

# Leadership Behaviors, Trustworthiness, and Managers' Ambidexterity

Anar Purvee and Dalantai Enkhtuvshin

**Abstract**—Previous studies analyzed the relationship between leadership and organizational innovation in different contexts; however very few of them studied the influence of different leadership behaviors on managers' ambidexterity. This study investigated the effects of transformational and transactional leadership behaviors on managers' ambidexterity, and mediating role of trustworthiness. The research findings suggest that transformational leadership behavior has more positive effect on managers' ambidexterity than that of transactional leadership; and this impact is stronger when trustworthiness is higher.

**Index Terms**—Transformational leadership, transactional leadership, trustworthiness, managers' ambidexterity.

## I. INTRODUCTION

The previous studies focused more on defining the antecedents of organizational ambidexterity [1]-[7], but less on those of managers' ambidexterity [8]-[10]. Therefore this study contributes to this gap by defining potential antecedents of managers' ambidexterity in addition to the findings in our previous study [11].

There have been several studies on how different leadership behaviors influence on organizational innovations [11]-[22], and specifically the influence of leadership behaviors on organizational ambidexterity [17]-[19]. Among the different leadership behaviors, the effects of transformational and transactional leadership behaviors were mostly studied in the previous studies [11]-[20].

By applying antecedents of organizational ambidexterity into managers' ambidexterity, the effect of transformational leadership on managers' ambidexterity was positive and significant, and this impact was stronger in a more dynamic environment [11]. In consistent with this result, the current research investigated whether transactional leadership, besides transformational leadership, had any impact on managers' ambidexterity, and whether trustworthiness, which is the ability, benevolence, and integrity of top management, mediated the relationship between these different leadership behaviors and managers' ambidexterity.

## II. LITERATURE REVIEW AND HYPOTHESES

Previous studies investigated the influence of different leadership behaviors on organizational innovations and innovative performances [11]-[22]. Because leaders are the people that can change and guide organizations, they can support organizational innovations and innovative performances in different ways. In the previous studies, the impacts of different leadership styles on organizational innovations were studied [11]-[22]; and among them, transformational and transactional leadership behaviors were studied mostly [11]-[20]. Transformational or transactional leaders inspire or reward their followers for attaining new management practices, processes, or structures [13]. Transformational leaders motivate their followers for growth in four different ways: idealized influence as being a charismatic role model; inspirational motivation as encouraging followers to an appealing vision; intellectual stimulation as promoting creativity and innovation; and individual consideration as attending and supporting followers individually [16]. Unlike transformational leaders, transactional leaders motivate their followers based on their respective wants: contingent reward as rewarding followers based on their performances; management by exception as paying attention where things gone wrong or standards are not met; and laissez-faire leadership as having the absence of leadership [15]. Furthermore, transformational and transactional leaders have both opening and closing leadership behaviors, where opening behaviors support exploration, and closing behaviors support exploitation [20].

Exploration and exploitation are considered as the main requirements of innovation [1]-[10] as well as flexibility to switch between those two activities [20]. Exploration as radical innovation, and exploitation as incremental innovation [2] can be performed at the same time by ambidextrous organizations [1]-[7] as well as ambidextrous managers [8]-[10]. Therefore, managers' ambidexterity was defined as the ability to simultaneously pursue both exploration and exploitation activities [9].

Leaders guide organizations, and they can create an environment that can support managers' ambidexterity; however, different leadership behaviors can facilitate managers' ambidexterity in different levels. For instance, strategic leaders' transformational and transactional behaviors were studied as the two critical outputs of organizational learning [22]. Transformational leadership behaviors facilitate exploratory innovation, while transactional leadership behaviors support exploitative innovation [22]. Moreover, transformational leadership behaviors support and facilitate managers' ambidextrous behaviors, and those managers' innovative and creative performances can be higher when they are guided by

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Anar Purvee is with the Department of Business Administration, Business School, University of the Humanities, Mongolia (e-mail: anar.purvee@gmail.com).

Dalantai Enkhtuvshin is with the Department of Tourism Management, Business School, University of the Humanities, Mongolia (e-mail: e.dalantai@gmail.com).

transformational leaders. However, the effect of transactional leadership behaviors on managers' ambidextrous behaviors wasn't studied before; therefore, based on the previous research findings, the current study developed the following hypothesis on the relationship between transactional leadership and managers' ambidexterity.

**Hypothesis 1:** Transactional leadership is positively related to managers' ambidexterity.

In addition to the relationship between different leadership behaviors and managers' ambidexterity, trust has been studied as an important topic in a variety of disciplines, including management, psychology, and economics [24]-[29]. The influence of leaders' behaviors on managers' performances is dependent on how those leaders create trust among their followers. In this way, there have been several studies on how leadership behaviors predicted trust and organizational trust. For example, transformational leadership behavior was found as an effective way of encouraging the development of trust, commitment and team efficacy [24]. Accordingly, Pillai *et al.* [25] found that transformational leadership had a positive and significant effect on trust, and in this way transformational leadership behavior built trust. However, they found no significant effect of transactional leadership on trust. In consistent with their findings, Jung *et al.* [26] found that transformational leadership had direct impact while transactional leadership had only indirect effect on performance mediated through followers' trust in the leader. In addition to these results, MacKenzie *et al.* [27] studied the relationship between transformational and transactional leadership, and salesperson performance, and mediating role of trust. They found that transformational leadership had stronger and direct relationship with sales performance through mediating role of trust than transactional leadership.

In addition to all these research findings, it's important to distinguish trustworthiness from trust. In the trust literature, the constructs of trust and trustworthiness were studied interchangeably in some studies; therefore, Colquitt *et al.* investigated confusion about the definition and conceptualization of the trust construct [29]. They defined that trustworthiness was the ability, benevolence, and integrity of a trustee, and trust was the intention to accept vulnerability to a trustee based on positive expectations of his or her actions [29]. Therefore, trustworthiness investigates how managers trust their top management behaviors, skills, promises, and justice etc. [28].

Based on all of these research findings, the following hypotheses were developed:

**Hypothesis 2:** Transactional leadership has indirect effect on managers' ambidexterity mediated through trustworthiness.

**Hypothesis 3:** Trustworthiness mediates the relationship between transformational leadership and managers' ambidexterity.

**Hypothesis 4:** The effect of transformational leadership on managers' ambidexterity is stronger than that of transactional leadership.

### III. METHODOLOGY

A quantitative research methodology was used in this

study. A survey was administered to a selected sample from a specific population of top and mid level managers of Mongolian companies. The questionnaire was prepared in English, and translated into Mongolian language. The timing of the survey lasted for around 4 months, starting from August 18<sup>th</sup>, 2013 to November 2<sup>nd</sup>, 2013. The final sample was 608 Mongolian managers.

*Independent variable:* "Transformational leadership" was measured by using a 20-item scale, and "Transactional leadership" was measured by using a 16-item scale from the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio [14]. The MLQ has been extensively used and is considered a well-validated measure of transformational and transactional leadership. All items were rated on a 7-point scale ranging from 1 (very strongly disagree) to 7 (very strongly agree).

*Mediating variable:* "Trustworthiness" was measured by using a 12-item scale based on the previous literatures [28], [29]. Trustworthiness consists of the ability, benevolence, and integrity of top management. All items were rated on a 7-point scale ranging from 1 (very strongly disagree) to 7 (very strongly agree).

*Dependent variable:* "Managers' ambidexterity" was measured by using a 14-item scale constructed in the previous study of Mom *et al.* [9]. Scales of firm or business unit ambidexterity were constructed by combining measures of exploration and exploitation. Following this practice, they started by developing measures for exploration and exploitation at the manager level of analysis. In their study on individual level ambidexterity, they followed the approach by assessing managers' ambidexterity by computing the multiplicative interaction of managers' exploration activities, and managers' exploitation activities. All items were rated on a 7-point scale ranging from 1 (very strongly disagree) to 7 (very strongly agree).

## IV. ANALYSIS AND RESULTS

### A. Correlation Analysis

The correlation and hierarchical regression analyses were used to test the hypotheses. Table I shows the results of correlation analysis with the mean scores and standard deviations.

TABLE I: DESCRIPTIVE STATISTICS AND CORRELATIONS

Variables	Mean	S.D.	1	2	3	4
1. Transformational leadership (TFL)	4.774	1.286				
2. Transactional leadership (TCL)	4.148	0.796	0.388**			
3. Trustworthiness (Trust)	4.681	1.138	0.646**	0.251**		
4. Managers' ambidexterity (MA)	24.757	9.432	0.393**	0.160**	0.443**	

a. N=608.

+  $p < 0.10$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; two-tailed tests

According to the results in Table I, all the correlations were positive and significant at the 0.01 level of confidence (2-tailed). In support of Hypotheses 1, there was a positive

and significant correlation between transactional leadership and managers' ambidexterity (0.160,  $p < 0.01$ ). Consistent with Hypothesis 2, there were positive and significant correlations between transformational leadership and trustworthiness (0.646,  $p < 0.01$ ), and trustworthiness and managers' ambidexterity (0.443,  $p < 0.01$ ).

In support of Hypothesis 3, there was a positive and significant correlation between transactional leadership and trustworthiness (0.251,  $p < 0.01$ ). Consistent with Hypothesis 4, the correlation coefficient of transformational leadership on managers' ambidexterity (0.393,  $p < 0.01$ ) was higher than that of transactional leadership (0.160,  $p < 0.01$ ).

**B. Hypotheses Testing**

To test the hypotheses, the hierarchical regression analyses were conducted. The results of the four-step analysis of the mediation effect are shown in Table II and III.

Hypothesis 1 predicted that transactional leadership was positively related to managers' ambidexterity (that is, the multiplicative interaction of managers' exploration and exploitation). Model 1 in Table II shows an evidence for this hypothesis, and this model explained 2.6% of the variations of the dependent variable. In other words, transactional leadership explained 2.6% of the variations of managers' ambidexterity. As depicted in Table II, the coefficient of transactional leadership in the model was positive and significant ( $\beta = 0.160$ ,  $p < 0.01$ ). Therefore, Hypothesis 1 is supported.

Hypothesis 2 predicted that transactional leadership had indirect effect on managers' ambidexterity mediated through trustworthiness. As depicted in Table II, transactional leadership predicted managers' ambidexterity in Model 1, and the coefficient was positive and significant ( $\beta = 0.160$ ,  $p < 0.01$ ). In Model 2, transactional leadership predicted trustworthiness, and the coefficient was also positive and significant ( $\beta = 0.251$ ,  $p < 0.01$ ). In the Model 3, trustworthiness predicted managers' ambidexterity, and the coefficient was also positive and significant ( $\beta = 0.443$ ,  $p < 0.01$ ). Finally, in Model 4, transactional leadership and trustworthiness predicted managers' ambidexterity, and the coefficient of transactional leadership was positive but insignificant ( $\beta = 0.052$ ), and the coefficient of trustworthiness was positive and significant ( $\beta = 0.430$ ,  $p < 0.01$ ). In addition to these results, the results in Table II also indicate that the coefficient of adjusted  $R^2$  was increased when trustworthiness was added into the model. Therefore, altogether, these results show that transactional leadership has indirect effect on managers' ambidexterity mediated through trustworthiness, supporting Hypothesis 2.

TABLE II: HIERARCHICAL REGRESSION ANALYSIS RESULTS (TRANSACTIONAL LEADERSHIP)

Variables	Model 1 DV, MA	Model 2 DV, Trust	Model 3 DV, MA	Model 4 DV, MA
Transactional leadership	0.160**	0.251**		0.052
Trustworthiness (Trust)			0.443**	0.430**
$R^2$	0.026	0.063	0.196	0.199
Adjusted $R^2$	0.024	0.062	0.195	0.196

a. For all model,  $N=608$ . Standardized coefficients are shown.  
 b. Managers' ambidexterity (MA) is a multiplicative interaction of managers' exploration and exploitation activities.  
 $+ p \leq 0.10$ ;  $* p \leq 0.05$ ;  $** p \leq 0.01$ ;  $*** p \leq 0.001$

Hypothesis 3 predicted that trustworthiness mediated the relationship between transformational leadership and managers' ambidexterity. Table III shows a strong support for this hypothesis.

As depicted in Table III, transformational leadership predicted managers' ambidexterity in Model 1, and the coefficient was positive and significant ( $\beta = 0.393$ ,  $p < 0.01$ ). In Model 2, transformational leadership predicted trustworthiness, and the coefficient was also positive and significant ( $\beta = 0.646$ ,  $p < 0.01$ ). In Model 3, trustworthiness predicted managers' ambidexterity, and the coefficient was also positive and significant ( $\beta = 0.443$ ,  $p < 0.01$ ). Finally, in Model 4, transformational leadership and trustworthiness predicted managers' ambidexterity, and the coefficients of both variables were positive and significant ( $\beta = 0.184$ ,  $p < 0.01$ ), ( $\beta = 0.324$ ,  $p < 0.01$ ) respectively. In addition to these results, the results in Table III also indicate that the coefficient of adjusted  $R^2$  was increased when trustworthiness was added into the model. Therefore, altogether, these results provide evidence that there was a statistically significant mediation effect, supporting Hypothesis 3.

TABLE III: HIERARCHICAL REGRESSION ANALYSIS RESULTS (TRANSFORMATIONAL LEADERSHIP)

Variables	Model 1 DV, MA	Model 2 DV, Trust	Model 3 DV, MA	Model 4 DV, MA
Transformational leadership	0.393**	0.646**		0.184**
Trustworthiness (Trust)			0.443**	0.324**
$R^2$	0.155	0.417	0.196	0.216
Adjusted $R^2$	0.153	0.416	0.195	0.213

a. For all model,  $N=608$ . Standardized coefficients are shown.  
 b. Managers' ambidexterity (MA) is a multiplicative interaction of managers' exploration and exploitation activities.  
 $+ p \leq 0.10$ ;  $* p \leq 0.05$ ;  $** p \leq 0.01$ ;  $*** p \leq 0.001$

Hypothesis 4 predicted that the effect of transformational leadership on managers' ambidexterity was stronger than that of transactional leadership. The results in Table I, II, and III indicate strong evidence for this hypothesis. In addition to the higher correlation coefficient of transformational leadership (see Table I), the hierarchical regression analyses provide stronger evidence (see Table II and III). Transformational leadership explained 15.5% of the variations of managers' ambidexterity (see Table III) while transactional leadership explained only 2.6% of them (see Table II). Therefore, Hypotheses 4 is supported.

**V. DISCUSSION AND CONCLUSION**

The current research studied the relationship between different leadership behaviors and managers' ambidexterity, and the mediating role of trustworthiness. Hypothesis 1 predicted that transactional leadership was positively related

to managers' ambidexterity, Hypothesis 2 predicted that transactional leadership had indirect effect on managers' ambidexterity mediated through trustworthiness, Hypothesis 3 predicted trustworthiness mediated the relationship between transformational leadership and managers' ambidexterity, and Hypothesis 4 predicted that the effect of transformational leadership was stronger than that of transactional leadership.

The correlation and hierarchical regression analyses were conducted to test these hypotheses. The research results indicated that these hypotheses were supported, by addressing that trustworthiness mediated the relationship between different leadership behaviors and managers' ambidexterity; and the effect of transformational leadership on managers' ambidexterity was stronger than that of transactional leadership when trustworthiness was higher.

This study has limitations and suggesting several issues for future research. The sample of the study covered 608 managers from multiple industries; therefore, industry specific analysis should be performed. The level of innovation and the preferred type of leadership style may differ among different industries.

Despite these limitations, this research contributed to the literature both theoretically and practically. For the theoretical contribution, the research contributes to the understanding of the antecedents of managers' ambidexterity. Transformational and transactional leadership behaviors predict manager' ambidexterity, and there exists the mediating role of trustworthiness. For the practical contribution, by doing this research, the research findings can imply the following recommendations for Mongolian companies for understanding the ways of improving their managers' ambidextrous behaviors by considering different leadership behaviors, and trustworthiness on their top management.

Leaders are the people that can change and guide organizations, and they can support organizational innovations, and innovative performances in different ways. Different leadership behaviors can facilitate managers' innovative performances in different levels. For instance, both transformational and transactional leadership behaviors can support managers' ambidexterity in any organizations; however, transformational rather than transactional leadership behavior is more suitable for creating an environment of improving managers' ambidextrous behaviors.

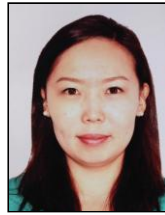
Furthermore, if leaders' goal is to encourage managers' ambidextrous behaviors, they are recommended to increase their managers' trustworthiness on their top management. If managers trust their top management's behaviors, skills, promises, and justice, the influence of transformational leadership behaviors will get higher on supporting ambidextrous behaviors; however this influence will be indirect when leaders show transactional behaviors. Finally, it's important to note again that the facilitation effect on managers' ambidexterity gets stronger if leaders show transformational rather than transactional leadership behaviors.

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**Anar Purvee** is a lecturer at the Department of Business Administration, Business School, University of the Humanities, Ulaanbaatar, Mongolia. She received her MBA degree from International MBA Program, School of Management, National Taiwan University of Science and Technology, Taipei, Taiwan. Her research interests include green marketing, marketing communication, leadership, innovation, and management innovation.



**Dalantai Enkhtuvshin** is a lecturer at the Department of Tourism Management, Business School, University of the Humanities, Ulaanbaatar Mongolia. He received his MBA degree from International MBA Program, School of Management, National Taiwan University of Science and Technology, Taipei, Taiwan. His research interests include tourism management, recreation management, tourism education, service management, and leadership.