

## A Study on the Effect of Emotional Leadership of Educational Administration Officials on Group Performance and the Moderating Effect of Interactional Justice

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**Abstract.** The purpose of this study is to identify the effect of emotional leadership of educational administration officials on group performance and the moderating effect of interactional justice. Based on previous studies, the existing theories and research hypotheses were verified through questionnaires and empirical studies, and the factors for each variable were confirmed by empirical analysis. Paper questionnaire of educational administration officials belonging to the Busan Metropolitan Office of Education were conducted, and final 314 copies were used for analysis. First, to confirm the effect on group performance, verify the impact by the group member's emotional leadership: self-management ability, self-awareness ability, relationship management ability, and social awareness ability. Second, to identify the control effect's difference following the interactional justice. As a result of this study, it was found that the member of educational administrative civil service organization's emotional leadership (self-management ability, self-awareness ability, relationship management ability, and social awareness ability) was positive effect on group performance. However self-management ability wasn't. Interactional justice had the control effect on self-management ability and social awareness ability. The result of perception for the group performance suggests that emotional competence with positive atmosphere, emotional enhancement, and interpersonal justice is important to the administration officials' leadership.

**Keywords:** emotional leadership, emotional intelligence, educational administrative, group performance, interactional justice

## **1. Introduction**

With advancements in scientific technology, human influence has been decreased. In the educational environment where continuous change is required in modern society, the emotional competence of educational administration officials is required for the ultimate purpose of successfully achieving organization's goal

Emotional leadership refers to efforts to increase organizational flexibility in order to adapt to a rapidly changing environment, to psychologically stimulate organizational members so that emotions can be abundant in human relationships, and to develop the emotional abilities of leaders necessary to achieve efficient organizational goals (Baek 2014).

The study of emotional leadership is divided into emotional evaluation, expression ability, control ability, and utilization ability. Emotional intelligence refers to the ability to identify and express our own emotions, to recognize the emotions of other people, and to draw others' cognitive cooperation. In other words, it is the ability to regulate one's own emotions as well as those of others (Park 2010). As an organizational leader's ability to influence others by appropriately utilizing such emotional intelligence (Yoon 2010), it was recognized as a leader's ability to develop emotional competencies that the leader himself has, to understand and care for the emotions of the members of the organization, and to lead the successful organizational change by coming up with a vision (Lee 2007).

A person with excellent emotional utilization ability has the effect of increasing confidence with self-confidence, enthusiasm, and pride in his workplace. And he or she does own best to set goals and achieve them (Eu 2011). Emotional leadership is a source of energy and information connection, and ability to sense, understand and effectively apply the power and keen insight of emotions (Yoon 2018). Emotional leadership also means that the higher perception of own life, the more understanding of own emotions and empathy with others' emotions. Research on the relationship between emotional leadership and group performance should be actively conducted in terms of emotion (Yukl 2002). In particular, a positive atmosphere led by emotional leaders can be a driving force for organizational growth and contribute to providing high-quality customer service to customer needs (Wolff 2002). Satisfaction with working conditions, such as promotion and remuneration, has a positive effect on the commitment toward the organization in the performance of duties for public officials, and the dynamic and multifaceted concept of group performance that represents the behavior of members is directly related to the productivity of the organization (Park 2006).

In the process of implementation, interactional justice shown to the members of the organization is an interpersonal claim method (Jung & Kang 2007). It is the degree that an individual recognizes whether they are treated fairly according to the attitude of the members in the decision-making stage, whether personal opinion is considered in the policy or execution process, and whether he or she is treated fairly based on trust and respect from the leaders (Bae 2016). Securing fairness such as compensation and remuneration distribution according to reasonable personnel system and performance can improve the quality of education administration service by raising the job satisfaction of education administrative officials.

Hypothesis testing according to the research model shows that leaders with high emotional intelligence influence the positive atmosphere of the organization with trust, collective efficacy, and group identity, give confidence and courage to new attempts, increase group performance, and achieve organizational goals and tasks for educational administration officials to perform their duties. Existing studies on emotional leadership have been conducted in various fields, but there is a need for a lot of research on various variables that exert influence on members based on emotional intelligence through continuous interest and expansion of emotional leadership (Kang 2010). This study empirically analyzes the influence of emotional leadership factors of educational administration officials on group performance and compares the control effect of the interactional justice that group members perceive based on previous studies.

## **2. Theoretical Background**

### **2.1. Emotional leadership**

Emotional leadership is a concept that started from the word ‘emotional’. That is, leader can understand own emotion and the others. Early research has become a prerequisite for successful leaders because it is recognized as a capability to be equipped as a success factor for successful leaders. Since then, as the characteristics of the organization and the educational environment have changed, a wider approach to leadership has become necessary, and many studies on leadership have begun with emotional intelligence emphasizing the influence of rational and emotional aspects.

In Korea, research on emotional leadership has been actively conducted since the 2000s. Emotional leadership empowers the members of the organization to empathize with the thoughts and feelings of the members, to have psychological stability and bond, and to carry out their work based on passion and challenging spirit. In addition, the leader of the organization observes or understands the self, controls the emotions, cares for others (Kim 2008), and controls and manages oneself with the awareness of the value or ability of the leader (Shin 2008).

The use of emotional intelligence affects the organization and utilization of good information in memory. Leaders with high emotional intelligence control themselves in order to face reality and make clear judgments even under pressure, and aid creative problem-solving by systemizing problem-solving and information.

Most of the previous studies for emotional leadership have been conducted in four areas: self-management ability, self-awareness ability, relationship management ability, and social awareness ability. Self-awareness and self-management skills are the personal capabilities of the leader, and social awareness and relationship management skills belong to social capabilities. Personal competence refers to the ability of the leader to be aware of his or her strengths, limitations, values, and abilities, to sacrifice and devote himself or herself to achieving the goals of the organization, and to actively perform his or her duties. Social competence means the leader’s ability to understand the emotions of the members of the organization, it also means the ability to propose new directions and lead members to work together (Kang 2007). This emotional leadership recognizes and manages the emotions of the members of the organization, naturally affects them with care and affection, and strives to grow together with the organization and its members. It is examined as follows as for the ability to manage emotions well in the relationship between oneself and others and the sub-factors of emotional leadership that effectively manage human relationships through sympathy.

First, Kang Gil-Sook (2010) states that self-management comes from being able to understand and know one’s own feelings clearly. It needs optimism to control negative emotions and to cope flexibly without despair even in difficult situations such as openness to change, emotional self-control ability, and quick adaptability to new challenges and changes. In addition, leaders should be able to look at situations from a positive perspective, and they should have the ability to control their feelings and impulses and to change them into useful forms. Factors include self-control, adaptability, achievement, initiative, integrity, and optimism.

Second, according to Koo Ja-young (2012), self-awareness is the ability to understand one’s emotions and the effect of one’s emotions on others. It is to understand one’s own situations such as feelings, values, limitations, and purposes, and to understand the impact of one’s own feelings on others. Self-belief makes the leaders who can come into one’s own. Subsequently, it enables the leaders to accept difficult tasks and show a strong presence. In addition, they can understand how their feelings affect others, read own feelings and realize the effects, know how to listen to the inner signals, synchronize oneself, and manage the emotions in your relationship with others. In particular, they say that they have a positive presence and self-belief that makes them stand out among others and think positively about their values and abilities (Lee 2006).

Third, Lee Jeong-geun (2013) states that relationship management is the ability to manage the surroundings and interpersonal relationships. It makes consideration and affection for members lead

to inspiring others and promoting change, which forms a consensus with members. A good leader is one who leads the change with persuasive message delivery and smooth communication, encourages others to follow by taking the initiative, and leads the members of the organization sincerely. Leaders perceiving the need for change should be equipped with the ability to be able to break down the current situation, promote change, understand everyone's feelings and positions, manage conflicts properly, and respect others and draw teamwork and cooperation through intimate relationships. They also need to have the ability to manage their common goals.

Fourth, according to Kang Hee-rak (2010), social awareness is to understand other people's emotions and to develop and attract other people's abilities. An outstanding leader is able to match own feelings to the various emotions of others, to understand the feelings of others, to understand their perspectives, and to express an active interest in their thoughts. Organizational cognitive ability is the one that understands the leadership values and unspoken principles that move the members with the ability to read the flow, decision structure, and management style at the organizational level. Leaders should have the ability to grasp the values and principles of the members of the organization and social network, and he or she should also be equipped with service ability to examine the degree of members' satisfaction with an emotional atmosphere that can lead the relationship with the organization properly.

Emotional leadership is to develop the emotions and social abilities of the leader oneself, to understand and care for the emotions of the members of the organization, and to naturally exert influence by presenting a clear vision of the goal. A positive atmosphere led by emotional leaders who respect the diversity of organizational members can be a driving force for organizational growth, affects the emotions of organizational members, and, in turn, affect group performance. Meanwhile, if a leader uses only his or her emotions, it may be irrational or inefficient in the working in the organization. The verbal method of emotional leadership leads to clearly express one's emotions through the media of language. However, there is a limitation that emotional leadership's the non-verbal method, for example facial expressions and gestures, only perceives emotions and can be excluded from emotional thinking.

With the limitation, so it is necessary to be willing to accept the constructive criticism and comment, being aware of the shortcomings.

The aim of this study is to confirm the components of emotional leadership (self-management ability, self-awareness ability, relationship management ability, and social awareness ability) using 4 scales.

## **2.2. Group performance**

Group performance affects job satisfaction by forming a favorable attitude toward the organization and it is expressed by the performance of members in an organization as the result of progressed job. In this regard, group performance is a resultant goal of the leader who tries to influence the effectiveness and efficiency of an organization (Cho 1991).

Job duty is a series of continuous activities that a worker must perform as a job or a duty in his or her occupation. It is not only a concept that shows how successfully a job has been achieved but also a degree that shows how desirable a member's job turns out to be or how much his or her objectives have been achieved. As performance has a positive effect, it is treated in terms of achieving organizational goals. That is why performance can be in line with actions and attitudes toward achieving and achieving planned goals (Woo 2000).

Group performance refers to how successfully job performance was achieved through the general ability to propose and manage new directions with some sacrifice and active participation. In the study of public officials, satisfaction with working conditions, such as promotion and remuneration, has a positive effect on officials' commitment. Emotional leaders gain relatively high satisfaction and intimacy through emotional control, stability, and sensitivity, which causes members' interest and enthusiasm, thereby affecting group performance. This is the result of the efforts of the members of

the organization to accomplish the goals and tasks of the organization in carrying out their duties (Lee 2012).

As mentioned above, group performance is the result of a series of efforts by organizational members to achieve organizational goals and tasks, and is the resultant goal of managers who try to influence the effectiveness and efficiency of the organization in job performance.

Group performance can be defined in various ways depending on the approach and perspective. It is generally regarded as economic output and profitability in business administration. However the measure of group performance based on the economic output has limitations on educational administration.

This study intends to comprehensively examine the desirable working condition what the group members expect, using group performance.

### **2.3. Interactional justice**

In business administration, a lot of research is being conducted on organizational justice. Today, most people live as members of the organization and provide their knowledge, abilities, and skills to satisfy their needs and satisfaction. Organizations use excellent human resources to motivate them to achieve organizational goals and provide various forms of rewards depending on their performance. Organizational justice in the field of studying the behavior of individuals or groups between organizations and members is divided into three types of distributive justice, procedural justice, and interactional justice.

Interactional justice is one of the powerful discoveries about organizational fairness, which means that the organization has been treated fairly according to the attitudes of its members in the decision-making stage as an interpersonal treatment method shown to the members of the organization in the process of reward or promotion and execution. As a result of studying the relationship between leadership, fairness, and trust, organizational members who perceive leadership positively recognize the organization more fairly and trust their superiors and colleagues more. In addition, it refers to the degree to which an individual recognizes the interpersonal treatment that takes personal opinions into account during the execution of policies or procedures during the performance of the work and the fair treatment such as trust or respect from the boss in the organization.

In other words, when managing the members in an organization, it focuses on what kind of behavior it means and how it interacts with the members of the organization, such as the manager's speech and communication quality. It refers to the treatment an individual receives when carefully and politely explaining or communicating information about decision making. In addition, there is a difference in the perception of fairness by the interaction with the members of the organization in the process of executing the formal procedure, and the perception of fairness can be greatly influenced by the direction in which the individual is treated. This interactional justice is amplified when the organization makes legitimate decisions, communicating the details in an appropriate way with trust and respect. Also the way the authority holders are treated in decision-making process affects the interactional justice (Lee 2002).

This study intends to measure the control effect among the group members, using interactional justice.

## **3. Research Design**

### **3.1. Research models**

Based on these theoretical backgrounds, this study set up the following research model [Figure 1] to analyze the effect of emotional leadership on group performance and the moderating effect of interaction justice perceived by educational administration officials on group performance through self-management ability, self-awareness ability, relationship management ability, and social awareness ability, which are sub-variables of emotional leadership.

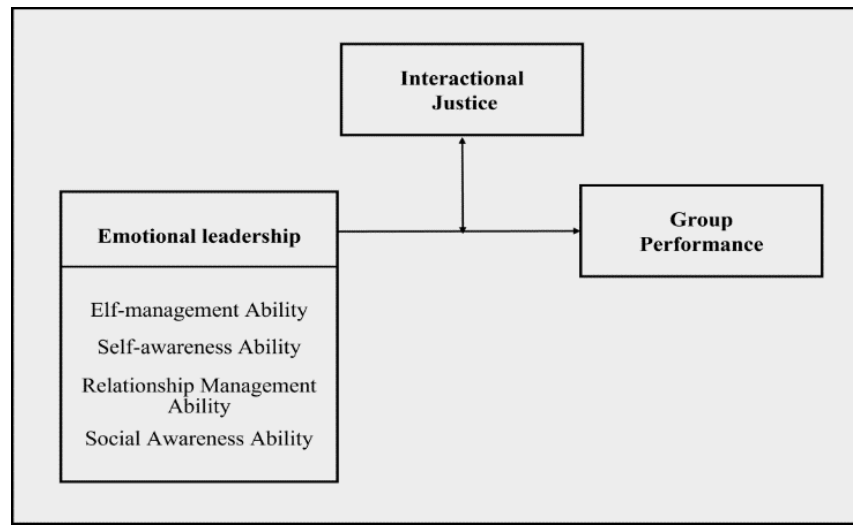


Fig. 1: Research model

## 3.2. Research hypothesis

### 3.2.1. Relationship between emotional leadership and group performance

In the relationship between emotional leadership and group performance, Wolff (2002) said that emotional leaders affect the positive atmosphere of the organization with trust, group efficacy, and group identity, and positive and negative emotions of the group affect group performance. Lee Jong-min (2012) gains relatively high satisfaction and intimacy through emotional stability and sensitivity through the modulation and control of emotions, which induces stable emotions, causes interest and enthusiasm, and affects group performance.

The harmonious work relationship among the members of the educational administration officials affects the emotions of the members of the organization, and the positive atmosphere and voluntary work support will affect the group performance in the form of a sense of belonging.

Emotional leadership as an independent variable is leaders' ability to understand their inner selves to form a natural relationship with the members of the organization and to effectively manage the human relationship between themselves and their surroundings. It consists of self-management ability, self-awareness ability, relationship management ability, and social awareness ability as the sub-variables of emotional leadership.

The dependent variable is group performance and consists of a series of efforts to achieve organizational members' goals and variables that could result in group performance. Therefore, hypothesis 1 was set as follows based on previous studies.

Hypothesis 1. Emotional leadership factors will have a positive effect on group performance.

- Self-management ability will have a positive effect on group performance.
- Self-awareness ability will have a positive effect on group performance
- Relationship management ability will have a positive effect on group performance.
- Social awareness ability will have a positive effect on group performance.

### 3.2.2. The moderating effect of interactional justice

Group performance can be represented by job performance and the performance of organizational members. Emotional leaders are the resultant goals of managers who understand the emotions of organizational members, respect diversity, and try to influence the effectiveness and efficiency of the

organization. In the process of executing formal procedures, fairness, or interactional justice, related to how to interact with organizational members can affect the perception of organizational members' fairness in the process of decision-making.

Hypothesis testing according to a research model shows that in the process of emotional leadership influencing group performance, interactional justice can be shown as the degree and performance to achieve organizational goals or tasks in performing the duties of educational administrative officials.

In the relationship between emotional leadership and group performance, interactional justice as a moderating variable is an interpersonal treatment method that considers personal opinions in the process of implementing policies or procedures during work. It is composed of the variables perceived by the members of the organization as to what trust or respect they receive in the organization.

Based on the above-mentioned previous studies, hypothesis 2 was established as follows.

Hypothesis 2: Interactional justice will play a moderating role in the relationship between emotional leadership and group performance.

2-1. Interactional justice will play a moderating role in the relationship between self-management ability and group performance.

2-2. Interactional justice will play a moderating role in the relationship between self-awareness ability and group performance.

2-3. Interactional justice will play a moderating role in the relationship between relationship management ability and group performance.

2-4. Interactional justice will play a moderating role in the relationship between social awareness ability and group performance

### **3.3. Sample collection and measurement of variables**

The purpose of this study is to obtain data by adopting a survey method, to examine the effect of emotional leadership of educational administration officials on group performance, and to examine whether interaction fairness has a moderating effect.

The questionnaire was targeted educational administration officials belonging to the Busan Metropolitan Office of Education. The survey was conducted for 25 days from October 4, 2022, to October 28, 2022. A total of 350 copies were distributed and 318 copies were collected, showing a recovery rate of 90.8%. A total of 314 questionnaires were used for the final analysis, except for 4 questionnaires that were removed due to insincere responses. The analysis method was statistically processed using SPSS 27.0 on the collected sample.

## **4. Empirical Analysis**

### **4.1. Demographic characteristics**

Frequency analysis and descriptive statistical analysis were conducted to examine demographic characteristics. The subjects of this study were public officials in educational administration belonging to the Busan Metropolitan Office of Education, and the gender of the sample subjects were 96 men (30.6%) and 218 women (69.4%). Among the 314 respondents, the ratio of female respondents was twice as high as that of male respondents.

The age of the respondents was 131 (41.8%) in their 50s, 88 (28%) in their 40s, 75 (23.9%) in their 30s, 13 (4.1%) in their 20s, and 7 (2.2%) in their 60s. Of the 314 respondents, 241 (76.8%) were married and 73 (23.2%) were unmarried. As for the educational background, 227 undergraduates (72.3%) were educated, and most of the respondents were college graduates or higher, followed by bachelor's, master's, doctoral, and high school graduates.

Table 1: Demographic characteristics

	Division	Frequency (N)	Ratio (%)
Gender	Male	96	30.6
	Female	218	69.4
Age	Twenties	13	4.1
	Thirties	75	23.9
	Forties	88	28.0
	Fifties	131	41.8
	Over Sixties	7	2.2
Marital Status	Married	241	76.8
	Unmarried	73	23.2
Education	Less Than High School Graduate	20	6.4
	College Degree	23	7.3
	University Undergraduate	227	72.3
	Master	42	13.4
	Doctor	2	.6
Area of Study	Humanities/ Social Studies	131	41.7
	Management/ Commerce or Economics	31	9.9
	Engineering	42	13.4
	Natural Science	36	11.4
	Pedagogy	55	17.5
	Arts and Physical Fitness	4	1.3
	Others	15	4.8
Years of Service	Less Than a Year	12	3.8
	Less Than Five Years	49	15.6
	Less Than Ten Years	37	11.8
	Less Than Fifteen Years	35	11.1
	Less Than Twenty Years	50	15.9
	More Than twenty	131	41.8
Job Grade	9th Grade	38	12.0
	8th Grade	41	13.1
	7th Grade	148	47.1
	6th Grade	51	16.3
	5th Grade or Higher	36	11.5
Current Place of Work	Kindergarten	27	8.6
	Elementary School	116	37.0
	Middle School	43	13.7
	High School	46	14.7
	Office of Education and its Direct Agencies	82	26.0
Service Period in Current Workplace	Less Than a Year	92	29.3
	Less Than Years	90	28.7
	Less Than Three Years	79	25.1
	More Than Three Years	53	16.9

As for the major, 131 people (41,7%) studied humanities and social studies, followed by education, engineering, and natural science. The number of years of service was 131 (41,8%) for 20 years or more, 50 (15,9%) for 20 years or less, 35 (11.1%) for 15 years or less, 37 (11.8%) for 10



years or less, and 61 (19.4%) for 5 years or less. As for the job grade(class), there were 148 people (47.1%) in the 7th grade, 51 people (16.3%) in the 6th grade, 36 people (11.5%) in the 5th grade or higher, 41 people (13.1%) in the 8th grade, and 38 people (12%) in the 9th grade. Looking at the types of work at the current workplace, 314 respondents working in various workplaces, including 27 kindergartens (8.6%), 116 elementary schools (37%), 43 middle schools (13.7%), 46 high schools (14.7%), and 82 offices of education (26%). Finally, in the current workplace of the respondents, the number of working periods is 92 (29.3%) for less than one year, 90 (28.7%) for less than two years, 79 (25.1%) for less than three years, and 53 (16.9%) for more than three years. The results of demographic characteristics are shown in Table 1.

#### 4.2. Validity and reliability analysis

In this study, exploratory factor analysis was conducted to test the validity of the research variables. First, KMO sample measures and Bartlett's Test of Sphericity were conducted to evaluate whether the measured values were suitable for factor analysis, and then principal component analysis (PCA) and commonality analysis were conducted.

If the KMO value of factor analysis is more than .05 and Bartlett's p is less than .05, the number of variables or samples used is appropriate for factor analysis, which means that variables can use factor analysis. In addition, the Varimax Rotation method was used to simplify the factor structure, and the eigenvalue was applied to a factor of 1.0 or more.

In the commonality analysis, items with over .5 or more were exclusively targeted, and the main component analysis was rotated to extract the factors. As a result of exploratory factor analysis, the scale value of KMO was .939, which satisfied the standard of sample adequacy, and Bartlett's Test of Sphericity value (Chi-square= 10732.653, degree of freedom=820, significance level= .000) showed suitability for the analysis model. The commonality of measurement variables was all over .5. Six factors were extracted and the total explanatory variance by these factors was 67.988%.

The value of Cronbach's  $\alpha$ , a measure of reliability among the extracted factors, was relationship management .914, self-awareness .883, self-management .877, social awareness .871, interaction fairness .968, and group performance .906. All six factors were above .6, indicating that reliability of the data with internal consistency, and satisfied all reliability measurement standards.

This confirms the existence of internal consistency among the wrong items in a specific variable for reliability analysis, and the reliability is verified using the commonly used Cronbach's  $\alpha$  coefficient. The Cronbach's  $\alpha$  coefficient is a method of calculating and transforming the correlation between items, and the value changes according to the number of questions in the measurement tool. The Cronbach's  $\alpha$  coefficient has a value between 0 and 1, and the criterion for determining the reliability measurement value is .6 or higher, which is considered to be internal consistency. The results of the analysis are shown in Table 2.

Table 2: Validity and reliability analysis of emotional leadership influencing factors

Division		values						Cronbach's $\alpha$
Variables	Items	1	2	3	4	5	6	
Interactional Justice	Interactional Justice5	.897						.968
	Interactional Justice6	.896						
	Interactional Justice7	.889						
	Interactional Justice4	.886						
	Interactional Justice2	.882						
	Interactional Justice3	.876						
	Interactional Justice1	.838						
Relationship Management Ability	Relationship Management Ability5		.813					.914
	Relationship		.784					

	Management Ability6							
	Relationship Management Ability4		.718					
	Relationship Management Ability3		.690					
	Relationship Management Ability2		.685					
	Relationship Management Ability8		.669					
	Relationship Management Ability7		.594					
Group Job Performance	Group Job Performance6			.777				
	Group Job Performance4			.754				
	Group Job Performance3			.678				
	Group Job Performance5			.678				
	Group Job Performance2			.642				
	Group Job Performance1			.597				
	Group Job Performance7			.567				
Social Awareness Ability	Social Awareness Ability5				.763			
	Social Awareness Ability6				.693			
	Social Awareness Ability7				.680			
	Social Awareness Ability1				.606			
	Social Awareness Ability2				.562			
Self-Management Ability	Self-Management Ability1					.793		
	Self-Management Ability2					.763		
	Self-Management Ability3					.677		
	Self-Management Ability6					.598		
	Self-Management Ability4					.570		
Self-Perception Ability	Self-Perception Ability2						.821	
	Self-Perception Ability3						.790	
	Self-Perception Ability6						.650	
	Self-Perception Ability1						.593	
	Self-Perception Ability4						.558	
Eigen Value		16.180	4.746	2.248	1.915	1.600	1.187	
Explanatory Variance		39.462	11.576	5.482	4.672	3.902	2.894	
Cumulative Explanatory Variance		39.462	51.038	56.521	61.192	65.094	67.988	
Kaiser-Meyer-Olkin measure of standard formation adequacy = .939 Bartlett's Test of Sphericity approximation chi-squared = 10732.653, degrees of freedom = 820, significance probability = .000								

#### 4.3. Correlation analysis

Correlation analysis was conducted to test the hypotheses set in this study. Correlation analysis is used to find out how closely one variable is related to another. In addition, the measurement items with internal consistency are standardized through the reliability test of the constructs. The correlation coefficient indicating the correlation size is 0 ~ 1, and the closer the absolute value of the change

intensity is to 1, the higher the correlation coefficient is. The direction of change is (+) in the positive direction and (-) in the negative direction. If the correlation coefficient between the two variables is 0.2 to 0.4, the correlation is low, and if it is 0.4 or more, the correlation is high.

Table 3: Correlation analysis between measurement variables

Division	A	B	C	D	E	F
Social Awareness (A)	1					
Self-Management Ability (B)	.701	1				
Self-Awareness (C)	.709**	.607**	1			
Relationship Management Ability (D)	.628**	.573**	.638**	1		
Group Performance (E)	.597**	.502**	.567**	.537**	1	
Interactional Justice (F)	.366**	.288**	.418**	.302**	.576**	1
Average	3.5998	3.9943	3.8139	3.9689	3.7798	3.2425
Standard Deviation	.69428	.61802	.60804	.53997	.67152	.89947
*p<.05, **p<.01, ***p<.001						

If the correlation coefficient is 0.8 or more, there is a possibility of multicollinearity. As shown in Table 3, the correlation coefficient between social recognition ability and group performance was  $r=.597$ , showing the highest positive correlation among the correlations. Self-recognition ability and group performance were  $r=.567$ , relationship management ability and group performance were  $r=.537$ , and self-management ability and group performance were  $r=.502$ , showing a positive correlation. In addition, since the correlation coefficient value between the total variables did not appear to be 0.8 or more, there was no problem with the multicollinearity presented in the multiple regression analysis, which suggests that the suitability of the data is secured.

#### 4.4. Hypothesis testing results

##### 4.4.1. The test results of emotional leadership and group performance

Multiple regression analysis was conducted to test hypothesis 1 that emotional leadership would have a significant positive effect on group performance. The results of the analysis on emotional leadership and group performance of the sub-variables hypothesis 1-1, 1-2, 1-3, and 1-4 among the verification results of hypothesis 1 are shown in Table 4. As a result of the regression analysis, the F value was 56.372, which was statistically significant at the significance level of  $p < .001$ , and  $R^2$  was .422, indicating that the overall explanatory power of the model was 42.2%. The D-W value is 1.972, which may be said to be independent as it approaches 2. The VIF (Variance Inflation Factor) of all the independent variables put into the model is .943~2.745, which is less than the standard value of 10, so it can be seen that there is no problem in multicollinearity between independent variables.

As a result of multiple regression analysis to examine the effect of sub-variables of emotional leadership on group performance, the variables that had a statistically significant effect were self-recognition ability ( $b=.222$ ,  $p=.003$ ), relationship management ability ( $b=.234$ ,  $p=.002$ ), and social recognition ability ( $b=.277$ ,  $p=.000$ ). Among the factors of emotional leadership, self-management ability ( $b=.078$ ,  $p=.257$ ) was not significant. Therefore, among the emotional leadership factors, self-awareness ability, social awareness ability, and relationship management ability were found to have a significant positive effect, and hypothesis 1-2, 1-3, and 1-4 was supported, but hypothesis 1-1 was not significant. This shows that the self-awareness ability of emotional leadership has a positive effect on group performance in connection with relationship management ability and social awareness ability.

Table 4: Multiple regression analysis of emotional leadership and group performance

Model	Regression Coefficient(b)	Standardized Regression Coefficient( $\beta$ )	t Value	Significance Level (sig)	Collinearity Statistic	
					Tolerance Limit	VIF
Self-Management Ability	.078	.072	1.135	.257	.469	2.134
Self-Perception Ability	.222	.201	3.036	.003**	.427	2.343
Relationship Management Ability	.234	.188	3.120	.002**	.515	1.943
Social Awareness Ability	.277	.286	3.993	.000***	.364	2.745
R <sup>2</sup> =.422, modified R <sup>2</sup> =.414, D-W=1.972, F value=56.372						
*p<.05, **p<.01, ***p<.001						

#### 4.4.2. Verification of the moderating effects of interactional justice

In order to test hypothesis 2 that interactional justice will play a moderating role in the relationship between emotional leadership and group performance, multiple regression analysis of moderating effect was conducted. Hypothesis 2 states that the sub-variables of emotional leadership — self-management ability, self-awareness ability, relationship management ability, and social awareness ability — will play a moderating role in the relationship between group performance and interactional justice. In order to test this, the sub-variables of emotional leadership such as self-management ability, self-awareness ability, relationship management ability, and social awareness ability were used as independent variables. The results of the analysis using interactional justice as a moderating variable are as shown in Table 5.

In Model 1, the overall explanatory power was 41.4% (R<sup>2</sup>=.414) and F=56.372 (p<.001), and the fit of the model was statistically significant.

The explanatory power was 53.2% (R<sup>2</sup>=.532) and F=72.249 (p<.001) in Model 2 where interactional justice was input as a moderating variable, and the explanatory power was increased by 11.8% and the F increment was also increased by 15.8% compared to Model 1. In other words, in Model 2, it was shown that interactional justice was used to better explain group performance.

In the case of Model 3, the explanatory power was 54.8% (R<sup>2</sup>=.548) and F=43.239 (p<.001) in Model 3, which was applied to the sub-variables of emotional leadership (self-management ability, self-awareness ability, relationship management ability, and social awareness ability) as moderating variables, and the explanatory power increased by 1.6% and the F increase decreased by 29% compared to Model 2.

Table 5: The result of analysis on the moderating effect

Division	Dependent variables: Group performance								
	[Model 1]			[Model 2]			[Model 3]		
	Regression Coefficient (b)	Standardized Regression Coefficient ( $\beta$ )	P Value	Regression Coefficient (b)	Standardized Regression Coefficient ( $\beta$ )	P Value	Regression Coefficient (b)	Standardized Regression Coefficient ( $\beta$ )	P Value
Constant	.697		.003**	.483		.023*	-.065		.901
Self-Management Ability	.078	.072	.257	.083	.076	.179	-.246	-.227	.161
Self-Perception Ability	.222	.201	.003**	.091	.082	.177	-.012	-.011	.961
Relationship	.234	.188	.002**	.224	.180	.001**	.197	.159	.378

Management Ability									
Social Awareness Ability	.277	.286	.000***	.226	.233	.000***	.887	.917	.000***
Interactional Justice				.284	.380	.000***	.476	.638	.006**
Interactional Fairness x Self-Management Ability							.144	.781	.046*
Interactional Justice x Self-Perception Ability							.033	.228	.665
Interactional Fairness x Relationship Management Ability							.002	.016	.973
Interactional Justice x Social Awareness Ability							-.209	-1.429	.001**
Modified R <sup>2</sup>	.414			.532			.548		
F Increment	56.372			72.249			43.239		
R <sup>2</sup> Variation	.422			.540			.561		
Significance Probability	.000			.000			.000		
F Amount of Change									
*p<.05, **p<.01, ***p<.001									

These results showed that the moderating effect of interactional justice had a significant effect on explaining group performance, and the interactional effect also had a significant interaction effect on self-management ability and social awareness ability. This means that interactional justice is significant in explaining group performance, which means that self-management ability and social awareness ability have a moderating effect on interactional justice about group performance.

## 5. Conclusion

Emotional leaders can understand the emotions of organizational members, respect diversity, manage their emotions well, and attract others emotionally. In addition, in order to adapt to the rapidly changing environment, efforts are made to increase the flexibility of the organization and to achieve effective organizational goals by psychologically stimulating the members of the organization so that emotions can be abundant in human relationships. The purpose of this study is to investigate the moderating effect that the influences of emotional leadership factors on group performance will be moderated by interactional justice of the analysis are summarized as follows.

First, the hypothesis that emotional leadership of hypothesis 1 will have a significant positive effect on group performance was partially adopted. Among the sub-variables of emotional leadership, self-awareness ability, relationship management ability, and social awareness ability had a positive effect on group performance. This degree of positive influence establishes a smooth relationship with the members of the administrative organization by obtaining satisfaction and intimacy through emotional control with emotional stability. In addition, it was found to be the same as Wolff (2002)'s

study that not only does the emotional leadership create a positive atmosphere in the organization through the balance between work and life, but also improves group performance through the sense of belonging and voluntary support of educational administration officials.

Second, the hypothesis that the influence of emotional leadership factors on group performance will be controlled by interactional justice was partially adopted. As a result of research on leadership, justice, and trust, organizational members who perceive emotional leadership positively recognize the organization more fairly and trust in other members more.

The moderating effect of interactional justice was found to have a significant interaction effect on self-management ability and social awareness ability in explaining group performance. This result shows that the organization of educational administration officials respects the diversity of the members of the organization and is trying to flexibly cope with new challenges and changes rather than being satisfied with the reality and pursuing the goal with desirable decision-making.

This study indicates that emotional leadership of educational administration officials be crucial impact on group performance. Educational administration officials need gain satisfaction and intimacy through emotional control by keeping emotional stability with group members. Plus, for positive impact on the group performance with voluntary support, emotional competence is important. As control effect of interactional justice was result from the interaction with fairness and mutual trust, it is required that the fair and integrated approach so that group members can perceive emotional leadership positively.

This study has limitations in that the subject of study is limited only to Busan area and only the part of educational administration officials are used as the sample for analysis. Therefore, there is a limit to the generalization of the results of the study. In the future study, a balanced study is needed by expanding the study sample and securing sufficient data. In addition, it is necessary to expand the continuous interest in emotional leadership to improve on the limitations and to subdivide the concepts qualitatively and quantitatively or diversify the analysis methods.

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