

Authentic Leadership and Organizational Effectiveness: The Roles of Hope, Grit, and Growth Mindset

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Abstract

The study was to determine moderated mediation effects of hope, grit, and growth mindset on the relationship between authentic leadership and organizational effectiveness of office workers. Data were analyzed using SPSS PC+ Win. Ver. 21 and Process MACRO for SPSS. Results are as follows. First, correlations among authentic leadership, hope, growth mindset, grit and organizational effectiveness were all significant and positive. Second, growth mindset and grit had a moderating mediation effect on the relationship between authentic leadership and organizational effectiveness through hope. This study discussed ways to improve organizational effectiveness not only through authentic leadership, but also through hope, growth mindset, and grit.

Key Words : Authentic leadership, Hope, Grit, Growth mindset, Organizational effectiveness, Employee.

1 INTRODUCTION

As humans aim for happiness, organizations aim for organizational effectiveness. Organizational effectiveness is defined as organization's ability to adapt to a rapidly changing environment and achieve

its goals through satisfaction of organizational members and their commitment to the organization (Hwang and Bae, 2010). It also refers to the degree to which an organization achieves its goal (Etzioni, 1968) or the degree to which it achieves its short- and long-term goals (Robbins, 1983). Therefore, organizational effectiveness is directly related to the survival of an organization. It is also an indicator of the performance of an organization.

Organization effectiveness has been widely used as a dependent variable in studies (Hwang, 2015). Indicators used to measure organization effectiveness are mainly psychological performance indicators, although they might vary from researcher to researcher. Task satisfaction and organizational commitment are overall attitude toward an organization. They are also attitudes of members toward their tasks. In this study, organizational effectiveness included organizational performance, maintenance ability, organizational commitment, and task satisfaction which were referred to as organizational performance and attitude of organization members (Seo and Chi, 2009).

Leadership is a concept that is often raised in relation to organizational research. This implies that leadership is closely related to organizational effectiveness. In addition, researches on leader and leadership have changed according to the desire of an organization. Recent research studies have emphasized human dimension, that is, characters of a leader, rather than the attitude, action, or skill of the leader. In this regard, one new leadership topic that has recently received attention is authentic leadership. Authenticity refers to honest, stable, and high self-esteem (Kernis, 2003).

Authenticity was originated from an ancient Greek philosopher Socrates. It means 'know yourself' with personalized experience, including self-awareness and one's own thoughts, feelings, desires, preferences, and beliefs (Snyder and Lopez, 2009). Thus, authenticity is not divided into presence or absence. Instead, it is divided into relatively stronger or weaker authenticity (Erikson, 1995).

Authentic leadership is a type of leadership in which a leader communicates with its members with authenticity (Song, 2015). An authentic leader can recognize both his strengths and weaknesses. Leaders can exert their leadership to integrate their strengths to grow as leaders (Luthans et al., 2007). In an organization, the relationship between supervisor and subordinate employees or between

leaders and members is important because information related to leaders can be expanded and reproduced by members at any time (Yu and Kim, 2013). Even if the leader can exercise his or her own leadership, it cannot be assumed that the leader's leadership will work unless members can recognize it (Eagly, 2005). In other words, when members perceive the authenticity of a leader, it is judged that the authentic leadership has functioned (Avolio and Gardner, 2005).

Authentic leadership has been studied as a causal variable predicting organizational effectiveness as mentioned above. In a study on university students in the United States, the most significant influence of organizational effectiveness among authentic leadership, ethical leadership, and transformational leadership has been found to be authentic leadership (Walumbwa et al., 2008). In a study on medical and biotechnology companies, it has been found that authentic leadership has a positive effect on psychological capital, self-directed learning ability, and organizational effectiveness (Lee and Song, 2014). In a study on industrial workers, it has been found that authentic leadership of workers positively influences on organizational effectiveness (Hwang and Lee, 2015; Hwang, 2015).

Recently, many scholars have studied variables that can predict success. Researches on the prediction of success through non-cognitive factors such as hope, grit, and growth mindset are emerging rather than prediction through cognitive factors such as intelligence (IQ).

First, scholars have presupposed that hope is a basic condition of human action that motivates a human being and fulfills something. It is defined as the attainment of goals, the importance of goals, and the expectation of achieving goals related to cognitive and emotional behavior (Stotland, 1969). Other scholars have defined hope as optimism that good outcomes are likely to occur or as a driving force to overcome individual psychological problems (Gottschalk, 1985). However, these definitions of hope are very vague. Hope theorists such as Snyder have attempted to define hope and make it measurable. For example, hope has been defined as a positive motivation based on successful interactions among goal-oriented energy, agency thinking, and pathways thinking (Snyder et al., 1991).

The goal is in the center of hope and cognitive component that

seeks hope. However, pathway is the idea of finding one or more effective ways to reach desired goal (Snyder et al., 2003). Hence, hope involves two elements: agency thinking and pathway thinking. Agency thinking is a perceived ability to initiate and sustain activities along pathways to achieve desirable goals (Snyder et al., 2002). Pathway thinking is the perceived ability of a person to find one or more successful ways to achieve a desired goal (Snyder et al., 2002). Those who have high hopes are challenging themselves. They are concerned with success rather than failure. They are more likely to perceive the possibility to achieve the goal, thus maintaining a positive emotional state. On the other hand, those who have low hopes are focused on failures without doing their best. They are concerned about the possibility of failing, thus maintaining a negative emotional state (Snyder, 1994; Seligman, 1995).

Grit is a concept that predicts fulfillment beyond talent (IQ). It is defined as perseverance and passion in personality dimension toward long-term goals (Duckworth, 2007). In other words, grit is an internal psychological strength figured out by the presence of long-term interest and passion with willingness to persevere through obstacles and setbacks to make progress toward goals aligned with or separate from passionate pursuits (Kleiman et al., 2013). Thus, grit does not mean simply trying hard. Instead, it means making long-term goals and devoting efforts without giving in to obstacles, frustrations, or failures that might be encountered in the process of achieving them (Lee, 2016). For example, in a study on candidates who applied to US Military Academy, grit has predicted more summer school passes than overall grades (Duckworth and Quinn 2009).. In a study on 2006 Scripps National Spelling Bee participants in the United States, grit has predicted more participants in the final round (Duckworth and Quinn 2009). These studies demonstrate that grit is a successful predictor for achieving goals. Mindset is an idea found by Stanford University psychologist Carol Dweck after years of studying achievement and success. It is divided into growth mindset and fixed mindset. Growth mindset is a belief that you can improve your abilities and intelligence through experience and effort while fixed mindset is a belief that you cannot change through effort because your ability or intelligence is fixed (Dweck, 2006). Thus, a person with growth mindset will interpret his or her intelligence or external information as a platform for his

growth. Such person can form adaptive motives and act in a positive way toward his or her achievement and growth. However, a person with fixed mindset will take the initial information as a basis for thinking and acting. Such person will stick to it and form maladaptive motives. He or she will act in a negative way toward his or her growth and achievement. Such person might take defensive actions to avoid self-harm (Dweck, 2006).

Previous studies have reported that growth mindset can lead to high academic achievement. It can also lead to resolution of long-term ceremony conflict, reduction of persistent aggression, interracial relationship improvement, and willpower increase (Dweck, 2012). In addition, growth mindset has positive effect on academic achievement as a result of teaching students about it (Aronson et al., 2002; Blackwell et al., 2007; Good et al., 2003; Good et al., 2007; Grant and Dweck, 2003). A study on the mindset of Palestinian and Israeli people has shown that Israeli people with fixed mindset have negative attitude towards Palestinian people (Dweck, 2012). Another study has found that those with both growth mindset and fixed mindset would talk to Caucasians for an average of 20 minutes, while those with growth mindset would talk for about 30, while those with growth mindset would talk for 5 minutes (Dweck, 2012).

After analyzing the relationship of variables mentioned above, many researchers have reported that authentic leadership not only affects organizational effectiveness, but also directly affects task satisfaction and organizational commitment which are components of organizational effectiveness (Hong, 2011; Hwang and Lee, 2015). On the other hand, it has been reported that hope, a predictor of success in relation to organizational effectiveness, can be mediated and moderated by other factors. For example, the mediating effect of hope in the relationship between stress coping and psychological welfare of female marriage immigrants has been reported (Park and Lee, 2013). The mediating effect of hope in the relationship between social support and suicidal ideation has also been reported (Kim and Lee 2015). In a study on elderly people over 65 years of age, the mediating effect of hope in the relationship between growth mindset and child well-being or between parenting stress and child well-being in a study of mothers of children attending kindergarten has been reported (Lee et al., 2016). In addition, it has been reported that growth mindset plays a mediating role in the relation-

ship between mother's parenting stress and hope (Lee et al., 2016). In a longitudinal study on college students, a moderating effect of growth mindset on the relationship between gratitude and suicidal thinking has been reported (Kleiman et al., 2013). Although the importance of organizational effectiveness which is directly related to the survival of an organization and the importance of the relationship between authentic leadership and the cause of organizational effectiveness have already been proved, it is impossible to improve organizational effectiveness through authentic leadership only. Therefore, research studies are needed to improve organizational effectiveness through mediating and modulating effects of hope, grit, and growth mindset. In addition, most empirical studies on these three variables are limited to studies on the achievement of adolescents (Lee, 2016; Kim et al., 2015; Lim et al., 2016). Research studies that can predicts success (i.e., organizational effectiveness) in organizations through authentic leadership for workers are needed.

2 METHODS

A. Research Model

A model for research in this study is shown in Figure 1. The setting of this research model is based on previous research and research model 17 for Macro process proposed by Hayes (2013). First, authentic leadership has a direct impact on organizational effectiveness while hope mediates the relationship between authentic leadership and organizational effectiveness. Second, grit and growth mindset can moderate the relationship between authentic leadership and organizational effectiveness. It can also moderate the relationship between hope and organizational effectiveness.

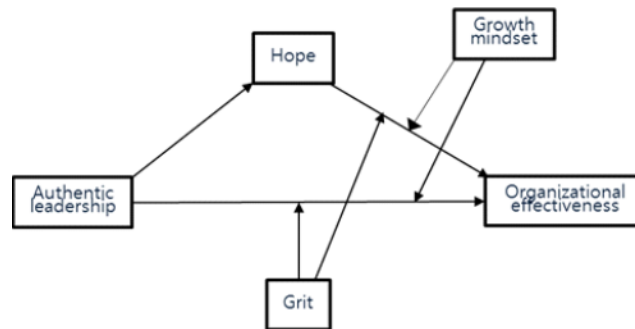


Figure 1: Research model used in this study

B. Participants

The study area and research subjects were selected through purposive sampling. A total of 374 office workers in Chungnam were selected. Of these subjects, 87.8% were males and 12.2% were females. Their average age was 36.2 years. Their average number of working years was 3.37 years. Regarding places that they were working for, pharmaceutical companies accounted for 62.9% while drug wholesalers accounted for 36.0%.

C. Research tools

C. a. Authentic leadership

To measure authentic leadership, Authentic Leadership Inventory (ALI) scale developed by Linda and Chester (2011) and modified by Koo (2013) was used. The questionnaire was composed of 16 questions to fit these subjects. This scale could measure the degree of leadership of the direct superior as perceived by the staff. It was measured based on the following four sub-regions: self-awareness, relational transparency, internalized moral perspective, and balanced information processing. For each measurement, a 5-point Likert scale (1 = not at all, 5 = strongly agree) was used. Higher score indicated higher perceived leadership of their direct superior. Regarding its reliability for measuring authentic leadership, Cronbach's α value was 0.936.

C. b. Hope

In order to measure hope, the Korean version of hope scale adapted and validated by Choi et al. (2008) from the original form

developed by Snyder et al. (1994) as used in this study. Hope was composed of four items of agency thinking to measure goal setting and four items of pathways thinking to measure how to reach those goals. Measurements were done on a Likert scale (1 = not at all, 5 = strongly agree). The higher the score, the higher the hope level. Cronbach's α value for this hope scale was 0.884.

C. c. Organizational effectiveness

The organizational effectiveness scale used in this study consisted of 9 questions on job satisfaction and 8 questions on organizational commitment. The scale of job satisfaction was developed by Cook and Wall (1980) and revised by Na (2001) while the scale of organizational commitment was developed by Warr and Roughton (1969) and revised by Han (2010). The scale on organizational commitment used 8 questions related to psychological immersion as used by Jung (2011) selected from 24 questions of Allen and Meyer (2004). All questions regarding organizational effectiveness were measured by a 5-point Likert scale (1 = not at all, 5 = strongly agree). The reliability of the organizational effectiveness scale used in this study had a Cronbach's α value of 0.928.

C. d. Grit

Grit-O scale developed by Duckworth & Quinn (2009) and translated by Lee et al. (2016) was used in this study. This scale consisted of a total of 12 items measuring the consistency of interest and persistence of effort. Measurement was scored on Likert scale (1 = not at all, 5 = strongly agree). The higher the score, the higher the grit. The reliability of the Grit-O scale used in this study had a Cronbach's α value of 0.758.

C. e. Growth mindset

Growth mindset scale developed by Dweck (2006) and translated by Lee et al. (2016) was used in this study. This scale consisted of four items to measure beliefs about change in intelligence and four items to measure beliefs about personality change. Measurements were scored on Likert scale (1 = not at all, 5 = strongly agree). The higher the score, the higher the growth mindset. The reliability of this scale had 0.820, Cronbach's α .

D. Data analysis

Descriptive statistics and correlation analysis were conducted using SPSS PC+ Win. Ver. 21. Moderated mediation modeling

was performed using Macro Process (Hayes, 2013) after applying Model 17 with 5000 bootstrap samples. Point estimates of conditional indirect effects, conditional direct effects, and their 95% confidence intervals were obtained using a bootstrapping method with 5000 bootstrap samples (Preacher and Hayes, 2004). To analyze indirect effects, if 95% confidence interval included 0, then the indirect effect was not significant at 0.05 level. If 0 was not in the interval, then the indirect effect was statistically significant at 0.05 level (Hayes, 2013). All continuous variables were mean-centered.

3 RESULTS AND DISCUSSION

A. Correlation and descriptive statistics

As shown in Table 1, correlations among organizational effectiveness, authentic leadership, hope, growth mindset, and grit were all significant and positive. The correlation coefficient between authentic leadership and organizational effectiveness ($r = 0.588$, $p < 0.01$) was the highest, followed by that between hope and grit ($r = 0.462$, $p < 0.01$) and that between hope and organizational effectiveness ($r = 0.381$, $p < 0.01$).

Descriptive statistics showed that the average of main variables was higher than the median of 3, which was higher than the answer of "intermediate" for each variable.

TABLE I

CORRELATION AND DESCRIPTIVE STATISTICS					
	1	2	3	4	5
1.Authentic leadership	1				
2.Hope	.366**	1			
3.Growth mindset	.169**	.345**	1		
4.Grit	.119*	.462**	.322**	1	
5.Organizational effectiveness	.588**	.381**	.104*	.210**	1
M	3.3339	3.6227	3.4356	3.4317	3.3087
SD	0.6436	0.57569	0.62939	0.49767	0.59226

B. Verification of mediating effect, moderating effect, and moderated mediation effect

Results of mediating effect, moderating effect, and moderated mediation effect are shown in Figure 2. For direct effects, authentic leadership and grit had significant impact on organizational effectiveness. However, growth mindset had not a significant effect on organizational effectiveness. For mediating effect, authentic leadership had significant effect on hope ($\beta = 0.3266$, $p < 0.001$) while hope had significant effect on organizational effectiveness ($\beta = 0.1945$, $p < 0.001$). Therefore, the mediating effect was verified. For moderating effect, growth mindset did not moderate in the relationship between authentic leadership and organizational effectiveness ($\beta = 0.0440$, $p > 0.05$). On the other hand, grit had a moderating effect on the relationship between authentic leadership and organizational effectiveness ($\beta = 0.2221$, $p < 0.01$). For moderating mediation, the indirect effect of authentic leadership on organizational effectiveness through hope was moderated by growth mindset ($\beta = 0.1497$, $p < 0.05$) and grit ($\beta = -0.1943$, $p < 0.05$). Therefore, growth mindset and grit had moderating mediation effects on the relationship between authentic leadership and organizational effectiveness through hope. In other words, when authentic leadership increases organizational effectiveness through mediation of hope, growth mindset has a moderated impact on the relationship between authentic leadership and organizational effectiveness. However, grit only has a mitigating effect.

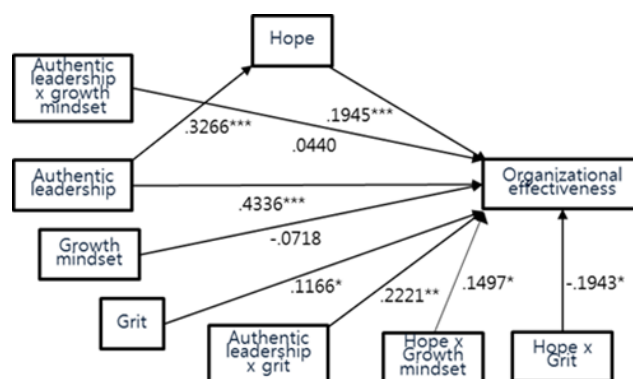


Figure 2: STATISTICAL RESEARCH MODEL

Results of this study revealed that authentic leadership directly affected organization effectiveness, in agreement with previous studies (Hwang, 2015; Walumbwa et al., 2008). Therefore, it is necessary to improve organizational effectiveness as a strategy for organizational survival.

In addition, hope was found to mediate the association between authentic leadership and organizational effectiveness, consistent with the results of a study showing that hope could mediate the relationship between personal image and organizational effectiveness (Hwang and Lee, 2015). Therefore, it is necessary to promote hope of members in an organization in indirect way to improve organizational effectiveness.

Results of moderating effect showed that growth mindset did not moderate the relation between authentic leadership and organizational effectiveness. On the other hand, grit was found to be able to moderate the relationship between authentic leadership and organizational effectiveness. In a longitudinal study of 209 college students (Kleiman et al., 2013), interaction effect of gratitude and grit has reduced suicidal ideation, consistent with the moderating effect of grit in this study. On the other hand, regarding the moderating effect of growth mindset, one study has found that growth mindset plays a mediating role in the relationship between mother's parenting stress and hope 38. However, moderating effect of growth mindset has not been reported yet. Therefore, it can be summarized that high and low growth mindset are irrelevant in the relationship between authentic leadership and organizational effectiveness.

Conditional direct effects are summarized in Table 2. All continuous variables were mean-centered. The conditional direct effect of authentic leadership on organizational effectiveness was significant based on values of M and $M \pm SD$ of two moderators.

Figure 3: TABLE II

CONDITIONAL DIRECT EFFECTS OF AUTHENTIC LEADERSHIP ON ORGANIZATIONAL EFFECTIVENESS WITH VALUES OF THE MODERATOR(S)

Grit	Growth mindset	Effect	SE	t	p	LLCI	ULCI
-.4981	-.6296	.2953	.0689	4.2834	.0000	.1597	.4309
-.4981	.0000	.3230	.0625	5.1644	.0000	.2000	.4460
-.4981	.6296	.3507	.0824	4.2552	.0000	.1886	.5127
.0000	-.6296	.4059	.0631	6.4293	.0000	.2818	.5301
.0000	.0000	.4336	.0413	10.4930	.0000	.3524	.5149
.0000	.6296	.4613	.0561	8.2184	.0000	.3509	.5717
.4981	-.6296	.5166	.0803	6.4296	.0000	.3586	.6746
.4981	.0000	.5442	.0523	10.4000	.0000	.4413	.6472
.4981	.6296	.5719	.0524	10.9179	.0000	.4689	.6750

Conditional indirect effects of moderators of grit and growth mindset on M and M±SD values are shown in Table 3. The conditional indirect effect was significant when grit was M-SD and growth-mindset was M-SD, M, or M+SD. Conditional indirect effects were significant when grit was M and growth mindset was M or M+SD. If grit was M+SD and growth mindset was M+SD, the conditional indirect effect was also significant. However, when grit was M and growth-mindset was M-SD, conditional indirect effect was insignificant. Conditional indirect effects were not significant either when grit was M+SD and growth mindset was M or M-SD. Therefore, conditional indirect effect of authentic leadership on organizational effectiveness was insignificant when grit was high but growth mindset was low.

For moderated mediation effects, indirect effects of authentic leadership on organizational effectiveness through hope were moderated by growth mindset and grit. In other words, when authentic leadership increases organizational effectiveness through mediation of hope, growth mindset has a moderating effect on the relationship between authentic leadership and organizational effectiveness while grit has a buffering effect to alleviate such relationship.

Figure 4: TABLE III

CONDITIONAL INDIRECT EFFECTS OF AUTHENTIC LEADERSHIP ON
ORGANIZATIONAL EFFECTIVENESS BASED ON VALUES OF MODERATORS

Grit	Growth mindset	Effect	Boot SE	BootLLCI	BootULCI
-.4981	-.6296	.0644	.0263	.0198	.1217
-.4981	.0000	.0951	.0272	.0480	.1560
-.4981	.6296	.1259	.0382	.0600	.2130
.0000	-.6296	.0328	.0274	-.0167	.0920
.0000	.0000	.0635	.0223	.0240	.1124
.0000	.6296	.0943	.0303	.0430	.1631
.4981	-.6296	.0012	.0354	-.0709	.0697
.4981	.0000	.0319	.0265	-.0173	.0889
.4981	.6296	.0627	.0286	.0143	.1281

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