리더의 관리자 코칭행동이 구성원의 혁신행동에 미치는 영향: 기업가정신의 매개효과와 LMX의 조절효과

The Effect of Leaders’ Managerial Coaching Behavior on Employees’ Innovative Behavior: Mediating Effect of the Employees’ Entrepreneurship and the Moderating Effect of LMX

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요약
본 연구는 리더의 관리자 코칭행동이 구성원의 혁신행동에 미치는 영향을 검증하고 구성원의 기업가정신의 매개 효과와 LMX의 조절 효과를 확인하는 것을 목적으로 하였다. 가설은 선행연구와 긍정정서확장구축이론, 자기효능감이론 등을 근거로 하여 설정하였다. 자료는 국내 기업의 직장인 20대이상의 279명을 대상으로 온라인 설문을 통하여 수집하였다. 수집된 데이터의 신뢰성과 탐색성 검증은 SPSS 25.0과 AMOS 25.0로 하였으며, 가설검증은 SPSS 프로세스 매크로 3.0으로 분석하였다. 연구 결과, 리더의 관리자 코칭행동은 구성원의 기업가정신과 혁신행동에 각각 정(+)의 영향을 주었고, 코칭행동과 혁신행동의 관계에서 기업가정신이 매개효과를 가지는 것이 확인되었다. 또한 LMX는 관리자코칭행동과 기업가정신의 관계에서 조절효과를 가지는 것으로 나타났다. 본 연구 결과는 리더의 관리자 코칭행동과 혁신행동간 관계에서 기업가정신을 제시하였다. 리더의 관리자 코칭행동은 조직에서의 관리자 코칭행동을 활성화하기 위한 시스템을 마련하고 구성원들의 기업가정신 강화와 LMX 향상을 위한 시사점, 그리고 향후 연구방향을 논의하였다.

Abstract
The purpose of this study is to verify the effect of leader’s managerial coaching behavior on employees’ innovative behavior and to confirm the mediating effect of entrepreneurship and the moderating effect of LMX(Leader-Member Exchange). Hypotheses were established based on prior research and variety of theories including broaden-build theory and self-efficacy theory. The survey was accessed via the online, 279 employees over 20’s or older, who have worked in various domestic organizations were participated. SPSS 25.0 and AMOS 25.0 were used to verify the reliability and validity of the collected data, and the hypothesis was analyzed by SPSS process macro 3.0. The study found that leader’s managerial coaching behavior has positive effects on both employees’ entrepreneurship and innovative behavior and that entrepreneurship has mediating effect between leader’s managerial coaching behavior and an employees’ innovative behavior. The results of this study suggested leader’s managerial coaching behavior is a prominent factor in facilitating innovative behavior among employees. Implications include an organizational requirement to develop systems for initiating effective managerial coaching behavior in leadership, and for improvement of both entrepreneurship and LMX among employees.

keyword : Leader’s Managerial Coaching Behavior, Innovative Behavior, Entrepreneurship, LMX
I. Introduction

As we enter into the “New Normal” era, in which low annual GDP growth of 1.9%~2.1% becomes the norm, governments and companies across the world are making a lot of efforts to strengthen corporate competitiveness and economic growth, and attention is being focused on innovation and creative management as the core values of an organization[1][2]. In order to actively respond to such environmental changes, competitiveness to create new markets and values are necessary, and the key factor for survival as well as the source of competitiveness is innovation[3].

Therefore, numerous organizations are prioritizing the creation of environment that can maximize voluntary innovation by their employees for management[4]. In addition, as ideas are the basic of innovation, and since the agent that actually performs, reacts to and modifies ideas, is the individual, innovative behavior among individual employees is crucial[5] Innovative behavior of employees accelerates the development of ideas or products and is an important factor that has a strong effect on organizational performance[6], and due to its characteristics of occurring only by the voluntary will of the employees[7], there is a need to examine the preceding factors that induce innovative behavior of the employees and sustain them.

Preceding studies summarized the importance of leaders’ leadership and positive feedback as a factor that has positive effect on employees’ innovative behavior[8][9]. Here we consider several factors. First, securing organizational competitiveness by differentiating corporate culture, management methods and system, as the organization or leaders recognize employees to be a voluntary and active agent [10]. Second, a leader can secure short-term performance and sustainability by establishing human-centric culture and system through trust, respect, communication, congratulations, positive feedback[11]. Third, leaders play an important role in recognizing the potential of employees and in providing active support to nurture their abilities[12]. This study was performed because leader managerial coaching behavior acts as a fundamental factor in producing innovative behavior among employees, since individuals feel self-efficacy by obtaining autonomy regarding their work, enhancing of their problem solving skills through opportunity to learn, and building the feeling of safety and rapport[13-15].

However, paradoxically, the major countries in this new normal era recognize that the global economy has entered the era of ‘Entrepreneurial Economy’, are considering entrepreneurship as the core growth engine of national competitiveness, and are making endless efforts to nurture entrepreneurship in society[16]. Against this backdrop of various changes taking place, companies must devote all their energy to developing new and differentiated products and services in order to create continues changes and innovation, and that is why attention on entrepreneurship is ever growing[17]. Since Schumpeter, entrepreneurship and innovation are recognized as concepts that are deeply correlated, and much research is being performed at various levels[18]. Entrepreneurship refers to the innovative or creative spirit of taking on new challenges that did not previously exist, based on insights that
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The management coaching behavior of leaders predicts future changes[19], and it has been confirmed as an important success factor for an organization’s growth, improvement, profit and survival[20][21]. Moreover, entrepreneurship is a major motivating factor that induces innovative behavior as well as a behavior that creates, develops and manages new resources so that an organization can differentiate itself from its competitors and therefore, capture market opportunities and create new processes and products[22][23]. In addition, in order to overcome the limits of innovative behavior, such as the fact that they are only voluntarily made, entrepreneurship is a prerequisite factor.

In addition, since reciprocity occurs depending on the relationship of exchanges between managers and employees, that would have an effect on entrepreneurship. The more a employee has amicable and strong trust with a leader, positive emotions will be strengthened, and it can be deduced that the employee’s entrepreneurship, willingness to take risks, and active participation, will be accelerated during the course of performing work due to reciprocity.

Based on such discussions, this study aims to empirically prove the mechanism of leaders’ managerial coaching behavior that has positive effects on the innovative behavior of employees of an organization. In order to do this, first, we aim to verify the direct effect between leaders’ managerial coaching behavior and the innovative behavior of the employees of an organization, and verify the positive effects it has on the entrepreneurship of the organization’s employees. Second, in terms of synergy effect created by the combination of leaders’ managerial coaching behavior and entrepreneurship, we aim to verify whether entrepreneurship serves as a mediator between leaders’ managerial coaching behavior and innovative behavior. Third, we aim to verify whether LMX plays a moderating role between leaders’ coaching behavior and innovative behavior. Fourth, based on this study, we aim to examine the factors that induce innovative behavior of employees at companies where strategic use of humans and technologies are necessary in this age of digital revolution that is becoming one of the main issues recently, and present the theoretical and working-level implications and the directions for future studies.

II. Theoretical Background

1. Leaders’ managerial coaching behavior

Due to the development of information communication, the management environment started changing rapidly, and in order to respond to such environmental changes, organizations are in the course of transforming their structures from vertical to horizontal. Amidst such changes, the recognition of the need to nurture and develop employees also changed[24], leaders’ managerial coaching behavior is receiving attention from advanced countries, and this is because a leader can actively participate in the problems employees are facing, support the enhancement of their self-efficacy and achieve the performance goals of the organization[25].

Leaders’ managerial coaching behavior is deemed as a leadership style that provides the opportunity for employees to enhance their work skills and performance[26], and when viewed from an individual’s growth perspective,
this is opening the door for an individual to unleash one’s potential, not teaching but helping so that one can learn by oneself\[27\]. It is a technique and an action that enables individuals or groups to move toward the point they aim to reach, as well as a performance-oriented behavior that provides motivation to employees of an organization so that they can engage deeply in the organization\[28\]. In addition, from a partnership’s perspective, it enhances the capacity of the organization and individuals, to influence their values and vision, and provides strong resources so that they can recreate their behaviors and thoughts\[29\]. When we combine these definitions together, we can say that it is a conversation process between a leader and its employees based on mutual trust, and a partnership for the growth of the organization and individuals\[30\].

As for the components, Stowell\[31\] presented that they are direction provision, development, mutual responsibility and responsibilities, and Park, McLean and Yang \[32\] presented that they are team-level approach, human consideration, acceptance of the abstruse, and development, and Gregory\[33\] presented that they are honest relationship, effective communication, comfortable relationship and acceleration of development.

2. Innovative behavior

Innovation is a purpose-oriented behavior of transforming and utilizing new resources or resources that have the ability to improve in order to create wealth\[34\]. Innovation can be categorized into organization-level and individual-level, and the organization-level is about independently developing and commercializing a new program, policy, idea, service, product, etc., and the individual-level is about focusing on an individual’s work and it is most deeply related to innovative behavior\[5\]\[35\]. According to the scholars who defined innovative behavior, West and Farr\[36\] it is a beneficial behavior of applying new product, procedure, idea, etc. to an individual, organization and society, and Scott and Bruce\[5\] mentioned that it is a process that includes the creation of ideas and their implementation. In other words, innovative behavior can be described as a process of an idea being implemented. In addition, innovative behavior is frequently mistaken as creativity, but innovative behavior is a broader concept that moves beyond the creation of new and useful ideas related to products, processes and products, to also include the implementation of ideas to provide benefit\[37\]\[38\].

The components of innovative behavior varies by scholar, and for instance, Scott and Bruce\[5\] mentioned that they are innovation recognition and innovation implementation, Farr and Ford\[39\] mentioned that they include perceived need for change, self-efficacy, perceived pay off from change, and technical knowledge, and Janssen\[40\] presented idea generation, idea promotion, and idea realization.

3. Entrepreneurship

Entrepreneurship refers to the tendency of being preemptive, competitive and willing to take risks as well as the spirit to take specific actions to achieve goals\[41\]. The word entrepreneur was first introduced by the French economist and banker Cantillon in early 18th century\[42\]. Public attention on entrepreneur and entrepreneurship started from the Austrian
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4. LMX

LMX(Leader-Member Exchange)는 리더와 구성원간 사회적 교환의 정도를 나타내며, 조직내의 이웃간의 관계를 바탕으로 개인과 그룹 간의 관계를 관리하고자 하는 이론과 사회교환 이론[53]에 근거한다. 이 관계의 질은 리더와 구성원간의 상호협력을 통해 매우 중요하다[54].

LMX는 단순히 리더와 구성원간의 관계의 정도를 나타내는 이론이 아니다. 이는 리더와 구성원간의 상호협력을 통해 구성원들이 자신의 역할과 책임을 인식하고, 역할을 수행하여 일의 성취감, 직무 만족감, 공구효과를 얻을 수 있는 이론이다[57, 58, 59].

III. Research Hypothesis

1. Leaders’ managerial coaching behavior, innovative behavior, entrepreneurship

코칭은 개인의 행동의 원인에 따라 내재적 동기의 강화에 도움을 주며, 특히 리더는 혁신성에 영향을 미치는 중요한 요소로 보고 있다[63]. 리더의 코칭 행동과 혁신성에 대한 관계를 설명하기 위해Ryan and Deci[64, 65]가 제시한 내재적 동기의 3가지 요소인 자립, 자기fficacy와 관계를 포함한 내재적 동기의 결정요소를 사용할 수 있다. 리더의 코칭 행동은 구성원들 간의 상호협력을 통해 그들의 내재적 동기를 강화함으로써 그들의 혁신성을 증진하는 효과를 끌어낼 수 있다[66]. 이와 같은 이전 연구들은 리더의 코칭 행동이 구성원들의 혁신성에 영향을 미치는 것이며, 이는 이를 통해 그들의 내재적 동기를 강화함으로써 그들의 혁신성을 증진하는 효과를 끌어낼 수 있다[66].
innovation behavior. Lee and Lim[68]'s study, on which employees in human resources department proved that the better the direction presentation, performance evaluation, and relationship, the higher the innovation behavior is created. Kwon[69] mentioned that coaching leadership has a positive impact on employees' innovation behavior by eliciting various ideas that can promote their self-efficacy, perform challenging tasks, and develop the environment. Based on such theories and results of preceding studies, we propose the following hypothesis.

**Hypothesis 1:** Leaders' managerial coaching behavior will have a positive effect on employees' innovative behavior.

The relationship between leaders' managerial coaching behavior and entrepreneurship can be explained through self-efficacy theory. The changes in a person's behaviors can be explained through the cognitive process of expectations about the possibility of behavior execution about the behavior itself[70], and leaders' managerial coaching behavior supports the achievement of goals or problem solving, and strengthens self-efficacy by setting the goals, providing motivation, learning skills and improving performance[71]. Moreover, the stronger the self-efficacy, the stronger is the tendency to challenge higher goals, focus on implementation[72], and engage in creative tasks and risky or challenging activities[70], and self-efficacy helps employees overcome obstacles and achieve successful experiences[73]. Moreover, variables include self-efficacy, desire to achieve, willingness to take risks, the locus of control, self-respect strengthens and give a positive effect on entrepreneurship[74][75]. Currently, there is much more to be done for the researches that study the effect of leaders' managerial coaching behavior on employees' entrepreneurship, but we can deduce that leaders' managerial coaching behavior that has positive effect on employees’ entrepreneurship, will affect their entrepreneurship.

**Hypothesis 2: Leaders’ managerial coaching behavior will have a positive effect on employees’ entrepreneurship.**

Employees who execute innovative behavior either have a strong patience with ambiguity or have a preference on risk-taking[76] and high degree of independence and self-confidence[77]. We selected entrepreneurship as a structural factor that meets these individual characteristics because entrepreneurship raises patience with ambiguity, autonomy, independence, desire to achieve, so that it results improvement of innovative behavior to develop new ideas and apply them to the field[74][5]. Antecedent factors that affecting innovative behavior are the level of intrinsic and extrinsic motivation, personality traits and self-efficacy[78]. Based on the self-determination theory[64][65] that autonomy, relatedness, and competence foster intrinsic motivation, Employees with high entrepreneurship have autonomy, independence, need for achievement, patience with ambiguity. Therefore, it can be inferred entrepreneurship will affect innovative behavior[79]. In preceding studies, Lim[80], in a research focusing on hotel employees, claimed that the progressiveness and autonomy of entrepreneurship facilitate implementation of ideas and positively impact
on innovative behavior. Bang[81] stated employees who have strong innovativeness, risk-taking, and proactiveness take more innovative behavior. Scott[82] and Engle, Mah & Sadri[83] reported that entrepreneurship positively effects on innovative behavior. Based on such theories and preceding studies, we established the following hypothesis.

**Hypothesis 3:** Employees’ entrepreneurship will have a positive effect on their innovative behavior.

In the relationship between leaders’ managerial coaching behavior and employees’ innovative behavior, there is much more researches to be done that studies the mediating effect of entrepreneurship, but using the broaden-build theory that human positive emotions affect employees’ behaviors or attitudes[84][85], employees who have highly positive emotions will set more challenging goals, engage in work passionately, persevere even in difficult times, have self-satisfaction and stability, and bring out positive responses and influence with others than those that don’t[86][87]. Positive emotions created through coaching such as hope, joy, sense of achievement, self-efficacy, passion, etc. affect entrepreneurship which is based on the willingness to take risks, progressiveness and challenging spirit, and therefore, due to its characteristics of broaden-build theory’s upward cycle structure, it can be expected that entrepreneurship can enhance innovative behavior. Lee and Amabile[88][89] presented that those who are more accepting of the abstruse, have the tendency to prefer risks, are strongly independent engage in more innovative behavior, and Lee[91] presented that those who have stronger desires to achieve engage in more innovative behavior. Positive emotions such as hope, pleasure, achievement, self-efficacy and passion generated by coaching positively affect entrepreneurship which based on risk-taking, proactiveness, challenging. We expect entrepreneurship can trigger innovation behavior as virtuous circulation mechanism is the characteristics of broaden-and-build theory.

Park(2018)[92] revealed coaching leadership, which create positive relationship and provide feedback, gives positive effect on innovative behavior via partly mediating role of self-efficacy. Song(2010)[93] presented self-efficacy strengthen entrepreneurship. The results of these prior studies show that entrepreneurship take a mediating role for strengthening positive effects on employees’ innovative behaviors. we propose entrepreneurship mediates between managerial coaching behavior and employees’ innovation behavior.

**Hypothesis 4:** The employees’ entrepreneurship will have a positive mediating effect on between leaders’ managerial coaching behavior and employees’ innovative behavior.

2. Leaders’ managerial coaching behavior, entrepreneurship, LMX

Leaders’ managerial coaching behavior, entrepreneurship, and moderating effect including LMX can be explained through the theoretical model of social exchange
theory[94][95]. LMX is based on the emotional relationship between a leader and the members, and it is a relationship of social exchanges based on the norm of reciprocity[96]. The relationship between a leader and the members is an important element that determines the attitude and behaviors of members[97]. According to preceding studies on LMX, Ma Prieto & Pilar Perez-Santana[98] claimed that if the quality of LMX is high, it results positive effect on entrepreneurship as employees feel less fear and more safety even though they perceive uncertainty and risk. Self-efficacy, desire to achieve, willingness to take risks, the locus of control, self-respect strengthens and give positive effect on entrepreneurship[74][75]. Park[92] claimed that if the quality of self-efficacy is high, it results positive effect on LMX. And the studies emphasize that during the course of unleashing entrepreneurship, based on the quality of the relationship between a leader and the members, it affects them to boldly take the risk and take new challenges[19][99]. Kheng & Mahmood[100] presented that employees who recognize high quality of LMX believe that they can gain more support from the manager, overcome their fear for failure and take on challenging tasks, and that help them get immersed in developing ideas and changes. Therefore, this study has established the following hypotheses.

**Hypothesis 5:** The LMX will play a positive moderating role between leaders’ managerial coaching behavior and employees’ entrepreneurship.

**Hypothesis 6:** The employees’ entrepreneurship will play a positive moderated mediating effect by LMX on the relationship between leaders’ managerial coaching behavior and employees’ innovative behavior.

### IV. Research Method

#### 1. Research Model

![Figure 1. shows the research model of this study](image)

#### 2. Defining and Measuring Variables

The variables used in the study were leaders’ managerial coaching behavior, innovative behavior, entrepreneurship and LMX, and in order to accurately measure the variables, we used measurement tools that secured a high level of trust and validity in the preceding studies. We used the 5 point Likert Scale to measure the variables (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).

**2.1 Leaders’ managerial coaching behavior**

We defined leaders’ managerial coaching behavior as having positive effect on the changes of employees’ behaviors and attitudes by enhancing their capacity through learning and helping members solve problems on their own for the performance improvement of the members based on the leaders’ trust[101][102]. The measurement tools used to measure the
leaders’ managerial coaching behavior, were borrowed from Gregory and Levy[33] and Cho and Park’s 24-questionnaire items[103], and they were adapted to be suited the purpose of this study and we used a total of 12 items[104]. The items include, for instance, ‘my leader provides advice and support to help me take on more challenging tasks. My leader helps me find ways to overcome difficulties while performing my task’, etc.

2.2 Innovative behavior

Innovative behavior is the behavior of establishing and executing an organization’s goals or preparing the resources necessary to introduce new technologies and implement ideas[5]. Based on the measurement items Scott & Bruce developed, together with the 9 items Janssen[40] used, and the research scale of Kim[105] were adapted to be suited the purpose of this study, and they were composed of 8 questions. The items include, for instance, ‘I find new ideas to solve problems. I encourage the participation of core talents for the implementation of new ideas’, etc.

2.3 Entrepreneurship

Entrepreneurship is defined as the tendency or attitude to identify opportunities at growth and to try to create values in an environment of uncertainties[23][106]. As for the measurement tools, we modified Miller[23], Covin & Slevin[106] ‘s 9 questions to suit the purpose of this study, and they were composed of 8 questions. The items include, for instance, ‘I enjoy taking on new challenges. I generally am more passionate and confident than others’, etc.

2.4 LMX

The relationship of exchanges between leader-subordinates is defined as the quality of the social relationship between a leader and the members within an organization[49-52]. In this study, in order to measure the quality of LMX, we used the research scale of Lim[107] that used the 7 questions developed by Scandura and Graen[108]. The measurement items include ‘my leader knows what kind of difficulties I am having and my desires. The work relationship between me and my leader is effective’, etc.

V. Research Results

1. Demographic Characteristics of Samples

We carried out an online survey to test our model and hypotheses from March 25 to April 04, 2019 to employees in various sectors at domestic firms in South Korea. A total of 297 respondents’ answers were used for the final analysis. The demographic characteristics of the survey respondents was shown in [Table 1] below.

<table>
<thead>
<tr>
<th>Classification</th>
<th>N</th>
<th>%</th>
<th>Classification</th>
<th>N</th>
<th>%</th>
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<tr>
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<tr>
<td>Male</td>
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<td>Female</td>
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<td>51.2</td>
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<tr>
<td>Total</td>
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<td>100</td>
<td>Over40s</td>
<td>91</td>
<td>30.8</td>
</tr>
<tr>
<td>Year of Service</td>
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<td></td>
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<tr>
<td>5y less</td>
<td>153</td>
<td>51.5</td>
<td>Total</td>
<td>297</td>
<td>100</td>
</tr>
<tr>
<td>5-10y less</td>
<td>75</td>
<td>25.3</td>
<td></td>
<td></td>
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<tr>
<td>10-15y less</td>
<td>41</td>
<td>13.8</td>
<td></td>
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<tr>
<td>over 15y</td>
<td>28</td>
<td>9.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>297</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
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<td>As a manager</td>
<td></td>
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<tr>
<td>High school</td>
<td>37</td>
<td>12.5</td>
<td>Team leader</td>
<td>96</td>
<td>32.3</td>
</tr>
<tr>
<td>Junior college</td>
<td>62</td>
<td>20.9</td>
<td>Part leader</td>
<td></td>
<td></td>
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<tr>
<td>University</td>
<td>166</td>
<td>55.9</td>
<td>Members of department</td>
<td>201</td>
<td>67.7</td>
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<tr>
<td>Graduated school</td>
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<td>10.8</td>
<td>Total</td>
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<td>100</td>
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<td>Task</td>
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<tr>
<td>Manufacturing/Techology</td>
<td>70</td>
<td>23.6</td>
<td>Sales</td>
<td>27</td>
<td>9.1</td>
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<tr>
<td>Management</td>
<td>94</td>
<td>31.6</td>
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</tbody>
</table>
2. Verification of reliability and validity of measuring tools

The Cronbach’s Alpha coefficient was validated by the SPSS 25.0 program to verify the internal consistency of this study. As shown in Table 2, the Cronbach’s Alpha value of all variables was higher than 0.7, the reliability was ensured.

To verify the uni-dimensionality of the measured variables used in this study, we conducted for Confirmatory Factory Analysis (CFA) using AMOS 25.0 program. First, the goodness of fit for the study model was evaluated in consideration of the simplicity of the model, and the verification results were $\chi^2=554.342 (p=0.000)$, GFI= .876, AGFI=.851, IFI=.960, CFI=.955, RMSEA=.051. They showed a comparatively high fit, and thus, it was deemed that there was no problem to demonstrate the study. In addition, 8 variables with lower factor loading were eliminated, and t-value (t>10.022) showed that all were statistically significant. As shown in Table 3, the Average Variance Extracted (AVE) and Construct Reliability (CR) that were measured for validity verification of the measured items each satisfy the average values (AVE > .5, CR > .7), and therefore, they are deemed to have convergent validity.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
<th>Variables</th>
<th>Factorial Loading</th>
<th>$t$</th>
<th>se</th>
<th>AVE</th>
<th>CR</th>
<th>Cronbach’s $\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader’s managerial coaching behavior</td>
<td>1 0.746 14.090 0.047</td>
<td>3</td>
<td>0.79 16.177 0.05</td>
<td>5</td>
<td>0.83 17.442 0.045</td>
<td>6</td>
<td>0.781 15.906 0.047</td>
<td>8</td>
</tr>
<tr>
<td>Innovative behavior</td>
<td>3 0.727 17.49 0.045</td>
<td>4 0.848 18.003 0.039</td>
<td>5</td>
<td>0.811 16.939 0.038</td>
<td>6</td>
<td>0.84 16.275 0.039</td>
<td>7</td>
<td>0.71 14.626 0.04</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>2 0.712 13.516 0.048</td>
<td>3</td>
<td>0.742 14.312 0.042</td>
<td>4</td>
<td>0.761 14.812 0.042</td>
<td>5</td>
<td>0.83 16.815 0.041</td>
<td>6</td>
</tr>
<tr>
<td>LMX</td>
<td>1 0.757 15.059 0.048</td>
<td>3 0.729 14.281 0.047</td>
<td>4</td>
<td>0.806 16.549 0.045</td>
<td>5</td>
<td>0.772 15.418 0.05</td>
<td>6</td>
<td>0.865 18.415 0.045</td>
</tr>
</tbody>
</table>

3. Analysis of correlations between latent variables

Before hypothesis testing, looking at the correlation of variables included in the research model, leaders’ managerial coaching behavior, innovative behavior, entrepreneurship and LMX each represented a positive correlation. It was also found that job position has a positive correlation with innovative behavior, entrepreneurship, and job position has a negative correlation with innovative behavior and entrepreneurship.
리더의 관리자 코칭행동이 구성원의 혁신행동에 미치는 영향: 기업가정신의 매개효과와 LMX의 조절효과

Table 3. Correlation Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-0.037</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>-0.160**</td>
<td>0.152**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job position</td>
<td>0.108</td>
<td>-0.044</td>
<td>-0.488**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LMCB</td>
<td>0.062</td>
<td>0.019</td>
<td>-0.045</td>
<td>-0.006</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IB</td>
<td>0.027</td>
<td>0.050</td>
<td>0.128**</td>
<td>-0.173**</td>
<td>0.367**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>-0.001</td>
<td>0.024</td>
<td>-0.147**</td>
<td>-0.144**</td>
<td>0.271**</td>
<td>0.525**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LMX</td>
<td>0.057</td>
<td>0.029</td>
<td>-0.054</td>
<td>-0.021</td>
<td>0.684**</td>
<td>0.331**</td>
<td>0.237**</td>
<td>1</td>
</tr>
</tbody>
</table>

$p < 0.05 *, p < 0.01 **$

4. Hypothesis test

In this study, the bootstrap method was used to verify the correlations, leaders’ managerial coaching behavior, employees’ innovative behavior, entrepreneurship and LMX on SPSS Process Macro 3.0. In addition, gender, education, job position, and task were used as control variables based on prior research. The results were presented as follows.

Table 4. Results of Hypothesis

<table>
<thead>
<tr>
<th>Hypothesis (path)</th>
<th>Path coefficient</th>
<th>t</th>
<th>LLCI</th>
<th>ULCI</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1 (LMCB → IB)</td>
<td>.3594</td>
<td>9.3058**</td>
<td>.2834</td>
<td>.4535</td>
<td>.5185</td>
</tr>
<tr>
<td>Hypothesis 2 (LMCB → E)</td>
<td>.2961</td>
<td>6.8035*</td>
<td>.2105</td>
<td>.3818</td>
<td>.4080</td>
</tr>
<tr>
<td>Hypothesis 3 (E → IB)</td>
<td>.5944</td>
<td>13.9570**</td>
<td>.5106</td>
<td>.6783</td>
<td>.6569</td>
</tr>
</tbody>
</table>

$p < 0.05 *, p < 0.01 **$ (LMCB: Leader’s managerial coaching behavior, E: Entrepreneurship, IB: Innovative behavior)

Analysis results showed that leaders’ managerial coaching behavior gives significant positive effect on the employees’ innovative behavior (t=9.3058) and entrepreneurship (t=6.8035). The confidence interval did not include 0 and thus, hypothesis 1 and 2 were supported. Therefore, based on the hypothesis verification, the higher the leaders’ managerial coaching behavior, the higher innovative behavior and entrepreneurship employees will display. In addition, the entrepreneurship of employees have significant positive effect on their innovative behavior (t=13.9570). Since the confidence interval did not include 0, hypothesis 3 were supported. Therefore, the higher the entrepreneurship of employees, the more innovative behavior they will display.

Table 5. Result of mediating effect by bootstrapping method

<table>
<thead>
<tr>
<th>Hypothesis (path)</th>
<th>Indirect effect</th>
<th>BootLLCI</th>
<th>BootULCI</th>
<th>Adoption status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 4 (LMCB→E) → IB</td>
<td>.1468</td>
<td>.0970</td>
<td>.2061</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Based on the verification results of the mediating effect using the bootstrap method, the indirect effect of the entrepreneurship and members was each .1468, and the confidence interval was each [.0970, .2061], which did not include 0, and thus, hypothesis 4 was verified. Therefore, entrepreneurship of members have mediating effect between leaders’ managerial coaching behavior and innovative behavior.

Table 6. Result of moderating effect by bootstrapping method

<table>
<thead>
<tr>
<th>Variable</th>
<th>coefficient</th>
<th>SE</th>
<th>T</th>
<th>LLLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>.1029</td>
<td>.0387</td>
<td>2.6586**</td>
<td>.0267</td>
<td>.1791</td>
</tr>
</tbody>
</table>

$R^2$ change = .0199, F = 7.0682 (p=0.00)

$p < 0.05 *, p < 0.01 **$

Based on the analysis results of moderating effect of the study, it can be said that LMX (t=2.6586) has moderating effect between
leaders’ managerial coaching behavior and entrepreneurship of employees. Therefore, hypothesis 5 was verified. The bootstrap confidence interval [.0267, .1791] does not include 0.

Table 7. Analysis of Moderated Mediating Effect with Bootstrapping

<table>
<thead>
<tr>
<th>Path</th>
<th>LMX</th>
<th>Indirect Effect</th>
<th>BoostSE</th>
<th>BoostLLCI</th>
<th>BoostULCI</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMCB</td>
<td>2.3333</td>
<td>.1069</td>
<td>0.485</td>
<td>.0104</td>
<td>.1997</td>
<td>Supported</td>
</tr>
<tr>
<td>E</td>
<td>3.1667</td>
<td>.1494</td>
<td>0.484</td>
<td>.0553</td>
<td>.2462</td>
<td></td>
</tr>
<tr>
<td>IB</td>
<td>4.0000</td>
<td>.1920</td>
<td>0.535</td>
<td>.0902</td>
<td>.2994</td>
<td></td>
</tr>
<tr>
<td>Index</td>
<td>.0510</td>
<td>0.196</td>
<td>.0510</td>
<td>.0925</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results showed that the indirect effect of LMX, which is a moderating variable, increases gradually (.1069 -> .1494 -> .1920) at 3 different percentages (16%, 50%, 84%). Each of the bootstrap confidence interval [.0104, .1997], [.0553, .2462], [.0902, .2994] did not include 0, and the bootstrap confidence interval of the mediated mediating effect [.0510, .0925] also does not include 0. Therefore, the hypothesis 6 was supported. The recently used bootstrap method was analyzed with macros. It is the same method as hierarchical regression analysis, but Johnson Neiman analysis is possible, and the effectiveness of each adjustment effect section can be verified, so it was adopted for the analysis.

VI. Conclusions and Suggestions

1. Summary of studies

This study to verify the effect of leaders’ managerial coaching behavior on the innovative behavior of employees, and verify the moderating effect of LMX and the mediating effect of entrepreneurship in the relationship. The study results are as follows: First, leaders’ managerial coaching behavior showed a significant positive effect on the innovative behavior of employees. Leaders’ managerial coaching behavior helps employees perform challenging and innovative tasks, and come up with creative ideas by establishing rapport and setting clear directions with employees[109], and this can be interpreted as supporting the preceding studies that leaders’ managerial coaching behavior has a positive effect on innovative behavior[110]. Second, leaders’ managerial coaching behaviors have been identified to have a significant positive effect on employees’ entrepreneurship based on self-efficacy theory. It was suggested that self-efficacy, which strengthened the achievement of goals, acquirement of problem-solving skills, and improving performance by leader’s managerial coaching behavior, has a positive impact on entrepreneurship. Third, it was confirmed that entrepreneurship has a mediating role between the leaders’ managerial coaching behavior and innovative behavior. Positive emotions such as hope, joy, sense of achievement, self-efficacy, and passion affect entrepreneurship, which is based on taking risks and challenging spirit, and due to the characteristics of the upward cycle of positive psychological broaden-build theory, entrepreneurship gives rise to innovative behavior. Fourth, it was confirmed that LMX plays a mediating role in the relationship between leaders’ managerial coaching behavior and entrepreneurship. LMX is presented as an important factor that determines the attitudes and behaviors of employees[95], and actualizes entrepreneurship.
## 2. Implications and Limitations

The theoretical implications of our study are as follows. First, we offer the mediating effect of entrepreneurship between leader’s managerial coaching behavior and employees’ innovative behavior for the first time based on broaden-and-build theory of positive emotion while prior researches on coaching have been mainly focused on the effect on the validity of organizations and mostly about the mediating effect of psychological mechanisms and job-related variables. Second, We also demonstrated the impact of the leader’s managerial coaching behavior on entrepreneurship manifested by individual self-efficacy, present the importance of innovation behavior to respond quickly to changes in the uncertain management environments and prove entrepreneurship and innovation behavior have an inseparable relation. Third, Among the variables of this study, most of the research on the preceding factors of entrepreneurship was mainly conducted on organizational level variables, the research on coaching behavior is inadequate, so it is different from the existing research. Fourth, we verified the positive effect of leader’s managerial coaching behavior on entrepreneurship which is expressed by individual initiatives and the moderating role of LMX as a relational factor between those two variables. Therefore, this study is meaningful in that we diversified the theoretical implications first, and specified the structural relationship between employees’ entrepreneurship and innovative behavior through leader’s coaching behavior. Also, we present the necessity of further research on the relationship of leader’s managerial coaching behavior and employees’ innovative behavior.

As for working level implications, First, to strengthen the entrepreneurship of employees, offering entrepreneurship education is needed but companies also need to improve the quality of leader-member relationships through various methods, such as creating a horizontal organizational culture or eliminating positions, because entrepreneurship is generated differently depending on psychological factors such as positive emotions and self-efficacy and the quality of the leader-member relationship. Second, to strengthen the LMX, companies should actively match coaches and coachees to promote personal coaching, provide team coaching to encourage communication within the team, activate team learning, and create positive atmosphere. Furthermore, companies need to impose group coaching to enable communication with various employees and open organizations through meetings with different job positions.

The following are the limits of this study directions for future studies. First, this study verified the relationship between leaders’ managerial coaching behavior and innovative behavior based on a cross-sectional study design and therefore, future studies must perform longitudinal experimental studies such as comparison of before and after coaching training, to confirm the effectiveness of coaching on innovative behavior. Second, this study examined the process of inducing innovative behavior by improving entrepreneurship through leaders’ coaching behavior, but it seems leaders’ managerial coaching behavior will improve innovative
behavior and thus, lead to entrepreneurship. However, since there is not much domestic studies being performed on this, we propose to take this as a research subject. Third, this study was about the mediating effect of entrepreneurship between leaders’ managerial coaching behavior and innovative behavior, but there is a need to study the correlation with various factors other than psychological factors in the future. Fourth, the data used for the empirical study was an online survey on individual’s acknowledgement using questionnaires and therefore, objectivity and validity must be secured through interviews, observations, and data density analysis in future studies.

참 고 문 헌

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