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## Article

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## **The Relationship between Transformational Leadership of Environmental NGO Leader and Trust and Organizational Commitment**

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### A B S T R A C T

This study aims to identify the effects of transformational leadership of an environmental NGO leader on the trust and organizational commitment. For this, structural equation model was used to analyze the survey conducted on 201 members of 23 major environmental NGOs. As the result of the analysis, the transformational leadership of the environmental NGO leader was shown to have a positive effect on the trust in superior, trust in the organization, and organizational commitment. Furthermore, the trust in superior and organization was shown to have a positive effect on organizational commitment. However, the trust in colleagues was not shown to have a significant effect on the organizational commitment.

*Key words: Environmental NGO; Transformational Leadership; Trust; Organizational Commitment*

## I . Introduction

Since the late 20<sup>th</sup> century, global recession along with the neoliberal expansion and participatory democracy development led to the rapid growth and activities of NGO (Non-Governmental Organization) which maximized the values of democracy. It is closely related to the overcoming of human alienation and has been expanding into diverse areas of politics, economic, social, welfare, environment, and human rights. The NGOs pursue public interest rather than

the private interest, and they are operated as non-profit organizations independently from government and market sectors. The internal operation is autonomous and based on the citizens' voluntary participation (Chung, 2000). While NGOs have been at the center of citizens' movements in the past, it is presently influencing on the processes of making policies in a nation. It now has an important role of leading social transformations and of restraining the governmental power (Park, 2002). Especially as the societies are rapidly changing into knowledge-based information societies, the NGOs are drawing attention by serving an important role in the communication between different fields of the society.

Recently, as the environmental problems are worsening, the roles of NGOs are becoming more important. The NGOs raise environmental issues and

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awareness to stimulate recognition and activities related to the environment, in order to protect and preserve the environment being sacrificed to competitive logic. Furthermore, NGOs are established with the purpose of promoting environmental policies. Particularly, as the pollution becomes worse, the public desire for the environment would increase and their expectation would rise. Considering such reality of maturing environmental awareness, the NGO activities are gradually expanding and their influences on environmental policies are also intensifying. At this point, the role of a leader at NGO is very important (Park, 2005).

In the process of environmental policies, the participation of the NGO leader is not one-way and authoritative anymore, but it is now promoting innovative policies that are adherent to the citizens' beliefs and multi-dimensional. For complex, diverse, and conflicting environmental policy process, the local government would consult and receive information from the NGO leader, which would be applied to the policy. Furthermore, the responsibility and smoothness in the execution of the policy can be enhanced through the collaboration with the NGO leader. On the other hand, the NGO leader would participate, collaborate, or criticize in the policy procedure, which enhances the value of self-realization and ultimately contributes to the environmental preservation and healthy lives of the citizens (Kim, 2007).

In summary, the NGO leader should actively participate with a wide perspective for diagnosing the environmental problems and recommend the solutions. Furthermore, the issues should be raised in broad regions, and it is most important to be applied to environmental policy. The active participation and collaboration of NGO leader should always be performed.

The leader of NGO takes the central role in the organization, so the destiny of the NGO are often determined by the leader's capacity and ability. The efficiency of the leader's role can differ based on the environment surrounding the NGO (Hailey & James, 2004). For a leader of NGO to effectively

perform the task, appropriate leadership according to the surrounding situations is important (Hailey, 2006). However, the previous studies (Civicus, 2002; Tierney, 2006) have suggested the concerns about insufficient leadership among the leaders of NGOs. Tierney (2006) has pointed out to the shortage of human resources by reporting that only 40% of the positions for intermediate manager level or above are filled through promotions within the organization, and the rest are externally recruited. Furthermore, Civicus (2002) highlighted that investment for cultivating new leaders are needed in order to reinforce the roles of NGOs. However, there are insufficient amount of studies conducted on the leadership of the leaders of NGOs. The existing studies are mostly based on political and military areas, and they are focused on the leader's role in non-profit organizations. There still are insufficient studies on the type of leadership suitable for leading an NGO.

Among the various leadership theories, the transformational leadership can be defined quite well for the leadership in NGO. This is because Nanus & Dobbs (1999) have suggested that in order for NGO leader to produce effective outcomes, one has to become a visionary, strategist, and change agent. The activists of NGO not only need a new type of leadership to enhance their passion and vision, but they also need a non-authoritarian leader who carries out the leadership by presenting oneself as a role model. Furthermore, information and knowledge should be obtained quickly to be actively utilized in the operation of NGO (Kim et al., 2012). From this perspective, the NGO leader should be trusted by the organization members and the experts from the various fields. One should provide clear vision and goal for bringing changes, which will serve as a motivation; and this is transformational leadership (Bass, 1985).

In this study, the relationship between the NGO leader's transformational leadership and the trust and organizational commitment was analyzed based on the members of environmental NGO. The importance of trust in an environmental NGO was confirmed, and the type of leadership for enhancing organizational

commitment was identified. Therefore, this study first empirically analyzed the effects of transformational leadership on the trust in superior, trust in organization, and organizational commitment at NGOs. Secondly, the effect of trust and organizational commitment among the environmental NGO members was identified.

## II. Theoretical Background

### A. Transformational Leadership of the Environmental NGO Leader

The transformational leadership enhances the members' awareness in the importance and the values of a specific ideal goal. It makes the members to desire beyond their own interest, and to be focused on the higher level of aspiration for the organization, which leads to the enhancement of their performances (Bass, 1985). The paradigm of transformational leadership is in line with the suggestion by Schein (2010) that the important role of a leader is creating culture and managing, and also the suggestion by Kotter (2008) that it is creating adaptable and useful changes. The following is in their studies on leadership: theory of charismatic leadership (House, 1977), transformational leadership (Bass, 1985; Burns, 1978), and visionary leadership theory (Shamir, House, & Arthur, 1993). Their studies on leadership highlight the symbolic behaviors of leader, visionary and inspirational ability, nonverbal communication, appeals for idealistic value, and delegating authority to subordinates (House & Podsakoff, 1994). According to Bass (1985), a transformational leader should reasonably present the reward, clear goal, and directions. Transformational leadership lets an individual to transcend the personal interest; it encourages one to develop new, higher aspiration to elevate individual's goal, and it gives the ability to expand.

The leader of an NGO must be able to perform appropriate leadership according to the surrounding

situations. One should be able to respond appropriately to the crisis such as financial difficulties, internal conflicts, and pressure in NGO's performances. Kaplan (2002) has pointed out that excessive request by the nation providing resources to the NGO may reduce the trust in the NGO leader. Therefore, excessive involvement in the NGO activity may have negative effect on their activities which are pursuing long-term goals. This may lead to the reduction in trust for leader and the NGO.

For the abilities that an NGO leader should possess, Hailey (2006) suggested the following: sharing of vision and values, expertise, predicting external environment, communication and socializing skills, and controlling ability. He stated that these are related to the ability of an NGO leader to induce organizational commitment, suggest new solution to a problem, actively react to the changes in the environment, induce participations, and balance pressure coming from stakeholders. The abilities of an NGO leader instigate higher aspiration among the members beyond their personal interest. This is strongly related to the transformational leadership which motivates members for the achievement of organizational goal and values.

The environmental problems are especially vast and complex, and they require expertise. Therefore, experts from various fields must participate to solve the problems. In other words, a large amount of human resources and physical resources are needed in a long term to resolve environmental issues, so an NGO leader should obtain resources by having participations of diverse experts and organizations (Park, 2005). For this, participatory management is the most important, and there is a high possibility that transformational leadership has direct effect on the outcomes of environmental NGO. The NGO leader should share with the members about the goals and values for improving the citizens' quality of life by resolving the environmental issues. Furthermore, the leader should have expertise when performing central role in solving the problem, and be able to accurately predict environmental changes to continuously obtain resources. One should promote

diverse stakeholders' participations and manage their requests in a balanced way.

## B. Relationship between Transformational Leadership and Trust

The concept of trust has been studied in diverse academic fields by using different unique approaches. In the field of economics, it is considered to be formed by rational calculation from each economic agent or regulations of policies (Williamson, 1993). In sociology, trust is considered to form due to the characteristics of relationship between members or through social institutes (Granovetter, 1985). The psychology approaches trust as a positive cognition about an individual (Mayer, Davis, & Schoorman, 1995). Therefore, the concept of trust has been studied from many different angles within various fields. Among them, the studies related to organizational behaviors and theories commonly take psychological approach when studying the concept of trust (Lewicki, Tomlinson, & Gillespie, 2006).

The definition of trust have been presented differently by many scholars, according to their academic perspectives and viewpoints. The concept of trust may be categorized into the following: trust in policies, trust in organization, trust between organizations, and trust between individuals. Rotter (1971) defined trust as a common expectation that one can count on the promise made by another individual or an organization. Mayer et al. (1995) defined trust as the intention to expose oneself to a risk by not directly instructing or controlling an individual, because one expects that the individual will carry out a specific behavior which is important to oneself. Cook and Wall (1980) stated that the trust between individuals or departments is the most important element for the long-term stability and well-being of the organization members. Mishra (1996) highlighted the multi-leveled aspect of trust. The subjects to be trusted within an organization are various such as superiors, colleagues, subordinates, and members of other departments or

teams. The trust in one's organization is impersonal and is more institutional, which is different from the trust in superior and colleagues. It is the emotions of confidence and support toward ones organization. The trust in one's organization can be defined as a common perception formed by the members, from the values given to the contributions that the members have made and the attention paid to the well-being of the members (Eisenberger, Huntington, & Sowa, 1986).

In the previous studies on trust, the commonly discussed concept is the study on trusted target. Among them, there have been many studies on the effect of superior's or management's leadership on the trust. Particularly in the previous studies on transformational leadership and trust, the relationship between transformational leadership and trust is considered to be positive. Bennis and Nanus (2007) suggested that direct correlation is formed between transformational leadership and trust, because effective transformational leaders would gain the trust of their subordinates. More specifically, transformational leaders would gain trust from the members through the following behaviors: highlighting the mission and vision, providing and treating with fairness for the individual interest and desires, intellectually stimulating and providing information regarding the subordinate's thinking, and participating in decision-making (Bass, 1985). Katzenbach and Santamaria (1999) suggested that members in an organization that emphasizes on its missions, values, and pride would all become leaders. This formulate organizational belief, mutual values between members, and sharing of ideas and responsibilities that leads to mutual trust and strong organizational pride inducing emotional energy. Korsgaard, Schweiger, and Sapienza (1995) reported that in the cases where leaders showed caring behaviors, the subordinates perceived high degree of fairness, developed stronger commitment in decision-making, enhanced affection towards their organization, and held greater trust in their superior. Dirks and Ferrin (2002) suggested through meta-analysis that the relationship between

transformational leadership and trust is positive. The study by Liu, Siu, and Shi (2010) also analyzed the relationship between transformational leadership and trust in leader to be positive.

Furthermore, Lee and Park (2003) revealed that transformational leadership has a positive effect on the members' trust in their leader. Kim et al. (2012) showed that transformational leadership of an NGO leader has a positive effect on the organizational trust. Also, the study by Kim (2014) considered the relationship between transformational leadership and trust in superior to be positive.

Concluding the above previous studies, the transformational leadership expands the participation of organization members in decision-making and induces organization members' pride by intellectually stimulating their thinking process and sharing organizational goal and values. This creates trust in their superior and trust between the members, and it is an important factor that enhances the trust in their organization. Therefore, this study predicted that transformational leadership of an NGO leader would have positive effect on the trust, and the following hypotheses were set.

*Hypothesis 1. Transformational leadership of an environmental NGO leader will have a positive effect on the trust in superior.*

*Hypothesis 2. Transformational leadership of an environmental NGO leader will have a positive effect on the trust in organization.*

*Hypothesis 3. Transformational leadership of an environmental NGO leader will have a positive effect on the trust in colleagues.*

### C. Relationship between Transformational Leadership and Organizational Commitment

An important reason why organizational commitment is drawing much attention today is because it has positive effects on an organization. The members with higher degree of organizational

commitment produces greater performances and outcomes with reduction in turnover rate (Porter et al., 1974). The organizational commitment is the attitude of individuals toward ones organization, which indicates relative degree of unity or commitment. Mowday, Steers, and Porter (1979) defined the organizational commitment as an attitude in which an individual accepts the goal and values of the organization and gives ones best effort for the organization. Mowday, Porter, and Steers (2013) more specifically defined the organizational commitment as the following three concepts: first, strong trust and tolerance toward organizational goal and values; second, willingness to put voluntary efforts for the organization; third, strong desire to remain as an organization member.

Compared to the previous studies where organizational commitment was studied in single dimension, the recent studies have explored it multi-dimensionally in terms of emotional, continuance, and normative commitment (Meyer, Allen, & Smith, 1993). Emotional commitment is when the organization members are committed voluntarily, and it indicates their psychological affection toward their organization (Kanter, 1994). Continuance commitment is the level of personal experience by which an individual desires to remain in the organization (Lee & Kim, 2012). Normative commitment is defined as an internal value of an individual, in which one feels moral obligation to faithfully perform the given responsibility (Meyer & Allen, 1991).

In the previous studies on leadership and organizational commitment, the leadership is considered to be an important variable facilitating the organizational commitment. Commonly, a leader's behaviors such as being considerate, supporting, and accepting requests of the organization members have been examined as the leading variables (Allen & Meyer, 1990; Lok, Westwood, & Crawford, 2005). Bass and Avolio (1993) suggested that transformational leadership, which encourages the subordinates to think critically and creatively, can effect on the subordinates' commitment. This is also

supported by the study of Walumbwa and Lawler (2003). Therefore, a transformational leader motivates the subordinates to be creative when solving problems, understands their requests, and furthermore leads to the enhancement in the organizational commitment. Sung, Choi, and Im (2008) analyzed the relationship between the leadership style of self-government director and organizational commitment, based on the government workers. It was found that transformational leadership positively affected on the organizational commitment of those government workers. Lee and Kim (2012) also found positive analysis on the relationship between transformational leadership and organizational commitment.

Concluding the above previous studies, transformational leader would give consideration for the subordinates to be able to solve problem creatively, understand the requests of the subordinates, and motivate the members to voluntarily give efforts in order to achieve the organization's goals and values. Therefore, transformational leadership has positive effect on the organization. This study predicted a positive relationship between the transformational leadership of an NGO leader and the organizational commitment, and the following hypothesis were set.

*Hypothesis 4. Transformational leadership of an environmental NGO leader would have a positive effect on the organizational commitment of the members.*

#### D. Relationship between Trust and Organizational Commitment

The organizational commitment is a psychological affection that members have toward their organization, and it indicates the employees having affection towards and being in unity with the organization. When organizational commitment is strong, the employees would accept the organization's goals and values, give a lot of efforts for the good of the organization, desire to continuously remain in the organization, and voluntarily give efforts for

the achievement of organization's goals (Lee & Chang, 2004). Therefore, organizational commitment can be considered as passion and loyalty that the workers develop toward their organization (O'Reilly & Chatman, 1986).

In the same context, the organizational commitment is likely to be formed by organizational trust. Tan and Tan (2000) distinguished organizational trust into the trust in organization and the trust in superior, and the amount of influence was examined. The trust in organization and in superior was shown to have positive effect on the organizational commitment. Furthermore, in a study on the influencing factors of trust, Lee and Chah (2003) showed that there was positive effect in the trust for superior, organizational citizenship behavior, organizational commitment, and job satisfaction. Cook and Wall (1980) reported that the trust in colleagues has significant correlation with organizational identification and organizational commitment. Suh and Lee (2006) highlighted that trust is a strategic concept for management, which can magnify the organizational commitment and organizational citizenship behavior.

Concluding the above previous studies, the trust in superior, organization, and colleagues can positively effect on the individual's willingness to remain as the organization member, motivation for normative behaviors, and organizational identification, which consequently serves as a factor elevating the organizational commitment. Therefore, this study predicted that the trust among environmental NGO members will have positive effect on the organizational commitment, and the following hypotheses were set.

*Hypothesis 5. The trust in superior of the environmental NGO members will have a positive effect on the organizational commitment.*

*Hypothesis 6. The trust in organization of the environmental NGO members will have a positive effect on the organizational commitment.*

*Hypothesis 7. The trust in colleagues of the environmental NGO members will have a positive effect on the organizational commitment.*

### III. Methods

#### A. Measurement of Variables

The core concepts of this study are transformational leadership of environmental NGO leader, trust in superior, trust in organization, trust in colleagues, and organizational commitment.

Among the most actively studied concepts of leaderships in the researches on organizational behavior, the most representative is the transformational leadership. As the organizations face growing instability of the environment and the importance of transformation and change increases, the need for transformational leader, which emphasizes change and challenge, is more highlighted than ever and is most needed in organizational situations (Jung, Chow, & Wu, 2003). This is because the transformational leadership is considered as a type of leadership emphasizing on the transformation and change, in response to the rapidly changing

contemporary environment (Judge & Bono, 2000).

Based on these previous studies, the transformational leadership of environmental NGO leader was based on MLQ-5X, which was developed by Avolio and Bass (1995), after modifying. The following items were measured using Likert 5-point scale: 3 items on charisma, 2 items on intellectual stimulation, and 2 items on individualized consideration. For the trust, items from the studies by Mayer, Davis, and Schoorman (1995) and Rempel, Holmes, and Zanna (1985) were used after modifying. The following items were measured: 5 items on trust in superior, 4 items on trust in organization, and 5 items on trust in colleagues. Finally for the organizational commitment, the measurement items developed by McGee and Ford (1987) were used to construct 4 items.

In this study, the measurement tool for the transformational leadership (e.g., Jeong 2014; Jeong, Lee, & Kim, 2012; Yang & Shim, 2013), trust (e.g., Hong, 2012; Song & Kim, 2010), and organizational

**Table 1.** Measurement Items

Variables	Measurement Items	Researcher	
Transformational Leadership	Charisma	1. The leader is my role model. 2. I am proud to be working with my leader. 3. I respect my leader.	Avolio and Bass (1995)
	Intellectual Stimulation	4. The leader always encourages to develop new methods. 5. The leader encourages to use latest information related to the job.	
	Individualized Consideration	6. The leader shows individualized consideration for each member. 7. The leader shows considerations for my personal issues.	
Trust	Trust in Superior	1. I am confident of my superior's ability. 2. My superior has abundant quality as a leader. 3. My superior shows interest in my requests. 4. My superior will not cause any harm to me. 5. I trust my superior.	Mayer et al. (1995)
	Trust in Organization	6. The decisions made within the organization are fair. 7. The organization will not cause any harm to me. 8. The values and behaviors of the organization are in line. 9. I trust my organization.	
	Trust in Colleague	10. I am confident of my colleagues' abilities. 11. My colleagues have abundant quality for carrying out their jobs. 12. My colleagues show interest in my requests. 13. My colleagues will not cause any harm to me. 14. I trust my colleagues.	
Organizational Commitment	1. My values and my organization's values are in line. 2. I consider the issues of my organization as my own. 3. I desire to remain in this organization. 4. I give my best effort for the achievement of organizational goal.	McGee and Ford (1987)	



commitment (e.g., Kim & Kim, 2012; Lee, Park, & Oh, 2014) have been verified of their reliability and validity in the current domestic previous studies. Furthermore, the pertinent measurement tools have been widely used in the studies of business management and organizational psychology, as well as in the researches in organizational behavior. Therefore, measurement items for each concept with more detail are shown in <Table 1>.

## B. Study Target and Data Collection

This study analyzes the influence of transformational leadership of an environmental NGO leader. Therefore, the target of this study is the environmental NGOs. There are 165 environmental NGOs registered with the Korean Ministry of Environment. Among these, the organizations included in this study are those registered with the Ministry of Environment within the central government, which have local organizations with

**Table 2.** Demographic Characteristics

Division		Frequency (Number of People)	%
Gender	Male	109	54
	Female	92	46
Age	20's	30	15
	30's	60	30
	40's	58	29
	50's	26	13
	60's	27	13
Education	High School Graduates	5	3
	Associate's Degree	25	12
	Bachelor's Degree	149	74
	Master's Degree and Above	22	11
Work Period	5 years and below	133	66
	5~9 years	43	21
	10 years and above	25	13
Organization Name	Green Christ Organization	9	4
	Green Transport Organization	8	4
	Green Growth Korea Association	7	3
	Green Future Organization	9	4
	Green Korea United	7	3
	Korea Green Mother Organization	7	3
	Green Bicycle Organization	10	5
	Forest of Life Organization	9	4
	Me First Organization	9	4
	Eco Horizon Institute	8	4
	Consumer Protection Organization	9	4
	Korea Women's Environmental Network	9	4
	Egreen Organization	10	5
	Environmental Protection Organization	10	5
	Environment and People	10	5
	Nature Circulation Society	9	4
	Fair Eco Organization	9	4
	Korea Federation of Environmental Movements	8	4
	Korea Bike Council	9	4
	Korea Green Foundation	8	4
Korea Resource Recycling Association	8	4	
Environmental Justice Organization	10	5	
Green Net Organization	9	4	

many activities related to the environment. Therefore, the organizations that were included had frequent cooperative activities with other environmental NGOs and were recommended by the Environmental Cooperation Department at Ministry of Environment and by Environment Council. There were 30 finally selected environmental NGOs, and 23 organizations responded to the survey. The personnel at these organizations were targeted in this study. For the data collection, the targeted subjects fully comprehended the purpose and method of the survey before responding. Then, the survey was conducted with the self-response questionnaires. This study was conducted over 4 months from February 1<sup>st</sup> of 2014 to May 30<sup>th</sup> of 2014. There was a total of 211 individuals from 23 organizations that responded to the survey, which includes executive, employees, and membership-paying members. Among them, questionnaires with insufficient responses were excluded from this study, and a total of 201 (95.2%)

individuals were included for the analysis. The demographic characteristics are summarized in <Table 2>.

## IV. Results

### A. Reliability and Validity Analysis

In this study, convergent validity, discriminant validity, and reliability analysis were conducted to test reliability and validity of the measurement items. <Table 3> shows the loading value of measured values and the Cronbach's  $\alpha$  value for each concept in the confirmatory factor analysis by using LISREL 8.72. <Table 4> shows correlation coefficient between the concepts.

In <Table 3>, the loading values ( $\lambda$ ) of each concept's measurement were all significant, and they were shown to be large. The composite reliability

**Table 3.** Confirmatory Factor Analysis Result

Concept	Measurement Item	Load Value ( $\lambda$ )	t-Value	CR	AVE	Cronbach's $\alpha$
Transformational Leadership	Transformational Leader 1	0.771	12.967	0.915	0.608	0.913
	Transformational Leader 2	0.688	11.058			
	Transformational Leader 3	0.676	10.811			
	Transformational Leader 4	0.822	14.252			
	Transformational Leader 5	0.804	13.780			
	Transformational Leader 6	0.858	15.250			
	Transformational Leader 7	0.820	14.209			
Trust in Superior	Trust in Superior 1	0.837	14.719	0.929	0.725	0.929
	Trust in Superior 2	0.796	13.625			
	Trust in Superior 3	0.857	15.291			
	Trust in Superior 4	0.897	16.464			
	Trust in Superior 5	0.866	15.552			
Trust in Organization	Trust in Organization 1	0.821	14.197	0.914	0.726	0.912
	Trust in Organization 2	0.885	16.016			
	Trust in Organization 3	0.840	14.726			
	Trust in Organization 4	0.861	15.313			
Trust in Colleagues	Trust in Colleagues 1	0.839	14.733	0.919	0.694	0.918
	Trust in Colleagues 2	0.861	15.332			
	Trust in Colleagues 3	0.882	15.966			
	Trust in Colleagues 4	0.841	14.782			
	Trust in Colleagues 5	0.735	12.109			
Organizational Commitment	Organizational Commitment 1	0.706	11.368	0.890	0.670	0.887
	Organizational Commitment 2	0.834	14.462			
	Organizational Commitment 3	0.879	15.698			
	Organizational Commitment 4	0.844	14.729			

(CR) was shown to be greater than 0.6 which is the standard value. The average variance extracted (AVE) was also shown to be greater than the standard value of 0.5. Cronbach's  $\alpha$  was shown to be higher than 0.7 which is the acceptable standard. These statistical analysis result shows that the measurements for each concept satisfy the convergent validity.

### B. Correlation Analysis

In <Table 4> for discriminant validity, the testing method by Fornell and Larcker (1981) was used. The AVE was calculated, and a comparison was done between its square root value and the correlation coefficient between concepts. All concepts' AVE square root values were shown to be greater than the correlation coefficient between the concept and other concepts. Based on these analysis results, the concepts' measurements included in this research model were evaluated to have discriminant validity.

And examining the correlation coefficient between the concepts, as shown in <Table 4>, all correlation coefficients showed significantly positive values with  $p < .01$ . The organizational commitment was shown to have a highest correlation coefficient with the trust in organization ( $\Gamma = 0.744$ ), and it was also shown to have a very high correlation coefficient with the transformational leadership ( $\Gamma = 0.681$ ). On the other hand, it was shown to have the lowest correlation coefficient with the trust in colleagues ( $\Gamma = 0.411$ ).

In the relationship between transformational leadership and trust, the correlation coefficients were shown in the following order: trust in organization ( $\Gamma = 0.647$ ), trust in colleagues ( $\Gamma = 0.579$ ), and trust in superior ( $\Gamma = 0.520$ ).

### C. Testing Hypotheses

The hypotheses testing by using structural equation model was as shown in <Table 5>. The relationship between each concept based on the hypotheses testing results are as shown in [Figure 1].

As it is shown in <Table 5>, the goodness-of-fit for the structural model with estimates for path coefficient was shown to be good ( $\chi^2 = 879.08$ ,  $p = 0.000$ ,  $df = 268$ ,  $GFI = 0.896$ ,  $NFI = 0.938$ ,  $CFI = 0.956$ ,  $IFI = 0.957$ ,  $RMR = 0.068$ ,  $RMSEA = 0.089$ ).

In examining each estimate, the transformational leadership of environmental NGO leader ( $\beta = 0.586$ ,  $t = 8.077$ ,  $p < .01$ ), trust in organization ( $\beta = 0.690$ ,  $t = 9.392$ ,  $p < .01$ ), and trust in colleagues ( $\beta = 0.630$ ,  $t = 8.699$ ,  $p < .01$ ) were all shown to have directly significant effect. This indicates that the transformational leadership of an environmental NGO leader enhances the trust in superior, trust in colleagues, and trust in environment NGO. According to these analysis results, [Hypothesis 1], [Hypothesis 2], and [Hypothesis 3] were all supported.

Furthermore, the transformational leadership of environmental NGO leader was shown to have a

**Table 4.** Correlation Coefficient between Concepts ( $\Phi$  Matrix)

Variable	Transformational Leadership	Trust in Superior	Trust in Organization	Trust in Colleagues	Organizational Commitment
Transformational Leadership	0.779				
Trust in Superior	0.520 (9.287)	0.851			
Trust in Organization	0.647 (13.926)	0.655 (14.437)	0.852		
Trust in Colleagues	0.579 (11.168)	0.657 (14.672)	0.566 (10.667)	0.833	
Organizational Commitment	0.681 (15.451)	0.548 (9.988)	0.744 (19.435)	0.411 (6.412)	0.818

The t-values are shown inside ( ); diagonal is a square root value of the average dispersion extraction (AVE).

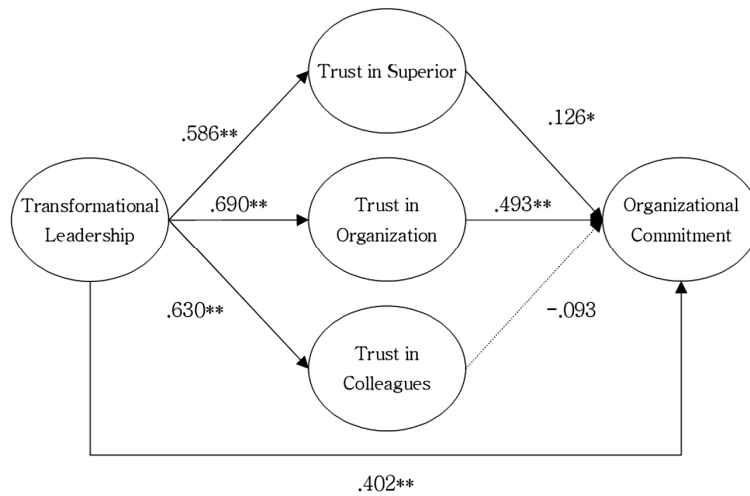


Figure 1. Result of Hypotheses Testing

Table 5. Result of Hypotheses Testing

Relations	Estimates ( $\beta$ )	Standard Error	t-Value	Hypotheses
Transformational Leadership $\rightarrow$ Trust in Superior	0.586**	0.073	8.077	H1 (Supported)
Transformational Leadership $\rightarrow$ Trust in Organization	0.690**	0.073	9.392	H2 (Supported)
Transformational Leadership $\rightarrow$ Trust in Colleagues	0.630**	0.072	8.699	H3 (Supported)
Transformational Leadership $\rightarrow$ Organizational Commitment	0.402**	0.107	3.769	H4 (Supported)
Trust in Superior $\rightarrow$ Organizational Commitment	0.126*	0.066	1.918	H5 (Supported)
Trust in Organization $\rightarrow$ Organizational Commitment	0.493**	0.087	5.692	H6 (Supported)
Trust in Colleagues $\rightarrow$ Organizational Commitment	-0.093	0.071	-1.309	H7 (Not Supported)
Goodness-of-fit Statistics	$\chi^2=879.08$ $p=0.000$ , $df=268$ , $GFI=0.896$ , $NFI=0.938$ , $CFI=0.956$ , $IFI=0.957$ , $RMR=0.068$ , $RMSEA=0.089$			

\* $p<.05$ , \*\* $p<.01$

directly significant effect on the organizational commitment ( $\beta=0.402$ ,  $t=3.769$ ,  $p<.01$ ). This indicates that the transformational leadership of environmental NGO leader serves as a mechanism for facilitating the development of organizational commitment among the organization members. Therefore, the [Hypothesis 4] was supported.

Finally, examining the estimates between the trust and organizational commitment, the trust in superior ( $\beta=0.126$ ,  $t=1.918$ ,  $p<.05$ ) and trust in organization ( $\beta=0.493$ ,  $t=5.692$ ,  $p<.01$ ) were shown to have direct effect on organizational commitment. However, it was not shown to have any significant effect on the trust in colleagues ( $\beta=-0.093$ ,  $t=-1.309$ ). Such result

indicates that the trust in leader and organization act as a factor enhancing organizational commitment, but the trust in colleagues is unrelated to the organizational commitment. Therefore, [Hypothesis 5] and [Hypothesis 6] were supported, but [Hypothesis 7] was not supported.

## V. Conclusion

This study aimed to present rationale and empirical evidence on the leadership style effective for

enhancing the activity of environmental NGO, by identifying the effects of transformational leadership of environmental NGO leader on the trust and organizational commitment of the members. The concept especially focused in this study is transformational leadership of environmental NGO leader, because it has many similarities with the characteristics of the leaders at environmental NGOs. For this, data was collected from the members at 23 environmental NGOs, and the analysis results were as follows.

First, the transformational leadership of the environmental NGO leader was shown to be an effective leadership style for promoting trust among the members. Such result indicates that transformational leadership shows the members the importance of organizational goals and values, and it motivates them to give efforts for their organization's goal rather than their personal interest (Bass, 1985). These support the results of the previous studies (Kim et al., 2012; Liu et al., 2010; Meyer et al., 1995) analyzing the relationship between transformational leadership, trust, and organizational commitment, based on these characteristics.

Second, the transformational leadership of the environmental NGO leader was shown to be a factor that drives the members to commit to their organization. Such result supports the previous studies (Lee & Kim, 2012; Walumbwa & Lawler, 2003) that positively reported about the relationship between transformational leadership and organizational commitment. A transformational leader can stimulate the members' loyalty through charisma, treat the members with respect, show considerations for the individuals, and provide various ideas for the members to approach their tasks using new methods; this can lead the members to develop affection toward their organization.

Third, the trust in superior and organization among the members at environmental NGO was shown to have a positive effect on the organizational commitment. Such result supports the result of the previous studies which reported that the trust in organization and superior has positive effect on

organizational commitment (Lee & Chah, 2003; Tan & Tan, 2000). The organizational commitment is a psychological affection that members have toward their organization. This indicates that members develop the emotion of affection toward and sense of unity with the organization. Such organizational commitment can be formed based on the trust in organization's policies and trust in superior (Kim & Rhee, 2002). The fairness in promotion procedures and work guidelines would effect on the organizational commitment; and the superior's knowledge and the professional attitude or rationality and fairness when carrying out the tasks would have positive effect in the organizational commitment.

Fourth, the trust among the members of environmental NGO did not have significant effect on organizational commitment. This could be interpreted from two perspectives. One interpretation is by methodology. The leading variables selected for organizational commitment, other than the trust in colleagues, were transformational leadership, trust in superior, and trust in organization. Those had close relationship with the organizational commitment, so the unique explanatory power of the trust in colleagues became lower. In correlation analysis, the trust in colleagues was shown to have the lowest correlation coefficient compared to other leading variables. Another could be theoretical interpretation. The organizational commitment is formed by the perception of institutional procedures within an organization, rather than at the level of society. This indicates that the institutional procedure of an organization or the trust in the leader has a very significant relationship, than the trust in colleagues (Kim & Rhee, 2002). Particularly in Korean society, leadership and considerations of a leader and the attitudes of delivering promises are the most important factors for organizational commitment. Therefore, this indicates that the weight of organizational trust in the Korean society is formed by vertical hierarchical relationships, rather than the horizontal human relationship. Therefore, the elements that can arouse organizational commitment, such as harmony, affection, mutual understanding, and norms, can be

based on the trust in superior rather than the trust in colleagues; and this puts emphasis on the responsibility and tasks of the superior. This evidently shows the hierarchical group culture of Korean society.

Based on the analysis results of this study, the implications of this study are as follows.

First, because the environmental NGOs cover dynamic areas and address environmental issues that are directly related to the citizens' life, they have strong sense of duty and beliefs. Therefore, the organizations must be operated with transparency and high level of trust. Furthermore, leaders should provide working environment where the members can actively carry out their tasks and also provide individualized consideration as well as ways of enhancing their competency; and it is important that the leader presents clear vision and goal of the organization. The leader would contribute to solid core values and beliefs, seamless relationship, and members' innovative reformation of awareness. Furthermore, the leader should motivate the members by matching the member's individual vision and goals to that of the organization, in order to enhance their sense of duty as the members work on environmental problems.

Second, a leader of environmental NGO should explore ways of stimulating strong organizational commitment within the organization, so that the members would keep pride and confidence as the citizen activists. For this, a leader should try to derive the abilities and creativity of individual members by empowering, providing suitable conditions, and sharing information. Moreover, the members who are carrying out their tasks in the public domain should be able to develop their sense of duty into the social achievement. It is a leader's job to encourage the members, and these should all be based on the persistent passion and psychological stability within the environmental NGO. Also, the leaders of NGOs should do their best to advance their activists' abilities for flexibly responding to the changing environment. Through these roles by a leader, a strong trust can be built between a leader and the members. Finally,

the members of environmental NGO have strong sense of duty and beliefs in the fact that they work for their organizations. Therefore, the environmental NGOs must operate with transparency.

Despite of these study results and implications, this study had the following limitations, and the direction of future studies should be as follows. First, this study was limited to transformational leadership. However, there are various styles of leadership that can effect on the trust in organization and organizational commitment. Therefore, the future studies should cover the recently emerging leadership styles and the leadership styles based on the contemporary conditions. Second, this study was targeted only on environmental NGOs, so there is a limitation in generalizing these results to the leadership of all NGOs. In the future study, leadership of each type of NGO should be comparatively analyzed by categorizing into political, economic, etc.

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