

진성 리더십이 경쟁적 협력에 미치는 영향: 긍정심리자본의 매개효과와 성과보상연계성의 매개된 조절효과를 중심으로

The Mechanism behind Authentic Leadership's Effect on Coopetition: Focusing on Positive Psychological Capital as a Mediator and Performance-based Rewards as a Mediating Moderator

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요약

본 연구는 진성리더십이 조직 구성원들의 긍정심리자본을 매개로 경쟁적 협력(coopetition)에 미치는 영향에 대한 효과성을 검증하고, 긍정심리자본의 매개효과가 성과보상연계성에 의해 조절되는 매커니즘을 규명하는데 목적이 있다.

연구결과 긍정심리자본은 진성리더십과 경쟁적 협력 간의 관계에서 매개 역할(간접효과)을 하는 것으로 나타났다. 또한 성과보상연계성은 진성리더십과 경쟁적 협력 간의 관계에서 부(-)적으로 조절하는 조건부 직접효과와 진성리더십이 긍정심리자본을 매개하여 경쟁적 협력에 영향을 미치는 관계에서 성과보상연계성에 의해 정(+)적으로 조절되는 매개된 조절효과(조건부 간접효과)가 나타났다.

이를 통하여 본 연구에서는 조직구성원들의 경쟁적 협력을 촉진하는 선행 매커니즘을 실증적으로 규명하였다는데 의의가 있다. 또한 그 동안 상대적으로 연구가 부족하였던 경쟁적 협력에 대한 연구를 개인 수준으로 확장하였다는데 의미가 있다.

■ 중심어 : | 진성 리더십 | 경쟁적 협력 | 긍정심리자본 | 성과보상연계성 |

Abstract

This study verified the effectiveness of authentic leadership in promoting coopetition with the mediation of positive psychological capital and identified how this mediating effect of positive psychological capital is moderated by performance-based rewards.

Our findings showed that positive psychological capital played the role of mediator (indirect effect) between authentic leadership and coopetition. Also, performance-based rewards had a negative conditional direct effect on the relationship between authentic leadership and coopetition as well as a positive mediated moderation (conditional indirect effect) when the relationship is mediated by positive psychological capital.

This research presents a novel empirical study on the mechanism involved in the promotion of coopetition among organization members, especially concerning the antecedents involved at the individual level.

■ keyword : | Authentic Leadership | Coopetition | Positive Psychological Capital | Performance-based Rewards |

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1. Introduction

Coopetition is a paradoxical term that combines two otherwise conflicting ideas - competition and cooperation. In their book *Co-opetition* (1996), Brandenburger and Nalebuff[1] argued that it is necessary to move beyond traditional competition-oriented thinking and cooperate with competitors to create new values[2]. In other words, to compete more effectively with competitors, we need to cooperate with our competitors[3].

The perceived need for coopetition comes from the growing uncertainty in the business management environment and the deepening complexity of the relationships among economic agents[4]. The rapidly-evolving technology and intense competition of today's business environment make it realistically impossible for one company to acquire and develop all available knowledge and technology necessary for the business on its own. Thus, companies are faced with the need to form cooperative relationships with competitors as a management strategy. In actuality, companies have been using coopetition as a business strategy to improve their business performance, multiple studies have reported on the positive association between coopetition and performance[3][5].

However, does coopetition only occur at the company level? This study posits that coopetition exists not only among businesses but in many other situations in our daily lives, at the departmental and team level within organizations as well as at the individual level. For instance, in a team, the members cooperate with each other to achieve goals and milestones but also compete among themselves to gain greater rewards from individual performance evaluations. What this means is that, in real life, pure cooperation or pure competition is exceedingly

rare[6-8], and in an organization, all individual members engage in coopetition, competing as well as cooperating with each other at the same time[1][2][9].

According to Dorn et al. (2016)[4] which analyzed the studies performed on coopetition over the past few years, the research on coopetition has mostly concentrated on the cooperation between competing businesses at the inter-firm level. However, scholars have recently been shifting their focus to the intra-firm level[10] where groups cooperate to acquire and share knowledge and to develop new products but also compete for limited resources within the organization. Yet, studies on individual-level coopetition are still lacking, and the few that exist have mostly looked at coopetition associated with innovation and creativity[11][12].

Although coopetition itself is a relatively new concept with a limited number of existing studies available, certain characteristics and limitations can be identified in the literature on coopetition. First, most studies have focused on coopetition between companies in the organizational context. As such, many scholars have pointed out the gap of knowledge on coopetition occurring at different levels within the organization (e.g., individual, team, department levels)[1][10][13]. Second, so far, analysis on coopetition at the individual levels have mostly been conducted on the relationship between coopetition and outcome variables such as innovation, creativity, and knowledge sharing[11][12][14]. There are relatively few studies that investigate the factors that promote the coopetition among members of the organization and their mechanisms. Third, in terms of theoretical approaches, studies have utilized the contingency theory[15], which views competition and cooperation as choices that are mutually-exclusive, and the paradox theory[16], which argues for the coexistence of these mutually-exclusive characteristics[17].

In this context, this study argues that it is necessary to look at the factors that affect the cooperation among members of the organization and proposes to investigate this topic from the perspective of ambidexterity. In other words, this study asserts that cooperation should be interpreted from the viewpoint of ambidexterity, which shares similarities with the paradox theory in that competition and cooperation are viewed as coexisting but differs by seeing the relationship between the two as a dynamic capability[18] rather than a paradoxical tension.

Therefore, this study sets out to identify the mechanisms through which the antecedents of cooperation affect the cooperation among individuals within the organization. To achieve this greater goal, this research will examine the following four aspects. First, based on the concept of ambidexterity, this study will analyze the antecedents that promote individual-level cooperation within an organization, which will contribute to the existing discourse on cooperation by expanding its current concentration on the organizational level to include the individual level viewpoint. Second, the effectiveness of authentic leadership as a leadership factor of the cooperation among organization members will be verified. Yoon (2011)[19] states that the lack of authenticity can render any leadership style to be perceived as mere skills to exploit the members of the organization, thereby preventing leadership from having a lasting effect. Since authentic leadership is argued as the foundational principle behind all leadership styles, it is worthwhile to see whether authentic leadership acts as an antecedent of cooperation.

Third, this study will verify the mediating effect of positive psychological capital as a psychological process that members experience in the relationship between authentic leadership and cooperation. And fourth, the positive moderating effect of

performance-based rewards will be investigated. Previous research has reported that endowing competition-promoting individual rewards on teams, whose organizational structure emphasizes cooperation, can negatively affect performance[20][21]. However, since many companies have both team-based structures and reward systems based on individual performance in the real world, this study will provide a meaningful opportunity to revisit the positive moderating effect of performance-based rewards from the perspective of ambidexterity.

II. Theoretical Background

1. Cooperation

Cooperation is an interesting concept because it combines competition and cooperation which are thought as having strongly conflicting logical bases[4]. Different perspectives exist concerning whether conflicting attributes such as competition and cooperation can coexist. First, contingency theory[6][15][22][23] states that competition and cooperation do not occur simultaneously but rather that one or the other is selected as the situation demands. Because one chooses either competition or cooperation at any given situation, this perspective emphasizes the respective advantage one or the other in a particular situation. However, serious side-effects have been found to exist when competition and cooperation are perceived as mutually exclusive[24].

On the other hand, paradox theory and the concept of ambidexterity focus on how competition and cooperation can coexist to realize the dynamic capabilities of an organization[16][18]. Paradox theory is a metatheory that was introduced to manage the various tensions that exist in an organization, such as

the tension between competition and cooperation and between exploration and exploitation. Ambidexterity is a concept that emerged from the paradox theory[25][26]. What differs ambidexterity from the paradox theory is that ambidexterity sees the relationship between the paradoxical ideas of competition and cooperation not as a tension or conflict but as a dynamic capability[18].

Landkammer and Sassenberg (2016)[8] revealed that competing while cooperating can enable greater flexibility in various tasks than pure cooperation or pure competition. This suggests that interpersonal cooperation can potentially prevent the negative effects of pure competition or pure cooperation and bring positive benefits[3]. These findings are also in line with previous studies that found ambidextrous (e.g., cooperative) individuals to be more efficient than those who are not[27]. The concept of ambidexterity allows us to understand cooperation as a behavior or attitude which minimizes the weaknesses and maximizes the strengths of both competition and cooperation, and thus, is a meaningful and useful approach for cooperation research.

The concept of ambidexterity implies the ability to pursue conflicting tasks at the same time. Rosing, Frese, and Bausch (2011)[28][29] defined ambidexterity leadership as the ability to enhance and switch flexibly between exploration and exploitation as the context demands. In terms of behavior, an individual's ambidexterity is the ability to alternate between paradoxical thoughts and activities[25], and thus, refers to the ability, as opposed to an individual trait, to achieve and integrate ambidexterity (such as cooperation) through self-regulation[30]. Based on these definitions of ambidexterity, this study defines cooperation as the ability to engage simultaneously in competence and cooperation[1][2][9][14].

Previous studies have measured ambidexterity

using diverse methods[31][32]. Cao, Gedajlovic, and Zhang (2009)[33] integrated the measures of ambidexterity used in existing literature and categorized the measures into two dimensions: the balance dimension and the combined dimension of ambidexterity. The balanced dimension of ambidexterity measures the absolute difference between exploratory and exploitive activities to highlight the relative balance of ambidexterity; while the combined dimension measures the product or sum values of exploratory and exploitive activities to emphasize their maximization. As this study focuses on the maximization of both competition and cooperation among the members of the organization, cooperation will be measured using the combined dimension of ambidexterity.

Studies conducted abroad on cooperation at the individual level within an organization assume that sub-units, teams, groups, or individuals that need to cooperate within the organization compete for limited resources[4] and that individual-level cooperation fosters innovation and creativity[11][12]. In Korea, Lee (2005)[34] qualitatively analyzed competition and cooperation as factors for organizational goal achievement, and a number of quantitative research has been conducted on the effect of cooperation in a team on knowledge sharing[14] and how cooperation factors (job autonomy, task interdependence) and competition factors (perceived performance-reward linkage) affect the attitudes of organization members[17].

As illustrated above, the research on cooperation at organizations on the individual level is relatively lacking, with even less attention given to the antecedents of cooperation compared to that given on its outcome variables. Moreover, there is a need for further investigation of the cooperation among organization members that look at the individual level

more precisely, for instance, by role or position. Therefore, this study aims to identify the mechanisms leading to cooptation at the individual level within the organization and contribute to expanding the scope of research on cooptation and revealing the variables that drive cooptation among organization members.

2. Authentic leadership

Authentic leadership is a leadership style advocated by many leadership scholars, including Avolio and Gardner (2005)[35], that arose from perceived limitations in existing leadership theories, namely, the tendency to place sole emphasis on economic efficiency and leadership skills[36]. Authentic leadership sheds light on the authenticity of the leader[37] and defines an authentic leader as one that fully understands oneself and acts according to one's values and beliefs[35]. In other words, authentic leadership stresses the leader's authentic behavior as a positive role model that affects his/her followers' performance[35][38][39], thereby differing itself from other leadership styles that focus on particular skills[40].

Positive psychology and positive organizational scholarship[41][42] form the basis of authentic leadership theory[43]. There are slight differences among scholars about what constitutes authentic leadership[35][38][39]. Gardner et al. (2005)[39] broadly divided authentic leadership into self-awareness and self-regulation, and Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008)[44] further specified authentic leadership as consisting the four attributes of self-awareness, internalized moral perspective, relational transparency, and balanced processing of information[45]. Furthermore, they developed the well-recognized measurement tool for authentic leadership known as the Authentic Leadership Questionnaire (ALQ)[44].

A significant amount of literature exists that analyze and theoretically verify the effectiveness of authentic leadership. Avolio and Gardner (2005)[35] introduced authentic leadership as the root concept of other positive leadership theories and presented a theoretical model on how authentic leadership affects the members' attitudes (e.g., commitment, job satisfaction) and behavior (e.g., performance, effort, turnover intention) through psychological processes such as the formation of social identity personal identity, positive emotion, hope, and optimism.

In particular, recent studies have verified the effectiveness of authentic leadership in the organization members' psychological processes using positive psychological capital[46][47]. Gardner, Cogliser, Davis, and Dickens (2011)[48] analyzed 13 empirical studies on authentic leadership and verified that authentic leadership positively influences self-esteem and positive leader modeling.

However, existing literature on authentic leadership and the cooptation among members of the organization is still scarce. This study expects that authentic leadership will affect the cooptation among organization members based on two arguments: first, that the ambidexterity of cooptation is promoted through self-regulation[30]; and second, that authentic leaders exercise self-imposed leadership based on self-awareness and self-regulation, and followers imitate such authentic leadership behavior[36]. In other words, the argument is that when leaders exhibit authentic leadership, the members of the organization follow the lead and, as a result, such self-regulatory behavior facilitate cooptation.

Thus, this study proposes to examine the effectiveness of authentic leadership as a factor that promotes cooptation among organization members. This attempt will provide empirical verification on

how authentic leadership, the fundamental principle of all leadership[19], affects organization members' cooperation and will contribute to existing literature by expanding the study on leadership as a factor that promotes ambidexterity, such as cooperation, at the individual level.

3. Positive psychological capital

Positive psychological capital[49] is a concept developed in conjunction with positive organizational behavior (POB), which applies positive psychology to the workplace. Based on positive psychology and positive organizational behavior, positive psychological capital refers to the positive psychological state that contributes to performance through the strengths and psychological capabilities of organization members[50-52]. Positive psychological capital views positive psychological states as resources (capital) that positively affect the attitudes and behaviors of organization members to maximize the organization's capabilities[53][54]. This is why positive psychological capital is perceived as a strategy for human resources development for an organization to gain a sustainable competitive advantage[55].

Luthans and Youssef (2004)[56] defined positive psychological capital as a single higher-order construct by integrating the following four individual-level positive psychological states: 1) self-efficacy, which endows greater confidence to accept challenges and achieve success; 2) hope, which allows one to be patient and to adjust goals to be successful; 3) resilience, the ability to rebound to one's original state despite problems or difficulties; and 4) optimism about the present and towards the future. This study uses this higher-order construct of positive psychological capital as an index, based on the theory of psychological capital that view the

integration of psychological capital as forming a larger capital. The use of integrated positive psychological capital has been theoretically and empirically supported by multiple studies[57-60].

Since mentioned by Seligman (1988), various studies have been conducted on positive psychological capital[42]. In particular, research has been active on identifying the characteristics of the individual members and the leader in the organization as the antecedents of positive psychological capital[61]. Based on this pool of research, this study anticipates that authentic leadership will positively affect positive psychological capital as a leadership factor.

Multiple studies have also empirically verified the significant effect of positive psychological capital on organizational commitment, job satisfaction, organizational citizenship behavior, and turnover intention[53][62]. That is, individuals with high positive psychological capital cooperated voluntarily with their colleagues for problem-solving and also participated actively in tasks beyond their job boundaries[53]. Concerning positive psychological capital and cooperation, there exists a report that empirically verified the positive psychological capital of a team as a contingent factor for enabling ambidexterity[63]. Despite such attempts, however, there still are only a few studies conducted on the relationship between positive psychological capital and cooperation (ambidexterity).

This study aims to investigate the relationship between authentic leadership and positive psychological capital as well as the effect of positive psychological capital on the cooperation among members of the organization. This empirical study on positive psychological capital and cooperation will help mend the knowledge gap in present research and provide valuable academic and practical implications.

4. Performance-based rewards

In the aftermath of the economic crisis of the late 1990s, Korean companies began to introduce performance-based wage systems in the hope to improve their employees' abilities through competition and enhance business performance such as higher productivity[64]. However, organizations fundamentally involve cooperation due to the nature of their systems[65], and companies emphasize cooperation through their team-based organizational structures and job designs[17]. That is, in reality, organizations utilize competition and cooperation simultaneously. Kotter (2008)[66] argued organizations should accommodate these paradoxical attributes in their organizational structures and human resource management systems, etc. to survive in the long-term. Yoon and Kim(2001)[67] found that Korean firms utilizing the paradoxical personnel systems showed both higher efficiency and innovation than those that did not, thereby supporting the argument presented by Kotter (2008)[66].

The performance-based reward system is a system based on the philosophy that people who achieve better performance should receive more rewards than those who achieve less[68][69], thereby discriminatively give rewards based on individual performance. In this sense, the performance-reward linkage is defined as the perception that rewards are determined based on the performance achieved by each[21]. In other words, it is believed that providing rewards based on performance motivates the members of the organization, thereby contributing to organizational effectiveness, and as a result, creates a virtuous cycle of reinforcement that brings greater rewards to the members[21][70][71].

Theories explaining the mechanisms of performance-based rewards include equity theory[72], expectancy theory[73][74], cognitive evaluation

theory[75], self-determination theory[76], and social exchange theory[77]. First, Adams (1965)'s equity theory[72] states that appropriate rewards must be provided to achieve a sustainable virtuous cycle for higher organizational effectiveness and that this is only possible when individuals perceive the reward-distribution process to be fair[78]. Second, expectancy theory explains the relationship between individual effort, performance, and results based on notions of valence, instrumentality, and expectancy[73][74].

Third, cognitive evaluation and self-determination theories[75][76] believe that intrinsic motivation, when it is triggered, can be reduced by external rewards, and that the locus of causality, competence, and self-determination affects intrinsic motivation. That is, intrinsic motivation increases when one is competent and motivated by self-determination. Lastly, Blau (1964)'s social exchange theory[77] encompasses equity theory, expectancy theory, and cognitive evaluation theory in its understanding of the social exchange relationship between the organization and its members[79]. According to social exchange theory, the perceived fairness in the rewards given by the organization for individual performance leads to a positive and favorable attitude toward the organization and the job based on the norm of reciprocity[79][80].

Studies on the effect of performance-based rewards on the attitude of organization members have shown that performance-based rewards have a positive effect by providing motivation[21][79][81]. However, another study reported the limited effect of performance-based rewards in inducing sustained performance improvement[82], which is supported by research findings on the sense of relative deprivation and negative attitudes and behaviors, such as lower organizational satisfaction and performance, caused by performance-based rewards in individual members

of the organization[20][81]. On the other hand, Park and Hwang (2014)[17] found that the perceived performance–reward linkage positively moderated the relationship between job autonomy and the attitudes of organization members.

The effect of performance–based rewards on the ambidexterity of cooperation deserves attention because performance–reward linkage, by providing feedback on individual abilities, efforts, and behaviors of organization members through performance–based rewards, weaken social loafing[83] and strengthen cooperation[84]. In other words, performance–based rewards can complement the shortcomings of competition and cooperation and maximize their benefits. Based on the theories and previous research illustrated above, this study sets out to examine the effect of performance–based rewards on the relationship between authentic leadership and cooperation. More specifically, this study will identify how the direct effect between authentic leadership and cooperation and the indirect effect mediated by positive psychological capital are conditionally moderated by performance–based rewards.

III. Research Design

1. Research model

The research model for this study is shown in [Figure 1] below.

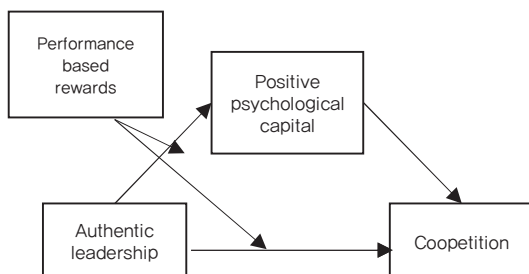


Figure 1. Research Model

Based on the theoretical considerations examined so far, this study investigates the direct effect of authentic leadership on cooperation, the indirect (mediating) effect of positive psychological capital as a mediating variable, as well as verify the conditional effects of performance–based rewards on these direct and indirect effects.

2. Research hypothesis

2.1 Authentic leadership and cooperation

Studies on leadership and cooperation from the perspective of ambidexterity have shown that transformational leadership, mediated by learning culture (consisting the lower constructs of psychological safety, openness, and participation in decision making), facilitated ambidexterity[85]. Bledow et al. (2009)[30] argued that, among the components of transformational leadership, individualized consideration and intellectual stimulation promotes exploration, and idealized vision and inspirational motivation facilitates exploitation. Thus, in this study, it is inferred that that leadership can promote cooperation among organization members.

Concerning the effect of authentic leadership on cooperation, it has been argued that the authenticity of a leader can be a catalyst for forming positive perceptions and trust in organization members that lead to more cooperative attitudes and relationships[86]. In other words, authentic leadership is considered to be one of the most effective leadership styles for inducing cooperative attitudes and behaviors from members of the organization[87].

According to social exchange theory[77], a leader's authentic and friendly behavior makes organization members feel obligated to respond in kind. In addition, the norm of reciprocity inherent in relationships regulate the level of selfishness in individuals and

foster stable relationships[88]. Therefore, members will assume good behavior to reward leaders who demonstrate authentic leadership. In other words, if an authentic leader offers a positive exchange, the members of the organization will respond with a corresponding reward based on the norm of reciprocity norm, which in turn leads to a friendly exchange that brings sustainable stability in leader-member interactions. Applying this logic, this study posits that authentic leadership will induce voluntary cooperation and reduce conflicts arising from competition among organization members.

Authentic leadership has been reported to have a positive effect not only on organizational citizenship behavior but also on positive emotional states[89] as well as improve individual performance[47][86]. Organizational citizenship behavior refers to the voluntary actions of members to perform tasks which they are not required to perform and which are not linked to formal rewards and is reported to be positively affected by authentic leadership[44][86][90][91]. The positive effect of authentic leadership on organizational citizenship supports the assertion that authentic leadership can bring out voluntary cooperation from members of the organization. Also, voluntary behaviors such as organizational citizenship behavior have been shown to act as catalysts for enhancing organizational effectiveness by reducing conflicts and enhancing affinity among organizational members[92]. Therefore, based on the concept of ambidexterity, which emphasizes dynamic capability, and social exchange theory, this study argues that demonstrating authentic leadership will promote voluntary cooperation among members and have a positive effect on conflicts caused by competition.

Bledow et al. (2009)[30] argued that self-reflection, self-regulation, openness, the vertical and horizontal flow of information within the organization, emotional

intelligence, and psychological safety are antecedents that influence the ambidexterity of organization members. This lends support to the idea that exercising authentic leadership based on self-awareness and self-regulation positions leaders as positive role models for their members[35][39] and induces members to imitate and behave like the leader[36], ultimately to affect the cooperation of members. Thus, it can be inferred that authentic leadership will positively contribute to the cooperation of organization members, and based on this logic, we hypothesize that:

Hypothesis 1: Authentic leadership has a positive (direct) effect on cooperation.

2.2 The indirect (mediating) effect of positive psychological capital on the relationship between authentic leadership and cooperation

Existing research on the effectiveness of authentic leadership can broadly be divided into those that study the relationship between authentic leadership and its outcome variables and those that investigate the mechanism behind authentic leadership[38][93]. Authentic leadership research aims to verify how a leader's authentic behaviors influence the performance of organization members by being a positive role model[35][39].

Most of the recent studies on the psychological process behind the relationship between authentic leadership and job performance have turned to positive psychological capital as the means of explanation[46][47], based on Avolio and Gardner (2005)'s theoretical model[35][38]. The analysis of previous empirical research on authentic leadership showed that authentic leadership has a positive effect on self-esteem and positive leader modeling[48]. This is also in line with the trend of studies on positive psychological capital to focus on revealing the role of

individual and leader characteristics as antecedents to positive psychological capital[61], leading to numerous studies, conducted in Korea and abroad, that verify the relationship between authentic leadership and positive psychological capital[35][40][94-96].

The reason positive psychological capital is defined as a higher construct that integrates the four factors of self-efficacy, hope, resilience, and optimism[56] is that understanding each variable as an integrated psychological resource enable a better explanation for the behaviors and motivation of organization members[57][59][60]. Scholars have argued that positive psychological capital can be developed by the leader as a major source of employees' positive and negative emotions[57][97]. The logic here is that, based on Bandura (1986)'s social cognitive theory[98], the authenticity of the leader can be transferred to and imitated by the members of the organization in the way that the emotions can be transferred. Applying this logic, this study infers that authentic leadership can positively affect the organization members' positive psychological capital through the transference to and imitation of such authentic behavior by members. Therefore, it is hypothesized that:

Hypothesis 2: Authentic leadership has a positive effect on positive psychological capital.

Kim and Choi (2015)[63] partially verified the effectiveness of the positive psychological capital in a team on the performance of the members of an R&D team that has both individualist and collectivist traits. However, the direct relationship between positive psychological capital and cooperation has not yet been verified. This study argues for the ambidexterity perspective of cooperation, and anticipates that positive psychological capital will positively affect not

only cooperation but also competition.

Many previous studies point to the positive effect of positive psychological capital on cooperation. Empirical studies have found that positive psychological capital has a positive effect on job performance, job satisfaction, organizational commitment[49] and organizational citizenship behavior[53]. Similar results were found in studies conducted in Korea as well, which have reported that positive psychological capital positively affects organizational citizenship behavior[99], innovative behavior[61][100], change-oriented behavior[101], and creativity[57][102]. In particular, organizational citizenship behavior has been noted as an important variable affecting individual performance as well as group performance by fostering individual cooperation and voluntary behavior outside of designated roles[103].

The rationale that positive psychological capital affects the job attitude and behaviors of organization members is based on the broaden-and-build theory which states that positive emotions expand the repertoire of thought and behavior to cause cognitive and behavioral changes[46][54]. In this sense, this study considers positive psychological capital as a variable that promotes the cooperation among members.

Then, does positive psychological capital have a positive impact on competition among organization members as well? Competition within a team has been found to be an antecedent to conflict[104], and according to the meta-analysis by Jeong and Baek (2016)[105], conflict mainly has a negative effect on cohesion[106], commitment to the team[107], knowledge sharing among members of the organization[108], and team performance[107]. On the other hand, task conflict, a lower form of conflict, has been reported to activate the creativity for driving

new ideas[109], enhance the quality of decision-making[110] and strengthen innovation[111][112]. In sum, what these studies imply is that competition is a factor leading to conflict among the members of the organization while conflict can have positive and negative effects on their attitude and behavior.

Previous studies on positive psychological capital have reported that positive psychological capital can reduce the stress[53][113-115], turnover intention and cynicism[53], and job burnout[116] felt by members of the organization. Also, positive psychological capital has been shown to moderate the effect of conflicts within and outside of the organization on one's quality of life[99]. This finding supports Weiss & Cropanzano (1996)'s affective events theory[117] which states that high positive psychological capital can reduce negative attitudes and behaviors in members. Comprehensively, it can be understood that competition induces conflict which brings positive or negative effects, but positive psychological capital can positively affect the conflict and stress arising from competition. Therefore, this study considers positive psychological capital to have a positive effect on competition.

Based on the discussion above, we anticipate that positive psychological capital will positively affect competition. In other words, we argue that positive psychological capital will minimize the negative effects and maximize the positive effects of competition and cooperation. Thus, we hypothesize that:

Hypothesis 3: Positive psychological capital has a positive effect on competition.

Hypothesis 4: Positive psychological capital has an indirect (mediating) effect on the relationship between authentic leadership and competition.

2.3 The mediated moderation of performance-based rewards

In this study, we predict that performance-based rewards will play a moderating role in the mechanism between authentic leadership and competition. That is, we expect that performance-based rewards will moderate the relationship between authentic leadership and competition as well as the mediating effect of positive psychological capital on competition. Our argument here is that the interaction between performance-based rewards and authentic leadership will affect competition (conditional direct effect) and positive psychological capital (conditional indirect effect). Analyzing the moderating effect of performance-based rewards is meaningful because identifying how and in what situation competition can be successfully occur can have many implications, both theoretically and practically.

First, the association between rewards and the attitudes of organization members can be explained by social exchange theory[77] which posits the norm of reciprocity. According to the norm of reciprocity, the perceived fairness of the performance-reward linkage leads to a proactive and favorable attitude towards the organization and the job[79][80], to motivate the members of the organization and positively affect organizational commitment, job commitment, and the level of efforts made in performing tasks[21][70][79]. These findings also support the argument that the economic exchange relationship between the organization and its members can develop into a social exchange relationship[118][119]. In this sense, it can be understood that performance-based rewards affect organization members' attitude based on the social exchange theory[77].

In the case of the public sector, transactional leadership, which motivates members by providing

rewards based on the organization's expectation on performance, has been found to have a greater effect on organizational commitment than transformational leadership[120]. Higher performance-based rewards have also been reported to strengthen the positive effect of job autonomy on the attitude of organization members[17]. In other words, the organization members' attitudes are moderated by the perceived link between individual performance and rewards.

Although performance-based rewards place emphasis on the competition among organization members, reports on its effects on competition and cooperation have led to varied conclusions. Performance-based rewards have been cited as causing excessive competition to lower cooperation among organization members[20][69] and creating a sense of relative deprivation to members who receive fewer rewards[81]. On the other hand, Yu and Park (2001)[71] argued that incentive pay raises competition among members to improve job commitment and job performance, based on cognitive evaluation theory[75] states that competition enhances organization members' intrinsic motivation. That is, competition can induce intrinsic motivation by stimulating the willingness to accept challenges that is required to strengthen intrinsic motivation[121].

According to these previous studies, performance-based rewards can promote competition and cooperation at the same time to have a positive effect which is moderated by perceived fairness in the performance-reward linkage. Thus, we expect that the relationship between authentic leadership and cooperation will be conditional moderated (conditional direct effect) by performance-based rewards. That is, performance-based rewards will interact with authentic leadership to affect cooperation, and the higher the performance-based rewards, the stronger authentic leadership will impact cooperation. Based on

this logic, we propose the following hypothesis:

Hypothesis 5-1: Performance-based rewards will have a positive conditional direct effect on the relationship between authentic leadership and cooperation.

This study expects that the mediating effect of positive psychological capital between authentic leadership and cooperation will be moderated by performance-based rewards as a mediated moderator. In other words, a conditional indirect effect moderated by performance-based rewards will exist in the relationship between authentic leadership and positive psychological capital.

Performance-based rewards have been found to affect emotional commitment with the mediation of perceived organizational support[70], which implies that performance-based rewards can affect organization members' psychological variables, in this case, emotional commitment. In addition, competition for incentive pay has been reported to improve job commitment and job performance[71], suggesting that competition stimulates the intrinsic motivation of members.

Harackiewicz and Manderlink (1984)[121] examined the positive mediation of competence in the relationship between performance-based rewards and intrinsic motivation, and their findings collaborate with self-determination theory[76], which cites that intrinsic motivation is enhanced when the desires for autonomy, competence, and relatedness are satisfied. Following this discourse, this study expects that performance-based rewards have a positive effect on positive psychological capital, which is the psychological state that integrates self-efficacy, hope, resilience, and optimism felt by the members of the organization.

In summary, we believe that performance-based

rewards will have a conditional indirect (moderating) effect on the relationship between authentic leadership and positive psychological capital (self-efficacy, hope, resilience, optimism) based on self-determination theory. Therefore, it is hypothesized that:

Hypothesis 5: The interaction between authentic leadership and performance-based rewards will affect cooperation through positive psychological capital. That is, there will be a mediated moderation effect.

Hypothesis 5-2: The mediating effect of positive psychological capital on the relationship between authentic leadership and cooperation will be moderated by a positive conditional indirect effect from performance-based rewards.

IV. Research Methodology

1. Data collection and method of analysis

A survey was conducted to collect the data for this study. First, a pilot survey was conducted to improve the validity of the survey questions, then a survey in two parts was conducted during a two-week period from April 10, 2017, on employees at Korean companies with more than 300 employees in various sectors such as manufacturing, service, and information technology. From the collected samples, a total of 342 responses were used for analysis after excluding those that were incomplete or inappropriate for the purposes of this study.

Statistical analysis was performed using SPSS 24.0, and path analysis via regression was performed using SPSS PROCESS macro to validate the research model[122][123]. Exploratory factor analysis was

conducted to examine the validity of the measurement tools used in this study, and the mean, standard deviation, skewness, and kurtosis of the variables were analyzed to determine whether the samples are normally distributed.

2. Data collection and method of analysis

The measurement tools used in this study were based on the questionnaire items verified by previous studies, with some modification to fit the purpose of the research. All variables were measured using a 5-point Likert scale (1 point: not at all, 5 points: very much). The operational definitions of the variables and measures are as follows.

Cooperation is defined as the simultaneous engagement in competitive and cooperative behavior[9] and is measured using the 18 items proposed by Geraudel and Salvetat (2014)[3]. Authentic leadership is defined as the leadership behavior that utilizes and facilitates positive psychological capabilities and positive ethical climate to promote self-development by fostering self-awareness, internalized moral perspective, balanced processing of information, and relational transparency in members[44] and is measured using the questionnaire developed by Neider and Schriesheim (2011)[124]. Their measure for authentic leadership has been verified with greater rigor and allows for easier application than the theoretical framework and dimension established by Walumbwa et al. (2008)[44] which provided its foundation. This study employs a simplified version of this measure consisting of 16 items based on Park, Seol, and Lee (2014)[125].

Positive psychological capital is defined as an individual's state of positive psychological development that encompasses self-efficacy, optimism, hope and resilience[59][126], and the

12-item Psychological Capital Questionnaire (PCQ) is employed for its measurement[126]. Performance-based rewards are defined as the degree to which organization members perceive the linkage between individual performance and rewards and is measured using the three items applied in Park and Kwun (2006)[21] based on Perry and Pearce (1983)[127].

3. Control variables

Gender, age, duration of employment, and job title were set as the control variables of this study. Previous studies on cooperation at the individual-level have used gender, age, length of career[3], and gender, duration of employment, and education[14] as control variables. Following these studies, the demographic variables (gender, age, duration of employment, team size, job title, job position, education, employment type, and turnover experience) were measured, then a simple regression on these variables and the dependent variable, cooperation, was performed. The variables that had statistical significance, namely, gender, age, duration of employment, and job title, were set as control variables, while the other variables such as team size, job title, and education were found to be insignificant and thus were excluded from the analysis.

4. Assessment of common method bias

As the same respondents were asked to answer self-report questionnaires for all variables, this study is subject to the possibility of common method bias. According to Park, Kim, Jeong, and Huh (2007)[128], common method bias can occur not only from respondents but also from the measurement tools used, such as the survey items or the environment in which the measures were employed. Common method bias can be avoided through pre-survey methods in the research design and questionnaire development

stage and post-survey methods in the statistical analysis stage. The methods applied to overcome common method bias in this study is as follows.

First, in the research design stage, the survey was created in two parts and conducted with a one-week time interval to control retrieval cues and the consistency motif from affecting the respondents: the first part of the survey contained items on variables other than the dependent variable and the second part, on the dependent variable. Second, in the questionnaire development stage, a quantitative pilot survey was conducted on 111 businesspeople to modify the questionnaire's contents for greater clarity, specificity, and relevance. Third, Harman's single-factor analysis was performed in the statistical analysis stage[129]. The result of the non-rotation factor analysis on the principal components resulted in a 23.5% variance ratio for factor 1 which had the largest explanatory power among the items with eigenvalues above 1, indicating a low likelihood of common method bias[130].

V. Analysis Results

1. Respondent demographics

The demographics of the respondents are as follows. The respondents were 57.3% male and 42.7% female. 11.7% were in their twenties, 52.9% in their thirties, 29.8% in their forties, and 5.6% in their fifties, and their average age was 36.6 years old. Regarding job title, 29.2% were staff; 28.9%, assistant managers; 27.2%, managers; 10.8%, deputy general managers; and 3.8% were general managers and above. 71.3% worked in general administration, 10.8% in production, 9.1% in research and development, 6.4% in sales, and 2.3% in other areas. 33.9% have worked in their company for under 5 years, 35.4% from 6 to 10 years,

16.1% from 11 to 15 years, and 14.6% for more than 16 years; and their average duration of employment turned out to be 8 years and 4 months.

2. Validity and reliability assessment

The validity of the variables was verified through an exploratory factor analysis by extracting the principal components and rotating them using the Varimax method. The variables were deemed significant if their eigenvalues are above 1 and factor loadings are above 0.5. Of the 49 items used for measuring the five variables, 7 items were eliminated (items 11 and 13 for authentic leadership; items 8, 9, 11 and 12 for positive psychological capital; and item 7 for competition), leaving 42 items. All 42 items gave factor loadings above 0.5 (0.588–0.875), thus were considered to be statistically significant. The KMO value, which measures the adequacy of the sample, was close to 1 at 0.905, and Bartlett's spherical result

was 8358.618 ($df=861$, $p=0.000$) at the significance level of 0.01. Therefore, the correlation matrix was deemed adequate for factor analysis.

Concerning the reliability of the variables, all latent variables had Cronbach α coefficients above 0.7 (0.768–0.938). In general, Cronbach α coefficients above 0.6 are interpreted as high reliability, and all items can be analyzed as a single measure (Nunnally, 1967). Therefore, it can be concluded that all of the measures used in this study have relatively high internal consistency. The results of the exploratory factor and reliability analyses are shown in [Table 1]. The mean, standard deviation, skewness, and kurtosis among the items were also examined, and it was found that the individual measurement items had a normal distribution as the absolute values for skewness and kurtosis were less than 3 and 8, respectively.

Table 1. Exploratory factor and reliability analysis

Variable	Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Authentic leadership	ALQ15	.782				
	ALQ3	.776				
	ALQ9	.768				
	ALQ6	.768				
	ALQ8	.766				
	ALQ2	.753				
	ALQ14	.744				
	ALQ5	.742				
	ALQ1	.721				
	ALQ16	.698				
	ALQ12	.695				
	ALQ4	.694				
	ALQ10	.655				
ALQ7	.641					
Competition	Pcom3		.875			
	Pcom1		.865			
	Pcom9		.828			
	Pcom8		.825			
	Pcom10		.805			
	Pcom2		.793			
	Pcom6		.761			
	Pcom4		.697			
Pcom5		.588				
Cooperation	Pcoo5			.766		
	Pcoo6			.747		
	Pcoo4			.732		
	Pcoo7			.730		
	Pcoo2			.728		
	Pcoo8			.724		
	Pcoo1			.710		
Pcoo3			.648			

Positive psychological capital	PsyCap2					.740	
	PsyCap4					.727	
	PsyCap6					.726	
	PsyCap1					.701	
	PsyCap3					.649	
	PsyCap10					.616	
	PsyCap7					.616	
	PsyCap5					.606	
Performance-based rewards	PBR3						.835
	PBR1						.810
	PBR2						.773
Eigenvalue		9.886	6.452	3.869	2.562	1.936	
Explained variance (%)		23.539	15.362	9.213	6.099	4.609	
Cumulative variance (%)		23.539	38.902	48.114	54.213	58.822	
Cronbachs' α		.938	.925	.891	.849	.768	
KMO = 0.905, Bartlett ($\chi^2 = 8358.618$, df = 861, p = 0.000)							

Table 2. Descriptive Statistics, Coefficient and Correlation Analysis

Variable	M	SD	1	2	3	4	5	6	7	8
1. Gender	1.43	.495	1							
2. Age	36.59	6.878	-.282**	1						
3. Duration of employment	8.35	6.33	-.157**	.736**	1					
4. Job title	2.31	1.117	-.261**	.571**	.451**	1				
5. Authentic leadership	3.23	.721	-.084	.026	.014	.038	1			
6. Positive psychological capital	3.60	.510	-.147**	.133*	.123*	.213**	.365**	1		
7. Performance-based rewards	3.29	.827	-.073	.165**	.179**	.252**	.179**	.154**	1	
8. Cooperation	3.13	.427	-.146**	.151**	.179**	.268**	.220**	.250**	.197**	1

Note 1. *: $p < 0.05$, **: $p < 0.01$, ***: $p < 0.001$

[Table 2] illustrates the results of the correlation analysis among the variables. Mutually significant positive correlations were found between all major variables: authentic leadership and positive psychological capital ($r = .365$, $p < .01$), authentic leadership and cooperation ($r = .220$, $p < .01$), authentic leadership and performance-based rewards ($r = .179$, $p < .01$), and positive psychological capital and cooperation ($r = .250$, $p < .01$), positive psychological capital and performance-based rewards ($r = .154$, $p < .01$), and performance-based rewards and cooperation ($r = .197$, $p < .01$). As for the control variables, gender showed mutually significant negative correlations to positive psychological capital ($r = -.147$, $p < .01$) and cooperation ($r = -.146$, $p < .01$); age show significant positive correlations to positive psychological capital ($r = .133$, $p < .05$), performance-based rewards ($r = .165$, $p < .01$), and cooperation ($r = .151$, $p < .01$); duration of employment

had positive correlations to positive psychological capital ($r = .123$, $p < .05$), performance-based rewards ($r = .179$, $p < .01$), and job title had positive correlations to positive psychological capital ($r = .213$, $p < .01$), performance-based rewards ($r = .252$, $p < .01$), and cooperation ($r = .268$, $p < .01$).

3. Hypothesis verification

3.1 The direct effect between authentic leadership and cooperation and the indirect (mediating) effect of positive psychological capital

SPSS PROCESS macro was used to test the hypotheses, more specifically, model 4 of PROCESS macro which applies the bootstrapping technique to overcome the constraints of the Sobel Test and allows the quantification of indirect effects[123].

[Table 3] shows the analysis results for the direct

effect of authentic leadership on cooperation and the indirect (mediating) effect of positive psychological capital between authentic leadership and cooperation. The direct effect (c') of authentic leadership on cooperation is 0.0935 ($t=2.9009$, $p<0.01$), indicating that the cooperation of the organization members is higher when there is a greater exercise of authentic leadership. Therefore, hypothesis 1 is supported. The effect of authentic leadership on positive

psychological capital (a) is 0.2490 ($t=7.0975$, $p<0.001$) which confirms the positive effect of authentic leadership on positive psychological capital, thereby supporting hypothesis 2. Next, the effect of positive psychological capital (the mediating variable) on cooperation (the dependent variable) while controlling authentic leadership (the independent variable) was examined (b). As the path coefficient is 0.1124 ($t=2.4052$, $p<0.05$), hypothesis 3 is also supported.

Table 3. The indirect (mediating) effect of positive psychological capital

Variable	Step 1			Step 2			Step 3		
	Total effect(c)			Authentic leadership → Positive psychological capital (a)			Direct effect (c') & Positive psychological capital → Cooperation (b)		
	B	SE	t	B	SE	t	B	SE	t
Gender	-.0661	.0464	-1.4231	-.0750	.0538	-1.3934	-.0576	.0462	-1.2467
Age	-.0075	.0052	-1.4578	-.0028	.0060	-.4705	-.0072	.0051	-1.4060
Duration of employment	.0097	.0051	1.8982	.0044	.0059	.7492	.0092	.0051	1.8199
Job title	.0935	.0240	3.9035***	.0809	.0278	2.9142**	.0844	.0241	3.5048***
Authentic leadership	.1215	.0303	4.0136***	.2490	.0351	7.0975***	.0935	.0322	2.9009**
Positive psychological capital							.1124	.0467	2.4052*

Note 1. *: $p<0.05$, **: $p<0.01$, ***: $p<0.001$

Note 2. The B value is the same as the results gained using Baron and Kenny (1986)'s causal steps approach.

Table 4. The indirect effect coefficient of positive psychological capital

	Indirect effect coefficient	Boot SE	95% confidence interval	
			Boot LLCI	Boot ULCI
Positive psychological capital	.0280	.0145	.0034	.0602

Note 1. LLCI: Lower Level Confidence Interval, ULCI: Upper Level Confidence Interval

[Table 4] shows the indirect (mediating) effect of positive psychological capital on authentic leadership and cooperation. The indirect effect coefficient (ab) of authentic leadership on cooperation is 0.0280, and its statistical significance was verified by bootstrapping method. 10,000 samples were re-extracted for bootstrapping, and the upper and lower endpoint values of the 95% confidence interval (CI) are 0.0034 and 0.0602, respectively. Since the values did not include 0, the indirect effect of positive psychological

capital is confirmed as statistically significant[123]. Thus, based on the results shown in [Tables 3] and [Tables 4], the indirect (mediating) effect of positive psychological capital on the relationship between authentic leadership and cooperation is confirmed, and hypothesis 4 is supported.

3.2 The mediated moderation of performance –based rewards

Using 'model 8' of PROCESS macro, we verified

the mediated moderation of performance-based rewards by observing whether the mediating effect of positive psychological capital on the relationship between authentic leadership and cooperation is moderated by performance-based rewards. Mediated moderation refers to the effect of the interaction (XW) between the independent variable (X) and the moderating variable (W) on the dependent variable (Y) via the mediating variable (M)[123].

Table 5 tabulates the results for the effects of the interaction term (XW), authentic leadership (X) and performance-based rewards (W), on positive psychological capital (M) and cooperation (Y). Here, the test of interaction verifies whether the effect of the independent variable (X) on the mediating variable (M) or dependent variable (Y) linearly

depends on the moderating variable (W)[123].

The interaction term (XW) for authentic leadership (X) and performance-based rewards (W) is significant for positive psychological capital (M). However, the interaction (moderation) effect of the interaction term (XW) for authentic leadership (X) and performance-based rewards (W) on cooperation (Y) is found to be statistically insignificant. However, according to Hayes (2013)[123], even when the interaction effects of individual pathways are not significant in the mediated moderation model, if the mediated moderation index is significant, the interaction effects can also be interpreted as being significant. That is, the statistical significance of the individual pathway's interaction effect is not a requirement for mediated moderation[123].

Table 5. The interactive (moderation) effect

Variable	Results					
	M(positive psychological capital)			Y(cooperation)		
	B	SE	t	B	SE	t
Gender	-.0748	.0534	-1.4004	-.0578	.0461	-1.2548
Age	-.0031	.0060	-.5227	-.0068	.0051	1.5840
Duration of employment	.0052	.0059	.8874	.0081	.0051	3.1306
Job title	.0764	.0281	2.7224**	.0764	.0244	1.7700
Constant	3.5825	.4261	8.4073***	2.0793	.4034	5.1539***
Authentic leadership(X)	-.0432	.1211	-.3571	.1844	.1042	1.7700
Performance-based rewards(W)	-.2299	.1080	-2.1294*	.1373	.0935	1.4681
X x W	.0856	.0345	2.4793*	-.0301	.0300	-1.0034
Positive psychological capital				.1152	.0471	2.4475
	R ² = .1951, F = 11.5643, p<.0000			R ² = .1542, F = 7.5883, p<.0000		

Note 1. *: p<.05, **: p<.01, ***: p<.001

To verify the mediated moderation, the moderated mediation index was checked using the bootstrapping method. The moderated mediation index is a concept introduced and named by Hayes (2013) and has been added as a function in PROCESS macro[122]. The test of whether the moderated mediation index, which quantifies the relationship between the indirect effect and the moderating variable, is zero or not is a formal

test for confirming mediated moderation[123].

The results of the analysis are shown in [Table 6]. The moderated mediation index, which shows the overall magnitude of the mediated moderation of the interaction between authentic leadership and performance-based rewards on cooperation via positive psychological capital, came out to be .0099, and the bootstrap confidence interval is [.0007-.0278].

Since there is no 0 in the confidence interval, it can be interpreted that the mediated moderation is significant. This result implies that interaction (XW) between authentic leadership (X) and performance-based rewards (W) affects cooperation

(Y) via positive psychological capital (M) and that the mediating effect of positive psychological capital between authentic leadership and cooperation is moderated by performance-based rewards. Thus, hypothesis 5 on the mediated moderation is supported.

Table 6. Index of moderated mediation

	Effect	Boot SE	95% confidence interval	
			Boot LLCI	Boot ULCI
Positive psychological capital	.0099	.0065	.0007	.0278

Note 1. LLCI: Lower Level Confidence Interval, ULCI: Upper Level Confidence Interval

The conditional direct and indirect effects were confirmed through an in-depth analysis of the mediated moderation. Since the conditional direct effect of X on Y tests whether the independent variable (X) has a significant relationship with the dependent variable (Y) at a specific value of the control variable (W), it can be expressed as " $\Theta X \rightarrow Y = c1' + c3'W$." Performance-based rewards was divided into five levels within the 100 percentile to gain the coefficient and statistical significance of the conditional direct effect using the bootstrapping method, as shown in [Table 7]. 10,000 samples were

re-extracted for bootstrapping, and performance-based rewards show significance at the 95% confidence interval in the 'very low' to 'intermediate' levels but not at the 'high' to 'very high' levels. That is, the cooperation of the members of the organization increases with greater authentic leadership, but this phenomenon lessens as performance-based rewards rise from 'very low' to 'intermediate.' Thus, the direct effect of authentic leadership on cooperation relies on performance-based rewards, thereby rejecting the conditional direct effect stated in hypothesis 5-1.

Table 7. The conditional direct effect on authentic leadership and cooperation

Percentile	Performance based rewards value	Direct effect	Boot SE	95% confidence interval	
				Boot LLCI	Boot ULCI
Very low	2.00(-1.293)	.1243	.0508	.0243	.2242
low	3.00(-.293)	.0942	.0337	.0278	.1606
Medium	3.33(.040)	.0842	.0325	.0202	.1481
High	4.00(.706)	.0641	.0386	-.0119	.1401
Very high	.433(1.040)	.0541	.0448	-.0341	.1423

Note 1. The numbers in parentheses for performance-based rewards are the mean values.

Note 2. LLCI: Lower Level Confidence Interval, ULCI: Upper Level Confidence Interval

Note 3. The five levels for performance-based rewards within the 100 percentile correspond to 10%, 25%, 50%, 75%, 90%, respectively.

On the other hand, the conditional indirect effect of X on Y through M can be tested by computing all the

effects of the independent variable (X) and the mediating variable (M) on the dependent variable (Y),

then multiplying these effects. The effect of the independent variable (X) on the dependent variable (Y) is simply “a” because the moderating variable is not included. On the other hand, the effect of the mediating variable (M) on the dependent variable (Y) is a conditional effect moderated by the moderating variable (W), so it can be expressed as “ $\Theta X \rightarrow Y = b_1 + b_3V$.” Thus, the conditional indirect effect (ω) is expressed as “ $a(b_1 + b_3V)$ ” [123]. The bootstrapping method was used to verify the conditional indirect effect, and the results are shown in [Table 8]. As can

be seen, the coefficients of the mediating effect were significant at all levels from ‘very low’ to ‘very high.’ In other words, the effect of authentic leadership on positive psychological capital is moderated by performance-based rewards, where greater authentic leadership leads to a higher positive effect on positive psychological capital while this effect depends on performance-based rewards. Therefore, the conditional indirect effect is confirmed to support hypothesis 5-2.

Table 8. The conditional indirect effect on authentic leadership and cooperation

Mediator	Percentile	Performance based reward value	Indirect effect	Boot SE	95% confidence interval	
					Boot LLCI	Boot ULCI
Positive psychological capital	Very low	2.00(-1,293)	.0147	.0113	.0003	.0470
	low	3.00(-,293)	.0246	.0131	.0040	.0574
	Medium	3.33(.040)	.0279	.0144	.0042	.0617
	High	4.00(.706)	.0345	.0174	.0049	.0746
	Very high	.433(1,040)	.0378	.0191	.0055	.0822

Note 1. The numbers in parentheses for performance-based rewards are the mean values.

Note 2. LLCI: Lower Level Confidence Interval, ULCI: Upper Level Confidence Interval

Note 3. The five levels for performance-based rewards within the 100 percentile correspond to 10%, 25%, 50%, 75%, 90%, respectively.

What the conditional direct and indirect effects mean can be summarized as follows. First, concerning the conditional direct effect ($X \rightarrow Y$), the interaction (moderation) effect of performance-based rewards (W) on the effect of authentic leadership (X) on cooperation (Y) was found to be insignificant as illustrated in Table 5. However, the conditional direct effect of performance-based rewards (W) was significant in the three levels from to very low ($W = 2.000$) to intermediate ($W = 3.3333$) as shown in [Table 7]. These results imply that the positive effect of authentic leadership on cooperation decreases when performance-based rewards increase from very low to low and intermediate levels. This interpretation is based on the findings in [Table 5] which showed that

the effect of authentic leadership (X) on cooperation (Y) is positive (0.1844) while the interaction term (XW) of authentic leadership (X) and performance-based rewards (W) negatively affects cooperation (Y) (-0.0301).

As shown in [Table 8], the conditional indirect effect ($X \rightarrow M \rightarrow Y$) was significant at all five levels of performance-based rewards, from very low to very high. In other words, the more effective authentic leadership is, the more positive impact it has on the positive psychological capital of organization members, and with more positive psychological capital, there is more cooperation. At the same time, these effects increase when there are higher performance-based rewards.

VI. Conclusion

1. Research summary and implications

This study attempted to verify empirically whether the effect of authentic leadership on cooperation is mediated by the positive psychological capital of organization members and by the mediated moderation (conditional effect) of the interaction between authentic leadership and performance-based rewards. For this purpose, our hypotheses were set from a perspective that links the indirect effects (mediating effects) and moderating effects, and the mediated moderation was comprehensively analyzed. The main findings of this study are as follows.

First, authentic leadership was found to have a positive effect on the cooperation of the organization members. This finding empirically supports the reports of previous studies on authentic leadership [44][86][92] and contributes by revealing the direct association between authentic leadership and cooperation.

Second, the indirect (mediating) effect of positive psychological capital on the relationship between authentic leadership and cooperation was verified, empirically re-confirming the findings of previous studies[35][40][57][97]. Also, the positive effect of positive psychological capital on cooperation was identified, corroborating not only the existing studies on the effect of positive psychological capital on the cooperative attitudes and behaviors of organization members[46][54][131] but also those that illustrated the positive impact of conflict caused by competition[109-111]. Lastly, positive psychological capital was found to have an indirect (mediating) effect on the relationship between authentic leadership and cooperation. This is consistent with studies that have shown the mediating effect of positive psychological capital in relation to authentic

leadership and organizational effectiveness[46-48]. Thereby, we empirically verified that authentic leadership influences cooperation (i.e., the ambidexterity of organization members) through positive psychological capital.

Third, the conditional direct effect of performance-based rewards on the relationship between authentic leadership and cooperation was verified only in the lower three percentile levels (very low, low, intermediate), and that this conditional effect acts more strongly as a buffer with greater performance-based rewards. This finding suggests that cooperation increases when leaders demonstrate greater authentic leadership, but this effect is mitigated by an increase in performance-based rewards, which is consistent with the results of previous studies[20][69][81].

Fourth, performance-based rewards were verified to have a conditional indirect effect on the relationship between authentic leadership and cooperation that is mediated by positive psychological capital. This conditional indirect effect was significant at all percentile levels of performance-based rewards, meaning that the positive conditional effect strengthened when there are higher performance-based rewards. Thus, it can be said that the greater exertion of authentic leadership leads to a larger positive impact on the positive psychological capital of the members to induce more cooperation, and this effect can be strengthened by higher performance-based rewards. This finding also supports that of existing literature[121].

Fifth, we observed that performance-based rewards showed difference in its conditional direct effect on the relationship between authentic leadership and cooperation and its conditional indirect effect on the relationship when there is mediation by positive psychological capital. The conditional direct effect of

the interaction between authentic leadership and performance-based rewards had a negative effect, whereas the conditional indirect effect with positive psychological capital as a mediator had a positive effect. This suggests that to promote cooperation, it is important to develop the positive psychological capital of organization members, on top of strengthening the leader's authentic leadership and the performance-reward linkage.

The theoretical implications of this study are as follows. First, while the research on cooperation has so far been mainly conducted at the organization level, our empirical verification of cooperation at the individual level within the organization based on the concept of ambidexterity[18] extends the scope of existing research on cooperation. In particular, our findings provide insight into the mechanism through which various factors such as authentic leadership, performance-based rewards, and positive psychological capital affect the cooperation of organization members. The significance of our research gains greater weight when considering that previous studies have largely concentrated on the outcome variables of cooperation[11][12][14].

Second, by verifying the effectiveness of authentic leadership as a predictor for cooperation, this study empirically proved the theoretical arguments made in previous research about ambidexterity[30] and authentic leadership[36]. Leadership is not merely a skill or a tool to exploit the members of the organization. Instead, leaders can induce competition and cooperation simultaneously among members and contribute to organizational effectiveness in the long term by exhibiting authenticity.

Third, we verified the mediating effects of positive psychological capital on the relationship between authentic leadership and cooperation as well as the conditional direct and indirect effects of

performance-based rewards. Our findings of the role of positive psychological capital as a mediator extends the theoretical discourse on authentic leadership[54][117] as well as existing research on the relationship between authentic leadership and ambidexterity[30][85] to verify authentic leadership and positive psychological capital as predictors of cooperation. Moreover, our finding that performance-based rewards, which emphasize competition, can positively affect the cooperation of members by interacting with authentic leadership reveals the circumstances that enable the conditional effect of performance-based rewards to take place.

Our findings may be interpreted to have the following practical implications. First, our empirical verification that authentic leadership not only has a direct effect on the cooperation of members but also indirectly affect cooperation positively through positive psychological capital highlights authentic leadership as a practical way to promote competition and cooperation simultaneously, either directly or through positive emotions. Considering the growing importance of cooperation within and outside the organization, a greater emphasis on the practicality and application of authentic leadership may be worthwhile for companies as a management strategy.

Second, our demonstration of the conditional direct and indirect effect of the interaction between authentic leadership and performance-based rewards uncovered that the positive effect of authentic leadership on cooperation could be buffered by an increase in performance-based rewards. The practical implication of this phenomenon is that there is a limit to the level of cooperation that can be achieved merely through authentic leadership and performance-reward linkage alone.

At the same time, our findings showed that when the relationship between authentic leadership and

coopetition is mediated by positive psychological capital, performance-based rewards promote coopetition at all levels. In other words, greater authentic leadership facilitates coopetition by enhancing members' positive psychological capital while this effect is further strengthened by higher performance-based rewards. Therefore, applied to the workplace, leaders should develop positive psychological capital as a practical way to promote the coopetition among members, with the aid of strategic performance-based rewards.

In conclusion, the findings of this study make meaningful contributions to this area of research by underlining authentic leadership, positive psychological capital and performance-based rewards as predictors for promoting coopetition in organizations at the individual level.

2. Limitations and suggestions for future studies

This study presents significant implications on both theoretical and practical levels as illustrated above but has following limitations.

First, despite the efforts to minimize common method bias by conducting a two-part survey with a time interval in place, nevertheless, the survey is subject to the limitations arising from receiving responses for all items from the same respondents. As such, the common method bias may not have been completely avoided. It is recommended for future studies to collect survey responses from differentiated groups such as leaders and team members to guarantee greater objectivity in data collection.

Second, the measure for coopetition consisted of separate items for competition and cooperation, which were combined later to measure ambidexterity. Future studies may find it necessary to develop a single measurement tool for measuring the coopetition

among organization members.

Third, our research model focused on how the effect of authentic leadership on coopetition is mediated by positive psychological capital. While authentic leadership is advocated by many leadership scholars, the leadership skills of the leader can also have a meaningful influence on the behavior of his/her followers. In future research, the empirical verification of how the interaction effect of authentic leadership and other leadership styles on coopetition may lead to new and interesting insights.

Fourth, we examined the conditional effects of performance-based rewards in relation to authentic leadership and coopetition using data collected through a self-report survey. Future studies may build upon our attempts here by securing objective samples, as opposed to surveying personal perception, from organizations that have multiple levels (individual, group/team, and organization) performance-based systems.

Fifth, our study concentrated on identifying the predictors of coopetition and their mechanisms. As such, we were unable to cover the outcome variables within the scope of our study. It is suggested for future research to investigate the outcomes of coopetition at the individual level for further insight into the mechanisms leading to coopetition.

참고 문헌

- [1] A. M. Brandenburger and B. J. Nalebuff, *Co-opetition*, New York: Doubleday, 1996.
- [2] B. J. Nalebuff and A. M. Brandenburger, "Co-opetition: Competitive and cooperative business strategies for the digital economy," *Strategy & Leadership*, Vol.25, No.6, pp.28-33, 1997.

- [3] M. Geraudel and D. Salvetat, "What are the antecedents of coopetition?: An explanation in terms of centrality and personality traits," *European Business Review*, Vol.26, No.1, pp.23-42, 2014.
- [4] S. Dorn, B. Schweiger, and S. Albers, "Levels, Phases and themes of coopetition: A systematic literature review and research agenda," *European Management Journal*, Vol.34, No.5, pp.484-500, 2016.
- [5] M. Bengtsson and M. Johansson, "Clashes between contending market regimes: a challenge for firms in converging industries," *European Business Review*, Vol.23, No.5, pp.454-475, 2011.
- [6] M. Deutsch, "A theory of cooperation and competition," *human relations*, Vol.2, pp.129-152, 1949.
- [7] A. D. Galinsky and M. Schweitzer, *Friend and foe: When to cooperate, When to compete, and how to succeed at both*, London, England: Cornerstone, 2015.
- [8] F. Landkammer and K. Sassenberg, "Competing while cooperating with the same others: The consequences of conflicting demands in co-opetition," *Journal of experimental Psychology: General*, Vol.145, No.12, p.1670, 2016.
- [9] A. A. Lado, N. G. Boyd, and S. C. Hanlon, "Competition, Cooperation, and the Search for Economic Rents: A syncretic Model," *The Academy of Management Review*, Vol.22, No.1, pp.110-141, 1997.
- [10] W. Tsai, "Social Structure of "Coopetition" Within a Multiunit Organization: Coordination, Competition, and Intraorganizational Knowledge Sharing," *Organization Science*, Vol.13, No.2, pp.179-190, 2002.
- [11] Y. Baruch and C. P. Lin, "All for one, one for all: Coopetition and virtual team performance," *Technological Forecasting and Social Change*, Vol.79, No.6, pp.1155-1168, 2012.
- [12] K. Hutter, J. Hautz, J. Fuller, J. Mueller, and K. Matzler, "Communitation: The Tension between Competition and Collaboration in Community-Based Design Contests," *Creativity and Innovation Management*, Vol.20, No.1, pp.3-21, 2011.
- [13] G. Hamel, Y. L. Doz, and C. K. Prahalad, *Collaborate with your competitors-and win (vol. 67, pp. 133)*, Boston: Harvard Business School press, 1989.
- [14] O. W. Park and S. J. Han, "The effect of individual perception of team climate for coopetition on the knowledge sharing and the moderating effects of procedural justice and personal initiative," *Journal of the Korea Academia-Industrial cooperation Society*, Vol.15, No.4, pp.2112-2122, 2014.
- [15] R. B. Duncan, "The ambidextrous organization: Designing dual structures for innovation," *The management of organization*, Vol.1, pp.167-188, 1976.
- [16] M. W. Lewis, "Exploring Paradox: Toward a More Comprehensive Guide," *The Academy of Management Review*, Vol.25, No.4, pp.760-776, 2000.
- [17] K. S. Park and H. H. Hwang, "The moderating role of individual performance-reward expectancy between job autonomy, task interdependence and employee's attitude," *Korean Journal of Resources Development*, Vol.17, No.1, pp.1-31, 2014.
- [18] B. Victor and A. C. Boynton, *Invented here: Maximizing your organization's internal growth and profitability: A Practical Guide to*

- Transforming Work*, Harvard Business Press, Boston, MA, 1998.
- [19] J. G. Yoon, "Myths of Leadership in the 21st Century," *Leadership Studies*, Vol.2, No.3, pp.25-48, 2011.
- [20] W. W. Park and S. I. Ahn, "A Review on and Recommendations for Team-Based Rewards," *Korean journal management*, Vol.13, No.1, pp.101-138, 2005.
- [21] J. H. Park and S. K. Kwun, "The effects of pay-for-performance on motivation in team-based work systems," *Journal of Organization and Management*, Vol.30, No.3, pp.87-119, 2006.
- [22] L. W. Fry and D. A. Smith, "Congruence, contingency, and theory building," *Academy of Management Review*, Vol.12, No.1, pp.117-132, 1987.
- [23] D. W. Johnson and R. T. Johnson, "New Developments in Social Interdependence Theory," *Genetic, Social, and General Psychology Monographs*, Vol.131, No.4, pp.285-358, 2005.
- [24] K. F. B. Rudi, "Matching Collective and Competitive Strategies," *Strategic Management Journal*, Vol.9, No.4, pp.375-385, 1988.
- [25] S. A. Jang and T. Y. Yoo, "Antecedents and Guideline for Development of Ambidextrous Leadership," *Management Education Review*, Vol.31, No.6, pp.365-401, 2016.
- [26] J. Schad, M. W. Lewis, S. Raisch, and W. K. Smith, "Paradox research in management science: Looking back to move forward," *Academy of Management Annals*, Vol.10, No.1, pp.5-64, 2016.
- [27] D. Laureiro-Martinez, S. Brusoni, and M. Zollo, "The Neuroscientific Foundations of the Exploration? Exploitation Dilemma," *Journal of Neuroscience, Psychology, and Economics*, Vol.3, No.2, pp.95-115, 2010.
- [28] S. Y. Choo and S. J. Limb, "Ambidextrous Innovation and Performance: An Empirical Test of the Ambidexterity Hypothesis in TV Drama Projects," *Journal of The Korea Contents Association*, Vol.16, No.9, pp.713-725, 2016.
- [29] K. Rosing, M. Frese, and A. Bausch, "Explaining the heterogeneity of the leadership-innovation relationship: Ambidextrous leadership," *The Leadership Quarterly*, Vol.22, No.5, pp.956-974, 2011.
- [30] R. Bledow, M. Frese, N. Anderson, M. Erez, and J. Farr, "A dialectic perspective on innovation: Conflicting demands, multiple pathways, and ambidexterity," *Industrial and Organizational Psychology*, Vol.2, No.3, pp.305-337, 2009.
- [31] S. M. Moon and M. G. Huh, "The harmony between exploitation and exploration: Multidimensional approach to organizational ambidexterity," *Korean management review*, Vol.42, No.1, pp.293-320, 2013.
- [32] P. Junni, R. M. Sarala, V. Taras, and S. Y. Tarba, "Organizational ambidexterity and performance: A meta-analysis," *The Academy of Management Perspectives*, Vol.27, No.4, pp.299-312, 2013.
- [33] Q. Cao, E. Gedajlovic, and H. Zhang, "Unpacking organizational ambidexterity: Dimensions, contingencies, and synergistic effects," *Organization Science*, Vol.20, No.4, pp.781-796, 2009.
- [34] H. U. Lee, "Reexamining Competition and Cooperation as Factors of Organizational Objectives Achievement," *Korean Public Administration Review*, Vol.39, No.2, pp.87-111, 2005.

- [35] B. J. Avolio and W. L. Gardner, "Authentic leadership development: Getting to the root of positive forms of leadership," *The Leadership Quarterly*, Vol.16, No.3, pp.315-338, 2005.
- [36] J. G. Yoon, G. J. Kim, J. H. Hong, and J. A. Lee, "The prospective research on authentic leadership in Korea," *Leadership Studies*, Vol.2, No.2, pp.3-26, 2011.
- [37] J. G. Yoon, *Authentic Leadership: The New Standard of Korean Leadership in the 21st Century*, Raonbooks, 2015.
- [38] J. H. Lee and H. K. Park, "Integrative Literature Review on Authentic Leadership Effectiveness Factors," *Korean Journal of Business Administration*, Vol.26, No.11, pp.2791-2814, 2013.
- [39] W. L. Gardner, B. J. Avolio, F. Luthans, D. R. May, and F. Walumbwa, "Can you see the real me?" A self-based model of authentic leader and follower development," *The Leadership Quarterly*, Vol.16, No.3, pp.343-372, 2005.
- [40] S. C. Kim and Y. K. Min, "Influence for Organizational Effectiveness from Authentic Leadership, Positive Psychological Capital," *Journal of Social Science*, Vol.26, No.4, pp.3-25, 2015.
- [41] K. S. Cameron, J. E. Dutton, R. E. Quinn, and I. Books24x, *Positive organizational scholarship: foundations of a new discipline (1st ed.)*, San Francisco, CA: Berrett-Koehler Publishers, 2003.
- [42] M. E. P. Seligman and M. Csikszentmihalyi, "Positive Psychology: An Introduction," *American Psychologist*, Vol.55, No.1, pp.5-14, 2000.
- [43] Y. H. Cho and W. J. Choi, "The Effect of Authentic Leadership on Change Supportive Behavior: The Mediating Role of Affective Change Commitment and the Moderating Role of Organizational Justice," *Korean Journal of Resources Development*, Vol.19, No.4, pp.153-185, 2016.
- [44] F. O. Walumbwa, B. J. Avolio, W. L. Gardner, T. S. Wernsing, and S. J. Peterson, "Authentic Leadership: Development and Validation of a Theory-Based Measure," *Journal of Management*, Vol.34, No.1, pp.89-126, 2008.
- [45] J. H. Lee and J. I. Cha, "Effects of Authentic Leadership on Subordinates' Job Performance and Turnover Intention: Subordinates' Organizational Identification as a Mediating Role," *Journal of The Korea Contents Association*, Vol.15, No.12, pp.421-435, 2015.
- [46] M. H. Lee, J. C. Jung, and M. J. Oh, "The Effect of Authentic Leadership on the Change Oriented Organizational Citizenship Behavior through Mediator of Psychological Capital and Job Engagement," *Korean Corporation Management Review*, Vol.22, No.3, pp.23-44, 2015.
- [47] H. Wang, Y. Sui, F. Luthans, D. Wang, and Y. Wu, "Impact of authentic leadership on performance: Role of followers' positive psychological capital and relational processes," *Journal of Organizational Behavior*, Vol.35, No.1, pp.5-21, 2014.
- [48] W. L. Gardner, C. C. Cogliser, K. M. Davis, and M. P. Dickens, "Authentic leadership: A review of the literature and research agenda," *The Leadership Quarterly*, Vol.22, No.6, pp.1120-1145, 2011.
- [49] C. M. Youssef and F. Luthans, "Positive Organizational Behavior in the Workplace: The Impact of Hope, Optimism, and Resilience," *Journal of Management*, Vol.33, No.5, pp.774-800, 2007.

- [50] F. Luthans, "The Need for and Meaning of Positive Organizational Behavior," *Journal of Organizational Behavior*, Vol.23, No.6, pp.695-706, 2002.
- [51] F. Luthans and A. H. Church, "Positive Organizational Behavior: Developing and Managing Psychological Strengths [and Executive Commentary]," *The Academy of Management Executive* (1993-2005), Vol.16, No.1, pp.57-75, 2002.
- [52] F. Luthans and C. M. Youssef, "Emerging Positive Organizational Behavior," *Journal of Management*, Vol.33, No.3, pp.321-349, 2007.
- [53] J. B. Avey, T. S. Wernsing, and F. Luthans, "Can Positive Employees Help Positive Organizational Change? Impact of Psychological Capital and Emotions on Relevant Attitudes and Behaviors," *The Journal of Applied Behavioral Science*, Vol.44, No.1, pp.48-70, 2008.
- [54] J. B. Avey, F. Luthans, R. M. Smith, and N. F. Palmer, "Impact of Positive Psychological Capital on Employee Well-Being Over Time," *Journal of Occupational Health Psychology*, Vol.15, No.1, pp.17-28, 2010.
- [55] J. B. Avey, R. J. Reichard, F. Luthans, and K. H. Mhatre, "Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance," *Human Resource Development Quarterly*, Vol.22, No.2, pp.127-152, 2011.
- [56] F. Luthans and C. M. Youssef, "Human, social, and now positive psychological capital management: investing in people for competitive advantage," *Organizational Dynamics*, Vol.33, No.2, p.143, 2004.
- [57] M. S. Heo and M. J. Cheon, "An Empirical Study on the Relationships among Leader's Feedback, Positive Psychological Capital, and Personal Creativity: The Moderating Role of Negative Feedback Acceptance," *Korean Journal of Business Administration*, Vol.27, No.10, pp.1531-1562, 2014.
- [58] B. Li, H. Ma, Y. Guo, F. Xu, F. Yu, and Z. Zhou, "Positive psychological capital: A new approach to social support and subjective well-being," *Social Behavior and Personality: an international journal*, Vol.42, No.1, pp.135-144, 2014.
- [59] F. Luthans, B. J. Avolio, J. B. Avey, and S. M. Norman, "Positive Psychological Capital: Measurement and Relationship with Performance and Satisfaction," *Personnel Psychology*, Vol.60, No.3, pp.541-572, 2007.
- [60] S. J. Peterson, F. Luthans, B. J. Avolio, F. O. Walumbwa, and Z. Zhang, "Psychological Capital and Employee Performance: A Latent Growth Modeling Approach," *Personnel Psychology*, Vol.64, No.2, pp.427-450, 2011.
- [61] J. H. Han and H. S. Yang, "Structural Relationships between the Variables of Person-Environment Fit, Positive Psychological Capital and Innovation Work Behavior," *Journal of Digital Convergence*, Vol.14, No.10, pp.225-240, 2016.
- [62] H. R. Kim and H. W. Jung, "The Effects of Emotional Leadership on Positive Psychological Capital and Commitment to Change: The Mediating Effect of Positive Psychological Capital," *Journal of human resource management research*, Vol.20, No.3, pp.1-30, 2013.
- [63] H. S. Kim and J. I. Choi, "The Moderating Role of Team Positive Psychological Capital in the Relation between Percentage of Dualist and Team Performance in R&D Teams," *Korean journal management*, Vol.23, No.3, pp.73-107,

- 2015.
- [64] H. J. Shin and J. Y. Ahn, "Performance-based Incentives and Firm Performance: The Effects of Incentive Pay Components," *Journal of human resource management research*, Vol.21, No.1, pp.1-18, 2014.
- [65] C. I. Barnard, *The functions of the executive*, Cambridge, Harvard University Press, 1968.
- [66] J. P. Kotter, *Force for change: How leadership differs from management*, Simon and Schuster, 2008.
- [67] S. J. Yoon and S. P. Kim, "Market, Bureaucracy, and Clan: Three Paradigms of Human Resource Management and Organizational Performance," *Korean journal management*, Vol.9, No.2, pp.313-356, 2001.
- [68] S. J. Ashford and L. L. Cummings, "Feedback as an individual resource: Personal strategies of creating information," *Organizational Behavior and Human Performance*, Vol.32, No.3, pp.370-398, 1983.
- [69] A. Kohn, *Why incentive plans cannot work (Vol. 71, pp. 54)*, Boston: Harvard Business School Press, 1993.
- [70] G. D. Park, B. K. Choi, and Y. R. Joo, "The Effect of Performance-Based Rewards on Perceived Organizational Support and Affective Commitment: The Moderating Effect of Job Insecurity," *Korean Journal of Business Administration*, Vol.28, No.12, pp.3041-3067, 2015.
- [71] G. C. Yu and W. S. Park, *Performance-based Wage Systems in the 21st Century: The Theories and Case Studies of Reward System Innovation*, Myungkyungsa, 2001.
- [72] J. S. Adams, *Inequity in social exchange*, In L. Berkowitz(Ed.), *Advance in experimental social psychology*, Vol.2, New York: Academic Press, 1965.
- [73] L. W. Porter and E. E. Lawler, *Managerial attitudes and performance*, Homewood, Ill.:Dorsey Press, 1968.
- [74] V. H. Vroom, *Work and motivation*, NY: John Wiley &sons, 45, 1964.
- [75] E. L. Deci, *Intrinsic motivation*, New York and London, 1975.
- [76] E. L. Deci and R. M. Ryan, *Intrinsic motivation and self-determination in human behavior*, New York: Plenum, 1985.
- [77] P. M. Blau, *Exchange in power in social life*, New York: Wiley, 1964.
- [78] S. H. Ko, "The Effect of Fairness of Personnel Management Systems on Job Satisfaction and Job Performance - Focusing on Chungcheongnam-do's Personnel Management System," *Journal of The Korea Contents Association*, Vol.13, No.12, pp.212-220, 2013.
- [79] J. C. Jung and J. H. Han, "Effects of Performance contingent Rewards on Employees' Productivity: Focus on the moderate role of Job Security," *KJEM Journal*, Vol.28, pp.109, 2004.
- [80] B. M. Staw and J. Ross, "Stability in the midst of change: A dispositional approach to job attitudes," *Journal of Applied Psychology*, Vol.70, No.3, pp.469-480, 1985.
- [81] B. Gerhart and M. Fang, "Pay for (individual) performance: Issues, claims, evidence and the role of sorting effects," *Human Resource Management Review*, Vol.24, No.1, pp.41-52, 2014.
- [82] J. L. Pearce, W. B. Stevenson, and J. L. Perry, "Managerial Compensation Based on Organizational Performance: A Time Series Analysis of the Effects of Merit Pay," *The Academy of Management Journal*, Vol.28, No.2,

- pp.261-278, 1985.
- [83] J. A. Shepperd, "Productivity loss in performance groups: A motivation analysis," *Psychological bulletin*, Vol.113, No.1, p.67, 1993.
- [84] J. M. George, "Asymmetrical effects of rewards and punishments: The case of social loafing," *Journal of Occupational and Organizational Psychology*, Vol.68, No.4, pp.327-338, 1995.
- [85] L. A. Nemanich and D. Vera, "Transformational leadership and ambidexterity in the context of an acquisition," *The Leadership Quarterly*, Vol.20, No.1, pp.19-33, 2009.
- [86] B. J. Avolio, W. L. Gardner, F. O. Walumbwa, F. Luthans, and D. R. May, "Unlocking the mask: a look at the process by which authentic leaders impact follower attitudes and behaviors," *The Leadership Quarterly*, Vol.15, No.6, pp.801-823, 2004.
- [87] J. W. Park and S. Y. Son, "Authentic Leadership and Creativity: Psychological Safety as a Mediator and Promotion Focus as a Moderator," *Journal of human resource management research*, Vol.23, No.4, pp.15-34, 2016.
- [88] R. Cropanzano and M. S. Mitchell, "Social Exchange Theory: An Interdisciplinary Review," *Journal of Management*, Vol.31, No.6, pp.874-900, 2005.
- [89] H. H. Hsiung, "Authentic Leadership and Employee Voice Behavior: A Multi-Level Psychological Process," *Journal of Business Ethics*, Vol.107, No.3, pp.349-361, 2012.
- [90] Y. H. Jin and S. J. Kim, "Effects of Authentic Leadership and Perceived Organizational Support on Organizational Citizenship Behavior," *Journal of The Korea Contents Association*, Vol.16, No.4, pp.23-35, 2016.
- [91] J. G. Tak and T. W. Roh, "Effects of Supervisor's Authentic Leadership on Job Performance for Employees: Focused on the Mediating Effect of Organizational Commitment and Organizational Citizenship Behavior," *Journal of The Korea Contents Association*, Vol.16, No.7, pp.319-336, 2016.
- [92] W. C. Borman, "The Concept of Organizational Citizenship," *Current Directions in Psychological Science*, Vol.13, No.6, pp.238-241, 2004.
- [93] W. J. Choi and Y. H. Cho, "The Effects of Authentic Leadership on Psychological Well-being and Adaptive Performance: The Mediating Role of Self-Efficacy," *Korean journal management*, Vol.21, No.1, pp.185-228, 2013.
- [94] D. C. Kim and D. G. Kim, "A Study on the Relationship between Positive Organizational Behavior and Major Factors," *Korean Public Administration Review*, Vol.46, No.4, pp.27-51, 2012.
- [95] M. S. Kim and C. S. Jang, "The effects of authentic leadership on employee positive psychological capital and affective commitment," *Korean Journal of Resources Development*, Vol.15, No.1, pp.101-125, 2012.
- [96] J. M. Park and D. H. Ha, "Effects of Authentic Leadership on Positive Psychological Capital and Change-Oriented Organizational Citizenship Behavior in Flight Attendants - Focusing on the Mediating Effect of Positive Psychological Capital," *Journal of The Korea Contents Association*, Vol.16, No.9, pp.51-65, 2016.
- [97] A. J. McMurray, A. Pirola-Merlo, J. C. Sarros, and M. M. Islam, "Leadership, climate, psychological capital, commitment, and wellbeing in a non-profit organization," *Leadership & Organization Development*

- Journal, Vol.31, No.5, pp.436-457, 2010.
- [98] A. Bandura, *Social foundations of thought and action: a social cognitive theory*, Englewood Cliffs, N.J: Prentice-Hall, 1986.
- [99] H. Y. Kim and S. M. Park, "An Empirical Exploration of the Effects of Internal and External Organizational Conflicts on Quality of Life and Organizational Citizenship Behavior: With a Focus on Analyzing Positive Psychological Capital within Korean Executive Agencies," *Korean Review of Organizational Studies*, Vol.14, No.1, pp.27-65, 2017.
- [100] Y. H. Jin, "A Effects of Authentic Leadership on Innovative Behavior of Public Corporation: Focused on The Mediating Effects of Psychological Capital," *Social Science Research Review*, Vol.32, No.2, pp.301-322, 2016.
- [101] Y. S. Jo, Y. D. Choi, and D. S. Lee, "Social Exchange Relationship in Organizations and Change-Oriented Behavior: The Mediating Role of Psychological Capital," *Korean journal management*, Vol.24, No.1, pp.147-174, 2016.
- [102] E. S. Kim and Y. J. Baek, "Relationship between Positive Psychological Capital and Social Capital and Individual Creativity," *Journal of Organization and Management*, Vol.28, No.1, pp.93-122, 2014.
- [103] P. M. Podsakoff and S. B. MacKenzie, "Impact of Organizational Citizenship Behavior on Organizational Performance: A Review and Suggestion for Future Research," *Human Performance*, Vol.10, No.2, pp.133-151, 1997.
- [104] J. K. Tak and K. S. Kang, "A Study on the Relationship of Team Members' Competitiveness, Team Commitment and Team Satisfaction: A Mediating Role of Relationship Conflict," *The Korean Journal of Industrial and Organizational Psychology*, Vol.24, No.1, pp.157-181, 2011.
- [105] H. D. Jeong and Y. J. Baek, "Research Trends in Interpersonal-Conflict(Task-Conflict & Relationship-Conflict): Literature Review & Meta-Analysis," *Korean Journal of Resources Development*, Vol.19, No.1, pp.109-142, 2016.
- [106] I. O. Choi, "The Effects of Task Conflict on Organizational Cohesiveness: Mediation Effect of Relationship Conflict and Modulation Effect of Trust," *Korean Journal of Business Administration*, Vol.24, No.4, pp.1961-1977, 2011.
- [107] H. S. Choi, "The Effect of Task conflict on Team commitment and Team Performance: Moderating Effect of Self Efficacy and Team Efficacy," *Korean Journal of Business Administration*, Vol.25, No.2, pp.1019-1039, 2012.
- [108] S. Auh, S. Spyropoulou, B. Menguc, and A. Uslu, "When and how does sales team conflict affect sales team performance?," *Journal of the Academy of Marketing Science*, Vol.42, No.6, pp.658-679, 2014.
- [109] C. K. W. De Dreu and L. R. Weingart, "Task Versus Relationship Conflict, Team Performance, and Team Member Satisfaction: A Meta-Analysis," *Journal of Applied Psychology*, Vol.88, No.4, pp.741-749, 2003.
- [110] S. Schulz-Hardt, F. C. Brodbeck, A. Mojzisch, R. Kerschreiter, and D. Frey, "Group Decision Making in Hidden Profile Situations: Dissent as a Facilitator for Decision Quality," *Journal of Personality and Social Psychology*, Vol.91, No.6, pp.1080-1093, 2006.
- [111] C. K. W. De Dreu, "When too little or too much hurts: Evidence for a curvilinear relationship between task conflict and innovation in teams," *Journal of Management*,

- Vol.32, No.1, pp.83-107, 2006.
- [112] C. K. W. De Dreu and M. A. West, "Minority Dissent and Team Innovation: The Importance of Participation in Decision Making," *Journal of Applied Psychology*, Vol.86, No.6, pp.1191-1201, 2001.
- [113] S. S. Culbertson, C. J. Fullagar, and M. J. Mills, "Feeling Good and Doing Great: The Relationship Between Psychological Capital and Well-Being," *Journal of Occupational Health Psychology*, Vol.15, No.4, pp.421-433, 2010.
- [114] M. Larson and F. Luthans, "Potential added value of psychological capital in predicting work attitudes," *Journal of Leadership & Organizational Studies*, Vol.13, No.2, p.75, 2006.
- [115] S. J. Roberts, L. L. Scherer, and C. J. Bowyer, "Job Stress and Incivility: What Role Does Psychological Capital Play?," *Journal of Leadership & Organizational Studies*, Vol.18, No.4, pp.449-458, 2011.
- [116] H. J. Kim and T. Y. Yoo, "The Effect of Job Overload on Job Burnout: The Mediating Effect of Positive Psychological Capital and Moderating Effect of Social Support and Personality," *The Korean Journal of Industrial and Organizational Psychology*, Vol.26, No.2, pp.317-340, 2013.
- [117] H. M. Weiss and R. Cropanzano, Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work, In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews*, Vol.18, pp.1-74. 1996.
- [118] R. Cropanzano, D. E. Rupp, C. J. Mohler, and M. Schminke, *Three roads to organizational justice Research in personnel and human resources management (pp.1-113)*, Emerald Group Publishing Limited, 2001.
- [119] R. Loi, N. Hang-Yue, and S. Foley, "Linking employees' justice perceptions to organizational commitment and intention to leave: The mediating role of perceived organizational support," *Journal of Occupational and Organizational Psychology*, Vol.79, No.1, pp.101-120, 2006.
- [120] H. J. Kim, "The Effects of Transformational Transactional Leadership on the Organizational Commitment: A Comparison of Public and Private Sector Employees," *Korean Public Administration Review*, Vol.35, No.2, pp.197-216, 2001.
- [121] J. M. Harackiewicz and G. Manderlink, "A process analysis of the effects of performance-contingent rewards on intrinsic motivation," *Journal of Experimental Social Psychology*, Vol.20, No.6, pp.531-551, 1984.
- [122] Andrew F. Hayes, *Introduction to Mediation, Moderation, and Conditional Process Analysis*, trans. H.K. Lee, Shinyoungsa, 2015.
- [123] A. F. Hayes, *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach*, The Guilford Press, 2013.
- [124] L. L. Neider and C. A. Schriesheim, "The Authentic Leadership Inventory (ALI): Development and empirical tests," *The Leadership Quarterly*, Vol.22, No.6, pp.1146-1164, 2011.
- [125] R. Y. Park, H. D. Seol, and J. H. Lee, "The Relationship between Authentic Leadership and Employee Performance: Mediating Effect of Social Identity and Moderating Effect of Perceived Social Exchange Relationship," *Korean Journal of Business Administration*,

Vol.27, No.11, pp.2013-2039, 2014.

- [126] F. Luthans, C. M. Youssef, and B. J. Avolio, *Psychological Capital: Developing the Human Competitive Edge*, US: Oxford University Press - Special, 2007.
- [127] J. L. Perry and J. L. Pearce, "Initial Reactions to Federal Merit Pay," *Personnel Journal*, Vol.62, No.3, pp.230, 1983.
- [128] W.W. Park, M.S. Kim, S.M. Jeong, and K.M. Huh, "Causes and Remedies of Common Method Bias," *Korean journal management*, Vol.15, No.1, pp.89-133, 2007.
- [129] H. H. Harman, *Modern Factor Analysis*, Chicago, IL: University of Chicago Press, 1967.
- [130] P. M. Podsakoff and D. W. Organ, "Self-reports in organizational research: Problems and prospects," *Journal of Management*, Vol.12, No.4, pp.531-544, 1986.
- [131] B. L. Fredrickson, "The value of positive emotions," *American Scientist*, Vol.91, No.4, pp.330, 2003.
- [132] J. C. Nunnally, *Psychometric theory*, McGraw-Hill series in psychology, 1967.

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