



## THE RELATIONSHIP BETWEEN JOB SATISFACTION AND ACTUAL VOLUNTARY TURNOVER: THE MODERATING ROLE OF LOCUS OF CONTROL BASED ON A LONGITUDINAL ANALYSIS

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### ABSTRACT

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The purpose of this study is to demonstrate the effect of job satisfaction of employees on actual voluntary turnover and investigate the moderating effect of the locus of control in this process. This study differs from previous studies in several ways. First, it measures actual turnover rather than intention to leave; second, it conducts longitudinal panel analysis to overcome the limitations of cross-sectional surveys, and third, it investigates the moderating effect of the locus of control. Using the Korean Labor and Income Panel Study (KLIPS) dataset, we analyze unbalanced panel data that comprise 41,382 observations of 5,223 people. The result reveals that as job satisfaction decreases, the probability of actual voluntary turnover increases. In addition, when the locus of control is high (internal locus of control), the negative relationship between the two variables strengthens. This result confirms that job satisfaction leads to actual voluntary turnover and indicates that the negative relationship varies depending on the individual trait, that is, the locus of control. Theoretical and practical implications for individuals and organizations are provided.

**Contribution/Originality:** This study contributes to previous research in that it extends the existing understanding of the effective management ways of preventing employee turnover. More specifically, our findings suggest companies to consider individuals' job satisfaction as well as locus of control as a means to alleviate actual turnover of employees.

### 1. INTRODUCTION

Organizational experts and practitioners have demonstrated that employee turnover wastes a lot of resources and leads to costs for both employees and organizations (Call, Nyberg, Ployhart, & Weekley, 2015; Shaw, Duffy, Johnson, & Lockhart, 2005). The voluntary turnover of employees does not only make it impossible to recover human capital, such as knowledge, skill, experience, and know-how, accumulated by employees but it also negatively affects social capital, such as trust and cooperation formed among employees (Shaw et al., 2005). In addition, if the work gap caused by turnover is not filled early, it may disorganize organizational processes as it will burden the remaining employees. In addition, someone's turnover may contaminate other employees by portraying negative messages about the psychological contract between the organization and remaining employees (Felps et al., 2009). Accordingly, some preceding studies conducted in the past decades have verified how various determinants, including job satisfaction, contribute to reducing the intention of organizational members to leave (Griffeth, Hom, & Gaertner, 2000; Park & Shaw, 2013; Podsakoff, LePine, & LePine, 2007).

However, the existing literature on employee turnover requires further research in the following aspects. First, research on actual turnover, rather than turnover intention, which is an attitude variable perceived by an individual, should be conducted. Unlike studies that have employed turnover intention as a proxy variable for actual turnover, the results of empirical studies that compared turnover intention and actual turnover reveal that in some cases, turnover intention has a weak significant or even insignificant effect on actual turnover (Cohen, Blake, & Goodman, 2016). Therefore, it is necessary to empirically investigate the relationship between job satisfaction and actual turnover, rather than turnover intention.

Second, it is necessary to conduct longitudinal research that overcomes the limits of cross-sectional studies. Although many studies have been conducted on the causal relationship between turnover and its antecedents, studies that have conducted longitudinal research to reflect the temporal gap between the two variables are not many. As there may be several stages in the process leading to the psychological variable that causes actual turnover, a causal relationship between the two variables must be identified with a significant time difference (Farkas & Tetrick, 1989).

Third, it is necessary to study the boundary factors that affect the relationship between job satisfaction and actual turnover. The prediction that employees who are dissatisfied with their jobs will leave their organization has been identified in many studies but whether this tendency is the same for everyone is not clear (Chen, Ford Jr, Kalyanaram, & Bhagat, 2012; Steel & Lounsbury, 2009). In particular, given the future behavior of actual turnover, it is very important to predict how job satisfaction in the actual job process will vary depending on individual characteristics because the attitudes or perceptions of employees about their organization affect their behavior (Zimmerman, 2008).

The purpose of this study is to investigate the effect of the job satisfaction of wage workers on actual turnover and the moderating effect of the locus of control on the characteristics of wage workers in this process using the Korea Labor Panel Study. This study makes novel contributions to the literature. First, it tries to reconfirm the effect of job satisfaction on actual turnover. In previous studies that used turnover intention as a proxy variable, it was confirmed that low job satisfaction increases individual turnover. To reconfirm the results of these studies, this research aims to verify the negative impact of job satisfaction on actual turnover. Second, methodologically, individuals' actual turnover is investigated within a year from the time the cause variable is measured. Through this approach, we intend to examine the causal relationship by considering the time difference between the antecedent (i.e., job satisfaction) and actual turnover. Finally, locus of control is found as a moderating variable in the relationship between the two variables. This is because the locus of control, which refers to an individual's tendency to attribute the cause of an incident to himself or external factors or situations, is expected to play an important role in the mechanism of how job satisfaction leads to actual turnover. Through these attempts, this study is intended to provide theoretical and practical implications in the field of voluntary turnover.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### 2.1. Voluntary Turnover

Individual turnover in an organization can be divided into two types depending on who made the decision (Shaw, Delery, Jenkins Jr, & Gupta, 1998). One is an involuntary turnover, which is when an organization initiates the termination of the contract between the employers and an employee. It occurs due to events, such as dismissal, layoff, or downsizing. The other is voluntary turnover, which is when individuals leave an organization under their own initiative regardless of the organization's intention (Bluedorn, 1982). Voluntary turnover occurs due to events, such as moving, resignation, retirement, or suicide. However, according to general discussions, voluntary turnover refers to leaving an organization to start a business or to join another company, excluding retirement or suicide, which refers to a career break (Shaw et al., 1998).

Previous studies have revealed that voluntary turnover, rather than involuntary turnover, can have more serious negative effects on an organization (McElroy, Morrow, & Rude, 2001). This is because if an individual voluntarily leaves an organization, invested resources, such as costs of recruitment, selection, education, and training, cannot be recovered. Moreover, involuntary turnover leaves negative impressions on the minds of the remaining employees (Krausz, Yaakovovitz, Bizman, & Caspi, 1999; Kwon, Chung, Roh, Chadwick, & Lawler, 2012; Shaw, Park, & Kim, 2013). In addition, human capital, such as accumulated knowledge, experience, and skills, cannot be recovered, and social capital, such as trust and cooperation with other employees, would be lost (Shaw et al., 2005; Shaw et al., 2013). Based on such reasons, voluntary turnover is one of the topics that has been studied for a long time in the management field, and most studies emphasize an organization's preemptive response to prevent the negative effects of voluntary turnover.

Although research on voluntary turnover should be conducted based on actual turnover, studies that deal with actual turnover at the individual level are not many. The reason for this limitation is, first, it may be difficult for individual respondents in the survey to reveal their actual turnover intention before leaving the organization, so the reliability of the survey is remarkably low. Second, it is very difficult to track and investigate respondents after turnover, that is, after leaving an organization. Therefore, previous studies about actual turnover have not been conducted at the individual level but have been mainly conducted based on turnover rate data reported at the organizational level. At the individual level, research has been conducted using the intention to leave reported by an individual as a proxy variable for actual turnover rather than measuring the actual turnover itself because of the reasons discussed earlier.

Previous studies that have investigated individual turnover mostly measured employees' turnover intention as a proxy for actual voluntary turnover. They identified various personal, organizational, and situational variables that are antecedents of turnover intention. These studies are relevant in that they have identified mechanisms of how various factors and conditions affect individual turnover intentions, but they have also been criticized for measuring turnover intentions but not actual voluntary turnover. According to Cohen et al. (2016) it is reported that the relationship between turnover intention and actual turnover is very low in correlation. Moreover, some studies have demonstrated that turnover intention does not affect actual turnover when other psychological variables are controlled. As these results are sufficient to raise doubts about previous studies that have considered turnover intention as a result variable, future studies are required to reconfirm the findings of the existing literature by using actual turnover variables but not workers' turnover intention.

## *2.2. Relationship between Job Satisfaction and Actual Voluntary Turnover*

Job satisfaction refers to "a positive (or negative) evaluative judgment one makes about one's job or job situation" (Weiss, 2002). Managing job satisfaction is important for organizations because employees who are satisfied improve not only in-role performance but also extra-role performance, such as helping other coworkers, sharing knowledge, and engaging in citizenship behavior. Moreover, satisfied employees make organizations save potential labor costs by reducing their tendency to move to other companies (Judge, Thoresen, Bono, & Patton, 2001; Mobley, 1977). Therefore, from the perspective of operating a company, it is necessary to induce the achievement of an organization's goals by systematically managing employees' job satisfaction (Judge et al., 2001; Petty, McGee, & Cavender, 1984). Job satisfaction is important because employees with low job satisfaction levels are very likely to engage in voluntary turnover. There are various causes of turnover in companies, but among them, employee satisfaction is one of the main factors that influence turnover intention (Mobley, 1977). Various complaints about an organization accumulate and result in job dissatisfaction, that is, a comprehensive judgment of one's job. Therefore, many previous empirical studies and meta-analyses concluded that low job satisfaction results in employee turnover (Tett & Meyer, 1993). However, as mentioned earlier, the existing job satisfaction–job turnover relationship requires verification as little has been revealed about whether respondents' low job

satisfaction goes beyond simply changing their psychological state of turnover intention to actual turnover. Some researchers (Cohen et al., 2016) have highlighted that intention to leave is not a reliable predictor of the actual turnover rate and cautioned against using it as a proxy for actual turnover. Other studies have also proved that intentions and actual behaviors may differ. According to Ellett (2009) many individuals who reported a high level of intention to stay actually leave their jobs. These findings prove that it is more appropriate to measure actual turnover than using psychological proxy variables to measure individual turnover. Therefore, in this study, it is predicted that a decrease in job satisfaction would lead to actual turnover and we suggest the first hypothesis.

*Hypothesis 1 (H1). As employees' job satisfaction decreases, the probability of actual turnover increases. In other words, the relationship between employees' job satisfaction and the probability of actual turnover is negative.*

### 2.3. Moderating Role of Locus of Control

Locus of control refers to “the extent to which people believe that the rewards they receive in life can be controlled by their own personal actions” (Wang, Bowling, & Eschleman, 2010). It can be internally or externally oriented depending on the cause of their rewards or the subject that can control the results. Individuals with an internal locus of control believe that their lives are the result of their own actions and decisions. People with an internal locus of control tend to set higher goals for themselves, persevere in challenging situations, and successfully pursue their goals (Strauser, Ketz, & Keim, 2002). However, individuals with an external locus of control believe that their lives are determined by luck, fate, external situation, or people around them (Rotter, 1966). Some scholars have predicted that someone's locus of control may change. However, most studies have demonstrated that it is a relatively stable character as traits do not change easily over an individual's lifetime (Galvin, Randel, Collins, & Johnson, 2018).

Many empirical studies have demonstrated that the attitudes and behaviors of employees in an organization vary depending on whether their locus of control is internal or external. According to the results of a meta-analysis, people with an internal locus of control derive more positive results in their workplace (Judge & Bono, 2001; Wang et al., 2010). For example, it has been reported that the higher the level of individuals' internal locus of control, the more satisfied they are with their work, the higher their level of commitment in their organization, and the greater their job-related performance. However, when the level of external locus of control is high, there is a higher tendency to ask for help from outsiders and to react passively to everything.

Based on the trait-activation theory, this study suggests that the effect of job satisfaction on the probability of actual turnover may vary depending on the locus of control. The trait-activation theory predicts and explains that a phenomenon in which a trait does not change easily, such as an individual's personality, is strongly activated when an individual encounters a specific situation or condition (Tett & Guterman, 2000). Thus, according to the trait-activation theory, an individual's behavior is expressed as a function of the individual's trait and specific situation. Thus, it explains that an individual's trait does not lead to the same behavior in every situation but tends to lead to different behavior depending on other conditions. When this is incorporated into the situation of this study, an individual's actual turnover (i.e., behavior) can be explained as a function of the individual's trait (i.e., locus of control) and the level of his or her job satisfaction (i.e., situation). It suggests that if the job satisfaction level is low, the mechanism leading to actual voluntary turnover may vary depending on the individual's locus of control. If an individual's locus of control is closer to internal, the negative effect of job satisfaction on voluntary turnover is expected to strengthen. This is because if the locus of control is internal, they believe that their actions, such as leaving the organization, are their own decision. Thus, if the satisfaction level is low, they will leave the organization, and if the satisfaction level is high, they will remain in the organization. However, if an individual's locus of control is close to external, the direct effect of job satisfaction on actual turnover is expected to be relatively weak. This is because when an individual's locus of control is external, the individual tends to attribute conditions (e.g., job satisfaction) to external factors. Moreover, even if they are satisfied with their current job, there is a

possibility that they will change their jobs at any time due to external factors, such as luck, situation, or fate. Thus, the external locus of control will increase their likelihood of deciding to leave the organization regardless of their level of satisfaction. Therefore, it is predicted that external locus of control would weaken the negative effect of job satisfaction on actual turnover. Thus, we hypothesize the moderating role of locus of control in the relationship between job satisfaction and actual turnover. Figure 1 illustrates the research model of this study.

*Hypothesis 2 (H2). The negative relationship between employees' job satisfaction and the probability of actual turnover is moderated by employees' locus of control. More specifically, the negative relationship between employees' job satisfaction and the probability of actual turnover is stronger when employees' locus of control is more likely to be internal rather than external.*

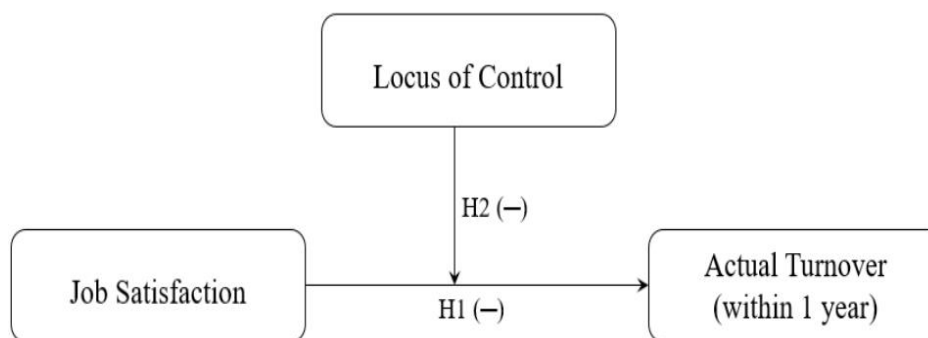


Figure 1. depicts the hypothesis of this study as a model.

### 3. METHOD

#### 3.1. Data and Sample

In this study, the *Korean Labor & Income Panel Study* (KLIPS) dataset is used for the analysis. The KLIPS is a panel data that has repeatedly and annually surveyed 7,000 households (household level) in urban areas in Korea and 14,000 household members (individual level) over the age of 15. Since the first survey began in 1998, the 23rd survey was conducted in 2020. The sample retention rate of the 23rd survey (2020) was 64.2%, and it is reported that the repeated survey has been relatively stable.

In this study, the final sample is selected based on the following criteria. First, only wage workers were included. This is because job satisfaction, which is a major variable in this study, can only be measured when someone belongs to a specific organization and is a wage worker. Thus, part-time workers or the self-employed are excluded from the sample. Second, only individuals surveyed from 2009 (12th survey) to 2020 (23rd survey) are included. This is because due to the global financial crisis in 2009, the employment situation, especially decision-making about turnover, would be affected. Finally, when the data about some of the main variables, such as job satisfaction or actual turnover, are missing, the individuals whose data are missing are excluded from the analysis.

The final sample size is 41,382 observations of 5,223 individuals who were repeatedly surveyed for 11 years. Of the 5,223 respondents, 56.9% experienced at least an actual turnover in 11 years (2,974 out of 5,223 people). Among them, 1,506 (28.8%) experienced a turnover once; 824 (15.8%) experienced twice; 378 (7.2%) experienced thrice; 162 (3.1%) experienced four times; 72 (1.4%) experienced five times; 21 (0.4%) experienced six times, and 9 (0.2%) experienced seven times. The most frequent turnover is nine times, which only two people (0.04%) experienced, and 2,249 people (43.1%) never experienced turnover.

#### 3.2. Description of Variables

**Actual turnover.** Actual turnover, a dependent variable, measured as a dichotomous variable based on whether or not an individual continues to work in the same job and organization after a year. Specifically, if someone quits his/her job within a year, actual turnover is coded as 1. However, if an individual remains on his/her job in the same organization, actual turnover is coded as 0.

Job satisfaction. Job satisfaction, an independent variable, is measured by seven items based on the job descriptive index developed by Balzer et al. (1997). Individuals were asked to answer the question, “How satisfied are you with the following ...?” (for the following seven components: wage or income, job stability, content of work, working environment, working hours, potential for individual development, and communication and relationships). The responses are measured on a five-point Likert scale. Cronbach’s alpha is 0.908. The average value of the seven items is regarded as the job satisfaction level perceived by each individual in each year.

Locus of control. Locus of control, a moderating variable, is measured by seven items based on previous research (Specht, Egloff, & Schmukle, 2013). Some of the items are as follows: “How my life goes depends on me,” “What a person achieves in life is above all a question of fate or luck (reverse),” and “I have little control over the things that happen in my life” (reversed). The responses are measured on a seven-point Likert scale. Cronbach’s alpha is 0.614. The average value of the seven items is regarded as an individual’s level of locus of control, where higher values indicate an internal locus of control (i.e., *internals*) and lower values indicate an external locus of control (i.e., *externals*).

Control variables. We control for several individual-level variables, including age, gender, personality, life satisfaction, education, and year dummies. Age is an employee’s age as at the year of the survey. Gender is dummy-coded, where 1 = male, and 0 = female. Regarding personality, the mini-International Personality Item Pool (Donnellan, Oswald, Baird, & Lucas, 2006) for measuring Big-Five Personality was used to measure it. Five personality traits are measured with three items, which require responses on a seven-point Likert scale. Cronbach’s alpha for openness is 0.762; conscientiousness is 0.460; extraversion is 0.676; agreeableness is 0.500, and neuroticism is 0.372. Life satisfaction is measured by perceived satisfaction using six items, (1) family income, (2) leisure life, (3) residential environment, (4) family relations, (5) relatives, and (6) social relationships, by asking “How satisfied are you with the following?” A five-point Likert scale is used, and Cronbach’s alpha is 0.883. Education level is controlled by adding nine dummy variables that are classified according to the education completed by each respondent. Finally, panel data that have been repeatedly measured over several years are used in this study. The exogenous effect of each year is controlled by adding the year at each survey point as a dummy variable.

### 3.3. Analytical Strategy

As this study uses a dichotomous dependent variable (leave or stay), the relationship between the variables is tested using logistic panel regression analysis. In addition, we conducted a hierarchical regression analysis that adds variables to the model to verify the moderating effect of locus of control in the relationship between job satisfaction and actual turnover. Our reference model (Model 1) includes all the control variables. Model 2 includes job satisfaction as an independent variable to test its negative effect (H1). Model 3 contains an interaction term for job satisfaction and locus of control to verify the moderating effect of the latter (H2). We mean-centered all interaction terms to overcome multicollinearity.

## 4. RESULTS

### 4.1. Descriptive Analysis

Table 1 presents the means, standard deviations, and correlations of the variables. Actual turnover significantly correlates with job satisfaction, locus of control, age, gender, openness, neuroticism, and life satisfaction.

### 4.2. Hypotheses Testing

H1 posits that the probability of actual turnover increases as employees’ job satisfaction decreases. We add the control variables in Table 2 into Model 1 and the job satisfaction variable in Table 2 to Model 2. The negative relationship between job satisfaction and actual turnover is statistically significant ( $b = -0.410$ ;  $p < 0.001$ ), supporting H1.

Table 1. Descriptive analysis and correlation matrix.

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Actual turnover	1.000										
2. Job satisfaction	-0.086***	(0.908)									
3. Locus of control	-0.023***	0.155***	(0.614)								
4. Age	-0.064***	-0.141***	-0.091***	1.000							
5. Gender	-0.054***	-0.035***	0.011*	-0.012**	1.000						
6. Openness	-0.019***	0.188***	0.066***	-0.221***	0.029***	(0.762)					
7. Conscientiousness	-0.008	0.148***	0.190***	-0.025***	-0.010*	0.216***	(0.460)				
8. Extraversion	-0.000	0.124***	0.200***	-0.063***	-0.054***	0.342***	0.310***	(0.676)			
9. Agreeableness	0.006	0.143***	0.170***	-0.067***	-0.089***	0.357***	0.305***	0.616***	(0.500)		
10. Neuroticism	0.009*	-0.034***	-0.224***	-0.001	-0.071***	0.048***	0.040***	-0.162***	-0.136***	(0.372)	
11. Life satisfaction	-0.079***	0.556***	0.178***	-0.106***	0.053***	0.162***	0.144***	0.130***	0.130***	-0.047***	(0.883)
Mean	0.132	3.308	4.093	44.553	0.618	4.027	4.966	4.686	4.672	3.798	3.412
S.D.	0.339	0.516	0.730	11.328	0.485	1.112	0.929	1.036	0.929	0.884	0.457

Note: N of individuals = 5,223; N of observations = 41,382.

\*p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

Table 2. Hierarchical panel logistic modeling for predicting actual turnover.

Variables	Model 1		Model 2		Model 3	
	b	s.e.	b	s.e.	b	s.e.
Constant	1.244**	(0.453)	2.125***	(0.470)	2.160***	(0.471)
Year dummies	Included		Included		Included	
Education dummies	Included		Included		Included	
Age	-0.025***	(0.002)	-0.026***	(0.002)	-0.026***	(0.002)
Gender	-0.330***	(0.048)	-0.369***	(0.048)	-0.369***	(0.048)
Openness	-0.073**	(0.023)	-0.067**	(0.023)	-0.068**	(0.023)
Consciousness	-0.003	(0.027)	0.014	(0.027)	0.015	(0.027)
Extraversion	0.012	(0.029)	0.015	(0.029)	0.015	(0.029)
Agreeableness	0.046	(0.032)	0.055	(0.032)	0.054	(0.032)
Neuroticism	0.032	(0.027)	0.014	(0.027)	0.014	(0.027)
Life satisfaction	-0.372***	(0.041)	-0.168***	(0.045)	-0.170***	(0.045)
Locus of control (LC)			-0.080*	(0.034)	-0.086*	(0.034)
Job satisfaction (JS)			-0.410***	(0.040)	-0.411***	(0.040)
LC × JS					-0.097*	(0.046)
Wald chi-square	918.45***		1015.28***		1018.45***	

Note: Unstandardized coefficients are reported, and parentheses indicate standard errors.

N of individuals = 5,223; N of observations = 41,382.

\* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

H2 posits that the locus of control variable moderates the negative relationship between job satisfaction and actual turnover. To test that possibility, we add the locus of control variable and the interaction term for job satisfaction and locus of control in Table 2 into Model 3. The results confirm that the interaction term is negative and statistically significant ( $b = -0.097$ ;  $p < 0.05$ ).

Figure 2 depicts that the negative relationship between job satisfaction and actual turnover strengthens when the locus of control is high (+1 SD) rather than low (-1 SD). As depicted in Figure 2, the negative slope is strengthened when the locus of control is high (i.e., *internals*). This implies that the probability of actual turnover severely increases as employees' job satisfaction decreases when employees' locus of control is more likely to be internal rather than external. Thus, H2 is also supported.

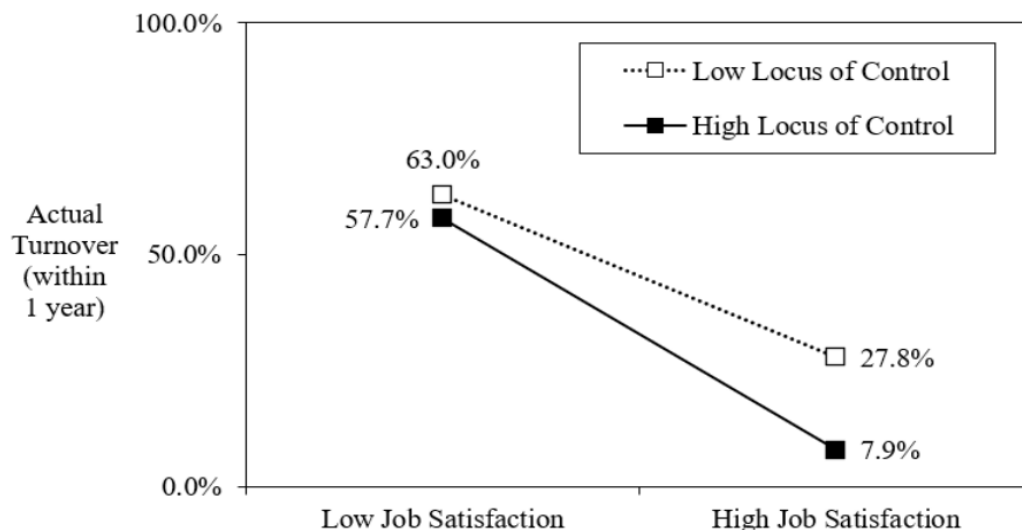


Figure 2. Moderating role of locus of control in the relationship between job satisfaction and actual turnover.

## 5. DISCUSSION

To expand the existing understanding of the voluntary turnover phenomenon of employees, this study investigates the direct relationship between job satisfaction and employees' actual turnover and the moderating role of the locus of control. The summary of the results of this study and the discussion points derived from the study



are as follows. First, it is reconfirmed that as the job satisfaction of employees decreases, the probability of actual turnover increases. Previous studies suggested that it is necessary to empirically investigate the relationship between job satisfaction and actual turnover, rather than turnover intention. The empirical result of this study reveals that as job satisfaction decreases, the probability of actual voluntary turnover increases. Thus, the negative relationship between job satisfaction and actual turnover is reconfirmed. However, the results of this study do not mean that there is no difference between turnover intention and actual turnover. Since there is a clear conceptual difference between the turnover intention and the actual turnover, future studies require an attempt to clearly distinguish and approach the mechanisms leading to each variable.

Second, it is found that the locus of control plays a moderating role in the relationship between job satisfaction and actual turnover. Specifically, when the locus of control is high (low), the negative relationship between job satisfaction and actual turnover strengthens (weakens). Empirical studies in the locus of control have been mainly conducted with a lot of interest in the positive aspects of the internals. In other words, it emphasizes that when the location of control is internal, there is a high probability of having a positive work attitude and better work performance. However, this study shows that the more internally the locus of control is, the stronger the relationship between job satisfaction and actual turnover is. This is because the more internal it is, the more likely it is to move to an action (i.e., actual turnover) related to one's own judgment on the lower job satisfaction. This expands the existing understanding of the internal, and in the future, it is necessary to clarify in more detail how this tendency of the internal is expressed in various work performance processes.

## 6. CONCLUSION

### 6.1. Theoretical and Practical Implications

The theoretical implications of this study are as follows. First, the relationship between job satisfaction and voluntary turnover is reaffirmed based on panel data that have been repeatedly collected for a long time using the same sample. As most previous studies were conducted based on cross-sectional surveys, there is the need to verify the relationship between job satisfaction and voluntary turnover with actual turnover data (Abid & Butt, 2017; Li, Huang, & Chen, 2020). By analyzing the panel data from the Korea Labor Panel Survey, which investigated actual turnover, this study contributes to the literature by reaffirming the negative relationship between job satisfaction and voluntary turnover.

Second, the role of locus of control is verified in the mechanism of how job satisfaction leads to actual turnover. It is found that the higher the locus of control, that is, the stronger the tendency of *internals*, the stronger the negative effect of job satisfaction on actual turnover. This implies that people who tend to be internals are more likely to be responsible for their satisfaction level. Their job satisfaction results from their own behavior toward their work, so high job satisfaction significantly reduces the probability of leaving an organization, whereas low job satisfaction sharply increases the probability of leaving an organization. The result of the empirical analysis reveals that internals (+1 SD of the locus of control) have a 57.7% more chance of actual turnover when job satisfaction is low. However, when their job satisfaction is high, the probability of actual turnover is only 7.9%. In the case of externals, who seek the cause of their actions from external factors, the probability of actual turnover is 63.0% when job satisfaction is low and 27.8% when job satisfaction is high. This suggests that, as in the prediction of the trait-activation theory, the behavior of an individual's actual turnover can be explained as a function of their own traits (i.e., locus of control) and the situation around them (i.e., job satisfaction).

The practical implication of this study is that it highlights the importance of managing employees' job satisfaction. It has been reaffirmed that job satisfaction is a very important variable that predicts actual voluntary turnover when various exogenous factors are controlled. Therefore, to prevent the voluntary turnover of employees in an organization, it is necessary to closely investigate and systematically manage job satisfaction. In addition, this study suggests that individualized management is necessary and should be based on the locus of control of

employees. If the job satisfaction of employees with *internals*, that is, the locus of control is high, the probability of dissatisfaction leading to actual voluntary turnover may increase significantly. Therefore, organizations are required to take special care of employees with an external locus of control.

### 6.2. Limitations and Suggestions for the Future Research

The limitations of this study are described as follows. First, the career path of employees that leave an organization is not considered. When the destination of the employee leaving an organization is considered, whether it is a better organization or working conditions, the turnover phenomenon can be examined more diversely. Future studies can consider whether to move to a better job after turnover based on factors such as wages or the status of the organization. Second, this study considers the locus of control as a fixed trait, but the possibility of change in the locus of control is not considered. However, some previous studies have suggested that there is room for change by experiencing various tasks within an organization. Thus, future studies should consider the possibility of change in the locus of control and how this change affects the relationship between job satisfaction and actual voluntary turnover. Finally, our findings may have limited generalizability beyond the South Korea or East Asian context. In particular, as the level of development of the external labor market varies from country to country, the results of empirical research on turnover may involve a special situation of a country. Therefore, future studies can conduct similar studies on other countries to confirm whether the results of the empirical analysis of this study can be generalized.

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