

Calling and continuous learning activity: Moderated mediation model of goal orientation and perceived learning support

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The goal of the present study was to examine the influence of goal orientation and perceived learning support on the relationship between calling and continuous learning activity within the organizational context. Specifically, the mediating effects of three different types of goal orientation in the relationship between calling and continuous learning activity and the moderated mediation model of goal orientation and perceived learning support were examined. To gain accurate information, we confirmed the results in a serial order. First, the relationship between calling and continuous learning activity was mediated by learning and performance-approach goal orientation, but not the performance-avoidance goal orientation. Second, perceived learning support moderated the relationships between learning goal orientation and continuous learning activity, and between performance-approach goal orientation and continuous learning activity. Third, perceived learning support moderated the mediating effect of learning and performance-approach goal orientation on the relationship between calling and continuous learning activity. Such results imply that calling can foster continuous learning activity by bringing about motivational influence in terms of learning and performance-approach goal orientation. In addition, our research suggests that the relationship between each goal orientation and continuous learning activity might differ depending on the level of perceived learning support. The significance and limitations of our findings are also discussed.

Key words : *Calling, Continuous Learning Activity, Goal Orientation, Perceived Learning Support*

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Many people dream of finding 'the job'; the one that constantly provides energy for productive achievement, and enables an individual to grow within the organizational environment. But the reality is that it is seldom that a person will find such a job. Even if he or she was lucky to find one, the reality might not be exactly like what the person has expected, and it is more likely that the work would be a mixture of some exciting and loads of boring and dreadful tasks. Hence, individuals now seek to bring up motivation and passion for work from their heart, instead of expecting to be encouraged by the work itself. Reflecting on such a trend, scholars have recently focused on the concept of calling. The concept has originally been drawn from religious background, as a strong faith upon an individual's career which is summoned by transcendental presence (Hunter, Dik, & Banning, 2010). However, in the modern perspective (Bunderson & Thompson, 2009), the notion of calling is more concerned with the passion for a specific career path or the work that people perceive as a purpose of life (Dobrow & Tosti-Kharas, 2011; Hall & Chandler, 2005). Thus, calling is commonly understood as an individual's passion for the realization of life purpose within a job domain, and such a comprehensive definition of calling casts an important question regarding the components that make life and work meaningful (Hirschi, 2012; Rosso, Dekas, & Wrzesniewski, 2010). The value of calling is becoming more

emphasized in the modern society, as it can serve as a powerful motivational source at work. Indeed, various recent studies have focused more on individuals' psychological status to find meaning in life and value in the work place (Roh & Suh, 2014). People are constantly expected to show greater achievements than in the past, and the rapid change of the society easily threatens the job status of the individuals who have failed to keep up. The circumstances are not so different for the organizations regardless of their sizes, and thus the organizations are all keen to emphasize and instill the value of innovation into their employees.

Such innovation and change are likely to occur in the presence of continuous learning. Continuous learning activity refers to pursuing new technique and knowledge in a job domain, and making consistent efforts to develop skills (London & Mone, 1999). Given the usefulness in understanding the inner motivational mechanism of individuals' learning behavior within the work environment, the issue of continuous learning activity may continue to require serious research attention.

In general, individuals require motivational source to maintain the autonomous learning behavior. Taking into account past findings that regarded the sense of calling as a strong motivational attitudes and beliefs at work (Dik, Sargent, & Steger, 2008; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997), we focused

on the relationship between calling and continuous learning activity. However, based on the theory of planned behavior (Ajzen, 1985), we should identify the inner process of mediating the formation and enactment of intentions, because individuals do not always perform in a manner consistent with their beliefs, values, attitudes, or intentions. Calling is individuals' beliefs or values. Thus, it should be considered how individuals' inner state factors lead an individual's sense of calling to an adaptive vocational behavior. We examined how different types of goal orientation could have distinct influence on the relationship between calling and continuous learning activity. In addition, considering the research findings that showed the significant influence of the organizational environment on employees' thoughts and behaviors (Maurer, 2001; Maurer, Weiss, & Barbeite, 2003), we investigated the effect of individuals' perceived learning support on the motivational mechanism which would lead one's sense of calling to continuous learning activity.

Calling at Work and Intrinsic Motivation

It is important to provide conceptual clarity to the term *calling* because originally, calling was derived from religious concept and thus it is rather difficult to gain clear-cut understanding of the concept from its original definition. Yet, the

concept has recently been extended so as to be defined as the pursuit of passion or meaning of life in the course of engagement in vocational activities (Hirschi, 2012). Taking into account this modern perspective, we have defined the concept of calling in work environment as an individuals' beliefs, attitudes, or values which can be characterized by one's passion for a job that serves as a meaningful motivator (Dobrow & Tosti-Kharas, 2011), or a perceptual status of regarding one's work as the purpose of life (Hall & Chandler, 2005). Thus, we predicted that calling might motivate individuals to make active efforts for enhanced work efficiency and productivity.

The positive influence of calling toward various work-related factors has been investigated in considerable volume of research. Individuals with calling are confident in their career decisions, show positive job attitudes, are more satisfied with both their personal and vocational lives, and have a strong desire to benefit the organization or help their colleagues regardless of the presence of the reward for their actions (Elangovan, Pinder, & McLean, 2010; Hall & Chandler, 2005; Treadgold, 1999; Wrzesniewski et al., 1997). Furthermore, they tend to work more than they are expected to, do not separate their work with personal lives, and show great conviction and passion for their career (Elangovan et al., 2010; Wrzesniewski et al., 1997). For people with calling, the work itself is the ultimate purpose, rather than monetary

reward or promotion (Rosso et al., 2010). Considering the extent of voluntary engagement in an individual's job and the reason behind such act, a sense of calling could be regarded as a significant source of intrinsic motivation at work.

Calling and Continuous Learning Activity

In the modern society, it is important to constantly acquire new knowledge and skills in order to adapt to the rapid change of the environment and social requirements (London & Mone, 1999). Continuous learning activity is characterized by autonomous acquisition of knowledge and skills with present and future-oriented intentions, and it comprises both work-related and personal interest in activities that take place within and outside of the workplace (Birdi, Allan, & Warr, 1997). The concept is highly similar to self-directed learning and autonomous learning, both of which have been proven to increase the employees' engagement in developmental activities and the effectiveness of the organization (Walumbwa, Cropanzano, & Hartnell, 2009).

Several scholars have implied the influence of calling on learning behavior at work. Research has shown that individuals who possess intrinsic work values, which is the core characteristic of calling, exhibit positive vocational behaviors that would lead to career development (Hirschi,

2012). Furthermore, the purpose of work for individuals with calling is to contribute to the organization and to have an opportunity for personal growth, rather than achieving monetary gain or career advancement (Chalofsky, 2003). As such, people who experience a sense of calling tend to engage in their job with great effort and passion, and actively seek for opportunities for development through learning new knowledge and skills.

Continuous learning activity is an important factor within organizational context, as such an activity often leads to enhanced group efforts and ultimately increases group productivity. However, continuous learning activity occurs in the presence of an individual's desire to develop his or her abilities. We assumed that such an inner motivator might be one's sense of calling, and thus investigated the influence of calling on continuous learning activity.

Hypothesis 1: Calling positively affects continuous learning activity.

Goal Orientation as a Motivator

Goal orientation refers to a psychological tendency to engage in developmental or demonstrative activities in achievement situations (Dweck & Elliot, 1983; Nicholls, 1984). While earlier studies assumed goal orientation as a dispositional factor which individuals would consistently have in every situations, recent researchers (Elliot & Church, 1997; Payne,

Youngcourt, & Beaubien, 2007; Vandewalle, Cron, & Slocum, 2001) have mentioned the concept of state goal orientation. This means that goal orientation is state factor which can depend on individuals' status. To build upon this idea, we assumed that goal orientation might be affected by the extent how much sense of calling individuals feel upon their job. Indeed, goal orientation is often examined as a motivator in prediction of various vocational factors such as job performance, goal settings, and adaptive job behaviors (DeGeest & Brown, 2011; Harackiewicz & Elliot, 1993). In the present research, we investigated the role of goal orientation as a inner motivator in identifying the motivational process of how calling might drive actual behavior. Thus, considering goal orientation as a mediator, we focused on investigating the inner motivational system between calling and continuous learning activity in organizational context.

Goal orientation can be divided into two subfactors; learning goal orientation and performance goal orientation. People with learning goal orientation seek for the psychological reward that can be obtained in the challenging process of acquiring new knowledge and skills (Barron & Harackiewicz, 2001). Thus, learning goal orientation can be understood to be strongly associated with intrinsic motivation for the learning activity itself. However, the goal for people with performance goal orientation is proving their abilities in comparison with others,

and they tend to focus more on the result of an activity than to enjoy the process itself (Ames, 1992).

However, other researchers suggest dividing goal orientation into three subfactors, by distinguishing performance orientation depending on different types of disposition (Middleton & Midgley, 1997; Vandewalle, 1997); namely, performance-approach goal orientation and performance-avoidance goal orientation. Such distinction of performance goal orientation was confirmed by ample findings from the meta-analysis and has received credit for increasing power to predict (Vandewalle, Cron, & Slocum, 2001). With enough validation provided from previous research conducted in Korea (Kim & Yoo, 2010), we decided to use the three-factor model of goal orientation. Besides, since the primary purpose of the present study is to investigate how individuals' inner motivator would mediate the relation between calling and continuous learning behavior, we assumed that we would be able to gain more precise understanding by using the three-factor model.

People with performance-approach goal orientation intend to exhibit excellent performance in order to prove themselves to others and acquire positive feedback (Vandewalle, Cron, & Slocum, 2001). Performance-approach goal orientation is categorized as a type of extrinsic motivation, yet it shares nature with intrinsic motivation due to

the high level of autonomy shown by individuals with this type of goal orientation. Since performance-approach oriented individuals tend to aim for tangible achievements that can be acknowledged by others (Lepper & Henderlong, 2000), they are likely to become intrinsically motivated for learning and developing new knowledge and skills in order to increase their chances of success (Bandura, 1982). Referring to the self-determination theory, people without internal motivation act not for the sake of the behavior itself, but to maintain their sense of identity or to accomplish their goals that were set with their own will and thus can intrinsically motivate a person (Gagne & Deci, 2005). Similarly, individuals with performance-approach goal orientation are driven by the desire to maintain his or her identity of decent status. Thus, performance-approach goal orientation could be regarded as a type of extrinsic motivation of which nature is very close to intrinsic motivation.

On the other hand, people with performance-avoidance goal orientation put efforts to avoid negative appraisals from others (VandeWalle et al., 2001). Such individuals concentrate too much on the possibility of failure (Creed, King, Hood, & Mckenzie, 2009), thus they are prone to be controlled by external circumstances.

We have introduced the concept of goal orientation to our research in order to examine how an individual's sense of calling can be

revealed in the form of motivated behavior. In terms of motivation, we predicted that a sense of calling is strongly related to goal orientation. As previously stated, a number of research have demonstrated a strong relationship between calling and intrinsic motivation for challenging tasks (Dik et al., 2008; Elangovan et al., 2010; Steger, Pickering, Shin, & Dik, 2010). Considering consistent results from a volume of research, we assumed that calling would be positively related to learning goal orientation and performance-approach goal orientation, both of which are strongly related to intrinsic motivation. However, we expected that calling would be negatively related to performance-avoidance goal orientation, which is geared towards preventing negative consequences in performance.

Goal orientation is also known to be strongly associated with continuous learning activity (Kim & Yu, 2010). As the positive influence of learning goal orientation is salient, learning goal orientation is also known as an important predictor of learning activity at work (Barron & Harackiewicz, 2001; DeGeest & Brown, 2011). We assumed that performance-approach goal orientation would also similarly show a positive relationship with continuous learning activity, considering the numerous research results that showed the positive influence of performance-approach goal orientation on job attitudes and behaviors (Hurtz, 2002; Han & Williams, 2008). People with performance-approach goal orientation put efforts to enhance their abilities

and skills in order to gain higher status in comparison with others (Elliot & Harackiewicz, 1994). In terms of continuous learning activity, people feel motivated to engage in learning activities when they realize the difference between their level of capabilities and the level of external demands which constantly changes depending on the environmental circumstances. Thus, it is likely that an individual's perception on other people's appraisal toward one's abilities and skills would have great impact on his or her motivation for learning. Moreover, considering the fact that the evaluation of an individual's ability depends on the tangible results of competitions, performance-approach goal orientation might serve as an important predictor for continuous learning activity. On the other hand, we predicted that performance-avoidance goal orientation would be negatively associated with continuous learning effort. People with performance-avoidance goal orientation find it difficult to regulate themselves, pursue productive job behaviors, or exhibit high level of performance. Furthermore, they often feel helpless and show maladaptive behaviors in achievement situations (Elliot & Church, 1997; Elliot & Sheldon, 1997). Considering such characteristics and the tendency to focus on preventing unfavorable consequences, it is highly unlikely that the individuals with performance-avoidance goal orientation will actively engage in learning activities for the purpose of developing one's competitiveness and exhibiting better

performance.

Linking the relationships among variables, we hypothesized that goal orientation would mediate the relationship between calling and continuous learning activity. To be specific, calling will enhance an individual's engagement in continuous learning activity by having positive influence on learning goal orientation and performance-approach goal orientation. On the contrary, calling will reduce the level of engagement in continuous learning activity by having negative influence on performance-avoidance goal orientation.

Hypothesis 2-1: Learning goal orientation positively mediates the relationship between calling and continuous learning activity.

Hypothesis 2-2: Performance-approach goal orientation positively mediates the relationship between calling and continuous learning activity.

Hypothesis 2-3: Performance-avoidance goal orientation negatively mediates the relationship between calling and continuous learning activity.

Perceived Learning Support and the Moderating Effect

Perceived learning support refers to an organizational member's awareness regarding the extent of organizational support for learning or self-development (Lim & Morris, 2006). The recognition of organizational support plays an important role on an individual's consistent

learning behavior (Eisenberger, Fasolo, & Davis-La Mastro, 1990). One of the reasons for such influence is because when the organization encourages the development of its employees, the members of the organization feel more confident with their behavioral choices since the organization would be giving them the assurance that their learning activity is beneficial for themselves (Magjuka & Baldwin, 1991; Maurer, 2001; Maurer et al., 2003). With such assurance from the organization, individuals become more motivated to acquire new knowledge and develop new skills (Maurer et al., 2003).

Taking into account the influence of perceived learning support on the motivation for learning activity, we predicted that perceived learning support would moderate the relationship between goal orientation and continuous learning activity. Specifically, we hypothesized that the positive effect of both learning and performance-approach goal orientation on continuous learning activity would be strengthened when the perceived learning support is high, since perceived learning support generally strengthens an individual's intrinsic motivation for learning. In case of low level of perceived learning support, we did not expect any difference. On the other hand, we predicted that low level of perceived learning support would strengthen the negative effect of performance-avoidance goal orientation on continuous learning activity. In case of high level of perceived learning support, we did not expect any difference. The lack of perceived learning

support might not be helpful in encouraging continuous learning activity, and so we assumed that the negative effect of performance-avoidance goal orientation could not be lessened but be strengthened.

Hypothesis 3-1: Perceived learning support moderates the relationship between learning goal orientation and continuous learning activity.

Hypothesis 3-2: Perceived learning support moderates the relationship between performance-approach goal orientation and continuous learning activity.

Hypothesis 3-3: Perceived learning support moderates the relationship between performance-avoidance goal orientation and continuous learning activity.

In addition, we attempted to verify how the mediating effect of goal orientation between calling and continuous learning activity could change when the degree of employees' perceived learning support is changed. To acquire more specific information of the motivational process, we examined the process using the moderated mediation model. Our primary prediction was that the mediating effect of goal orientation on continuous learning activity could be affected by the change in the level of perceived learning support. This is because given the idea of state goal orientation, goal orientation may be affected by job environment. Tracey, Tannenbaum & Kavanagh (1995) also proposed the concept of

continuous learning culture which emphasized the influence of work environment on individuals' learning activity. In particular, learning support can drive individuals to strengthen the inner positive motivation. Thus, the mediating effects of learning and performance-approach goal orientations on continuous learning activity might be affected by perceived learning support, and such mediating effects would be stronger when perceived learning support was high. However, we hypothesized that the mediating effect of performance-avoidance goal orientation on continuous learning activity would be affected by perceived learning support, and this mediating effect would be stronger when perceived learning support was low.

Hypothesis 4-1: Perceived learning support moderates the mediating effect of learning goal orientation on the relationship between calling and continuous learning activity.

Hypothesis 4-2: Perceived learning support moderates the mediating effect of performance-approach goal orientation on the relationship between calling and continuous learning activity.

Hypothesis 4-3: Perceived learning support moderates the mediating effect of performance-avoidance goal orientation on the relationship between calling and continuous learning activity.

Method

Participants

Two hundred and seventeen employees working at a major company located in Seoul, South Korea, volunteered to participate in the study. However, some participants did not answer to all measures, so we could not use those data to analyze. Due to missing data from a few participants, only two hundred participants (137 men and 63 women, mean age of 34.39 years, all Korean) were included in the analyses. As for the religion, 41 participants were Protestants (20.5%), 27 were Catholics (13.5%), 17 were Buddhists (8.5%), one reported as other religion without any specification (0.5%), and 114 reported to hold no religious belief (57%). The employee's annual salary included below 40 thousand US dollars (68 employees; 34%), from 40 thousand to 50 thousand dollars (61 employees; 30.5%), from 50 thousand to 60 thousand dollars (53 employees; 26.5%), from 60 thousand to 70 thousand dollars (9 employees; 4.5%), and above 70 thousand dollars (9 employees; 4.5%).

Measures

Calling

The Korean version of the Calling and Vocation Questionnaire (CVQ; Dik, Eldridge, Steger, & Duffy, 2012) was used to assess the sense of calling (Sim, 2010). The measure is commonly used in Korea and has been well

validated so as to measure the extent to which the individuals working in Korea have passionate calling about their career. The scale consists of three subcategories with four items for each category: transcendent summons (e.g., “I believe that I have been called to my current line of work”); meaning and purpose (e.g., “My work helps me to live out my life’s purpose”); and pro-social intentions (e.g., “Making a difference for others is the primary motivation in my career”). Participants were asked to indicate how well each statement described them using a 5-point Likert scale ranging from 1 (very uncharacteristic) to 5 (very characteristic). The figure for within-group agreement (James, Demaree, & Wolf 1984) was .80, which demonstrates the high reliability of the scale.

Goal orientation

The translated items from Vandewalle (1997)’s scale were administered in order to assess the types of goal orientation. These items have already been validated by other research in Korea (Shin, 2012), and the internal consistency of the scale was high in our research with the coefficient alpha reliability of .80. The scale consists of 13 items, five assessing learning goal orientation (e.g. “I often read materials related to my work to improve my ability), four assessing performance-approach goal orientation” (e.g. “I would rather prove my ability on a task that I can do well at than to try a new task”), and four assessing

performance-avoidance goal orientation (e.g. “Avoiding a show of low ability is more important to me than learning a new skill”). Responses were scored on a 5-point Likert-type scale (1 = very uncharacteristic, 5 = very characteristic). Furthermore, we identified the three factors of goal orientation by both confirmatory factor analysis and explanatory factor analysis. Goal orientation was categorized by those three factors, and the internal consistency for each factor was also verified.

Continuous learning activity

As an assessment of continuous learning activity, 13 translated items from Hertz (2002)’s scale were administered to the participants (Han & Williams, 2008). The translated items have been validated and used in previous research conducted in Korea (Kim, 2008). The items measure the participation in educational courses and training programs (e.g. I have enrolled in courses outside of the organization that were relevant to my job or career goal), self-evaluation of skills (e.g. I have carefully thought about the strengths and weaknesses regarding my work skills), and job experience (e.g. I have gained new knowledge and skills by working alongside more experienced people in my job). The participants were asked to indicate how frequently they have engaged in the above activities in the past six months on a 5-point Likert-type scale (1 = never, 2 = rarely, 3 = sometimes, 4 = usually, 5 = most of the

time). The coefficient alpha reliability was .80, showing high correlation among items.

Perceived learning support

As an assessment of perceived learning support, 19 items which were developed and validated by Kim (2009) were administered to the participants. The subcategories include CEO support for development, supervisor support for development, coworker support for development, development-oriented policies, and learning and development resources available. The responses were measured on a 5-point Likert-type scale (1 = highly disagree, 5 = highly agree). In terms of the internal consistency of measurement, we confirmed that the coefficient alpha reliability was .82.

Results

The Analysis of Mediating Effect

To confirm our hypotheses, we verified descriptive statistics, bivariate correlations, and intraclass correlations for all study variables, which are presented in Table 1. Next, we conducted the path mediation technique recommended by Baron and Kenny (1986) to verify the mediating effect of goal orientation on the relationship between calling and continuous learning activity. We identified the mediating effects by testing multiple regression in three models, as shown in Table 2. First, we confirmed the mediating effect of leaning goal orientation on the relationship between calling

Table 1. Descriptive Statistics, Bivariate Correlations, and Intraclass Correlations for All Study Variables

변인	<i>M</i>	<i>SD</i>	<i>a</i>	1	2	3	4	5	6	7	8
1. Gender	1.32	.47	—	—	.05	.02	-.14*	-.02	-.01	-.07	-.08
2. Religion	1.75	1.02	—	—	—	-.03	.01	.02	-.08	.06	-.04
3. Calling	3.16	.53	.80	—	—	—	.40**	.23**	-.02	.24**	.38**
4. Learning goal orientation	3.44	.75	.87	—	—	—	—	.37**	-.15*	.30**	.27**
5. Performance-approach goal orientation	3.19	.74	.86	—	—	—	—	—	.26**	.34**	.14**
6. Performance-avoidance goal orientation	2.55	.67	.81	—	—	—	—	—	—	.05	-.03
7. Continuous learning activity	2.72	.62	.82	—	—	—	—	—	—	—	.38**
8. Perceived learning support	3.07	.56	.81	—	—	—	—	—	—	—	—

Note. N=200, * $p < .05$, ** $p < .01$.

Table 2. Bootstrapping Result of Mediating Effect of Goal Orientations

Variable	Boot coefficient	Boot SE	95% C.I.	
			LLCI	ULCI
Learning goal orientation	.114	.043	.037	.205
Performance-approach goal orientation	.081	.031	.027	.148
Performance-avoidance goal orientation	-.001	.008	-.021	.012

LLCI: The lower bound of mediating effect coefficient in 95% confidence interval.

ULCI: The upper bound of mediating effect coefficient in 95% confidence interval.

and continuous learning activity. In Model 1, we confirmed that calling had a positive effect on continuous learning activity ($\beta = .241, p < .01$), which supported the Hypothesis 1. In Model 2, calling had a positive effect on performance goal orientation ($\beta = .399, p < .001$). Finally, in Model 3, controlling the effect of calling, which is independent variable of the present study, we verified a positive effect of learning goal orientation on continuous learning activity ($\beta = .243, p < .01$). This result supported that learning goal orientation could have a positive influence on continuous learning activity. Yet, considering the effect of mediator (learning goal orientation), calling also had a positive effect on continuous learning activity ($\beta = .145, p < .05$). Although the effect size of calling on continuous learning activity became smaller when we considered learning goal orientation, the effect of calling on continuous learning activity was significant. As a result, we confirmed that learning goal orientation partially mediated the relationship between calling and continuous

learning activity, and its indirect effect size of calling on continuous learning activity was .096 ($= .399 \times .243$).

Second, we tested the mediating effect of performance-approach goal orientation on the relationship between calling and continuous learning activity. In Model 1, calling had a positive effect on continuous learning activity ($\beta = .241, p < .01$). In Model 2, calling had a positive effect on performance-approach goal orientation ($\beta = .234, p < .01$). In Model 3, controlling the effect of calling, there was a positive effect of performance-approach goal orientation on continuous learning activity ($\beta = .295, p < .001$). Thus, we verified that performance-approach goal orientation could have a positive influence on continuous learning activity. As we consider the effect of performance-approach goal orientation, calling also had a positive effect on continuous learning activity ($\beta = .173, p < .05$). The effect size of calling on continuous learning activity became smaller when we considered performance-

approach goal orientation, but the effect of calling on continuous learning activity was also significant. Therefore, we confirmed that performance-approach goal orientation partially mediated the relationship between calling and continuous learning activity, and its indirect effect size of calling on continuous learning activity was .069 (= .234 x .295).

Third, the mediating effect of performance-avoidance goal orientation on the relationship between calling and continuous learning activity was not significant. In Model 1, calling had a

positive effect on continuous learning activity ($\beta = .241, p < .01$). However, in Model 2, calling had no significant effect on performance-avoidance goal orientation ($\beta = -.015, p > .05$). In Model 3, controlling the effect of calling, there was no significant effect of performance-avoidance goal orientation on continuous learning activity ($\beta = .055, p > .05$), which means that performance-avoidance goal orientation has no influence on continuous learning activity. Calling had a positive effect on continuous learning activity ($\beta = .242, p < .01$), but the mediating

Table 3. Mediating Effect of Goal Orientation between Calling and Continuous Learning Activity

	Model 1			Model 2			Model 3		
	DV: Continuous learning activity			DV: Learning goal orientation			DV: Continuous learning activity		
	<i>b</i>	β	τ	<i>b</i>	β	τ	<i>b</i>	β	τ
Calling	.285	.241	3.502**	.569	.399	6.121***	.171	.145	1.970*
Learning goal orientation							.201	.243	3.312**
	Model 1			Model 2			Model 3		
	DV: Continuous learning activity			DV: Performance-approach goal orientation			DV: Continuous learning activity		
	<i>b</i>	β	τ	<i>b</i>	β	τ	<i>b</i>	β	τ
Calling	.285	.241	3.502**	.327	.234	3.390**	.204	.173	2.539*
Performance-approach goal orientation							.249	.295	4.33***
	Model 1			Model 2			Model 3		
	DV: Continuous learning activity			DV: Performance-avoidance goal orientation			DV: Continuous learning activity		
	<i>b</i>	β	τ	<i>b</i>	β	τ	<i>b</i>	β	τ
Calling	.285	.241	3.502**	-.019	-.015	-.212	.286	.242	3.510**
Performance-avoidance goal orientation							.051	.055	.801

* $p < .05$, ** $p < .01$, *** $p < .001$

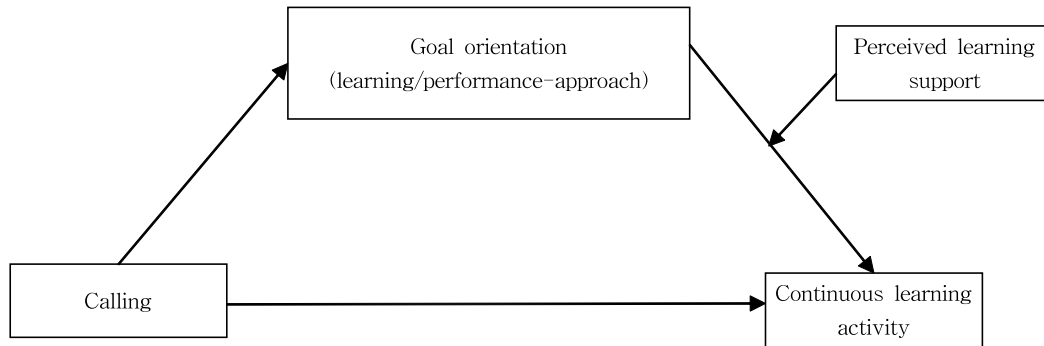


Figure 1. Study model

Table 4. Moderating Effect of Perceived Learning Support on the Relationship between Goal Orientation and Continuous Learning Activity

Step	Variables	DV: Continuous learning activity					
		Unstandardized coefficient		β	t	R^2	ΔR^2
		b	se				
1	(Constant)	2.760	.118	.062	23.417***		
	Gender	-.003	.085	-.005	-.036	.231***	.231***
	Learning goal orientation	.160	.055	.194	2.942**		
	Perceived learning support	.403	.074	.365	5.482***		
2	Learning goal orientation X Perceived learning support	-.307	.091	-.209	-3.378***	.276***	.045***

Step	Variables	DV: Continuous learning activity					
		Unstandardized coefficient		β	t	R^2	ΔR^2
		b	se				
1	(Constant)	2.774	.116	.083	23.847		
	Gender	-.031	.084	-.050	-.372	.244***	.244***
	Performance-approach goal orientation	.233	.053	.276	4.372		
	Perceived learning support	.388	.070	.351	5.527		
2	Performance-approach goal orientation X Perceived learning support	-.188	.086	-.125	-2.187	.263*	.019*

Step	Variables	DV: Continuous learning activity					
		Unstandardized coefficient		β	t	R^2	ΔR^2
		b	se				
1	(Constant)	2.7952	.123	.118	22.673		
	Gender	-.0557	.088	-.090	-.631	.148***	.148***
	Performance-avoidance goal orientation	.059	.061	.064	.966		
	Perceived learning support	.417	.073	.377	5.682		
2	Performance-avoidance goal orientation X Perceived learning support	-.013	.110	-.008	-.114	.149	.000

* $p < .05$, ** $p < .01$, *** $p < .001$

effect of performance-avoidance goal orientation on the relationship between calling and continuous learning activity could not be identified.

In addition, we used the bootstrap procedure with the observed variables in order to confirm the significance of the indirect effect of learning and performance-approach goal orientations. Bootstrapping methodology does not assume the normality of sampling distribution and can confirm that the significance of mediating effect does not stem from statistical error (Shrout & Bolger, 2002). Thus, bootstrapping methodology have more statistical power than the Sobel test (Preacher, Rucker, & Hayes, 2007). 5000 data samples were created by non-random sampling from the raw data samples ($N = 200$), and they were used in parameter estimation. As a result, the bootstrapping analysis of the 5,000 resamples found that the conditional indirect effects of calling on continuous learning activity through learning ($B = .114$, $SE = .043$, 95% CI = .037 to .205) and performance-approach goal orientation ($B = .081$, $SE = .031$, 95% CI = .027 to .148) were both significant, supporting the Hypotheses 2-1 and 2-2 (see Table 3). However, the indirect effect of calling on continuous learning activity via performance-avoidance goal orientation was not found to be significant ($B = -.001$, $SE = .008$, 95% CI = -.021 to .012), thus the Hypothesis 2-3 was not supported.

The Analysis of Moderating Effect

The MODPROBE analysis (Hayes & Matthes, 2009) was conducted to confirm the moderating effect of perceived learning support on the relationship between goal orientation and continuous learning support. For the analysis, we set calling as the independent variable, three types of goal orientation as dependent variables, and perceived learning support as the moderating variable. These independent and moderating variables were mean-centered for two reasons, minimizing multicollinearity and facilitating the interpretation of the moderating effect. However, gender did not show significant correlation with continuous learning activity, but considering the research findings in Kim and Yoo (2010)'s research, we added gender as the control variable.

First, to investigate the moderating effect of perceived learning support on the relationship between learning goal orientation and continuous learning activity, we put these variables into regression equation. We put the interactive term (learning goal orientation X perceived learning support) in order to examine whether there is a significant interaction between the two variables ($\beta = -.21$, $\Delta R^2 = .05$, $p < .001$). In line with our expectation, the result showed that perceived learning support had a significant moderating effect on the relationship between learning goal orientation and continuous learning activity, providing support for Hypothesis 3-1. Moreover,

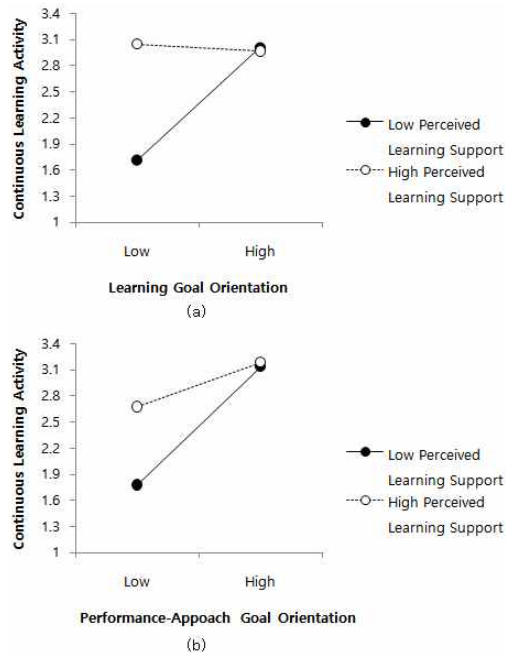


Figure 2. Moderating effect of perceived learning support on the relationships (a) between learning goal orientation and continuous learning activity and (b) between performance-approach goal orientation and continuous learning activity

to gain thorough understanding of the moderating effect, we calculated regression equation by using regression coefficients (see Figure 2). When perceived learning support was low, the effect of learning goal orientation on continuous learning activity became stronger, but when perceived learning support was high, there was no significant effect of learning goal orientation on continuous learning activity.

Second, we verified the moderating effect of perceived learning support on the relationship between performance-approach goal orientation and continuous learning activity. As in the case

of learning goal orientation, the interaction after putting the interactive term (performance-approach goal orientation X perceived learning support) was significant ($\beta = -.13, \Delta R^2 = .02, p < .05$). As a result, perceived learning support moderated the relationship between performance-approach goal orientation and continuous learning activity, providing support for Hypothesis 3-2. In addition, to elaborate the specific moderating effect, we calculated the regression equation as shown in Figure 2. When perceived learning support was low, the effect of performance-approach goal orientation on continuous learning activity became stronger, but when perceived learning support was high there was no significant effect of performance-approach goal orientation on continuous learning activity.

Third, there was no significant moderating effect of perceived learning support on the relationship between performance-avoidance goal orientation and continuous learning activity, rejecting Hypothesis 3-3. Since there was no significant relationship between the two variables, it seemed reasonable that the moderation of perceived learning support on the relationship between performance-avoidance goal orientation and continuous learning activity could not be found.

The Analysis of Moderated Mediating Effect

Finally, we analyzed the moderated mediation

model by SPSS Macro which was recommended by Preacher et al. (2007) (see Table 5). Moderated mediation model is a combination of moderation model and mediation model, which illustrates variance in mediating effect in the presence of a moderator (Preacher et al., 2007). Since there was no significant effect of moderating effect of perceived learning support on the relationship between performance-avoidance goal orientation and continuous

Table 5. Moderated Mediating Effect of Perceived Learning Support

		DV: Continuous learning activity					
		Unstandardized coefficient		β	t	LLCI (b)	ULCI (b)
		b	se				
1	(Constant)	-1.502	.339	.414	-4.431***	-2.170	-.833
	Gender	-.237	.115	-.315	-2.066*	-.462	-.011
	Calling	.573	.099	.402	5.820***	.379	.768
2	(Constant)	2.400	.315	.087	7.624***	1.779	3.021
	Gender	-.013	.084	-.021	-.156	-.179	.153
	Calling	.119	.096	.101	1.235	-.071	.309
	Learning goal orientation	.131	.062	.159	2.112*	.009	.254
	Perceived learning support	.364	.077	.338	4.851***	.222	.526
	Learning goal orientation X Perceived learning support	-.334	.082	-.226	-4.092***	-.495	-.173
		DV: Continuous learning activity					
		Unstandardized coefficient		β	t	LLCI (b)	ULCI (b)
		b	se				
1	(Constant)	-.980	.358	.077	-2.738**	-1.685	-.274
	Gender	-.043	.122	-.058	-.351	-.283	.197
	Calling	.328	.106	.235	3.099**	.119	.536
2	(Constant)	2.591	.305	.091	8.483***	1.988	3.193
	Gender	-.035	.084	-.056	-.415	-.200	.131
	Calling	.059	.093	.050	.638	-.124	.243
	Performance-approach goal orientation	.226	.053	.267	4.287***	.122	.330
	Perceived learning support	.368	.083	.332	4.423***	.204	.532
Performance-approach goal orientation X Perceived learning support	-.185	.091	-.123	-2.043*	-.364	-.006	

* $p < .05$, ** $p < .01$, *** $p < .001$

LLCI: The lower bound in 95% confidence interval.

ULCI: The upper bound in 95% confidence interval.

learning activity, we could not find the evidence supporting Hypothesis 4-3.

We first confirmed a positive effect of calling on continuous learning activity. Then, controlling calling, we verified that it was the interaction between learning goal orientation and perceived learning support, and the interaction between performance-approach goal orientation and perceived learning support that affected continuous learning activity. Thus, the results showed that the value of the dependent variable (continuous learning activity) could change depending on the level of the moderator (perceived learning support) in the paths of which the mediators (learning and performance goal orientation) affected the dependent variable, supporting both Hypotheses 4-1 and 4-2.

Next, the bootstrapping analysis was conducted to examine the statistical significance of the moderated mediating effect (see Table 6). As a result, the higher perceived learning

support, the less the indirect effect of the moderated mediation of both learning goal orientation (.183, .075, -.032) and performance-approach goal orientation (.108, .074, .040). As we can see from Table 6, when perceived learning support was the mean value-1SD (95% CI = .099 to .296) or the mean value (95% CI = .011 to .162), the statistical significance of interaction between learning goal orientation and perceived was verified. However, when perceived learning support was the mean value+1SD (95% CI = -.131 to .064), the statistical significance of interaction between learning goal orientation and perceived learning support was not verified. And in case of performance-approach goal orientation, the similar result was found. When perceived learning support was the mean value-1SD (95% CI = .044 to .296) or the mean value (95% CI = .028 to .140), the statistical significance of interaction between performance-approach goal

Table 6. Significance of the Moderated Mediating Effect

Mediator	Perceived learning support	Effect	Boot S.E.	Boot LLCI	Boot ULCI
Learning goal orientation	M-1SD	.183	.049	.099	.296
	M	.075	.038	.011	.162
	M+1SD	-.032	.049	-.131	.064
Performance-approach goal orientation	M-1SD	.108	.038	.044	.196
	M	.074	.028	.028	.140
	M+1SD	.040	.029	-.006	.110

Boot LLCI: Bootstrap The lower bound of indirect effect in 95% confidence interval.

Boot ULCI: Bootstrap The upper bound of indirect effect in 95% confidence interval.

orientation and perceived learning support was verified. However, when perceived learning support was the mean value+1SD (95% CI = -.006 to .110), the statistical significance of interaction between performance-approach goal orientation and perceived learning support was not verified. Since there was no moderating effect of performance-avoidance goal orientation, however, we could not assess the significance of moderated mediating effect of performance-avoidance goal orientation (Hypothesis 4-3).

Discussion

The primary goal of the present study was to identify the motivational mechanism of productive behavior in the work environment. We have specifically focused on the inner motivational process causing continuous learning behavior, using calling as an independent variable in explaining the process. Findings from the present study provide empirical evidence for the influence of calling on continuous learning activity via goal orientations.

The present research holds significant theoretical implications. First and foremost, the findings empirically demonstrate the relationship between calling and continuous learning activity. A number of research has suggested the positive influence of calling on various types of job attitude, yet the field still lacks sufficient amount of empirical evidence to support the

idea (Cardador, Dane, & Pratt, 2011; Duffy, Dig, & Steger, 2011; Steger et al., 2010). The present study provides supporting evidence which proves that people with calling may behave adaptively for achievement and advancement within an organization. Continuous learning activity is an adaptive behavior which occurs in response to the external change, and it is beneficial for both individual member's performance and the effectiveness of the team (Alas & Sharifi, 2002). Our findings put emphasis on the impact of calling, since an individual's perception towards one's job can enhance his or her job performance by enabling the person to constantly seize opportunities to learn new things.

Second, as seen from our mediation model, we also elaborated the inner motivational process underneath the relationship between calling and continuous learning activity. Two types of goal orientation (learning and performance-approach) mediated the relationship between calling and continuous learning activity. However, inconsistent with our hypothesis, performance-avoidance goal orientation did not have significant mediating effect in the relationship between calling and continuous learning activity. A sense of calling is a clear perception that an individual's job is in line with his or her life purpose and that it serves the common good. Such awareness provides strong motivation for an individual to focus on the work for the sake of the work itself, which explains the relationship

of calling with learning goal orientation and performance-approach goal orientation. On the other hand, performance-avoidance goal orientation is characterized by passive performance engagement of which goal is to avoid unfavorable outcomes or concealing imperfections and people with this type of goal orientation tend to be greatly affected by external circumstances. Thus, it may have little or no relevance to calling, which is closely connected to intrinsic motivation.

It is important to note the partial mediating effect of two types of goal orientation (learning goal orientation and performance-approach goal orientation) in the relationship between calling and continuous learning activity. Those two types of goal orientation are understood to be derived from intrinsic motivation. Therefore, such findings are in line with past researches that indicate the influence of intrinsic motivation on organizational members' efforts to enrich their knowledge and to develop skills in order to enhance job performance (Vallerand, Fortier, & Guay, 1997). Thus, it can be inferred that an individual's sense of calling elicits one's motivation for development or accomplishment, which again brings behavioral outcomes such as keeping up with the external change in terms of knowledge or skills. Our research has its implication by adding further understanding of the process behind the well-stated link between calling and positive vocational behavior (Cardador et al., 2011; Duffy et al., 2011; Steger et al.,

2010), through illustrating the mediating role of learning goal orientation and performance-approach goal orientation.

Third, we demonstrated that the organizational members' perception of the work environment can have a significant impact on the motivational process of goal orientation. In our study, perceived learning support moderated both the relationships between learning goal orientation and continuous learning activity and between performance-approach goal orientation and continuous learning activity. As against our expectations, the effects of goal orientations on continuous learning activity became stronger when perceived learning support was low rather than high. This result may seem more plausible than our original hypotheses. Normally, employees get encouraged by the learning support in the work environment, so we simply presumed that individuals' perception of learning support would lead positive effects on inner motivator such as learning goal orientation or performance-approach goal orientation in first place. However, it was misunderstanding to assume learning support would strengthen individuals' inner motivational process. The absence of learning support from the organization would drive individuals to gain support from the inside, by utilizing the internal psychological motivators instead of seeking external support. Such findings imply that when employees realize that the organization does not provide enough support for their learning

activity, inner motivators such as learning and performance-approach goal orientations would play important roles in enabling the learning behavior. On the other hand, previous study clearly suggested that learning supportive signals could have influence on learning behavior with a particular training program (Tracey et al., 1995). Considering this, learning support could not have positive effect between the both of goal orientations and continuous learning activity without proper training program. Thus, the result of this study have a practical implication that it would be important to support employees' learning with learning goal oriented or performance goal oriented training program for encouraging employees' continuous learning activity. Of course, these interpretations remains to be tested in future research.

Our findings also hold practical implications for the organizations. One implication is that the assessment of calling could be included in the recruitment process. Calling has been proven to be a significant predictor for positive job attitudes and behaviors (Dobrow & Tosti-Kharas, 2011; Duffy, Bott, Allan, Torrey, & Dik, 2012, Duffy et al., 2011; Peterson, Park, Hall, & Seligman, 2009; Wrzesniewski et al., 1997), and such influence has been found to be true in our research in terms of increasing the employees' continuous learning activity. Considering our findings, organizations could benefit from selecting applicants with high level of calling, since such individuals are likely to demonstrate

autonomous efforts for continuous development.

Another implication is that organizations can apply our research findings to education or training programs to bring about employees' behavioral changes. The present research showed that even with low level of perceived learning support, intrinsic motivators such as learning and performance-approach goal orientation have significant influence on continuous learning activity. This implies that despite lack of continuous learning support from the work environment, workers who have learning and performance-approach goal orientations are more inclined to learn consistently. Thus, organizational education or training programs could emphasize the importance of both of goal orientations, and encourage employees to develop such orientations.

Despite a number of valuable implications, our research does have some limitations as well. First of all, the variables in the present study were measured simultaneously with questionnaire survey, which makes it difficult to clearly understand the causal relationships among variables. To be a specific, if we suppose goal orientation is not state goal orientation as our hypothesis but accumulative factor of individual difference, goal orientation may be assumed as an antecedent of a sense of calling. Thus, Future research could clearly illustrate the influence of calling either by demonstrating the changes in variables over a certain period of time or by conducting an experimental research.

Furthermore, there may be some limitations which stem from our methodology of statistical analysis. We used multiple regression instead of structural equation modeling to verify the moderated mediation of our research model. Through the multiple regression, the measurement error can not be considered and the structural model can not be analyzed either. Thus, further research should find the best methodology of statistical analysis to identify our research model and elaborate the relation among calling, goal orientation, and continuous learning activity.

Moreover, the participants in the present study were all South Korean, which brings up the problem of generalizability. Workers in South Korea are usually expected to devote themselves to their organization. This expectation may derive individuals to express relatively stronger sense of calling on average, compared to those in other countries. In addition, many workers in South Korea are under pressure to continue developing their capabilities, due to the competitive atmosphere within the organizations and the society. Therefore, both calling and continuous learning activity may be more highly valued in South Korea than in other cultural backgrounds. Testing our assumptions with a more diverse population would validate and strengthen the generalizability of our results.

To sum up, the present article demonstrated the underlying mechanism which explain the influence of calling on continuous learning

activity. Furthermore, the environmental factors have been taken into account in illustrating such paths, providing a practical implication regarding the effectiveness of education and training programs within organizations. In conclusion, we sincerely hope that our findings contribute to the calling research by providing not only theoretical foundations for various future research but also practical applications.

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본 연구의 목적은 소명의식과 지속학습활동과의 관계를 목표지향성이 매개하고, 목표지향성이 지속학습활동에 영향을 미치는 경로에서 학습지원에 대한 개인의 인식이 이를 조절하는지 확인함으로써, 조절된 매개효과를 검증하는 것이다. 이를 위해 국내기업 임직원 200명(남 137명, 여 63명) 대상으로 직장 내에서 개인이 느끼는 소명의식과 목표지향성, 지속학습활동, 학습지원에 대한 인식에 대해 설문 조사를 실시하였다. 자료를 수집하고 SPSS 21.0와 SPSS Macro를 사용하여 분석한 결과는 다음과 같다. 첫째, 변인들 간의 상관관계를 분석하여 소명의식, 학습목표지향성, 수행접근목표지향성, 지속학습활동 사이에 유의한 상관이 있음을 확인하였다. 둘째, 다중회귀분석으로 매개효과를 검증한 결과, 학습 및 수행접근목표지향성이 지속학습활동으로 소명의식에서 이어지는 부분을 정적으로 매개하고 있음을 확인하였다. 기존 가설에서 수행회피지향성이 부적으로 매개할 것이라고 가정하였으나 분석 결과는 유의미하지 않았다. 셋째, MODPROBE 분석 방법으로 학습지원인식의 조절 효과를 검증한 결과, 학습목표지향성과 수행접근목표지향성 두 요인 모두 지속학습활동에 영향을 미치는 경로에서 조절되는 것으로 나타났다. 넷째, 조절된 매개효과를 확인한 결과, 소명의식과 지속학습활동의 관계에서 학습 및 수행접근목표지향성이 이를 매개하며, 학습 및 수행접근목표지향성과 지속학습활동의 관계에서 학습지원인식이 조절하는 것으로 나타나 조절된 매개효과가 확인되었다. 마지막으로 연구 결과를 바탕으로 본 연구의 학술적 시사점과 직무 영역에서의 시사점에 대해 논의하고, 나아가 후속 연구과제의 필요성에 대해 논의하였다.

주요어 : 소명의식, 지속학습활동, 목표지향성, 학습지원인식