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# How to Enhance Sustainability through Transformational Leadership: The Important Role of Employees' Forgiveness

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**Abstract:** The present research attempts to investigate an intermediating process that influences an association between transformational leadership and innovative behavior. Previous studies have mainly focused on the intrapsychic traits of individual employees (e.g., intrinsic motivation and psychological empowerment) as an important mediator to explain the enhancing effect of transformational leadership on employee's creativity. Yet, given that many interactions among employees in an organization tend to occur in the form of 'interpersons', the importance of interpersonal relationship-based traits has received relatively less attention from leadership scholars. Based on the context-attitude-behavior framework, we posit that transformational leadership enhances innovative behavior by boosting the level of employees' forgiveness which is an interpersonal relationship-based trait among employees. We conducted structural equation modeling analysis with a survey from 374 employees in South Korea. The result demonstrated that forgiveness partially mediates the influence of transformational leadership on innovative behavior. We believe that our finding may contribute to expanding transformational leadership and positive organizational scholarship literature by identifying a new path that transformational leadership increases innovative behavior. The theoretical and practical implications, limitations of this study, and suggestions for future research are discussed.

**Keywords:** transformational leadership; forgiveness; innovative behavior; mediation analysis

## 1. Introduction

As a business environment rapidly changes and becomes fiercely competitive, a firm's ability for innovation has become critical for survival as well as sustainable growth [1]. Thus, a firm spends significant amount of resources to obtain and maintain its innovative capability [2–4]. In particular, it focuses on the development of individual employees, because they are main actors who initiate and implement innovation [5]. For example, followers of transformational leaders contribute to organizational innovation by conducting innovative behaviors [6,7]. Considering the significance of individual employees as an innovation driver, scholars have tried to identify factors which can stimulate their creative behaviors. For example, Oldham and Cummings [8] have reported creativity-related characteristics of both individual members and organizational contexts such as the degree of job complexity and supportive/controlling supervision. Among various factors which affect members' creative and innovative behaviors, leadership is considered as one of the most critical organizational context [5,9–11], particularly transformational leadership [12–18].

Transformational leadership (TL) has been defined as “broadening and elevating followers’ goals and providing them with confidence to perform beyond the expectations specified in the implicit or explicit exchange agreement” [19]. TL, consisting of four dimensions such as charisma, inspirational motivation, individualized consideration, and intellectual stimulation, has been known to not only motivate members of an organization to create new things, but also provide energy for realizing the novelty through innovative attempts [6,12,15–18]. However, despite the theoretical importance of TL as a driver of innovative behavior, there has been relatively less emphasis on how the underlying mechanisms of TL affect innovative behaviors of employees [13,16–18,20]. Considering that understanding the underlying processes of the link is helpful to check whether the positive effect of TL on innovative behavior is effective or not, examining the mechanisms is important. In fact, some studies have attempted to find a precise intermediate mechanism explaining the relationship between TL and innovative behavior and examined mediating factors such as an employee’s intrinsic motivation [13], psychological empowerment [14,20], knowledge sharing [17], and creative efficacy [16,21]. However, they are limited in that they have mainly focused on intrapsychic aspects of an individual member in explaining the relationship. Behaviors and outcomes of individual employees are not free from the effect of interpersonal relationships and interactions. An employee’s creativity and innovative behaviors are not exceptions [8,22]. Thus, we argue that it is necessary to investigate mediators pertinent to interpersonal relationship-based traits to extend our understanding of the relationship between TL and innovative behavior.

In particular, in this study, we focus on one of the relationship-based traits, forgiveness, as an intermediating factor between TL and innovative behavior. According to the perspective of positive psychology [23], forgiveness is one of the most fundamental and universal human strengths or virtues in explaining human interactions [24].

Forgiveness is critical for organizational effectiveness because various interpersonal problems such as relational conflict and noncooperation are constant variables in the workplace [24,25]. Forgiveness can not only buffer the negative effects of the problems but also enhance the quality of relationships, morale, job satisfaction, social capital, well-being, and organizational productivity [24,26,27]. Such positive emotions can broaden and build cognition, attention, and action [28,29] and thus, are likely to facilitate creativity that is the basis of innovative behavior [5,28,30–32].

To connect and integrate the relationships among TL, forgiveness, and innovative behavior, we draw on the context–attitude–behavior framework [33,34], which addresses that organizational contexts critically affect members’ attitudes and behaviors. Extant research has suggested that leadership functions as a critical social context that creates members’ attitudes, then builds their behaviors [33–35]. We expect that TL would increase each member’s forgiveness by not only satisfying their various psychological needs [36,37] but also stimulating the collective identity [38]. Based on the overarching perspective, we argue that TL would increase innovative behavior through the mediation of forgiveness.

## 2. Theory and Hypotheses

### 2.1. TL and Innovative Behavior

TL is defined as a leadership style that encourages subordinates to pursue higher-level values that prompt them to achieve the mission and vision of their organization, beyond individual interests and goals [15,39,40]. It consists of four components: charisma, inspirational motivation, intellectual stimulation, and individual consideration [40]. By realigning each member’s value systems, TL facilitates their personal and organizational changes, eventually encouraging them to surpass initial expectation pertinent to performance [10,15,41]. Thus, the transformational leadership has been considered a virtue of promising leaders.

In particular, several studies have noted the significant role of TL in promoting innovative behavior of organizational members [7,10,13,14,16–18]. Innovative behavior includes all kinds of

member's activities that devise and implement new ideas to improve organizational performance [5]. For example, Sosik and his colleagues [12] found that TL is highly likely to encourage one's members or subordinates to think 'out of the box', facilitating their exploratory approaches which generate more creative thoughts. In addition, Shin and Zhou [13], by analyzing data from 290 employees and their supervisors in 46 Korean firms, reported that TL increases the follower's creativity. They found that the follower's intrinsic motivation partially mediates the relationship between TL and creativity. Because a firm constantly faces new problems in the fast-changing environment that requires it to develop creative solutions, research on the relationship between TL and innovative behavior has garnered much attention. Thus, Sosik et al. [12] suggest that the behavior of transformational leaders function as "creativity enhancing forces."

Although many previous studies have demonstrated that TL is a critical antecedent of innovative behavior, TL scholars have relatively paid less attention to the intermediating processes of the TL-innovative behaviors link [13,16–18,20]. Given that knowledge on the mechanisms of the link can be utilized to identify whether the increasing effect of TL is effective in an organization, investigating the processes is critical. In fact, as described above, some existing research has reported the underlying mechanisms of the link, the research is limited since it has mainly focused on intrapsychic aspects of an employee in explaining the association. Considering that attitudes and behaviors of individual employees are substantially influenced by interpersonal relationships and interactions [8,22], it is critical to examine mediators, which include interpersonal relationship-based traits. Thus, we focus on forgiveness as a mediator between TL and innovative behavior. According to the perspective of positive psychology, forgiveness has been known to be one of the most important relationship-based traits in human interactions [23,24].

## 2.2. TL and Forgiveness

Forgiveness is defined as "the set of motivational changes whereby one becomes decreasingly motivated to retaliate against the offending partner, decreasingly motivated to maintain estrangement from the offender, and increasingly motivated by conciliation and goodwill toward the offender despite the offender's hurtful actions." [42] (pp. 321–322). Thus, forgiveness is critical for relational and organizational resilience because an organization is inevitably entangled with a variety of relational issues that an organization should deal with [24,25]. It does not only alleviate the harmful effects of the interpersonal problems but also may function as an opportunity to enhance organizational outcomes such as the quality of relationships, morale, job satisfaction, social capital, well-being, and organizational productivity [26,27]. Despite the significant organizational implication of forgiveness, there has been little research on how to enhance forgiveness in an organization. In this study, we particularly focus on a role of TL as a motivator of forgiveness in that the transformation that TL pursues ultimately matches the ideal type of positive psychology [23,27].

Transformational leaders may enhance forgiveness of members because they often attempt to facilitate group harmony based on their collective identity [38,43,44]. Collective identity means one's self which is defined by connection to his or her social groups [45]. To promote the harmony of their organization, transformational leaders tend to effectively enhance the collective identity of organizational members [38]. For example, the idealized influence of TL heightened collective identity by emphasizing collective interests of their organization [40]. When their collective identity is stimulated or salient, people tend to try to forgive others more in order to maintain or increase identity [43]. Therefore, TL can facilitate forgiveness of members by influencing their collective identity [44].

More specifically, each subdimension of TL such as charisma, inspirational motivation, intellectual stimulation, and individual consideration is likely to increase the forgiveness of members as follows. First, a leader's charisma may help subordinates trust their leader and even identify themselves with the leader. Through the personal identification with their leader, the followers can fulfill their needs for both dependency [36] and competence [37]. According to Conger and Kanungo [46], "Dependence stems in large part from a strong identification with the leader" [46] (p. 216). Moreover, in that

transformational leaders tend to be considered as competent role models by followers, the leadership would increase the sense of competence of them. Thus, the needs satisfaction of dependence and competence increases psychological well-being of members, and subsequently heightens the extent to which they forgive others [26,47]. Second, a transformational leader is likely to inspire followers to pursue a higher-level value beyond individual interests. It ultimately accrues to the elevation of self-esteem because they can find more meaning and value in their works. By satisfying the need for competence, the enhanced self-esteem provides psychological resources to forgive others more easily [26,37]. Third, an intellectual stimulation that transformational leaders provoke may enable members to yield more productive outputs because it helps members to develop their new and efficient approaches [7,48].

As a result, members may feel that they have not only autonomy to conduct their task, but also competence to successfully accomplish it. The enhanced basic needs satisfaction (i.e., autonomy and competence) may grant members psychological resources and thus, enhance the level of forgiveness in an organization. Lastly, when a leader thoughtfully considers individual members' individual characteristics, situations, and well-being, they experience not only psychological attachment to their leader but also psychological safety and relatedness [49]. The emotional linkage can function as a psychological base to forgive others in an organization [50,51]. Taken all together, we argue that TL affects the level of forgiveness in an organization.

**Hypothesis 1.** *TL is positively associated with the forgiveness of members in an organization.*

### 2.3. Forgiveness and Innovative Behavior

Forgiveness increases innovative behaviors of members by enhancing their positive emotions such as empathy, compassion, and love. In specific, forgiveness contributes to boosting positive emotions by improving both psychological and physiological aspects of an individual. Many studies have found that forgiveness is associated with psychological and physiological recovery [51,52], which ultimately contributes to enhancing positive emotions [53,54]. For example, Worthington and Scherer [53] argue that forgiveness is an emotion-focused coping strategy which reduces stressful reactivities, and thus, is likely to replace the negative emotions pertinent to un-forgiveness with more positive emotions. In addition, forgiveness can increase physiological health by positively influencing immune and cardiovascular system. Through reducing anger and hostility, forgiveness promotes physical health [47]. The increased psychological and physiological health would directly contribute to enhancing positive emotions.

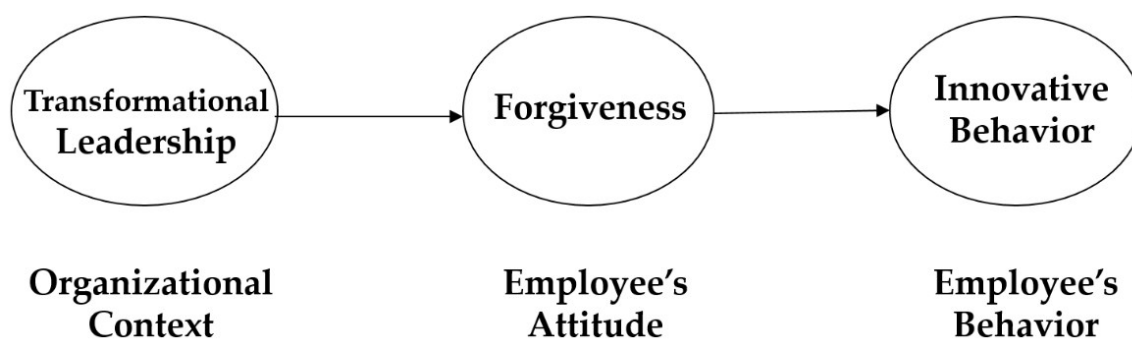
The increased positive emotions which are driven by forgiveness would facilitate innovative behaviors of members in an organization. Prior studies have demonstrated that positive emotions boost creativity [29,55]. According to broaden-and-build theory [28,31], positive affect such as joy, interest, contentment, and love not only broadens individual's momentary thought-action repertoires but also builds his/her physical, intellectual, social, and psychological resources [28]. By not only broadening individual's cognitive abilities (e.g., cognition, attention, and action [28,29,31]) but also enhancing his or her core resources, positive emotions are likely to boost his or her creativity [28,31,32]. Extant research empirically supports that positive emotions tend to change an individual's cognitive patterns into more flexible, creative, unusual, open, and integrative patterns [29,55]. Through the broadened cognitive functions as well as enhanced flexibility and openness, employees with a high level of positive emotions are more likely to be creative than colleagues with low-level of positive emotions. Considering that creativity is a critical antecedent of innovative behavior [5], we expect that organizational members who experience positive emotions are likely to think and behave in a more innovative way. Thus, we argue that forgiveness contributes to increasing members' innovative behavior through enhancing their positive emotions.

**Hypothesis 2.** *Forgiveness of organizational members is positively associated with their innovative behavior.*

#### 2.4. Mediating Role of Forgiveness between TL and Innovative Behavior

Integrating the aforementioned hypotheses, we propose that forgiveness mediates the association between TL and innovative behavior. TL would increase innovative behavior of organizational members by enhancing the level of their forgiveness. The overall structure of the mediation model is based on a context–attitude–behavior framework [33,34]. Many previous works suggested that leadership tends to function as a social context that affects organizational members' attitudes and subsequently their behaviors [33–35]. For example, Mulki and his colleagues [35] showed that important organizational contexts such as leadership (i.e., instrumental and caring leadership) create member's attitudes (i.e., job satisfaction and satisfaction with supervisor) and behaviors (i.e., efforts on their job). Thus, we argue that TL functions as an important context in an organization that builds each member's behavior (i.e., innovative behavior) through affecting their attitude (i.e., forgiveness). See Figure 1.

**Hypothesis 3.** *Forgiveness mediates the relationship between TL and innovative behavior.*



**Figure 1.** Theoretical framework of TL and innovative behavior.

### 3. Method

#### 3.1. Participants

374 employees who work at various companies in South Korea responded to this survey via an online method. Participants had the opportunity to complete the online survey at any point during a three-week period. They work at approximately 20 organizations including large, medium and small corporations.

The sample included 232 (62%) men and 142 (38%) women. Participants indicated their age as follows: 20 s (19%), 30 s (34.2%), 40 s (32.9%), and 50 s (13.9%). Pertinent to the characteristic of the job, they were office workers (61%), an administrator (22.2%), sales & marketing (3.7%), education (3.2%), and R&D (1.9%). Concerning on their positions, staff (12.8%), assistant manager (14.3%), manager (37.4%), deputy general manager (23.4%), general manager or above it (12.1%) responded to our survey. Pertinent to the industry types, the respondents work for firms in industries such as finance or insurance (73.3%), service (6.5%), information service or telecommunications (6.1%), manufacturing (4%), education (2.7%), health or welfare (2.4%), and construction (1.1%). In addition, with regard to firm size the employees belong to, companies which possesses above 500 workers (82.1%) occupied the majority. Lastly, concerning on tenure, the participants have various level of organizational tenure such as below 50 months (39.8%), 50~100 months (14.2%), 100~150 months (12.6%), 150~200 months (5.1%), 200~250 months (11.2%), and above 250 (17.1%).

### 3.2. Measures

#### 3.2.1. Transformational Leadership

To measure TL, we adopted Bass and Avolio's [40] Multifactor Leadership Questionnaire (MLQ). We used 12 items measuring the four dimensions of the leadership behavior. The sample items were "leader in my organization is a role model I want to be", "My leader articulates a compelling vision of the future" (response scale: 1 = never to 5 = almost always).

#### 3.2.2. Forgiveness

We used five items of the Transgression-Related Interpersonal Motivations Inventory (TRIM) from McCullough and his colleagues [26] to measure forgiveness. The TRIM is comprised of two subscales: avoidance and revenge. The sample item of avoidance dimension was "I am trying to keep as much distance between us as possible". And in case of revenge dimension, "I'll make him/her pay" was used. We utilized five items of TRIM. Responses were provided using a five-point scale; rated from 1 (never true) to 5 (almost always true).

#### 3.2.3. Innovative Behavior

We used the five-item scale of innovative behaviors at work developed by Scott and Bruce [5]. Members were asked to respond on the degree to which they engage in and show innovative behaviors at work. Sample items were (1) "I seek out new technologies, processes, techniques, and/or product ideas at work" and (2) "I generate creative ideas at work". Responses were made on a five-point Likert-type scale ranging from 1 = "not at all" to 5 = "to an exceptional degree".

#### 3.2.4. Control Variables

This study utilized various control variables for innovative behavior to provide unbiased estimates. Past studies have consistently reported that education, position, and industry influenced innovative behavior [56–58]. We also included gender [59], tenure [60], and age [61] as control variables considering that these demographic variables could affect our results.

### 3.3. Analysis

This study first conducted a correlation analysis using SPSS (Version 21). Then, to confirm whether our data has a normal distribution, we presented mean, standard deviation, kurtosis, and skewness. In addition, utilizing Amos 21, we conducted structural equation modeling (SEM) analysis. In specific, as recommended in the literature [62], this research took a two-step approach by sequentially analyzing measurement and structural model. Model fit was assessed by several goodness-of-fit indices generally suggested in the extant studies [63,64], such as chi-square ( $\chi^2$ ), the comparative fit index (CFI), and the Tucker–Lewis index (TLI). The desirable fit for CFI and TLI were greater than 0.90, and a Root Mean Squared Error of Approximation (RMSEA) less than or equal to 0.06. And we did an additional analysis using a bootstrapping method to test whether the indirect effects were statistically significant [65].

## 4. Results

### 4.1. Descriptive Statistics

The means, standard deviations, and correlations among the study variables were computed in Table 1. All variables were assessed for skewness and kurtosis to test the normal distribution of the data. Results indicated multivariate normality for all measured variables in that the skewness did not deviate from the range from  $-2$  to  $2$ , and the kurtosis also did not deviate from range from  $-8$  to  $8$  [66]. Results showed that there exist statistically significant correlations among research variables.

**Table 1.** Means, standard deviations, and correlations between variables.

Variable	M	SD	1	2	3	4	5	6	7	8
1. TL	3.84	0.73	-							
2. Forgiveness	3.00	0.81	0.27 **	-						
3. Innovative behavior	3.85	0.61	0.55 **	0.27 **						
4. Tenure	124.09	117.81	0.13 *	-0.03	0.21 **					
5. Position	2.92	1.60	0.19 **	-0.01	0.29 **	0.66 **				
6. Age	38.70	8.77	0.15 **	0.01	0.26 **	0.67 **	0.77 **			
7. Gender	1.38	0.49	-0.23 **	-0.10	-0.34 **	-0.32 **	-0.45 **	-0.41 **		
8. Education	3.18	0.38	-0.02	-0.01	0.04	-0.01	-0.03	0.03	0.06	
9. Industry	-	-	-0.26 **	-0.11 *	-0.20 **	-0.11 *	0.01	0.06	0.21 **	0.21 **

\*  $p < 0.05$ . \*\*  $p < 0.01$ . Males are coded as 1 and females as 2. Pertinent to position, general manager or higher are coded as 5, deputy general manager and department manager 4, assistant manager 3, clerk 2, and others below clerk as 1. In case of education, was “below high school” is coded as 1; “community college (2-year bachelor)” 2; “4-year bachelor” 3; and “master or above” are coded as 5.

#### 4.2. Measurement Model

We applied the two-step procedure recommended by Anderson and Gerbing [62] to analyze our mediation model. The first step was to test a measurement model, followed by a structural model test. To conduct a measurement model test, we used the following procedures.

First, we calculated Cronbach alpha of each variable to confirm reliability. Results showed that all variables have valid internal consistency (TL = 0.97, forgiveness = 0.87, and innovative behavior = 0.92). Second, we performed confirmatory factor analyses (CFA) to examine whether the measurement model exhibited an acceptable fit to the data. Only after an acceptable measurement model confirmation could the structural model be tested. To investigate discriminant validity of the three constructs (i.e., TL, forgiveness, and innovative behavior), we conducted the CFA of the 22 items that compose all scales. The three-factor model showed enough fit to the empirical data ( $\chi^2$  (df = 202) = 445.051; CFI = 0.965; TLI = 0.960; RMSEA = 0.057). Then, we sequentially compared the three-factor model with other alternative models, such as two-factor and one-factor model, conducting chi-square difference tests. The results of the chi-square difference tests showed that the three-factor model was the best among the alternative models.

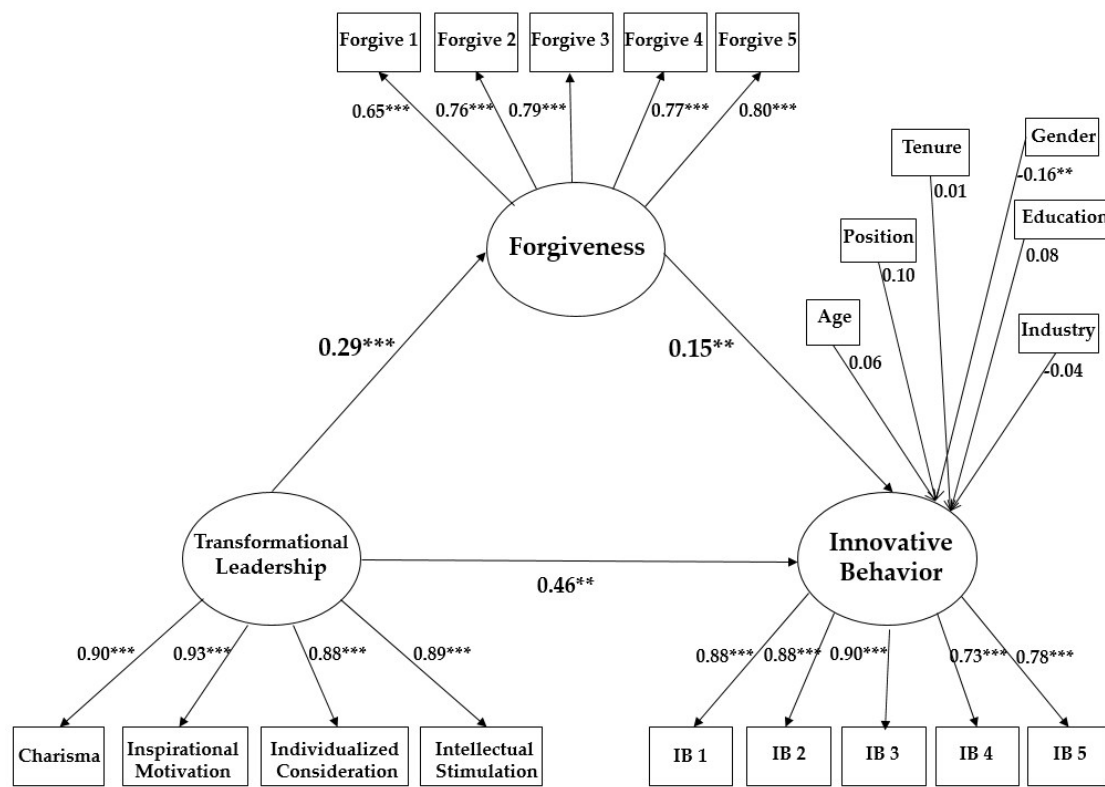
As with all self-reported data, there exists a potential problem for common method bias, resulting from multiple sources such as consistency motif and social desirability [67]. Following the suggestions from Podsakoff and his colleagues [67], we performed statistical analyses to assess the severity of common method bias. First, Harman one factor test was conducted on the three research variables (TL, forgiveness, and innovative behavior) in our theoretical model. Results from the test presented that three factors were present and the most covariance explained by one factor was 46.96%, indicating that the common method bias was not a serious contaminant in the current study [67].

#### 4.3. Structural Model for Testing Mediating Variables

We conducted SEM to empirically validate our theoretical framework. As described in Figure 2, the fit indices of our hypothesized full mediation model (Model 1) was enough to accept ( $\chi^2 = 320.729$  (df = 147); CFI = 0.963; TLI = 0.952; RMSEA = 0.056). Then, according to the suggestion of Anderson and Gerbing [62], we compared Model 1 with an alternative partial mediation model (Model 2). The model was same with Model 1 except for the addition of direct path from TL to innovative behavior. The fit indices of Model 2 ( $\chi^2 = 241.390$  (df = 146); CFI = 0.979; TLI = 0.973; RMSEA = 0.042) were significantly better than those of Model 1 ( $\Delta\chi^2$  [1] = 79.339,  $p < 0.001$ ). The result demonstrates that the partial mediation model has better fit, which rules out the full mediation mechanism.

Coefficient values of the hypothesized model are shown in Figure 2. Although we included various control variables (e.g., age, gender, tenure, position, education, and type of industry) in our research model, many of them were not a significant predictor of innovative behavior except gender. Also, our results showed that TL is positively related to forgiveness ( $\beta = 0.29$ ,  $p < 0.001$ ), confirming

Hypothesis 1. Hypothesis 2 was also supported because forgiveness was positively associated with innovative behavior ( $\beta = 0.15, p < 0.01$ ).



**Figure 2.** Final structural model. Standardized coefficients are presented. IB means innovative behavior. \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

#### 4.4. Bootstrapping

The bootstrap procedure was used to test whether the indirect effect between TL and innovative behavior exists. Following the recommendations of Shrout and Bolger [65], we generated 5000 samples ( $N = 374$ ) from the original data set through random sampling with replacement. Then, we used the AMOS 21 to re-estimate the path coefficients of our final model. The mean indirect effects were calculated by estimating each path coefficient across the 5000 samples. The corresponding estimates of standard errors for the distribution of the means were considered together. Shrout and Bolger [65] highly recommended the 95% confidence interval (CI) for the mean indirect effect. When the CI does not include zero, the indirect effect is statistically significant at the 0.05 level.

The CI for the mean indirect effect of TL on innovative behavior via forgiveness did not include zero (95% CI = [0.004, 0.026]). The result means that the indirect effect from TL to innovative behavior was significant. In addition, our results showed that TL is positively related to innovative behavior ( $\beta = 0.46, p < 0.01$ ). The results of both the bootstrapping procedure and the coefficient value between TL and innovative behavior indicate that forgiveness partially mediates the TL-innovative behavior link. Therefore, we can conclude that the Hypothesis 3 is partially supported.

### 5. Discussion & Conclusions

A fast-changing and competitive environment has prompted an organization continuously to develop innovative solutions for unique and challenging problems that it faces. In this environment, the success of an organization largely depends on innovative capability that individual employees have. Thus, many of prior research on innovation capability of individual employees have focused



on what affects innovative behaviors. In particular, the role of leadership has been taken as a critical factor because leaders significantly influence not only organizational cultures, but also perceptions of attitudes of members [48,68].

Among many leadership styles, in this study, we focus on the role of TL in facilitating innovative behaviors because existing empirical research has reported a significant link between TL and innovative behavior [6,12–14,16–18]. In specific, we examine an intermediate mechanism that TL affects innovative behavior of employees. Although some studies dealt with mediating factors (i.e., member's intrinsic motivation, empowerment and creative efficacy) between the two, it is still less explored how interpersonal relationships and interactions in an organization affect the link. Considering that members' creativity and innovative behaviors are critically influenced by their social and interpersonal aspects, it is highly needed to examine intermediating factors in terms of interpersonal relationship-based traits such as forgiveness.

Drawing from a positive psychology, we argue that forgiveness is a critical mediating factor because (1) transformational leaders can enhance forgiveness of members by facilitating their psychological needs satisfaction such as autonomy, competence, relatedness, dependence, and psychological safety [36,37,49] and (2) heightened positive emotions by forgiveness among employees may let them open up to diverse ideas, tolerate different approaches, and promote creative combinations [28,31,32], eventually contributing to enhancing innovative behavior. Our results show that forgiveness partially mediates the relationship between TL and innovative behaviors.

Our findings provide some important theoretical contributions to the related literature and practical implications to key decision-makers of an organization. First, this study emphasizes the importance of forgiveness in the workplace by empirically demonstrating the mediating role of forgiveness between TL and innovative behavior. Although existing studies have showed the positive relationship between forgiveness and various psychological outcomes, such as positive emotions, interpersonal cooperation, quality of relationships, and psychological well-being, the role of forgiveness in an organization has received relatively little attention. Based on the perspective of positive psychology, we investigate not only the antecedent and consequence of forgiveness in an organization but also the mediation effect of forgiveness between the variables. Thus, this study may provide organizational scholars with an opportunity to re-consider and re-posit the value of forgiveness in an organization.

Second, our research may contribute to enriching both TL and positive psychology literature by investigating the effect of TL in the perspective of positive psychology (i.e., forgiveness). To the best of our knowledge, our research is the first empirical result which connects TL with forgiveness. By providing theoretical ground and empirical evidences as to how a positive psychology construct such as forgiveness plays a critical mediating role in an organization, this research may suggest a possibility that integrates TL and positive psychology research [69].

For leaders in any business field, our research may provide some meaningful practical implications. First, our results may provide an implication to organizational leaders about how to enhance their members' innovative behavior. When they implement TL in their organizations, they may use the level of forgiveness among members as an indicator that reflects the effectiveness of their TL. In other words, if the level of members' forgiveness does not increase in the organization, it means that their TL does not work effectively. Moreover, our results suggest that if leaders do not have a TL style, they can still stimulate the innovative behavior of members by directly boosting members' forgiveness.

Second, we take the perspective of positive psychology into an organizational context, which is an essential part of human life. By providing empirical evidences that emphasize the critical role of a positive psychology construct, this study implies the importance of 'positive management in an organization' [27,69]. Our results suggest that top management teams or leaders in an organization consider the beneficial effects of the positivity and need to implement various strategies and systems to enhance the positivity of members.

Although this study contributes to TL literature by providing theoretical and practical implications, we should interpret it cautiously since it has several limitations. First, although our hypotheses were based on a context-free model, the context of our study (i.e., only including Korean subjects) may have influenced our results. Therefore, it would limit its generalizability to other cultures. Due to this constraint, we should seriously consider a possibility that the relationships among our research variables may differ across countries. Second, we could not consider the influences of environmental factors [70]. External factors such as industrial growth rate [71] and demand changes for the main products [72] would function as important factors that influence innovative behavior. Further research needs to complement our limitation considering these factors. Third, because our survey design was not longitudinal, but cross-sectional, it is not adequate to insist the causal effect of TL on innovative behavior. To confirm the causal relationships among the variables more clearly, it is necessary to perform longitudinal studies. Fourth, this study was not free from the fundamental issue of common method bias because we collected our data from identical person at the same time. Although we conducted a complementary test to overcome this problem, further studies considering the matter are needed. Fifth, although we tried to collect our data from employees who work at various organizations in various industries, the majority of participants (i.e., 73.3%) have worked at finance or insurance-related companies. Also, the majority of respondents (i.e., 82.1%) are affiliated with a large company (i.e., above 500 workers). The dominant number of participants who work at the types of firms are likely to be influenced by certain characteristics of organizational climate or culture, as well as leadership. Thus, we cannot exclude the possibility that our results may be affected by these factors. Future studies should consider collecting data from employees who work at various types of firms. Sixth, this research could not consider the cultural influences on our results. This study is only relied on South Korean culture. Although few previous studies have investigated influences of cultural differences, we believe that the cultural factors may play a critical role in explaining the relationship among TL, forgiveness, and innovative behavior. Thus, future research should consider the cultural aspects to elaborately examine the relationship. Lastly, since we use self-report survey data—it is possible the data cannot fully capture the reality of member's behavior. To complement this problem, collecting data through various methods including experiments, third-party observations, and peer-evaluations is necessary.

In summary, forgiveness is one of main constructs in positive psychology and thus, we expect that our study which investigates the TL's influence on innovative behavior from the perspective of positive psychology would contribute to deepening both TL and positive psychology literature. By providing theoretical and empirical foundations pertinent to how the construct from positive psychology functions as an important internal mechanism in an organization, our study may bolster the important role of positive psychology in organizational science [69]. We encourage that future studies, with more robust data and research designs, examine the various elaborate mechanisms and contextual factors that affect the relationship between TL and innovative behavior.

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