

# The link between Perceived Organizational Justice, Knowledge Hiding Behaviors and Innovative Behavior: A Moderated Mediation Model

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*Received 28 February 2022, Revised 18 March 2022, Accepted 25 March 2022*

## Abstract

**Purpose** - Previous studies tried to find antecedents of innovative behavior. However, research on knowledge hiding behavior, psychological mechanism, and perception of organizational justice has been relatively limited. In this sense, this study has investigated the impact of organizational justice on employees' innovative behavior and explored the factors that affect the above relationship. Especially, this study tested the direct effect of organizational justice on innovative behavior. This study also examines the mediating roles of knowledge hiding behavior in this causal relationship. Moreover, the process of organizational justice to innovative behavior is assumed to be influenced by leadership style. Therefore, we examined the moderating effect of authentic leadership on the relationship between organizational justice and knowledge hiding behavior.

**Design/methodology/approach** - For the empirical test, we collected data via a questionnaire survey of a sample of 252 employees from Korean firms. We conducted a hierarchical regression analysis to test hypotheses.

**Results** - The results of the empirical analysis revealed that organizational justice was positively related to innovative behavior and negatively related to knowledge hiding behavior. The results also showed that knowledge hiding behavior negatively mediated the relationship between organizational justice and innovative behavior. In addition, we found the moderating role of authentic leadership. More importantly, we found that the conditional indirect effect of organizational justice on innovative behavior via knowledge hiding behavior was depending on authentic leadership. Uncovering the relationship between organizational justice and innovative behavior through the mediating role of knowledge hiding behavior and the moderated mediating role of authentic leadership has useful theoretical and practical implications. We also suggest directions for future research by providing several limitations.

**Keywords:** Organizational Justice, Innovative Behavior, Knowledge Hiding Behavior, Authentic Leadership, Moderated Mediation Model

**JEL Classifications:** M10

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## I. Introduction

Rapid changes of business and diversified customer requirements strengthen the urgency of innovative employee behavior (Dean and Kretschmer, 2007). Organizations need to maximize the level of innovation capability which is the basis for superior products and customer satisfaction to ensure business growth and continuous development (Parker, Williams and Turner, 2006; Unsworth and Clegg, 2010). Such urgency of innovation has drawn research attention of developing employee innovative behavior (Mayson, 2011; Ruhanen, 2010). Although innovative behavior is an individual willingness to develop intelligent capability but many surrounding factors influence to develop innovative attitude. For example, many studies have been conducted to test the relationship between leadership style and innovative behavior in order to strengthen the innovation capacity of members (Howell and Avolio, 1993; Rosing, Frese and Bausch, 2011; Vaccaro et al., 2012). Nonetheless, research on the antecedents of innovative behavior and mechanism is lacking (De Jong and Den Hartog, 2007). To fill this gap in the existing literature, we considered organizational justice as an antecedent of innovative behavior. According to previous studies organizational justice enhances job satisfaction (McFarlin and Sweeney, 1992), commitment (Folger and Konovsky, 1989), organizational citizenship behavior (Moorman, 1991), positive attitude (Cropanzano and Greenberg, 1997), high performance (Alder and Tompkins, 1997), trust among employees (Forret and Love, 2008), shaping creativity (Clark and James, 1999) and innovation in workplace (Suliman, 2013; Young, 2012). Several other studies figured out that employee perception on fairness in the organizational process and organizational justice can motivate employees' creative attitude such as innovative behavior (Li and Cropanzano, 2009; Suliman, 2013). Thus, we expect that organizational justice with these positive effects will increase employees' innovative behavior.

Knowledge sharing encourages free flow of information in the organization to enhance employee innovative behavior whereas negative attitude such as knowledge hiding behavior decreases employees' innovative behavior (Connelly et al., 2012). Although several studies focused on knowledge sharing behavior to develop employees' innovative behavior but, significant attention has yet been paid to knowledge hiding as it is one of the key influencing attitudes to discourage employees' innovative behavior (Connelly and Zweig, 2015). Knowledge hiding behavior is defined as an individual's behavior and attempt to intentionally hide the knowledge requested by co-workers (Connelly et al., 2012). Knowledge hiding behavior is expected to be an important mediator that organizational justice between innovative behavior. Organizational studies have revealed the importance of knowledge sharing. However, a few research have focused on "knowledge withholding" beyond knowledge sharing (Abubakar et al., 2019; Černe et al., 2014; Connelly and Zweig, 2015). Knowledge hiding behavior causes problems in the organization because it prevents knowledge exchange among employees and creativity. Previous studies have shown that reasons for knowledge hiding are competition (Wang et al., 2019), social cognition (Lin and Huang, 2010), and unfairness (Connelly et al., 2012). Especially, when employee distrust increases, the motivation to contribute to teamwork decreases and hides knowledge from distrusted co-workers (Huo et al., 2016). Knowledge hiding behavior is expected to decrease when organizational justice is high. Consequently, knowledge hiding behavior will negatively mediate the relationship between organizational justice and innovative behavior.

Finally, leadership style may indirectly affects employees' attitudes and behaviors. In the business environment, authentic leadership is being emphasized because a leader's integrity

is an important factor to the organization. Authentic leadership refers to a leadership style that creates a positive organizational environment by being truthful to organizational members through self-awareness and self-regulation (Gardner et al., 2005; Luthans and Avolio, 2003; Yammarino et al., 2008). According to previous studies, authentic leadership had a positive effect on the positive psychological capital and creativity of employees (Rego et al., 2012). Thus, we expect that authentic leadership moderates the relationship between organizational justice and knowledge hiding behavior. In addition, this study assumes that the extent to which organizational justice results in innovative behavior via knowledge hiding behavior may depend on the level of authentic leadership.

In summary, the purpose of this study is fourfold: it analyzes (1) the relationship between organizational justice and innovative behavior; (2) the mediating role of knowledge hiding behavior in this relationship; (3) the moderating role of authentic leadership; and (4) the integrative model of moderated mediation, to help advance our knowledge. Uncovering the underlying process and conditions through which organizational justice promotes employees' innovative behavior has theoretical and practical implications.

## II. Theoretical Background and Hypotheses

### 1. Perceived Organizational Justice and Innovative Behavior

Organizational justice has been identified as one of the core values of the organization to measure procedural fairness, authenticity, and transparency among employees in existing literature (Tsai, 2006). In other words, organizational justice acts as a perceptual psychological assurance among the employees to restrict unfair practices and punishment to the guilty employees. Therefore, organizational justice refers to the employee perception of fairness and transparency to decide day to day organizational process, regulation, evaluation, compensation, & overall operations (Young, 2012). Briefly, organizational justice is the employee mental modeling of justice procedures towards management decision on measuring employee performances (Hsu and Wang, 2015). In previous research, it was found that organizational justice was described as three dimensions such as distributive, procedural, and interactional justice (Eisenberger and Aselage, 2009; Forret and Love, 2008; Li and Cropanzano, 2009). Distributive justice refers to the perceived fairness of the distribution of organizational assets and procedural justice represents the transparency and validity of the organizational processes to ensure proper allocation of the assets. Interactional justice covers the fairness of interpersonal relationships focusing on supervisory guidelines maintaining established procedures (Greenberg and Colquitt, 2005; Olkkonen and Lipponen, 2006). Prior research argued that effective application of organizational justice system provides employee fair treatment that stimulates employees' innovative behavior (Birkinshaw, Hamel and Mol, 2008).

Innovative behavior is defined as the intentional creation, introduction, and application of new ideas within a work role, group, or organization to benefit role performance, the group, or the organization (Janssen, 2004). Innovative behavior had been known as an essential employee behavior to a successful organization. Previous several studies mentioned the relationship between organizational justice and innovative behavior (Akram et al., 2020; Eisenberger and Aselage, 2009; Sohn and Jung, 2010; Zhou and Oldham, 2001). However, few studies have analyzed pathways that how to increase the innovative behavior. We expected organizational justice to promote employees' innovative behavior in several ways. First, innovative be-

havior is based on a work environment where employees can create ideas and increase value in existing processes (Gong, Huang and Farh, 2009). However, when employees recognize unfairness within the organization, it is difficult to expect employees innovative behavior (Janssen, 2005). On the other hand, when organizational fairness is maintained within the organization, employees increase their positive behavior that contributes to the development of the organization through voluntary innovative behavior (Siegrist, 1996). Therefore, organizational justice will create a work environment that facilitates employees' innovative behavior.

Second, when employees perceive that compensation is insufficient compared to their efforts, employees' innovative behavior is significantly reduced due to psychological dissatisfaction (West and Altink, 1996). On the contrary, an organization with fair allocation makes employees can feel valuable. These feelings can make employees' extra-role behavior, such as innovative behavior, which helps the organization develop (Moon et al., 2008). Therefore, if the distributive justice is high, it can be expected that employees will create new ideas for the development of the organization as well as in-role behavior.

Third, employees evaluate the justice of procedures and treatment in the decision-making process. They decide how much they will participate in the organization's innovation activities based on evaluation (Lind, 2001). In addition, procedural justice can be an antecedent for innovative behavior because it serves as the basis for accepting or promising improvement of distribution results that are considered unfair (Brockner and Wisenfeld, 1996). Moreover, procedural justice makes it possible to maintain trust between organizations and employees (Brockner, 2002). Thus, procedural justice in the organizational operation process can make the organizational commitment in innovation activities by providing trust and understanding of distribution. According to previous research, distributive and procedural justice can facilitate innovative behavior by reducing stress (Janssen, 2000/2001).

Fourth, innovation behavior increases when peer and leader support is high (Janssen, 2000). Leaders' support not only leads to cooperation but also helps employees realize innovative ideas. In other words, interactional justice can lead to employees' creative thinking. Interactional justice will increase employees' psychological safety and consequently promotes new attempts and risk-taking. We expect that innovative behavior will increase in this process. Depending upon the lines of reasoning, we argue that organizational justice has positive impact on developing innovative behavior. Therefore, we propose:

**H1** Organizational justice is positively related to innovative behavior

## 2. Organizational Justice and Knowledge Hiding Behavior

The knowledge of employees is the core competence of the organization (Nonaka, 1991). The knowledge is beneficial to the organization only when there is exchange among employees. However, organizations are confronted with many costs due to difficulties in knowledge management (Babcock, 2004). Thus, it is necessary to understand knowledge hiding behavior to a deep understanding of knowledge management. Knowledge hiding behavior refers to intentionally hiding information when colleagues request work-related knowledge (Connelly et al., 2012). Specifically, knowledge hiding behavior focuses on three major negative characteristics such as playing dumb, evasive hiding, and rationalized hiding (Connelly et al., 2012; Webster et al., 2008). Playing dumb refers to the ignorant attitude while someone request to share knowledge, evasive hiding means providing incorrect information, and rationalized

hiding occurs while hiding presents a logic to requesting person regarding his/her position about hiding the knowledge (Connelly et al., 2012). Selfish behavior, individualism, and organizational bad politics may encourage knowledge hiding behavior. A previous study has identified the dark side of knowledge hiding behavior, antecedents, and outcomes of an organization (Greenberg, Brinsfield and Edwards, 2007). Nevertheless, more in-depth observations regarding knowledge hiding behavior are needed. In this study, organizational justice is suggested as an important predisposing factor that reduces knowledge hiding behavior, for the following reasons.

First, organizations with high organizational justice encourage decision makers to establish fairness and transparency both in policy and process for the greater extent of employee well-being (Cropanzano, Prehar and Chen, 2002). Such fair and transparent organizational culture develops a learning environment where free flow of information is highly encouraged (Wang and Noe, 2010). Second, organizational justice mainly focuses on employee-oriented organizational structure, helps to develop learning-based culture, and prohibits negligence to employees (Cohen-Charash and Spector, 2001). Organizational justice stands as a proactive guide for learning-oriented organizations which eradicates destructive culture. Therefore, a high level of organizational justice encourages knowledge-sharing culture. Third, Organizational managers pay strong concern to improving task performance, integrating intra-organizational coordination, and managing innovation to ensure a high level of organizational effectiveness (Cohen-Charash and Spector, 2001). Organizational justice eradicates counter-productive work behavior, strengthens organizational procedure, and ensures employee recognition in the long run with the help of knowledge-based organizational culture (Jarvenpaa and Majchrzak, 2008). As a result, organizational justice reduces knowledge hiding behavior and roadblocks any type of negative behavior in the organization. Thus, organizational justice, concerning fairness and organizational transparency, is expected to reduce to knowledge hiding behavior because it eradicates destructive culture and counter-productive work behavior. We therefore propose the following hypothesis.

**H2** Organizational justice is negatively related to knowledge hiding behavior

### 3. Mediating Role of Knowledge Hiding Behavior

We have argued that organizational justice will positively influence innovative behavior through the mediator of knowledge hiding behavior. We already argued that organizational justice is negatively related to knowledge hiding behavior. We are suggested that knowledge hiding behavior is negatively related to innovative behavior in several ways.

First, talented employees are highly concerned with equal rights and bias-free organizational processes where they can be evaluated transparently and recognized for their idea innovation (Brock et al., 2005). Knowledge hiding behavior occurred from distrust among members of the organization (Connelly et al., 2012). If knowledge hiding is present, employees may be prohibited from producing new thoughts due to the lack of idea discussions (El-Kassar et al, 2022). Therefore, the impossibility of attempting a new idea based on unfair organizational processes and distrust will not only lead to knowledge concealing but also reduce innovation behavior.

Second, knowledge concealing can hinder employees from collecting information to explore

new ideas (Reiter-Palmon and Illies, 2004). Creative ideas are the result of various perspectives of employees through social interaction (Perry-Smith, 2006). Social interaction can be actively carried out when organizational justice is high. Thus, if social interaction is guaranteed based on organizational justice, knowledge hiding behavior will be reduced. As a result, creative ideas and innovative behavior can be enhanced.

Third, many organizations still cannot eradicate nepotism, favoritism, and such behavior divides employees negatively (Hislop, 2002). Favoritism impacts negatively to the specific group, and they develop a selfish behavior comprising knowledge hiding behavior and politicizing the organization (Moliner et al., 2008). This phenomenon negatively impacts on employee belief and perception towards organizational fairness that hinders innovative behavior among the employees. Thus, we hypothesize:

**H3** Knowledge hiding behavior negatively mediates the relationship between organizational justice and innovative behavior

#### 4. Moderating Role of Authentic Leadership between Organizational Justice and Knowledge Hiding Behavior

Authentic leadership refers to a leadership style with flexibility, open-mindedness, and honesty to employees (Gardner et al., 2005). Authentic leadership includes self-awareness, self-regulation, and positive modeling, all of which are positively related to employees' innovative performance (Avolio and Gardner, 2005). The authentic leader focuses on organizational vision attainment through authentic behavior which facilitates new ideas, knowledge sharing, and innovative behavior (Crossan and Apaydin, 2010; Jensen and Luthans, 2006). Therefore, authentic leadership can directly or indirectly affect organizational knowledge management and employees' innovative behavior. Therefore, we posit that authentic leadership is an important moderator weakening the negative effect of organizational justice on knowledge hiding behavior in several ways.

First, employees will not try to conceal their knowledge if the organizational justice is high based on positive perceptions of the organization. At this time, leadership styles and leaders' attitudes can play an important role in employees' perceptions of the organization can play an important role. Therefore, employees acknowledge leadership trust and organizational justice through leaders' authenticity. As a result, employees will withdraw their selfish attitude and knowledge hiding behavior.

Second, authentic leader, who has moral values and standards, promotes psychological safety and intrinsic motivation based on relational transparency, openness, and communication (Rego et al., 2012). This characteristic of authentic leadership is that employees will reduce their selfish attitude toward knowledge in the organization based on a positive perception of organizational justice. Therefore, we can assume that in leaders with high authentic leadership, employees' perception with higher organizational justice would have a higher potential in feeling psychological safety and developing moral attitude, thereby decreasing knowledge hiding behavior. Hence, we hypothesized the following.

**H4** Authentic leadership moderates the relationship between organizational justice and knowledge hiding behavior

## 5. Integrated Model: Moderated Mediation

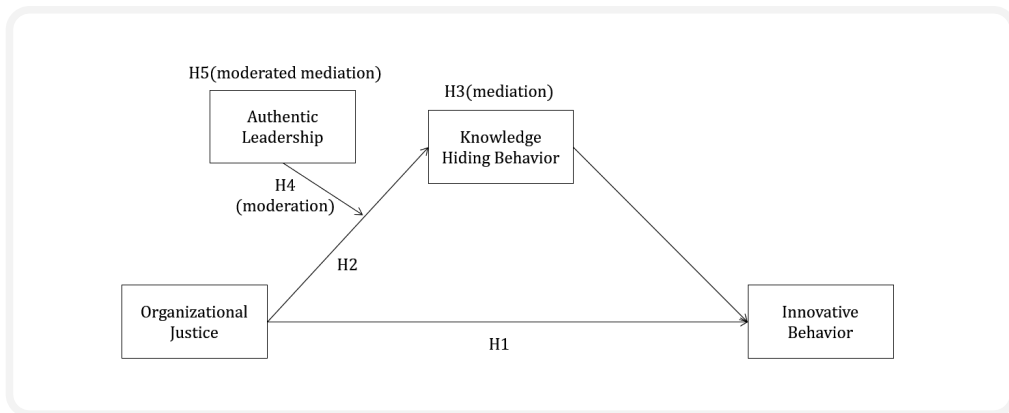
As many previous studies have discussed (Choi et al., 2021; Jeong et al., 2020), the above-hypothesized pattern of the moderation process implies moderated mediation, whereby an indirect effect of mediation depends on moderating variable. More specifically, when the level of authentic leadership is high, the indirect effect of organizational justice on innovative behavior via knowledge hiding behavior is enhanced, thereby weakening the mediating role of knowledge hiding behavior in the relationship between organizational justice and innovative behavior. In contrast, when there is a low level of authentic leadership, the level of a negative mediating effect of knowledge hiding behavior is relatively strengthened. Authentic leadership promotes psychological safety and creativity (Rego et al., 2012). Moreover, authentic leadership instills a positive climate, which constitutes prevents cold bureaucracies, restructuring, and organizational pressures (Blake et al., 2012), wherein employees' trust and positive attitude are increased (Avolio et al., 2004). Thus, psychological safety and trust contribute to an organizational climate without fear, which increases employees' creativity and innovative behavior. Hence, we hypothesized the following.

**H5** The strength of the mediated relationship between organizational justice and innovative behavior via knowledge hiding behavior varies depending on the extent of authentic leadership. In other words, the higher the level of authentic leadership, the greater the effect of organizational justice on innovative behavior mediated by knowledge hiding behavior

## III. Method

### 1. Sample and Procedure

The data collection for this study was conducted through an online and offline questionnaire. The survey procedure was conducted for Korean workers. We visited the company and explained the intent of the survey to the department managers and received permission. We then distributed and collected the questionnaire. We collected 261 questionnaires and 252 questionnaires were used as empirical data for this study. The demographic characteristics of respondents are as follows. Of the sampled employees, 93.3 % were male, average age and organizational tenure of the subordinate participants were 41.3 and 14.6 years, respectively. The average duration of the education was 15 years. Of the sampled employees, 34.5% were section chief, 28% were rank-and-file workers.

**Fig. 1.** Analytical Model

## 2. Measures

The questionnaire used in this study was originally prepared in English, and was translated into Korean. Our translation procedure followed Brislin's (1980) translation-back translation procedure to translate the English version into Korean. A professional translator was used to translate the original version into Korean, which was then back-translated into English by a bilingual scholar who had no prior knowledge of the objectives of the study and had not seen the original survey.

Organizational justice was measured using the 11-items adapted from previous study (Rahim et al., 2001). One of the sample item was "I believe that my rewards accurately reflect my contributions to the organization". The response scale was measured using a five-point Likert scale from 1=strongly disagree to 5=strongly agree. Cronbach's alpha was 0.851

Innovative behavior was measured using the 9-items, which commonly employed in previous research (Janssen, 2001; Janssen, Van de Vliert and West, 2004; Scott and Bruce, 1994). One of the sample item was "I search out new working methods, techniques, or instruments". The response scale was measured using a five-point Likert scale from 1=strongly disagree to 5=strongly agree. Cronbach's alpha was 0.913

We employed 16-items scale suggested by Walumbwa et al. (2007) to measure authentic leadership. This scale measure four dimensions of authentic leadership: relational transparency, self-awareness, balanced processing, and internalized moral perspective. One of the sample item was "Our team leader frankly admits the mistake when he makes it". The response scale was measured using a five-point Likert scale from 1=strongly disagree to 5=strongly agree. Cronbach's alpha was 0.901

We measured knowledge hiding behavior using the 12-items suggested by Connelly et al. (2012). One of the sample item was "I gave him/her a little bit of assistance, but didn't help him/her to the extent s/he wanted". The response scale was measured using a five-point Likert scale from 1=strongly disagree to 5=strongly agree. Cronbach's alpha was 0.920

According to previous studies, the demographic background of employees could relate to innovative behavior (Choi, Tran and Kang, 2017). Innovative behavior is influenced by gender, age, duration of education, rank, and tenure (Chen et al., 2020; Pian, Jin and Li, 2019).



Specifically, employees' gender was measured using a dummy variable; 0= male, 1= female. Age and tenure were measured in years. The duration of education was measured in years including compulsory education. We coded the rank; 1= rank-and-file worker, 2= deputy section chief, 3= section chief, 4= head of department, 5= executive team member or higher.

## IV. Results

### 1. Descriptive Statistics

Correlation analysis was conducted to investigate the relationship and direction between the measured variables in this study. (Table 1) presents the descriptive statistics and correlations. As shown, innovative behavior was related to organizational justice ( $r = 0.709$ ,  $p < 0.001$ ), knowledge hiding behavior ( $r = -0.241$ ,  $p < 0.001$ ), and authentic leadership ( $r = 0.680$ ,  $p < 0.001$ ). In addition, we analyzed the reliability to test that the measured data were suitable for empirical analysis prior to hypothesis testing. The Cronbach alpha exceeded 0.70, indicating that the reliability of the measurement tool is high (Nunnally and Bernstein, 1994).

**Table 1. Descriptive Statistics and Correlations**

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1. Gender	0.07	0.25	-								
2. Age	41.35	11.01	-0.127*	-							
3. Duration of Education	15.05	1.82	-.190**	-.465***	-						
4. Rank	2.64	1.31	-.314***	.669***	.047	-					
5. Tenure	14.66	9.89	-.037	.915***	-.547***	.620***	-				
6. Organizational Justice	3.92	0.40	-.239***	.157*	-.031	.175**	.165**	(.851)			
7. Knowledge Hiding Behavior	1.56	0.62	-.035	.059	-.139*	.083	.108	-.095	(.920)		
8. Authentic Leadership	4.26	0.49	-.386***	.097	.038	.113	.052	.599***	-.270***	(.901)	
9. Innovative Behavior	4.30	0.51	-.176**	.091	.002	.100	.104	.709***	-.241***	.680***	(.913)

Note: N= 252, \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ , Values in parentheses along the diagonal are Cronbach's alpha.

### 2. Confirmatory Factor Analysis

To assess the tests of common method variance, we followed the recommendation by Podsakoff, MacKenzie, Lee and Podsakoff (2003) and conducted Harman's single-factor test by loading all the items of the study constructs into an exploratory factor analysis. The results indicate that no single factor explained more than 31.7% of the covariance among the variables.

We conducted a confirmatory factor analysis (CFA) on the measures of the study variables to verify their factor structure and construct validity. Specifically, we modeled four correlated factors: correspondence to organizational justice, authentic leadership, knowledge hiding be-

havior, and innovative behavior. This theoretical 4-factor model provided a reasonable fit to the data ( $\chi^2= 2170.577$ ,  $df= 1350$ ,  $CFI= 0.908$ ,  $TLI= 0.902$ ,  $RMSEA= 0.049$ ). The absolute fit index ( $\chi^2/df$ ) was 1.60 ( $\chi^2= 2170.577$ ,  $df= 1350$ ), which was less than the cutoff value of 3.00 (Hair, Black and Anderson, 2010). Moreover, the comparative fit index (CFI) and the Tucker-Lewis index (TLI) were greater than 0.90, and the root mean square error of approximation (RMSEA) was less than 0.05 (Browne and Cudeck, 1993; Kim, 2019). Thus, the CFA indicators satisfied the standards verification, which we used to determine that our hypothesized measurement model was appropriate.

Also, a series of Chi square difference tests revealed that the 4-factor model fits the data significantly better than several alternative measurement models (Table 2). In all comparisons, alternative models yielded a significantly poorer fit. Taken together, these results favor the theoretical 4-factor model, thus supporting discriminant validity among the measures.

**Table 2. Results for Measurement Model Comparisons**

Model	$\chi^2(df)$	CFI	TLI	RMR	RMSEA	$\Delta\chi^2 (df)$
Theoretical 4-factor model	2170.577(1350)	.908	.902	.052	.049	
3-factor model	2940.332(1353)	.822	.812	.056	.068	769.755(3)***
2-factor model	3910.238(1355)	.713	.697	.092	.087	1739.661(5)***
1-factor model	4793.451(1356)	.614	.593	.079	.100	2622.874(6)***

Note: Chi square difference for each model reflects its deviation from the 4-factor model, \*\*\* $p<0.001$

### 3. Hypothesis Tests

We tested Hypotheses 1-4 by performing a series of hierarchical regression analyses. The results appear in (Table 3). Supporting Hypothesis 1, organizational justice was positively related to innovative behavior ( $\beta= 0.708$ ,  $p<0.001$ ) after controlling for gender, age, duration of education, rank, and tenure in Model 5. On the other hand, organizational justice was negatively related to knowledge hiding behavior ( $\beta= -0.135$ ,  $p<0.05$ ) in Model 2. Thus, Hypothesis 2 was supported.

To test Hypothesis 3 regarding the mediating role of knowledge hiding behavior in the organizational justice-innovative behavior, we followed the procedure established by Baron and Kenny (1986). First, by testing Hypothesis 1, we already tested the positive effect of organizational justice on innovative behavior. Next, by testing Hypothesis 2, we already tested the negative effect of organizational justice on knowledge hiding behavior in Model 2. Finally, in Model 6, knowledge hiding behavior was negatively related to innovative behavior ( $\beta= -0.180$ ,  $p<0.001$ ), explaining significant additional variance in innovative behavior ( $\Delta R^2= 0.030$ ,  $p<0.001$ ). The effect of organizational justice on innovative behavior became weaker but was still significant ( $\beta= 0.684$ ,  $p<0.001$ ), suggesting partial mediation. Thus, Hypothesis 3 was supported. Regarding the moderating role of authentic leadership, the interaction term of organizational justice and authentic leadership significantly predicted moral efficacy ( $\beta= -0.163$ ,  $p<0.05$ ;  $\Delta R^2= 0.101$ ,  $p<0.001$ ) in Model 3. In (Fig 2), to facilitate the interpretation of the moderating effect, a graph is drawn that distinguishes between high and low authentic leadership groups based on the average value of authentic leadership. As shown in (Fig 2), there was a difference in the relationship between organizational justice and knowledge hiding be-

havior depending on the degree of authentic leadership. We also conducted a simple slope analysis. Specifically, tests of simple slopes indicated that the relationship between organizational justice and knowledge hiding behavior was statistically significant when authentic leadership was at low level (simple slope = .379,  $t = 2.384$ ,  $p < .05$ ), but became nonsignificant at high level (simple slope =  $-.069$ ,  $t = -.506$ , n.s.). Thus, Hypothesis 4 was supported.

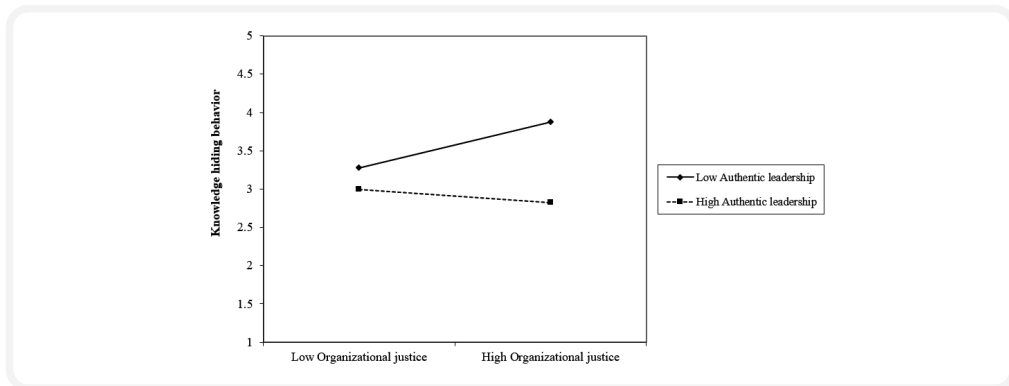
To test Hypothesis 5 regarding integrative moderated mediation, we examined whether the indirect effect of organizational justice on innovative behavior via knowledge hiding behavior was moderated by authentic leadership (i.e., conditional indirect effect). To test the conditional indirect effect, we utilized Hayes' (2012) PROCESS program. The indirect effect of organizational justice on innovative behavior via knowledge hiding behavior was estimated at high (+1 SD) and low levels (-1 SD) of authentic leadership with the bootstrap method.

**Table 3.** Hierarchical Regression for Knowledge Hiding Behavior and Innovative Behavior

Variables	Knowledge Hiding Behavior			Innovative Behavior		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	-.052	-.084	-.159*	-.185**	-.017	-.032
Age	-.351*	-.366*	-.243	-.110	-.028	-.094
Duration of education	-.222*	-.221*	-.256**	.061	.054	.015
Rank	.198	.201	.171	-.049	-.063	-.027
Tenure	.183	.218	.076	.261	.081	.120
Organizational Justice		-.135*	.099		.708***	.684***
Authentic Leadership			-.431***			
Knowledge Hiding Behavior						-.180***
Organizational Justice × Authentic Leadership			-.163*			
R <sup>2</sup>	.048	.065	.166	.045	.505	.535
ΔR <sup>2</sup>		.017*	.101***		.460***	.030***

Note: N= 252. Standardized coefficients are reported. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

**Fig. 2.** Moderating Effect of Authentic Leadership on the Relationship between Organizational Justice and Knowledge Hiding Behavior



The analysis results are presented in (Table 4). The results indicated that the indirect effect

was significant for low authentic leadership (conditional indirect effect=-0.0566, SE=0.0302, 95% CI[-0.1228, -0.0047]) but was not significant for high authentic leadership (conditional indirect effect=0.0104, SE=0.0158, 95% CI[-0.0204, 0.0428]), thus supporting Hypothesis 5.

**Table 4. Moderated Mediation Results for Conditional Indirect Effect**

Authentic Leadership	Boot Indirect Effect	Boot SE	95% of Confidence Intervals	
			Boot LLCI	Boot ULCI
M - 1SD	-.0566	.0302	-.1228	-.0047
Mean	-.0231	.0196	-.0649	.0119
M + 1SD	.0104	.0158	-.0204	.0428

## V. Discussion

The principal objective of our current study was to measure the influence of organizational justice on innovative behavior of the employees from Korean firms. In addition, this study also investigated the mediation impact of knowledge hiding behavior in relation to organizational justice and innovative behavior. Findings of data analysis and literature study revealed that organizational justice positively influences innovative behavior in the organization. Moreover, knowledge hiding behavior negatively mediates the relationship between organizational justice and innovative behavior. In addition, authentic leadership moderates the causal relationship between organizational justice and knowledge hiding behavior. Lastly, we tested the conditional indirect effect of authentic leadership on the influence of organizational justice on innovative behavior via knowledge hiding behavior.

### 1. Theoretical Implication

Based on the empirical analysis we propose several theoretical implications for future researchers. First, this study contributes to the prior literature of organizational justice and innovative behavior with empirical analysis and revisiting of the literature. Although organizational justice has been examined in many previous studies (Erkutlu, 2011; Schminke, Arnaud and Taylor, 2015), research on the impact of employees on specific innovation behavior was insufficient. Organizational justice entails psychological safety and trust efforts toward key-role behavior for sustainable firm growth such as innovative behavior.

Second, our study's findings indicated that knowledge hiding behavior is an important variable for understanding the relationship between organizational justice and innovative behavior. Much previous research had focused on knowledge sharing behavior (Golden and Raghuram, 2010; Pian et al., 2019). By focusing knowledge hiding behavior, this study's results provide new knowledge about the association between organizational justice and employees' selfish attitude about knowledge management.

Third, this study contributes to the previous research on leadership by suggesting authentic leadership as a condition that interacts with organizational justice to decrease knowledge hiding behavior. The results also showed that authentic leadership's enhancement of the mediating role of knowledge hiding behavior in the relationship between organizational justice and innovative behavior. More specifically, we demonstrated the moderated mediation effect of au-

thentic leadership on the mediation relationship between organizational justice and innovative behavior via knowledge hiding behavior. This study enhances our understanding of authentic leadership as a situational variable.

## 2. Managerial Implications

Our findings also have several practical implications. First, this study results indicate that organizational justice is an important factor for employees' innovative behavior. Therefore, top management team and organizational decision-makers need to be strict on applying justice systems to establish fairness in processes, policies. Especially, evaluation and compensation system will impact positively employee perception about organizational justice (Greenberg, 2006). Thus, organization managers need to facilitate proper organizational justice system to stimulate employee innovative behavior.

Second, knowledge management has drawn significant attention from the management practitioners in the current business environments (Reychav and Weisberg, 2009). Organization managers should know that knowledge hiding behavior negatively affects employees' innovation behavior. Therefore, managers should identify any type of knowledge hiding behavior in the workplace, and educate the employees to avoid such negative behavior deliberately. For sustainable organizational development and survival, we suggest organization managers develop a knowledge-based culture where employees will be protected with a fair justice system and recognized with an innovative contribution.

Third, the findings suggest the importance of authentic leadership for the benefits of organizational justice. When employees' selfish attitudes are prevalent in organizations, which leads to knowledge hiding, leaders need to show authenticity. Thus, organizations should design leadership training programs for team leaders so that leaders can treat their employees with authenticity which finally leads to innovative behavior.

## 3. Limitations and Future Research Directions

Despite the useful implications of this study, we would like to provide the direction of future research by suggesting the following limitations. First, this study used a cross-sectional research design. In addition, our data had collected by using a self-reported questionnaire at the same time and person. Therefore, this study has a possibility of a common method bias problem (Podsakoff, MacKenzie and Podsakoff, 2012). Thus, we recommend separating the source of measurement of the variables or time to solve the common method bias problem. Second, we conducted our empirical test at the individual level because we were interested in employees' perceptions and behavior. However, leadership and organizational climate were originally theorized as a team-level construct. Therefore, future studies should conduct multi-level analyses. Finally, future studies need to identify other employees' psychological factors, behavior, and organizational climate in the relationship between organizational justice and innovative behavior. Although authentic leadership was introduced as a conditional variable in our study, future studies can consider various moderators. In addition, in this study, organizational justice was used under the assumption of a single factor. However, organizational justice can be divided into sub-factors such as procedural justice, distributive justice, and interactive justice. Therefore, in future studies, it is expected that different results and implications can be obtained

if each of these sub-factors is classified and its effects are examined.

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