The Effect of Leadership on Organizational Culture

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Abstract The effect of leadership on organizational culture was examined in this meta-analysis study. A total of 974 research studies were collected as a result of the review, out of which 48 were included in the meta-analysis. The 48 research studies were compiled to obtain a sample size of 17,092 subjects. The analysis of the random effect model showed that leadership has a *medium-level positive effect* on organizational culture. Of the moderators sample group/sector type, publication type, leadership style/approach and culture type, only leadership style/approach was found to be a moderator variable.

1 Introduction

In a study by Alvesson (1990), in which he believes he is not as skeptical as is expected in science and where he mentions the rapid spreading of research on organizational culture, the researcher suggests three main reasons as to why research on organizational culture has become widely popular. These reasons can be summarized as: (1) economic difficulties, a reduction in production and the inability to compete with Japanese companies and attributing their success on culture; (2) individuals' expectations of their workplace gradually becoming more than their wages, and (3) unsatisfactory knowledge of organizational theory.

The interest in research concerning the effect of organizational culture on organizational performance has begun to grow with research investigating the role of culture on the success of Japanese companies and the decline of North American and European companies. Since the end of the 1970s, many Western countries were facing serious competition of industrial companies and problems concerning productivity; companies faced crises, and these issues led companies to be open to new ideas. Furthermore, modern companies were becoming more globalized, and it became necessary to appeal to other cultures. The success of Japanese companies was partly attributed to cultural characteristics. As a result of

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Table 1 Comparison of various cultural typologies

Quinn & Spreitzer (1991)	Denison & Mishra (1995)	Ogbonna & Harris (2000)	Xenikou & Simosi (2006)	Cameron & Quinn (2011)
Developmental culture	Adaptability	Innovative culture	Adaptive culture	Adhocracy culture
Group culture	Involvement	Community culture	Humanistic culture	Clan culture
Hierarchy culture	Consistency	Bureaucratic culture	Undefined	Hierarchy culture
Rational culture	Mission	Competitive culture	Success culture	Market culture

Adapted from Shao, Feng, & Liu (2012, p. 2403)

these factors, the interest in the culture of organizational activities increased (Alvesson, 1990; Ogbonna & Harris, 2002a).

Organizational culture is an oft-investigated concept; however, there is no consensus on its definition and scope (Ogbonna & Harris, 2000). As more articles are written and studies are conducted, the definition and boundaries of the concept of culture have become more confusing (Harris & Ogbonna, 1998; Ogbonna & Harris, 2002b). Many researchers have suggested many typologies in their studies with the aim of reaching a conceptual clarity for organizational culture, which is multi-dimensional and can mean many things from many perspectives (see Table 1). However, these typologies have made the already complex concept far more complicated, instead of making its understanding easier (Ogbonna & Harris, 2006).

Organizations establish localized cultures that are unique to them and that are important for their functions. To better understand organizations, the structural constructs that may be likened to a machine or system should not be the only point of focus; the symbols and cultural systems should also be examined. Studies on organizational culture should examine the characteristics of an organization, such as shared norms, values, beliefs, and ideologies, and consider the actions that have symbolic meanings for the members of a particular organization (Alvesson, 1990).

When organizational culture is mentioned, the underlying meanings of the values, beliefs, assumptions, actions and practices of an organization come to mind (Sarros, Cooper, & Santora 2011).

Ogbonna and Harris (2000) suggest that although concepts of leadership and organizational culture are frequently topics of research and that these two concepts are considered to be directly or indirectly related to each other, there is a need for more empirical research about the nature of this relationship.

This study examined the effect of leadership on organizational culture. Furthermore, the moderators (which were expected to affect the medium-level effect found in the study) were identified as: (1) the sample group/sector on which the research was conducted, (2) the year of publication of the research, (3) the leadership style/approach and (4) the culture type. All such variables, along with the results of previous research results, were used to test the following hypotheses of this study:

H$_1$ Leadership has a positive effect on organizational culture.
H$_2$ The sample group/sector is a moderator of the positive effect of leadership on organizational culture.
H$_3$ Publication type is a moderator of the positive effect of leadership on organizational culture.
H$_4$ Leadership style/approach is a moderator of the positive effect of leadership on organizational culture.
H$_5$ Culture type is a moderator of the positive effect of leadership on organizational culture.

2   Method

2.1   Study Design

In this study, the effect of leadership on organizational culture was tested with a meta-analysis design.

2.2   Review Strategy and Criteria for Inclusion/Exclusion

To determine the research studies to include in the meta-analysis, the Science-Direct, Proquest and Ebsco academic databases were used to conduct a literature review. The review was restricted to studies published from 2000 and 2013. For this process, the terms *leadership* and *culture* were searched in the titles to screen the research studies. The end date for the research studies included in the research was identified as March 2014. Doctoral dissertations and peer-reviewed journals were included in the study.

Many strategies were used to identify the research studies that were appropriate for the meta-analysis. First, a research study pool (974 research studies) was established that included all studies with leadership and culture in their titles. The abstracts of these studies were reviewed, and 157 were found to be appropriate to include in the study. In the second stage, all research studies in the pool were examined in detail. Forty-eight of the research studies in the pool were appropriate, and 109 were not found to be suitable. The descriptive statistics of the 48 research studies included in the analysis are presented in Table 2.

The criteria for inclusion of the research studies to the analysis study were identified as follows:

- To have the statistical information necessary for correlational meta-analysis (*n* and *r*, or R^2 values)
- To be a study measuring the correlation between leadership and organizational culture

Table 2 Characteristics of the studies included in the meta-analysis

Options		1	2	3	4	5	6	Total
Type of research study		Proceeding	Article					–
	n	3	45					48
	%	6.25	93.75					100
Sample group/sector		Academics	Employees	Nurses	Teachers	Managers	Other	
	n	1	21	3	5	14	4	48
	%	2.08	43.75	6.25	10.42	29.16	8.3	100

Reasons for not including a research study in the meta-analysis:

- Having no quantitative data (qualitative research)
- Not having a correlation coefficient
- Not focusing on organizational culture
- Not focusing on leadership

2.3 Coding Process

The coding process is essentially a data sorting process used to ascertain which of the complex data in studies are clear and suitable for the study. In this scope, a coding form was developed before the statistical analysis was conducted, and the coding was conducted according to the form. The main aim was to develop a specific coding system that allowed the study to see the entirety of the research studies in general and that would not miss any characteristics of each individual research study. The coding form developed in the study was comprised of:

- References for the research
- Sample information
- Sample group/sector
- Leadership style/approach
- Data collection tool(s)
- Quantitative values

2.4 Statistical Processes

The effect size acquired in a meta-analysis is a standard measure value used to determine the strength and direction of the relationship in the study (Borenstein, Hedges, Higgins, & Rothstein 2009). Pearson's correlation coefficient (r) was determined to be the effect size in this study. Because the correlation coefficient has a value between $+1$ and -1, the r value calculated is evaluated by converting this value into the value as it appears in the z table (Hedges & Olkin, 1985).

Provided that more than one correlation value is given between the same structure categories in correlational meta-analysis studies, two different approaches are used in the determination of the one to be used in the meta-analysis (Borenstein, Hedges, Higgins, & Rothstein 2009; Kulinskaya, Morgenthaler, & Staudte 2008). For this study, (1) first, if the correlations were independent, all the related correlations were included in the analysis and were considered to be independent studies, and (2) if there were dependent correlations, then the *conservative estimation value* was accepted. A *random effect model* was used for the meta-analysis processes in this study. The *Comprehensive Meta-Analysis* program was used in the meta-analysis process.

2.5   Moderator Variables

To determine the statistical significance of the difference between the moderators of the study, only the Q_b values were used. Four moderator variables that were expected to have a role on the average effect size were identified in the study. The first of these considered *type of research study* as a moderator of the relationship between organizational culture and leadership styles/approaches. The second, *sample group/sector*, was expected to have a role on the average effect of leadership on organizational culture. The third and the fourth moderator variables were the *leadership style/approach* and the *type of organizational culture*.

2.6   Publication Bias

A funnel plot for the research studies included in the meta-analysis of the study can be seen in Fig. 1. Evidence for the effect of publication bias in the research studies included in the meta-analysis can be seen in Fig. 1. A serious asymmetry would be expected in the funnel plot if there were a publication bias. The concentration of plots on one side, under the line of the average effect size and particularly in the bottom section of the funnel, suggests the probability of a publication bias. In this study, no evidence of the partiality of the publications was observed in any of the 48 data subjected to the meta-analysis.

Although no partiality in publications was observed in the funnel plot, the results of Duval and Tweedie's trim and fill test, which was applied to determine the effect of partiality in publications acquired with the meta-analysis using the random effect model, are given in Table 3 As it can be seen in Table 3, there is no difference between the effect observed and the artificial effect size created to fix the effect of the partiality of publications. The research on each side of the center line is symmetrical, and this is the indicator of non-difference. Because there is no evidence that indicates lost data on either side of the center line, the difference between the fixed effect size and observed effect size is zero.
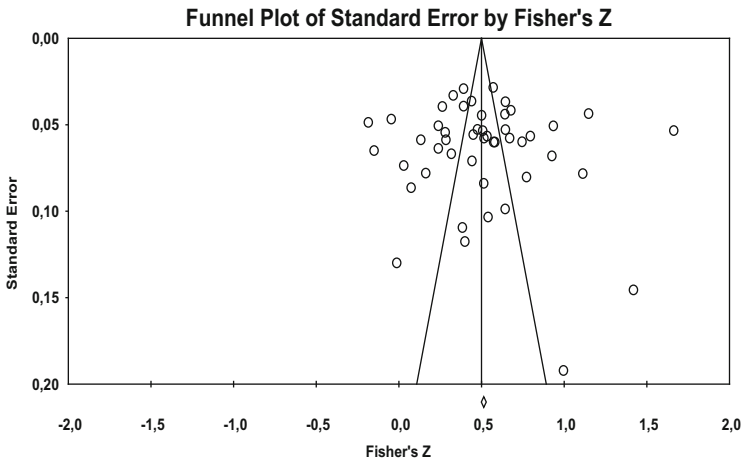
Fig. 1 Effect size funnel for publication bias

Table 3 Duval Tweedie trim and fill test results

	Excluded studies	Point estimate	CI (Confidence interval)		Q
			Lower limit	Upper limit	
Observed values		0.47	0.395	0.541	1,768.35
Corrected values	0	0.47	0.395	0.541	1,768.35

3 Findings

Table 4 shows the results of the meta-analysis of leadership and organizational culture. The findings supported H_1, which argued that there would be a positive relationship between leadership and organizational culture. The effect size of leadership on organizational culture was calculated to be 0.47. This result shows that leadership has a *medium-level effect* (*see* Cohen, 1988) on organizational culture.

The results of the moderator analysis showed that H_2, which predicted that the sample group/sector would be a moderator for the positive effect of leadership on organizational citizenship behavior, was not supported. According to the results of the moderator analysis, the effect size differences among the sample groups/sectors were found to be statistically insignificant. ($Q_b = 2.78$, $p > 0.05$). Despite this finding, the effect of variables were of a medium level for teachers [$r = 0.51$], academics [$r = 0.76$], employees [$r = 0.47$], nurses [$r = 0.48$], managers [$r = 0.40$] and other [$r = 0.53$].

The findings did not provide support for H_3, which expected that the year of publication would be a moderator for the positive effect of leadership on organizational citizenship behavior. Although a statistically significant difference between the effect size of publication type was not found ($Q_b = 0.09$, $p > 0.05$), a medium-

Table 4 Findings of the correlations between leadership and organizational culture: Results of meta-analysis

Variable	k	N	r	CI (Confidence interval) Lower limit	upper limit	Q	Q_b
Organizational culture	48	17,092	0.47*	0.39	0.54	1,768.35*	
Moderator [Type of publication]							0.097
Article	45	15,852	0.46*	0.38	0.54		
Proceeding	3	1,240	0.51*	0.19	0.73		
Moderator [Sample group/sector]							2.780
Academics	1	30	0.76*	0.24	0.94		
Employees	21	8,483	0.47*	0.36	0.58		
Nurses	3	756	0.48*	0.15	0.73		
Teachers	5	1,372	0.51*	0.26	0.70		
Managers	14	5,699	0.40*	0.25	0.54		
Other	4	752	0.53*	0.25	0.73		
Moderator [Leadership style/approach]							37.89*
Individual	1	388	0.73*	0.38	0.90		
Supportive	1	225	0.31	−0.21	0.70		
Transformational	17	5,430	0.54*	0.44	0.63		
Ethical	2	964	0.18	−0.21	0.51		
Servant	1	279	0.63*	0.21	0.86		
Charismatic	2	1,358	0.50*	0.17	0.73		
Leadership behaviour	11	3,490	0.47*	0.33	0.59		
Leadership styles	1	389	0.23	−0.28	0.65		
Leadership practices	1	349	0.47	−0.02	0.78		
Leadership vision	2	1,448	0.33	−0.03	0.61		
Authentic	1	571	0.59*	0.15	0.84		
Autocratic	2	436	0.79*	0.59	0.90		
Educational	1	157	0.65*	0.23	0.87		
Shared	1	420	−0.18	−0.61	0.34		
Spiritual	1	359	0.44	−0.06	0.77		
Directive	3	829	−0.04	−0.34	0.27		
Moderator [Culture type]							0.52
Flexibility oriented	1	571	0.59**	0.01	0.87		
Ethical culture	1	902	0.32	−0.32	0.76		
School culture	1	349	0.47	−0.16	0.83		
Organization culture	45	15,270	0.47*	0.39	0.55		

*$p<0.01$, **$p<0.01$

level effect of leadership perceptions of organizational culture in articles [$r = 0.47$] and proceedings [$r = 0.52$] was found.

Findings supported H_4, which expected that leadership style/approach would play a moderator role on the effect of leadership on organizational culture. The moderator analysis found a statistically significant difference between the effect size of leadership styles ($Q_b = 37.89$, $p < 0.05$). The effect sizes of different types of leadership are as follows: individual leadership [$r = 0.73$], supportive leadership [$r = 0.31$], transformational leadership [$r = 0.54$], ethical leadership [$r = 0.18$], servant leadership [$r = 0.63$], charismatic leadership [$r = 0.50$], leadership behaviors [$r = 0.47$], leadership styles [$r = 0.23$], leadership practices [$r = 0.47$], leadership vision [$r = 0.33$], authentic leadership [$r = 0.59$], autocratic leadership [$r = 0.79$], educational leadership [$r = 0.65$], shared leadership [$r = -0.18$], spiritual leadership [$r = 0.44$] and directive leadership [$r = -0.04$]. Of these, the effect sizes for supportive, ethical, shared, spiritual, and directive leadership styles and leadership vision, leadership styles and leadership practices were not statistically significant ($p > 0.05$).

The findings did not provide support for H_5, which predicted that culture type would moderate on the effect of leadership on culture. The moderator analysis did not find any statistically significant differences between the effect size of types of culture studied ($Q_b = 0.52$, $p > 0.05$). Although this was the case, the effect size of flexibility oriented culture [$r = 0.59$] ($p < 0.01$) and organization culture [$r = 0.47$] ($p < 0.05$) were statistically significant.

Conclusion

Forty-eight studies were included in this meta-analysis aiming to define the effect size of leadership on organizational culture. The moderator variables of the study were determined to be sample group/sector, leadership style/approach, publication type and culture type. The results of the meta-analysis showed that leadership has a medium-level positive effect on organizational culture. This result shows that leadership styles/approaches can be a factor that affects organizational culture, as do the other symbols and meanings that underlie it. In addition, that only leadership style/approach was found to be statistically significant in terms of the effect size in the moderator analysis suggests that regardless of which sample type or organizational culture is apparent, leadership style has an effect on the emergence of the particular situation observed. Sample group/sector, or in other words, the characteristics of the organization, is not a moderator of the establishment of the culture of the organization.

When findings are evaluated as a whole, the results concerning the effect of leadership on organizational culture can be summarized as such:

- Leadership has a medium-level positive effect on organizational culture [$r = 0.47$].

- Whereas sample group/sector, type of publication and culture type do not have a moderator role on the effect of leadership on organizational culture, leadership style/approach has a moderator role on the effect of leadership on organizational culture.
- H1 and H4 were validated, but the others were not.

The finding that leadership has a medium-level positive effect on organizational culture and that there is a positive relationship between leadership and organizational culture is in parallel with the findings of many other studies (Aydoğdu & Aşıkgil 2011; Bakan, 2009; Biswas, 2009; Casida & Pinto-Zipp, 2008; Chen, 2004; Gül & Aykanat, 2012; Khan & Rashid, 2012; Liu, 2013; Ngang, 2011; Ogbonna & Harris, 2000; Parry & Proctor-Thomson, 2003; Shiva & Suar, 2012; Simosi & Xenikou, 2010; Tsai, 2011; Wilderom, Van den Berg, & Wiersma, 2012; Xenikou & Simosi, 2006).

References[1]

Alvesson, M. (1990). On the popularity of organizational culture. *Acta Sociologica, 33*(1), 31–49.

Aydoğdu, S. & Aşıkgil, B. (2011). The effect of transformational leadership behavior on organizational culture: An application in pharmaceutical industry. *International Review of Management and Marketing, 1*(4), 65–73.*

Azanza, G., Moriano, J. A., & Molero, F. (2013). Authentic leadership and organizational culture as drivers of employees' job satisfaction. *Journal of Work and Organizational Psychology, 29*, 45–50.*

Bakan, İ. (2009). Liderlik tarzları ile örgüt kültürü türleri arasındaki ilişkiler: bir alan çalışması, *TİSK Akademi Dergisi, 4*(7), 139–172.*

Biswas, S. (2009). Organizational culture and transformational leadership as predictors of employee performance. *The Indian Journal of Industrial Relations, 44*(4), 611–627.*

Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. Chichester: Wiley.

Buble, M. (2012). Interdependence of organizational culture and leadership styles in large firms. *Management: Journal of Contemporary Management Issues, 17*(2), 85–97.*

Buble, M., & Pavic, I. (2007). Interdependence between organisational culture and leadership styles: The croatian case. *The Business Review, Cambridge, 7*(1), 143–150.*

Casida, J. M., Crane, P. C., Walker, T. L., & Wargo, L. M. (2012). Elaboration of leadership and culture in high-performing nursing units of hospitals as perceived by staff nurses. *Research and Theory for Nursing Practice, 26*(4), 241–261.*

Casida, J., Pinto-Zipp, G. (2008). Leadership-organizational culture relationship in nursing units of acute care hospitals. *Nursing Economics, 26*(1), 7–15.*

Chen, L. Y. (2004). Examining the effect of organizational culture on leadership, organizational commitment and job satisfaction at small and middle-sized firms in Taiwan. *Journal of American Academy of Business, Cambridge, 5*(1/2), 432–438.*

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillside, NJ: Lawrence Erlbaum Associates.

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[1] References marked with an asterisk indicate studies included in the meta-analysis. The in-text citations to studies selected for meta-analysis are not followed by asterisks.

Densten, I. L. & Sarro, J. C. (2012). The impact of organizational culture and social desirability on Australian CEO leadership. *Leadership and Organization Development Journal, 33*(4), 342–368.*

El-Nahas, T., Abd-El-Salam, E. M., & Shawky, A. Y. (2013). The impact of leadership behaviour and organisational culture on job satisfaction and its relationship among organisational commitment and turnover intentions. A case study on an Egyptian company. *Journal of Business and Retail Management Research*, 7(2), 13–43.*

Erkutlu, H. (2012). The impact of organizational culture on the relationship between shared leadership and team proactivity. *Team Performance Management, 18*(1), 102–119.*

Gül, H. & Aykanat, Z. (2012). Karizmatik liderlik ve örgüt kültürü ilişkisi üzerine bir araştırma. *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 16*(1), 17–36.*

Harris, L. C., & Ogbonna, E. (1998). A three-perspective approach to understanding culture in retail organizations. *Personnel Review, 27*(2), 104–123.

Harwiki, W. (2013). The influence of servant leadership on organization culture, organizational commitment, organizational citizenship behavior and employees' performance (study of outstanding cooperatives in east java province, Indonesia). *Journal of Economics and Behavioral Studies, 5*(12), 876–885.*

Hedges, L. V., & Olkin, I. (1985). *Statistical method for meta-analysis*. London: Academic Press.

Huhtala, M., Kangas, M., Laemsae, A., & Feldt, T. (2013). Ethical managers in ethical organisations? the leadership-culture connection among Finnish managers. *Leadership and Organization Development Journal, 34*(3), 250–270.*

Jackson, T. A., Meyer, J. P., & Wang, X. (2013). Leadership, commitment, and culture: A meta-analysis. *Journal of Leadership and Organizational Studies, 20*(1), 84–106.*

Jaskyte, K. (2004). Transformational leadership, organizational culture and innovativeness in nonprofit organizations. *Nonprofit Management and Leadership, 15*(2), 153–168.*

Jung, Y., & Takeuchi, N. (2010). Performance implications for the relationships among top management leadership, organizational culture, and appraisal practice: testing two theory-based models of organizational learning theory in Japan. *The International Journal of Human Resource Management, 21*(11), 1931–1950.*

Karadağ, E. (2009). Spiritual leadership and organizational culture: A study of structural equation model. *Educational Sciences: Theory and Practice, 9*(3), 1391–1405.*

Khan, S. J. K., & Rashid, M. Z. A. (2012). The mediating effect of organizational commitment in the organizational culture, leadership and organizational justice relationship with organizational citizenship behaviour: A study of academicians in private higher learning institution in Malaysia. *International Journal of Business and Social Sciences, 3* (8), 83–91.*

Kulinskaya, E., Morgenthaler, S., & Staudte, R. G. (2008). *Meta analysis: A guide to calibrating and combining statistical evidence*. London: Wiley.

Liu, Y. (2013). Organizational culture, leadership behaviors, and employee attitude in Chinese SMEs: Empirical evidence. *China – USA Business Review, 12*(11), 1085–1095.*

Lok, P., & Crawford, J. (2004). The effect of organisational culture and leadership style on job satisfaction and organisational commitment: A cross-national comparison. *The Journal of Management Development, 23*(3), 321–338.*

Mahalinga Shiva, M. S. A., & Suar, D. (2012). Transformational leadership, organizational culture, organizational effectiveness, and programme outcomes in non-governmental organizations. *Voluntas, 23*(3), 684–710.*

Ngang, T. K. (2011). The effect of transformational leadership on school culture in male' primary schools Maldives. *Procedia-Social and Behavioral Sciences, 30*, 2575–2580.*

Nwibere, B. M. (2013). The influence of corporate culture on managerial leadership style: The Nigerian experience. *International Journal of Business and Public Administration, 10*(2), 166–187.*

Ogbonna, E. & Harris, L. (2000). Leadership style, organizational culture and performance: Empirical evidence from UK companies. *International Journal of Human Resources Management, 11*(4), 766–788.*

Ogbonna, E., & Harris, L. (2002a). Organizational culture: a ten year, two-phase study of change in the UK food retailing sector. *Journal of Management Studies, 39*(5), 673–706.

Ogbonna, E., & Harris, L. (2002b). Managing organisational culture: Insights from the hospitality industry. *Human Resource Management Journal, 12*(1), 33–53.

Ogbonna, E., & Harris, L. (2006). Organisational culture in the age of Internet: An exploratory study. *New Technology, Work and Employment, 21*(2), 162–175.

Parry, K. W., & Proctor-Thomson, S. B. (2003). Leadership, culture and performance: The case of the New Zealand public sector. *Journal of Change Management, 3*(4), 376–399.*

Raus, A., & Haita, M. (2011). Leadership style, organizational culture and work motivation in a school within ministry of interior. *Managerial Challenges of the Contemporary Society, 2*, 256–260.*

Şahin, S. (2011). Öğretimsel Liderlik ve Okul kültürü Arasındaki İlişki (İzmir İli Örneği). *Kuram ve Uygulamada Eğitim Bilimleri, 11*(4), 1909–1928.*

Sarros, J. C., Cooper, B. K., & Santora, J. C. (2011). Leadership vision, organizational culture, and support for innovation in not-for-profit and for-profit organizations. *Leadership and Organization Development Journal, 32*(3), 291–309.*

Shao, Z., Feng, Y., & Liu, L. (2012). The mediating effect of organizational culture and knowledge sharing on transformational leadership and Enterprise Resource Planning systems success: An empirical study in China. *Computers in Human Behavior, 28*(6), 2400–2413.*

Shiva, M. M., & Suar, D. (2012). Transformational leadership, organizational culture, organizational effectiveness, and programme outcomes in non-governmental organizations. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *23*(3), 684–710.*

Shivers-Blackwell, S. (2006). The influence of perceptions of organizational structure and culture on leadership role requirements: The moderating impact of locus of control and self-monitoring. *Journal of Leadership and Organizational Studies, 12*(4), 27–49.*

Simosi, M., & Xenikou, A. (2010). The role of organizational culture in the relationship between leadership and organizational commitment: an empirical study in a Greek organization. *The International Journal of Human Resource Management, 21*(10), 1598–1616.*

Subroto, A. (2011). Organizational culture and leadership role for improving organizational performance: Automotive components industry in Indonesia. *International Journal of Innovation, Management and Technology, 2*(5), 383.*

Taormina, R. J. (2008). Interrelating leadership behaviors, organizational socialization, and organizational culture. *Leadership and Organization Development Journal, 29*(1), 85–102.*

Tipu, S. A. A., Ryan, J. C., & Fantazy, K. A. (2012). Transformational leadership in Pakistan: An examination of the relationship of transformational leadership to organizational culture and innovation propensity. *Journal of Management and Organization, 18*(4), 461–480.*

Toor, S. U. R. & Ofori, G. (2009). Ethical leadership: examining the relationships with full range leadership model, employee outcomes, and organizational culture. *Journal of Business Ethics, 90*(4), 533–547.*

Tsai, Y. (2011). Relationship between organizational culture, leadership behavior and job satisfaction. *BMC Health Services Research, 11*, 98.*

Turan, S. & Bektas, F. (2013). The relationship between school culture and leadership practices. *Egitim Arastirmalari-Eurasian Journal of Educational Research, 52*, 155–168.*

Tütüncü, Ö. & Akgündüz, Y. (2012). Seyahat acentelerinde örgüt kültürü ve liderlik arasındaki ilişki: kuşadası bölgesinde bir araştırma. *Anatolia: Turizm Araştırmaları Dergisi, 23*(1), 59–72.*

Wilderom, C. P., van den Berg, P. T., & Wiersma, U. J. (2012). A longitudinal study of the effects of charismatic leadership and organizational culture on objective and perceived corporate performance. *The Leadership Quarterly, 23*(5), 835–848.*

Wu, C., Wang, P., & Tsai, L. (2010). The effect of organizational culture on team interaction and team effectiveness: Team leadership as a medium. *Journal of International Management Studies, 5*(2), 190–198.*

Xenikou, A., & Simosi, M. (2006). Organizational culture and transformational leadership as predictors of business unit performance. *Journal of Managerial Psychology, 21*(6), 566–579.*

Yiing, L. H., & Ahmad, K. B. (2009). The moderating effects of organizational culture on the relationships between leadership behaviour and organizational commitment and between organizational commitment and job satisfaction and performance. *Leadership and Organization Development Journal, 30*(1), 53–86.*

Yuan, C.-K.,Lee, C.-Y. (2011), Exploration of a construct model linking leadership types, organization culture, employees performance and leadership performance. International Conference on Asia Pacific Business Innovation & Technology Management *Procedia-Social and Behavioral Sciences, 25*, 123–136.*

Yücel, C., Karataş, E., Aydın, Y. (2013). The relationship between the level of principals' leadership roles and organizational culture. 3rd World Conference on Learning, Teaching and Educational Leadership, *Procedia-Social and Behavioral Sciences, 93*, 415–419.*

Zahari, I. B., & Shurbagi, A. M. A. (2012). The effect of organizational culture and the relationship between transformational leadership and job satisfaction in petroleum sector of Libya. *International Business Research, 5*(9), 89–97.*