and absenteeism, attracts the best workers, increases sales and marketing efforts, enhances creativity and innovation, and improves decision making. More recent studies (Herrera, Duncan, Green, Ree, and Skaggs, 2011; Shen, D'Netto, and Tang, 2010; and Bell, Villado, Lukasik, Belau, and Briggs, 2011) further indicate that organizational diversity helps foster positive individual and team performance relationships.

Recent studies in the workforce have shown that by the year 2020 there will not be enough replacement workers to fill the void by those retiring (Somers, Finch, and Birnbaum 2010). To make up for this loss, leaders will need to come up with ways to transfer knowledge from older workers to new workers, retain their existing workforce, and compete to fill vacancies from a decreasing number of available candidates (Meyers and Dreachslin, 2007).

This workforce crisis was first acknowledged more than 20 years ago by Paul Volcker, former Federal Reserve Board Chairman (Charles, 2003). He further added that this deficit was occurring at the same time when the

demographics of the population were changing. Johnston and Packer, (1987), in their Hudson Institute’s “Workforce 2000” report, also forecasted a decrease in workforce growth as well as an accelerated growth of women and ethnic minorities in the years to follow. Based on these findings, some organizations made the decision to become more inclusive, integrating women and people of color. The Hudson Institute subsequently followed up with another report, Workforce 2020, which predicted even more gradual changes in the workforce (Judy and D’Amico, 1977). The study forecasted a steady increase in the number of women in the workforce, as well as a growth in minorities. The report further asserted that women of all races would constitute half of the entire workforce by 2020.

The distribution of the workforce is even more demographically diverse than ever before. This makes incorporating diversity initiatives into human resource planning even more crucial. Managing diversity in the workplace will be just as crucial as organizations make provisions for this increase in women, minorities, and older workers in the next decade. One way for organizations to confront this challenge will be, not only to continue any diversity efforts already in place, but to become more diverse within its ranks.

This study attempts to examine the relationship between the Multidimensional Measure of Leader-Member Exchange (LMX-MDM) and Diversity as a predictor of leadership effectiveness. We selected the GLOBE study components of Individualism, Collectivism, and Gender Egalitarianism as measures of diversity for the present study because we believe that (a) the components of individualism, collectivism, and gender egalitarianism in an organizational context has a significant influence on employee’s perceptions of their supervisor’s leadership style and (b) no studies to our knowledge have investigated the relationship between these three constructs and LMX dimensions. Taking the lead from recent literature, we hypothesize that the GLOBE dimensions that espouse Diversity-Individualism, Collectivism, and Gender Egalitarianism- are associated with multidimensional measures of Leader-Member Exchange (LMX). In other words, leaders who possess the GLOBE dimensions of Individualism, Collectivism, and Gender Egalitarianism are likely to exhibit increased behaviors associated with multidimensional leadership.

Consequently, making a business case for diversity alone is no longer adequate. Organizations must not only focus on the strategic dimension of diversity policies and processes, but also on the dimensions of leadership that impact the leader-member exchange relationship and organizational outcomes. Not until this is acknowledged can the full benefits of organizational diversity be achieved.

## **Diversity**

Initial research on diversity was mainly focused on the problems associated with diversity, such as discrimination, bias, affirmative action, and tokenism (Shore, Chung, Dean, Ehrhart, Jung, Randel, and Singh, 2009). As the diversity field has evolved, researchers have focused on ways in which diversity can harness the most from diverse employees, eliminate conflict in the workplace, and enhance organizational performance outcomes (Herrera, Duncan, Green, and Skaggs, 2012; Gonzalez and DeNisi, 2009; Homan, Hollenbeck, Humphrey, van Knippenberg, Ilgen, and Van Kleef, 2008). Since diversity is essentially about cultural norms and values, the focus is on creating a truly inclusive work environment where individuals from diverse backgrounds feel valued and respected. This culture of inclusion is an organizational environment that recruits people of different backgrounds and ways of thinking who work together and perform to their highest potential to achieve organizational objectives. Not until this is acknowledged, and diversity is culturally valued, can the full benefits of diversity be achieved which may include attracting and retaining the best candidates, higher creativity and innovation, better problem solving, and more organizational flexibility (Cox and Blake, 1991). Following is diversity defined, as well as the cultural dimensions of individualism, collectivism, and gender egalitarianism that were selected for this study as measures of diversity.

1. **Diversity**, or workforce diversity, is defined as “the uniqueness of all individuals, which encompasses differences and similarities in personal attributes, values, work and life experiences, and organizational roles” (Carr-Ruffino, 1992).
2. **Individualism** is defined as the degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families (House et al., 2004).

3. **Collectivism** is defined as the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action (House et al., 2004).
4. **Gender Egalitarianism** is defined as the degree to which an organization or society minimizes gender role differences while promoting gender equality (House et al., 2004).

### **Multidimensional Measure of Leader-Member Exchange (LMX-MDM)**

Over the past few decades the LMX model has emerged as one of the most enduring theories for characterizing leadership behavior and understanding its consequences (Liden, Sparrowe, and Wayne, 1997; Nahrgang, Morgeson, and Ilies, 2009; Schriesheim, Castro, and Cogliser, 1999). The theoretical basis for the LMX theory is the concept of the “negotiated” role that both the leader and subordinate assume in their respective positions. This model stipulates that leaders have a vested interest in the performance of their subordinates and will demand certain expectations. This “interpersonal exchange relationship” in part determines the type of role that the subordinate will assume within the organization (Graen, 1976, p. 1206). Due to time constraints, the leader is only able to develop a close relationship with a select few. As a result, two types of leader-member exchanges transpire; the in-group category (characterized by high trust, interaction, support, and rewards) and the out-group (characterized by low trust, interaction, support, and rewards).

Previous research has shown that the Leader-Member Exchange Theory follows one of two types; one that is unidimensional and the other being multidimensional. Early research showed the LMX to be unidimensional and based upon the work behaviors of leaders and subordinates, thus representing the role theory (Graen, 1976; Graen and Scandura, 1987; Graen and Uhl-Bien, 1995). The multidimensional theory stresses that roles are multidimensional and include those that focus on their tasks while neglecting social interactions, some that focus on social interaction and not tasks, and others that may be weak or strong on both dimensions (Graen, 1976; Katz and Kahn, 1978; Jacobs, 1971).

Following Dienesch and Liden (1986), Liden and Maslyn (1998) proposed that the LMX model is associated with the multidimensional dimensions of *Contribution* (the perception of the amount, direction, and quality of work-oriented activity each member puts forth toward the mutual goals, explicit or implicit, of the dyad), *Loyalty* (the extent to which both leader and member publicly support each other’s actions and character), and *Affect* (the mutual affection members of the dyad have for each other based primarily on interpersonal attraction rather than work or professional values). In addition to the three dimensions identified by Dienesch and Liden, the study by Liden and Maslyn, on the LMX as a multidimensionality construct, provided support for a fourth dimension, *Professional Respect* (the perception of the degree to which each member of the dyad has built a reputation, within and/or outside the organization, of excelling at his or her line of work). Leaders who possess and implement the characteristics of diversity may be associated with the leader-member leadership exchange model for several reasons. The diversity dimension of individualism is likely to be associated with *Loyalty*, as this involves a faithfulness to the individual that is generally consistent from situation to situation. Collectivism, which is associated with the extent to which the supervisor provides resources and opportunities for completed tasks that extend beyond the job description and/or employment contract, is likely to be associated with *Contribution*. Gender egalitarianism involves providing a level of regard or respect to each member of the dyad without regard to gender. Employees are likely to respect and identify with a leader who is considerate and is willing to help employees to be effective and improve their job performance. Therefore, the Gender Egalitarianism dimension of Diversity is likely to be associated with *Professional Respect*.

Developed by Liden and Maslyn (1998), the LMX model is a widely used instrument to assess the four aspects of Leader-Member Exchange which include the dimensions of Affect, Loyalty, Contribution, and Professional Respect.

### **RESEARCH PROPOSITIONS**

In this paper, we will attempt to address the significance of diversity as a predictor of leadership effectiveness, using the Leader-Member Exchange Model. We begin by presenting a discussion on the importance of diversity. A theoretical framework is presented using the GLOBE study components of Individualism,

Collectivism, and Gender Egalitarianism as measures of diversity for the present study. This is followed by a review of the recent literature on the Leader-Member Exchange Theory that addresses leadership behavior. The paper then discusses the impact of diversity upon the LMX model. This examination allows us to determine which specific dimensions of diversity drive leadership effectiveness using the LMX model, and ultimately enables us to arrive at a theoretical basis for our findings. Results of this study indicated that the diversity dimension, collectivism, was the driving factor of leadership effectiveness, through the use of the LMX model. Following are the proposed hypotheses for this study:

*Hypotheses 1:* The Diversity dimension of Individualism is positively associated with the multidimensional measure of leader-member exchange.

*Hypotheses 2:* The Diversity dimension of Collectivism is positively associated with the multidimensional measure of leader-member exchange.

*Hypotheses 3:* The Diversity dimension of Gender Egalitarianism is positively associated with the multidimensional measure of leader-member exchange

## **METHODS**

### **Instruments**

The participants in this study were provided with three instruments to complete. The first instrument was the LMX model, which consisted of the four dimensions of Contribution, Loyalty, Affect, and Professional Respect. The purpose of this 12-item questionnaire was to measure the subordinate's attitudes toward their immediate supervisor and perceptions of leadership. Respondents were asked twelve questions on a likert scale of 1 representing strongly agree, 4 representing neither disagree nor agree, and 7 representing strongly disagree. These scores were reversed-scored to coincide with the original empirical scale which asked the twelve questions on a likert scale of 1 representing strongly disagree, 4 representing neither disagree nor agree, and 7 representing strongly agree, identified by Liden and Maslyn (1998). The participants were then asked to complete a diversity questionnaire. The three dimensions of Diversity; Individualism, Collectivism, and Gender Egalitarianism, were measured with eleven questions from the GLOBE research survey. Since we were mainly interested in how diversity and organizational practices were perceived by participants participating in this research, only the questions dealing with the Diversity dimensions of Individualism, Collectivism, and Gender Egalitarianism were asked in this survey. Questions 1 and 3 on Individualism, and questions 4, 5, 6 & 8 on Collectivism were reversed-scored according to the Syntax for GLOBE National Culture, Organizational Culture, and leadership Scales. Finally, participants were asked to complete the demographic questions from the GLOBE Survey, which consisted of 27 questions.

### **Participants**

A total of 300 working adults participated in this study. Of those, 185 (61.7%) were women and 115 (38.3%) were men. Thirty-nine percent of the respondents self-reported as Hispanic, while participants who self-reported as White, Caucasian, or Anglo constituted 38% of the sample. Participants who self-reported as Black, or African American constituted 16% of the sample. The remaining 7% identified themselves as American Indian, Asian Indian, Korean, or Other Pacific Islander. Participants ranged in age from 18 to 78; 37.3% were 18 to 30 years old, 24.0% were 31 to 40, 22.7% were 41 to 50, 13.7 were 51 to 60, and 2.3% were 61 to 78 years of age. Ninety-eight respondents (32.9%) had earned less than an undergraduate degree, 107 respondents (35.9%) held a bachelor's degree, and 95 respondents (31.2%) had earned postgraduate degrees.

## **RESULTS**

In this analysis, the four LMX dimensions of Contribution, Loyalty, Affect, and Professional Respect were used as the dependent variables. The three Diversity dimensions of Individualism, Collectivism, and Gender Egalitarianism were used as the independent variables. The control variables consisted of age, gender, religious affiliation, years of work experience, years of education, ethnicity, years as a manager, tenure in current job, and number of direct reports.

Likert scales were used in the diversity questionnaire to measure participant’s attitudes toward diversity in their organization. The reliability of the Likert scales resulted in a Cronbach  $\alpha$  of 0.6, which indicated that the questions measuring attitudes toward diversity were moderate to highly correlated with each other. The mean scores for each of the questions ranged from 3.82 to 4.39, on a scale of 1 being a strong measure of diversity attitudes in the organization, 7 being a weak measure of diversity attitudes in the organization, and 4 being undecided. Ultimately, all questions with respect to Individualism, Collectivism, and Gender Egalitarianism that measured diversity were summed into one variable that was labeled DiversityAvg. An overall mean score of 4.48 on a scale of 1-7 indicated that attitudes toward diversity for all surveys combined ranged between average and strong.

A Pearson’s correlation of the LMX model was run using the LMX dimensions of Contribution, Loyalty, Affect, and Professional Respect and the Diversity dimensions of Individualism, Collectivism, and Gender Egalitarianism. The results of this correlation in Table 1 indicated that the independent variable labeled DiversityAvg was significant and found to be positively correlated with the dependent variable labeled LMXQuality ( $r = 0.42, p < 0.01$ ), Contribution ( $r = 0.24, p < 0.01$ ), Loyalty ( $r = 0.35, p < 0.01$ ), Affect ( $r = 0.40, p < 0.01$ ), and Professional Respect ( $r = 0.41, p < 0.01$ ).

**Table 1. Pearson’s Correlations on LMX Dimensions and Diversity**

		<b>LMX Quality</b>	<b>Age</b>	<b>Religious Affiliation</b>	<b># Direct Reports</b>
<b>LMX Quality</b>	Pearson Correlation	1	0.91	-.132*	-.056
	Sig. (2-tailed)		.116	.023	.358
	N	298	298	296	272
<b>Age</b>	Pearson Correlation	-.091	1	-.110	.265**
	Sig. (2-tailed)	.116		.058	.000
	N	298	300	298	274
<b>Religious Affiliation</b>	Pearson Correlation	-.132*	-.110	1	.056
	Sig. (2-tailed)	.023	.058		.356
	N	296	298	298	273
<b># Direct Reports</b>	Pearson Correlation	-.056	.265**	.056	1
	Sig. (2-tailed)	.358	.000	.356	
	N	272	274	273	274
<b>Individualism Mean</b>	Pearson Correlation	.065	.048	-.111	-.014
	Sig. (2-tailed)	.266	.410	.055	.817
	N	298	299	297	273
<b>Collectivism Mean</b>	Pearson Correlation	.543**	-.214**	-.127*	-.144*
	Sig. (2-tailed)	.000	.000	.029	.017
	N	298	299	297	273
<b>Gender Egalitarianism Mean</b>	Pearson Correlation	-.049	.055	.066	.097
	Sig. (2-tailed)	.398	.343	.259	.110
	N	298	299	297	273
<b>Diversity Avg</b>	Pearson Correlation	.423**	-.106	-.126*	-.075
	Sig. (2-tailed)	.000	.068	.030	.217
	N	298	299	297	273

\*Correlation is significant at the 0.05 level (2-tailed).

\*\*Correlation is significant at the 0.01 level (2-tailed).

Table 1. Pearson’s Correlations on LMX Dimensions and Diversity

		Individualism Mean	Collectivism Mean	Gender Egalitarianism Mean	Diversity Avg.
<b>LMX Quality</b>	Pearson Correlation	.065	.543**	-.049	.423**
	Sig. (2-tailed)	.266	.000	.398	.000
	N	298	298	298	298
<b>Age</b>	Pearson Correlation	.048	-.214**	.055	-.106
	Sig. (2-tailed)	.410	.000	.343	.068
	N	299	299	299	.299
<b>Religious Affiliation</b>	Pearson Correlation	-.111	-.127*	.066	-.126*
	Sig. (2-tailed)	.055	.029	.259	.030
	N	297	297	297	297
<b># Direct Reports</b>	Pearson Correlation	-.014	-.144*	.097	-.075
	Sig. (2-tailed)	.817	.017	.110	.217
	N	273	273	273	273
<b>Individualism Mean</b>	Pearson Correlation	1	.075	-.052	.488**
	Sig. (2-tailed)		.196	.369	.000
	N	299	299	299	299
<b>Collectivism Mean</b>	Pearson Correlation	.075	1	.036	-.144*
	Sig. (2-tailed)	.196		.543	.017
	N	299	299	299	273
<b>Gender Egalitarianism Mean</b>	Pearson Correlation	.052	.036	1	.452**
	Sig. (2-tailed)	.369	.534		.000
	N	299	299	299	299
<b>Diversity Avg.</b>	Pearson Correlation	.488**	.790**	.452**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	299	299	299	299

\*Correlation is significant at the 0.05 level (2-tailed).

\*\*Correlation is significant at the 0.01 level (2-tailed)

Table 2. Regression coefficients for the LMX Dependent Variable: LMXQuality

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74.530	3.229		23.080	.000
	Religious Affiliation	-6.132	2.778	-.137	-2.207	.028
2	(Constant)	74.409	3.282		22.671	.000
	Religious Affiliation	-6.214	2.809	-.139	-2.213	.028
	Ethnicity	.105	.480	.014	.218	.827
3	(Constant)	75.393	3.443		21.900	.000
	Religious Affiliation	-6.441	2.816	-.144	-2.287	.023
	Ethnicity	.122	.491	.016	.249	.804
	Yrs as Manager	.143	.117	.088	1.215	.225
	Tenure Current Job	-.241	.155	-.110	-1.555	.121
	# Direct Reports	-.026	.036	-.047	-.715	.475
4	(Constant)	44.447	4.285		10.372	.000
	Religious Affiliation	-2.692	2.422	-.060	-1.111	.267
	Ethnicity	-.282	.419	-.037	-.673	.502
	Yrs as Manager	.153	.100	.094	1.537	.125
	Tenure Current Job	-.097	.132	-.044	-.730	.466
	# Direct Reports	.011	.031	.020	.354	.724
	CollectivismMean	6.926	.701	.539	9.878	.000

a. Dependent Variable: LMXQuality

Multiple regression analysis was conducted on the dependent variable LMXQuality, using the stepwise method to determine which, if any, of the diversity dimensions had any relationship with the LMX model. Results of the regression analysis provided in Table 2 indicated that the Diversity dimension, Collectivism, was the driving

factor of the relationship ( $\beta = .539, p = 0.00$ ). Thus, results showed that the more collectivistic the respondents believed the work culture to be the more positively they rated their organization’s immediate supervisor and perceptions of leadership.

**Table 3. Multiple regression analysis for Total LMX Quality**

Model	R	R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1	.137 <sup>a</sup>	.019	14.29443	.019	4.873	1	254	.028
2	.138 <sup>b</sup>	.019	14.32131	.000	.048	1	253	.827
3	.179 <sup>c</sup>	.032	14.31021	.013	1.131	3	250	.337
4	.552 <sup>d</sup>	.305	12.15394	.272	97.576	1	249	.000

- a. Predictors: (Constant), Religious Affiliation
- b. Predictors: (Constant), Religious Affiliation, Ethnicity
- c. Predictors: (Constant), Religious Affiliation, Ethnicity, Tenure Current Job, # Direct Reports, Yrs as Manager
- d. Predictors: (Constant), Religious Affiliation, Ethnicity, Tenure Current Job, # Direct Reports, Yrs as Manager, CollectivismMean

The results of a multiple regression analysis of Total LMX Quality, consisting of participant age, gender, religious affiliation, years of education, and years of work experience in block one, ethnicity in block two, and years as a manager, tenure in the current job, and number of direct reports in block three, and each of the Diversity dimensions of Individualism, Collectivism, and Gender Egalitarianism, indicated that there were two significant reduced models. Collectivism and religious affiliation were both predictor variables with regard to participant’s ratings of diversity in the organization and their attitudes toward their immediate supervisor and perceptions of leadership. Results of the regression analysis provided in Table 2 indicated that the diversity dimension, collectivism, was the driving factor causing the significant influence ( $\beta = .539, p = 0.00$ ). The initial correlation in Table 1 between each of the four dimensions of LMX and the three dimensions of diversity used in this study indicated that diversity was a significant predictor of the dependent variable, LMX Quality. Further regression analysis, using the stepwise method, indicated that the diversity dimension, Collectivism, was the driving factor of this relationship, thus supporting Hypothesis 2. This result indicates that the more collectivistic the respondents believed the work culture to be the more positively they rated their immediate supervisor and perceptions of leadership ( $R^2 = 0.31, p = 0.00; \beta = 0.539, r_p = .531, p = 0.00$ ).

The control variable of religious affiliation was also found to be a significant predictor with regard to this relationship ( $\beta = -.139, p = .028$ ) and showed an inverse relationship. Religious affiliation, as a control factor, accounted for 1.9% of the variance in the relationship ( $\beta = -.139, r_p = -.138, p = .028$ ). Consequently, the more collectivistic and less religiously affiliated the organizational culture, the more positively the respondents rated their immediate supervisor and perceptions of leadership. Table 3 provides the results for this multiple regression analysis.

**Table 4. Multiple regression analysis for LMX Contribution**

Model	R	R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1	.155 <sup>a</sup>	.024	1.07441	.024	6.283	1	254	.013
2	.156 <sup>b</sup>	.024	1.07647	.000	.028	1	253	.867
3	.208 <sup>c</sup>	.043	1.07224	.019	1.666	3	250	.175
4	.319 <sup>d</sup>	.102	1.04123	.058	16.112	1	249	.000

- a. Predictors: (Constant), Religious Affiliation
- b. Predictors: (Constant), Religious Affiliation, Ethnicity
- c. Predictors: (Constant), Religious Affiliation, Ethnicity, Tenure Current Job, # Direct Reports, Yrs as Manager
- d. Predictors: (Constant), Religious Affiliation, Ethnicity, Tenure Current Job, # Direct Reports, Yrs as Manager, CollectivismMean

The results of a multiple regression using the same predictor variables and the criterion variable of LMX Contribution again had two significant predictors, collectivism ( $R^2 = 0.102, p = 0.00; \beta = 0.249, r_p = .247, p = 0.00$ ),

and religious affiliation which accounted for 2.4% of the variance in the relationship ( $\beta = -.159, r_p = -.158, p = .012$ ). Results found the diversity dimension, Collectivism, to be the driving factor of this relationship, reaffirming Hypothesis 2. Thus, the more collectivistic and less religiously affiliated the organizational culture, the more positively the respondents rated their immediate supervisor and perceptions of leadership. Table 4 provides the results for this multiple regression analysis.

**Table 5. Multiple regression analysis for LMX Loyalty**

Model	R	R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1	.130 <sup>a</sup>	.017	1.45121	.017	4.368	1	254	.038
2	.133 <sup>b</sup>	.018	1.45353	.001	.190	1	253	.663
3	.182 <sup>c</sup>	.033	1.45054	.016	1.348	3	250	.259
4	.491 <sup>d</sup>	.241	1.28786	.208	68.146	1	249	.000
5	.508 <sup>e</sup>	.258	1.27560	.017	5.812	1	248	.017

- a. Predictors: (Constant), Age
- b. Predictors: (Constant), Age, Ethnicity
- c. Predictors: (Constant), Age, Ethnicity, # Direct Reports, Tenure Current Job, Yrs as Manager
- d. Predictors: (Constant), Age, Ethnicity, # Direct Reports, Tenure Current Job, Yrs as Manager, CollectivismMean
- e. Predictors: (Constant), Age, Ethnicity, # Direct Reports, Tenure Current Job, Yrs as Manager, CollectivismMean, GenderEgalitarianismMean

The results of a multiple regression using the same predictor variables and the criterion variable of LMX Loyalty revealed three significant predictors; collectivism, gender egalitarianism and age, which helps support Hypothesis 2 and 3. Results showed that the more collectivistic the respondents believed the work culture to be the more positively they rated their immediate supervisor and perceptions of leadership ( $R^2 = 0.241, p = 0.00; \beta = 0.480, r_p = .464, p = 0.00$ ). The rating of gender egalitarianism of the culture improved the model’s predictive power by 2% ( $\beta = -.134, r_p = -.151, p = 0.17$ ). Age as a control variable accounted for 1.7% of the variance in the relationship ( $\beta = -.130, r_p = -.130, p = .038$ ). Thus, the more collective the organizational culture, the younger the participants, and the less gender equality in the workplace, the more positively participants rated their immediate supervisor and perceptions of leadership. Results of the multiple regression analysis are provided in Table 5.

**Table 6. Multiple regression analysis for LMX Affective**

Model	R	R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1	.011 <sup>a</sup>	.000	1.59075	.000	.030	1	254	.862
2	.115 <sup>b</sup>	.013	1.58964	.013	1.118	3	251	.342
3	.533 <sup>c</sup>	.284	1.35698	.271	94.449	1	250	.000

- a. Predictors: (Constant), Ethnicity
- b. Predictors: (Constant), Ethnicity, Tenure Current Job, # Direct Reports, Yrs as Manager
- c. Predictors: (Constant), Ethnicity, Tenure Current Job, # Direct Reports, Yrs as Manager, CollectivismMean

The results of a multiple regression using the same predictor variables and the criterion variable of LMX Affective revealed only one significant predictor, collectivism ( $R^2 = 0.284, p = 0.00; \beta = 0.531, r_p = .524, p = 0.00$ ). Results showed that the more collectivistic the respondents believed the work culture to be the more positively they rated their immediate supervisor and perceptions of leadership. Results of the multiple regression analysis are provided in Table 6.



Table 7. Multiple regression analysis for LMX Professional Respect

Model	R	R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1	.169 <sup>a</sup>	.029	1.53784	.029	7.497	1	254	.007
2	.218 <sup>b</sup>	.047	1.52590	.019	4.991	1	253	.026
3	.222 <sup>c</sup>	.049	1.52749	.002	.475	1	252	.491
4	.283 <sup>d</sup>	.080	1.51144	.031	2.793	3	249	.041
5	.528 <sup>e</sup>	.278	1.34153	.198	68.070	1	248	.000

a. Predictors: (Constant), Religious Affiliation

b. Predictors: (Constant), Religious Affiliation, Age

c. Predictors: (Constant), Religious Affiliation, Age, Ethnicity

d. Predictors: (Constant), Religious Affiliation, Age, Ethnicity, # Direct Reports, Tenure Current Job, Yrs as Manager

e. Predictors: (Constant), Religious Affiliation, Age, Ethnicity, # Direct Reports, Tenure Current Job, Yrs as Manager, CollectivismMean

The results of a multiple regression using the same predictor variables and the criterion variable of LMX Professional Respect revealed four significant predictors; collectivism, religious affiliation, age, and years as a manager. Results showed that the more collectivistic the respondents believed the work culture to be the more positively they rated their immediate supervisor and perceptions of leadership ( $R^2 = 0.278$ ,  $p = 0.00$ ;  $\beta = 0.477$ ,  $r_p = .464$ ,  $p = 0.00$ ). Religious affiliation accounted for 2.9% of the variance in the relationship ( $\beta = -.169$ ,  $r_p = -.169$ ,  $p = .007$ ), age accounted for 4% of the variance ( $\beta = -.138$ ,  $r_p = .139$ ,  $p = .026$ , while years as a manager accounted for 8% of the variance in the relationship ( $\beta = .212$ ,  $r_p = .142$ ,  $p = .025$ ). Thus, the more collective the organizational culture, the more years as a manager, the younger the individuals, and the less religious affiliation in the workplace, the more positively participants rated their immediate supervisor and perceptions of leadership. Results of the multiple regression analysis are provided in Table 7.

## LEADERSHIP

This study asked participants to rate the degree to which the four dimensions of the Leader-Member Exchange (LMX) Model were instrumental in measuring their attitudes toward their supervisor and perceptions of leadership.

The results of the initial multiple regression analysis in Table 1 indicated that the independent variable, labeled DiversityAvg, was found to be positively correlated with the dependent variable, labeled LMXQuality ( $r = .42$ ,  $p < 0.01$ ). Further regression analysis revealed that the diversity dimension, Collectivism, was the driving factor of this relationship ( $\beta = .539$ ,  $p = 0.00$ ). This indicates that the more collectivistic the participants believed the work culture to be, the higher they rated their immediate supervisor and perceptions of leadership. Results of this regression analysis are provided in Table 2

Additional regression analysis was run for each of the four LMX dimensions of Collectivism, Loyalty, Affect, and Professional Respect. All four of the LMX dimensions were found to have a significant relationship with the diversity dimension, Collectivism, while the LMX dimension of Loyalty was also found to be significant with the diversity dimension, Gender Egalitarianism. (Results of these analyses are provided in Tables 5 through 7).

## DISCUSSION

The results of this study presented findings that were both intriguing and beneficial to current research. Research shows that collectivist cultures tend to have a high degree of interdependency among group members in the organization. This interdependency conceivably promotes a higher value on diversity. Aycan, Kanungo, Mendonca, Yu, Deller, Stahl, and Kurshid (2000) found that managers who prefer collectivism as a cultural value, also ascertain that employees in their organizations will exhibit a high degree of obligation toward other organizational members. Herrera, Duncan, Green, Ree, and Skaggs (2011) found that organizations with a strong collectivist culture are a strong predictor of how positively participants rated their organizations support for diversity, recruitment efforts, diversity training for mentors, and employees with disabilities. Brandt (1974) and

Choi (1996) found that members of collectivist cultures are more likely to engage in group activities than members of individualistic cultures. And Wheeler, Reis and Bond (1989) found that relationships in collectivist cultures tend to be longer in duration, more intimate, and more group-oriented than relationships in individualistic cultures.

It is unclear from this study whether participants who prefer a collectivist culture tended to self-select toward organizations that promote diversity or whether organizations that promote diversity tend to acculturate workers toward a preference for collectivism. Erez and Earley (1993) found that human resources practices differed between organizations that promoted individualistic cultures to those that promoted collectivistic cultures. Those organizations promoting collectivist cultures emphasized interdependence and obligation to others. Erez and Earley assume that these organizational cultural values likely manifest themselves during employee recruitment, performance appraisal, and job design.

The increased growth of women, minorities, and other cultures in the workplace has necessitated the need for empirical research to provide insight into the relationship between diversity and the LMX model dimensions. The results of this study indicate that promoting a more collectivist rather than individualistic or gender-based culture is associated with the increased rating of multiple aspects of leadership effectiveness. If a company's desire is to have increased ratings of leadership effectiveness, then the organization should begin to incorporate those practices necessary to achieve desired objectives. This includes creating a culture in which the individual is viewed as interdependent with groups, in which people emphasize relatedness with groups, or in which individuals have fewer social interactions, but interactions tend to be longer and more intimate (House, Hanges, Javidan, Dorfman, and Gupta, 2004, p. xv).

An organizational culture that is collectivist in nature also includes an emphasis in HRM practices, including selection, performance appraisal, and termination processes. With respect to selection in collectivist cultures, this is commonly influenced by the relation that applicants have with members within the organization. The most qualified person could very well be the one with the best contacts and relationships with the organization. With regard to performance appraisals, workers in collectivist cultures prefer less formal appraisal practices and are less likely to prefer rewards based on individual merit. And with respect to terminations, poor performance is more frequently tolerated and the quality of the relationship with the organization has more of an impact on whether one is terminated.

## **CONCLUSION AND LIMITATIONS**

This study makes several significant contributions to the literature on leadership, particularly with respect to how diversity impacts the Multidimensional Measure of Leader-Member Exchange (LMX-MDM). Although the LMX model has emerged as one of the most enduring theories for characterizing leadership behavior, little is known about how diversity can impact the LMX model for increased leadership effectiveness. This paper also alerts organizations as to the HRM policies and practices that need to be applied to arrive at desired results. Results of this current study indicate that diversity does indeed have a significant impact on the LMX model. Of the diversity dimensions of Individualism, Collectivism, and Gender Egalitarianism, Collectivism was found to be the driving factor of influence on the LMX model for increased leadership effectiveness. Organizations must be able to recognize that HRM policies and practices will only lead to positive results when applied in the proper context. In other words, organizations must know which policies must be applied when dealing with a collectivist culture and when they are no longer applicable. These findings stress the importance of implementing the right corporate strategy based on the organization's culture. With the increase in globalization, organizations must be prepared to re-evaluate their policies and know when to adapt to changes in organizational culture. Only then will they be able to take full advantage of organizational diversity practices to increase leadership effectiveness to its fullest capacity.

This study is confronted with the usual limitations associated with the use of the survey method. For example, limited in its ability to account for unforeseen variables, surveys can only find associations rather than casual relationships between independent variables and dependent variables (McKenna, Hasson, and Keeney 2006). Future studies can overcome this problem by combining other methods such as longitudinal studies with surveys, which are administered a number of times over the period of the research. Although subject to limitations,

the survey sample size of 300 participants used in this study, nevertheless, displays results that provide significant theoretical and practical contributions to diversity and its effect on the Leader-Member Exchange Model.

Data for this study were collected at both a private and public Texas University. To be able to generalize this study's results to a larger number of organizations, future research would profit from including a more varied sample of universities.

In addition, survey questionnaires were only distributed to nontraditional students in graduate and undergraduate programs. Respondents of the study were students who were also employed in a wide array of organizations while attending school. Future studies could enhance the generalizability of the results by collecting data from traditional full-time students and students who are enrolled in other types of programs.

In summary, the current study results show there is a significant relationship between Diversity and its effect on the Leader-Member Exchange Model, which can lead to increased leadership effectiveness. Results further show that the Diversity dimension of Collectivism is the driving factor influencing this significant relationship. These findings, without a doubt, have important implications for organizations that remain challenged in implementing the proper HRM policies and the right corporate strategy based on the organization's culture.

#### **AUTHOR INFORMATION**

**Richard Herrera, Ph.D.**, is currently an Assistant Professor of Management at Texas A&M University- Texarkana. His primary teaching areas include operations management, human resources, organizational behavior, and leadership in organizations. He holds a Bachelors of Business and a Masters of Business Administration from St. Mary's University, and received his Ph.D. in Leadership Studies from Our Lady Of The Lake University. His research interests are in the areas of Organizational Diversity Practices, Diversity Management, and Organizational Culture & Behavior. He has served on numerous corporate boards and has dealt extensively in the areas of Diversity and Diversity Management in organizations. E-mail: [richard.herrera@tamut.edu](mailto:richard.herrera@tamut.edu) (Corresponding author)

**Phyllis A. Duncan** is an Associate Professor in the School of Business and Leadership at Our Lady of the Lake University where she teaches and is coordinator of the Leadership Studies Doctoral Program. She has held various leadership positions in businesses including CEO, COO, and Senior Vice President. Phyllis hold a Bachelor's of Science from University of the Ozarks, a Masters of Business Administration from University of Arkansas, a Master's of Science in Industrial Engineering from Southwest University, and a Doctorate of Philosophy from University of the Incarnate Word. She can be reached at E-mail: [paduncan@lake.ollusa.edu](mailto:paduncan@lake.ollusa.edu).

**Malcolm J. Ree**, is currently Professor of Leadership at Our Lady of the Lake University in San Antonio, Texas. He received his Ph.D. in Psychometrics and Statistics from the University of Pennsylvania. He is the author/co-author of 13 book chapters, over 60 published journal articles, over 50 technical reports, and over 40 conference presentations and papers. His teaching and research interests include the Ph.D. Program, Research and Statistics, and Decision Theory. His professional experiences include Senior Scientist at the Air Force Research Laboratory, Past Directorate of the DOD Psychometric Committee, Several Committee Chairmanships, and Air Force Representative to TAPSTEM Scientific Group. E-mail: [reemal@lake.ollusa.edu](mailto:reemal@lake.ollusa.edu)

**Kevin Williams, D.Sc.**, is currently a Clinical Faculty of Instructional Technology at Texas A&M University – Texarkana. His primary teaching duties include courses over web design, creating instructional content, leadership, and course design. He holds a Bachelors of Business with a major in management information systems from Texas A&M University - Texarkana, a Master of Science degree in Business Administration from Texas A&M University – Texarkana, a Master of Science degree in Information Systems from Dakota State University, and a Doctor of Science in Information Systems from Dakota State University. His research interests are in the areas of Social Networking Usage and Social E-Learning. E-mail: [kevin.williams@tamut.edu](mailto:kevin.williams@tamut.edu)

**REFERENCES**

1. Agocs, C., & Burr, C. (1996). Employment equity, affirmative action and managing diversity: Assessing the differences. *International Journal of Manpower*, 17(4-5), 30-45.
2. Avery, D.R. (2003). Reactions to diversity recruiting advertising: Are differences black and white? *Journal of Applied Psychology*, 88(4), 672-679.
3. Aycan, Z., Kanungo, R., Mendonca, M., Yu, K., Deller, J., Stahl, G., and Kurshid, A. (2000). Impact of culture on human resource management practices: A 10 country comparison. *Applied Psychology: An International Review*, 49(1), 192-221.
4. Bell, S.T., Villado, A.J., Lukasik, M.A., Belau, L., & Brigg, A.L. (2011). Getting specific about demographic diversity variable and team performance relationships: a meta-analysis. *Journal of Management*, 37(3), 709-743.
5. Brandt, V. (1974). Skiing cross-culturally. *Current Anthropology*, 15, 64-66.
6. Carr-Ruffino, Norma. (1992). Diversity in the workplace. New York: The Guildford Press.
7. Charles, J. (2003). Diversity management: An exploratory assessment of minority group representation in state government. *Public Personnel Management*, 32(4), 561-577.
8. Choi, Y. (1996). The self in different context: behavioral analysis. Paper presented at the International Congress of Psychology.
9. Cox, T.H., and Blake, S. (1991). Managing cultural diversity: Implications for organizational competitiveness. *Academy of Management Executive*, 5(3), 45-56.
10. Dienesch R.M., & Liden, R.C. (1986). Leader-member exchange model of leadership: A critique and further development. *Academy of Management Journal*, 11(3), 818-634.
11. Erez, M., and Earley, P. (1993). *Culture Self-Identity and Work*, New York: Oxford University Press.
12. Gilbert, J.A., & Stead, B.A. (1999). Stigmatization Revisited: Does diversity management make a difference in applicant success? *Group and Organization Management*, 24(2), 239-256.
13. Gonzalez, J.A., & DeNisi, A.S. (2009). Cross-level effects of demography and diversity climate on organizational attachment and firm effectiveness. *Journal of Organizational Behavior*, 30, 21-40.
14. Graen, G. (1976). Role-making processes within complex organization. In M.D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology* (p. 1201-1245). Chicago: Rand McNally.
15. Graen, G.B., & Scandura, T.A. (1987). Toward a psychology of dyadic organizing. *Research in Organizational Behavior*, 9: 175-208.
16. Graen, G.B., & Uhl-Bien, M. (1995). Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level domain perspective. *Leadership Quarterly*, 6: 219-247.
17. Herrera, R., Duncan, P.A., Green, M., & Skaggs, S.L. (2012). The effect of gender on leadership. *Global Business and Organizational Excellence*, 31(2), 37-48.
18. Herrera, R., Duncan, P.A., Green, M., Ree, M., & Skaggs, S.L. (2011). Organizational culture as a predictor of organizational diversity practices. *The Business Journal of Hispanic Research*, 5(1), 73-85.
19. Herrera, R., Duncan, P.A., Green, M., Ree, M., & Skaggs, S.L. (2011). The relationship between attitudes toward diversity management in the southwest USA and the GLOBE study cultural preferences. *The International Journal of Human Resource Management*, 22(12), 2629-2646.
20. Homan, A.C., Hollenbeck, J.R., Humphrey, S.E., van Knippenberg, D., Ilgen, D.R., & Van Kleef, G.A. (2008). Facing differences with an open mind: Openness to experience, salience of intragroup differences, and performance of diverse work groups. *Academy of Management Journal*, 51, 1204-1222.
21. House, R., Hanges, P., Javidan, M., Dorfman, P., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE Study of 62 societies*. London: Sage Publications.
22. Jacobs, T.O. (1971). *Leadership and exchange in formal organizations*. Alexandria, V.A. HumRRO.
23. Johnston, W., & Packer, A. (1987). *Workforce 2000: Work and workers for the 21<sup>st</sup> century*, Indianapolis, IN: Hudson Institute.
24. Judy, R., & D'Amico, C. (1997). *Workforce 2020: Work and workers in the 21<sup>st</sup> century*, Indianapolis, IN: Hudson Institute.
25. Katz, D., & Kahn, R.L. (1978). *The social psychology of organizations*. (2<sup>nd</sup> ed.). New York: Wiley.
26. Liden, R.C., & Maslyn, J.M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management*, 24(1), 43-72.

27. Liden, R.C., Sparrowe, R.T., & Wayne, S.J. (1997). Leader-member exchange theory: The past and potential for the future. In Ferris GR (Ed.), *Research in Personnel and Human Resources Management*, 15, p. 47-119). Greenwich, CT: Elsevier Science/JAI Press.
28. McKenna, H., Hasson, F., and Keeney, S. (2006). "Surveys", in *The Research Process in Nursing* (5<sup>th</sup> ed), eds. K. Gerrish and A. Lacey, Oxford: Blackwell, pp. 260-273.
29. Meyers, V., & Dreachslin, J. (2007). Recruitment and retention of a diverse workforce: Challenges and opportunities. *Journal of Healthcare Management*, 52(5), 290-298.
30. Nahrgang, J.D., Morgeson, F.P., & Ilies. (2009). The Development of leader-member exchanges: Exploring how personality and performance influence leader and member relationships over time. *Organizational Behavior and Human Decision Processes*, 108, 256-266.
31. Robinson, G., & Dechant, K. (1997). Building a business case for diversity. *Academy of Management Executive*, 11(3), 21-31.
32. Schriesheim, C.A., Castro, S.L., & Cogliser, C.C. (1999). Leader-member exchange (LMX) research: A comprehensive review of theory, measurement, and data-analytic practices. *Leadership Quarterly*, 10, 63-113.
33. Shen, J., D'Netto, B.D., & Tang, J. (2010). Effects of human resource diversity management on organizational citizen behavior in the Chinese context. *The International Journal of Human Resource Management*, 21(12), 2156-2172.
34. Shore, L.M., Chung, B., Dean, M.A., Ehrhart, K.H., Jung, D., Randel, A., & Singh, G. (2009). Diversity and inclusiveness: Where are we now and where are we going? *Human Resource Management Review*, 19, 117-133.
35. Somers, M.J., Finch, L., & Birnbaum, D. (2010). Marketing nursing as a profession: Integrated marketing strategies to address the nursing shortage. *Health Marketing Quarterly*, 27, 291-306.
36. Wheeler, L., Reis, H.T., and Bond, M. (1989). Collectivism-individualism in everyday social life: the middle kingdom and the melting pot. *Journal of Personality and Social Psychology*, 57, 79-86.
37. Williams, M.L., & Bauer, T.N. (1994). The effect of a managing diversity policy on organizational attractiveness. *Group and Organization Management*, 19(3), 295-308.

**NOTES**