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Tangible and Intangible Rewards and Employee Creativity: The Mediating Role of Situational Extrinsic Motivation

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This study examined the effects of tangible and intangible forms of creativity-contingent rewards on employee creativity. Situation-specific intrinsic and extrinsic motivations were proposed as mediators of the reward-creativity link. Based on data collected from 271 employees and their supervisors, results revealed the following: (a) intangible rewards for creativity are positively related to intrinsic and extrinsic task motivations; (b) tangible rewards for creativity are negatively related to extrinsic task motivation; and (c) employee creativity, as rated by the supervisor, is positively related to extrinsic motivation, but not to intrinsic motivation. Results indicate the significance of differentiating the two types of creativity-contingent rewards, and highlight the need to reconsider the roles of intrinsic and extrinsic motivation in promoting creativity in organizations.

Creativity is defined as "novel and useful products, ideas, or procedures that provide an organization with important raw material for subsequent development and possible implementation" (Oldham & Cummings, 1996, p. 607). Enhancing employee creativity has been regarded as a way for an organization to gain competitive advantage (Anderson, Potočnik, & Zhou, 2014; Baer, 2012; Chen, Farh, Campbell-Bush, Wu, & Wu, 2013; Gong, Kim, Lee, & Zhu, 2013; Zhang, Kwan, Zhang, & Wu, 2012). To promote creative performance among employees, organizations rely on various human resource management practices, such as monetary rewards for suggesting novel and useful ideas (Fahey, Vasconselos, & Ellis, 2007; Lopez-Cabrales, Perez-Luno, & Cabrera, 2009). Some critics, however, have maintained that offering financial incentives might not lead to the intended creative performance. Based on the cognitive evaluation theory, some researchers suggested that individuals become extrinsically motivated when they expect to be rewarded; thus, they focus more on incentives rather than the task itself, which tends to diminish creativity (Amabile, 1996; Putwain, Kearsley, & Symes, 2011).

By contrast, other researchers posited that intrinsic motivation may not decrease in the presence of performance-contingent extrinsic rewards, and rewards, especially those that were promised, would improve creativity by linking the creative process and reinforcement (Eisenberger & Aselage, 2009; Eisenberger & Shanock, 2003; Malik, Butt, & Choi, 2015). For example, Eisenberger and Rhoades (2001) showed that performance-reward expectancies could increase creativity by promoting perceived self-determination and intrinsic task interest.

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Moreover, contrary to the prevailing belief that extrinsic motivation inhibits creativity, Choi (2004) reported that extrinsic motivation, rather than intrinsic motivation, is the positive predictor of creative performance.

Existing studies have rendered the relationship between rewards and creativity ambiguous. The debate on the effect of rewards on creativity has become doubly complicated due to the different theoretical perspectives regarding two areas of concern: (a) the role of rewards in intrinsic and extrinsic motivations, and (b) the effects of intrinsic and extrinsic motivations on creativity. To clarify the effects of rewards on creativity, several issues should be addressed. First, most prior empirical studies in this domain have been conducted in a laboratory setting that does not reflect typical organizational and interpersonal factors that heavily influence behavior in organizations (e.g., Choi, 2004; Deci, Koestner, & Ryan, 1999; Deci, Koestner, & Ryan, 2001; Eisenberger & Aselage, 2009; Eisenberger & Rhoades, 2001). Second, existing empirical studies have barely offered a comparison between the relative contributions of intrinsic and extrinsic motivations to employee creativity. A small number of field studies have focused on examining the positive role of intrinsic motivation based on the assumption that it is the key mediating process between context and employee creativity (Chen et al., 2013; Grant & Berry, 2011); thus, overlooking the role of extrinsic motivation (Dewett, 2007; Shalley, Gilson, & Blum, 2009). Finally, different forms of rewards, such as tangible and intangible incentives, targeted at creativity (Shepherd & DeTienne, 2005; Eisenberger & Shanock, 2003) have yet to be examined. As shown by Deci et al. (2001), tangible rewards and verbal rewards have opposite effects on intrinsic motivation. To obtain a more comprehensive understanding of the reward–motivation–creativity process, examining these different types of rewards together is necessary because these may have distinct effects on employee motivation and creativity.

This article contributed to the organizational creativity literature in several ways. First, a comprehensive theoretical framework isolating different types of creativity-contingent rewards that can be employed in organizations was developed. Second, to clarify the role of different types of motivation, situational intrinsic and extrinsic work motivations were identified (Guay, Vallerand, & Blanchard, 2000) as mediators between rewards and creativity. This approach complements existing studies that have provided fragmented empirical evidence that is mostly based on trait-based measures of motivation (Choi, 2004) or solely focused on intrinsic motivation (Dewett, 2007; Shalley et al., 2009). Finally, this study provided one of the first empirical investigations on the role of situational motivation as a mediator of the relationship between creativity-contingent rewards and creativity using a field sample.

REWARDS, MOTIVATION, AND CREATIVITY IN ORGANIZATIONS

The present conceptual framework suggests that the effects of the two distinct forms of rewards on creativity are mediated by intrinsic and extrinsic situational motivations. The following section provides detailed explanations and the rationale of these hypotheses.

Creativity-Contingent Rewards

Educators and managers have often stated that rewards are impediments to unconstrained exploration (Condry, 1977) because they tend to reduce intrinsic task interest, which, in turn, lowers the level of spontaneity and flexibility in task performance. In this view, creativity cannot be induced by offering incentives because the reward itself would not motivate individuals to go beyond the average expected performance level. Nevertheless, in reality, teachers and managers generally use rewards to promote creativity. In business organizations, expecting employees to engage in tasks purely based on intrinsic motivation without drawing upon any external inducements seems unrealistic. Specifically, monetary rewards have been identified in reward literature as the most practical and appealing motivational strategy (Gagne & Deci, 2005).

Identifying the types of incentives that promote employee creativity is important because it can reveal the mechanisms through which rewards affect creative performance. Thus, acknowledging that individuals' intrinsic motivation tends to decrease when they are unaware of the target behavior or objective of rewards is important (Putwain et al., 2011). By contrast, when individuals are cognizant of the fact that a specific reward is targeted at or contingent on creative performance, their intrinsic motivation increases through the enhancement of the perceived self-determination and performance pressure (Eisenberger & Shanock, 2003; Fahey et al. 2007; Zhang et al., 2012). Therefore, the effects of creativity-contingent rewards on creative performance are likely different from those of general performance-contingent rewards. Nevertheless, only a few systematic empirical examinations of the effects of creativity-contingent rewards as implemented in the workplace exist.

The focus of this study is rewards as perceived by employees (e.g., Baer, Oldham, & Cummings, 2003; George & Zhou, 2002). Unlike laboratory studies that specify and manipulate the exact dose and frequency of rewards (Amabile, Hennessey, & Grossman, 1986; Eisenberger, Haskins, & Gambleton, 1999), assessing the exact amount of various forms of rewards offered to enhance employee creativity in real situations is difficult. Creativity-contingent rewards, as perceived by

employees, enhance their creativity for several reasons. First, rewards for creativity provide a clear goal and incentive that direct employee behavior (Baer et al., 2003; Malik, Butt, & Choi, 2015). Second, the presence of rewards for creativity shows employees that the organization expects and encourages creativity; thus, fostering a strong climate that is supportive of creativity (Choi, 2004). Tierney and Farmer (2004) emphasized the role of external expectations in shaping creative behavior in organizations (cf., Pygmalion effect). Third, providing rewards for creativity is suitable for the goal of diminishing social risks or threats associated with creative efforts. Creativity-contingent rewards effectively legitimize employees' creative endeavors and render a psychologically safe environment for their creativity (Byron & Khazanchi, 2012). Individuals are more likely to produce novel and useful ideas if given the license to do so (Sagiv, Arieli, Goldenberg, & Goldschmidt, 2010).

Rewards for creativity can take two distinct forms, namely, tangible or intangible (Fahey et al., 2007). Tangible rewards refer to those having concrete, visible, and easily measurable characteristics, such as financial remunerations and promotions. Intangible rewards are relatively less observable and measurable, and these mostly originate from other actors in the social environment, such as coworkers and the leader. Intangible rewards include social approval, verbal praise, and the acknowledgement offered by peers or the management. The current framework proposes that when rewards are targeted at a specific domain, such as creativity, both tangible and intangible rewards promote creative performance.

Tangible Rewards for Creativity

Various theories on motivation (e.g., reinforcement theory and expectancy theory) endorse the positive relationship between incentives and performance. Thus, as long as performance leads to the attainment of valuable rewards, such as financial incentives, individuals will perform the target behavior for its instrumentality (Baer et al., 2003; Jeffrey & Adomza, 2011; Malik et al., 2015). Such a utilitarian function can stimulate employee creativity in contemporary business organizations, where suggestions and ideas related to work processes or products are considered instrumental (Lopez-Cabrales et al., 2009). Nevertheless, by pointing out the controlling aspect of rewards, scholars have rejected the potentially beneficial effects of tangible rewards on creativity (Latham, 2007; Putwain et al., 2011). In this perspective, tangible rewards represent an externally imposed constraint on human behavior (Amabile, 1996). According to Hennessey and Amabile (2010, p. 581), "a variety of extrinsic constraints can undermine intrinsic motivation and creativity, including expected reward, expected evaluation, surveillance, competition, and restricted choice."

By contrast, employees do not unilaterally consider rewards as either controlling or constraining (Latham, 2007). Rewards may have additional functions, such as serving as an expression of appreciation from the management and a symbol of recognition granted for the successful completion of tasks (Jeffrey & Adomza, 2011). Considering the appreciative and informative functions of tangible rewards, such supportive types of tangible rewards are capable of enhancing employee creativity (Amabile, 1996). Eisenberger and Aselage (2009) also reported that employees' expectation of a reward for high performance enhances their creativity by stimulating perceived self-determination and performance pressure that promote intrinsic motivation. This result is in line with self-regulatory theory, in the sense that when individuals are provided with incentives for performance, they tend to feel negatively about achieving fewer goals and, in turn, strive for better performance (Carver, 2001; Eisenberger & Aselage, 2009). Therefore, tangible rewards specifically targeted at creativity are likely to enhance creativity.

Hypothesis 1: Tangible rewards for creativity are positively related to employee creativity.

Intangible Rewards for Creativity

Intangible rewards for creativity offer social recognition for creative performance that includes "informal acknowledgement, attention, praise, approval, or genuine appreciation for work well done from one individual or group to another" (Peterson & Luthans, 2006, p. 158). Compared with tangible rewards, intangible rewards may be perceived as less controlling because these convey task-related information, particularly when they are delivered contingent on the performance of a specific behavior, such as creativity (Stajkovic & Luthans, 2001). Thus, intangible rewards operate as supportive and informative feedback that may enhance targeted employee behavior by increasing the desirability of such behavior in the given social setting (Shalley, Zhou, & Oldham, 2004). Intangible rewards for creativity indicate that employees are being recognized and appreciated for their creative efforts; thus, allowing them to realize how well they perform while making creative contributions (Peterson & Luthans, 2006). When social recognition and informational evaluation are explicitly focused on creativity, employees may exert greater effort to make creative contributions (Shalley & Perry-Smith, 2001). Thus, when employees expect that their creativity will be recognized through various intangible rewards, they will exhibit a higher level of creativity in the workplace.

Hypothesis 2: Intangible rewards for creativity are positively related to employee creativity.

Motivation as a Mediator Between Rewards and Creativity

Previous studies conducted in laboratory settings have focused on the direct effects of rewards on creativity. In organizations, contextual factors, such as reward practices, lead to different employee behaviors depending on the strength and nature of the psychological meaning (or "functional significance") that these generate among target individuals (Deci et al., 2001; Ryan & Deci, 2000). Therefore, individuals may respond differently to the same reward contingency depending on their psychological reactions. Specifically, tangible and intangible rewards for creativity are expected to affect the creativity of employees by shaping their task motivation, thus suggesting the intervening role of motivation between rewards and creativity.

Researchers pointed out that task motivation is ephemeral, and thus, susceptible to contextual factors (Hennessey & Amabile, 2010). Hence, this study focused on *situational motivation* (as opposed to motivation as a trait-like propensity), which is defined as the motivation that individuals experience in the task they are currently engaged in (Vallerand, 1997). Situational motivation, measured at a certain point, describes a person's current self-regulatory processes (Guay et al., 2000). Therefore, situational motivation in a particular work context represents a situation-specific psychological state that can be shaped by reward contingencies.

The idea that both situation-specific intrinsic and extrinsic motivation can mediate the effects of tangible and intangible rewards on creativity was put forward by adopting the common distinction between intrinsic and extrinsic motivation (Aletraris, 2010; Deci et al., 1999). With intrinsic motivation, individuals perform an activity for inherent satisfaction, fun, or challenge that the activity itself provides (Aletraris, 2010; Ryan & Deci, 2000). Extrinsic motivation is based on the instrumental value accompanying the activity, such as economic gain, social recognition, and positive appraisal (Stajkovic & Luthans, 2001).

From the very definition of the construct, extrinsic motivation is clearly driven by the presence of external rewards. Therefore, tangible and intangible rewards for creativity can increase employees' situational extrinsic motivation to perform the current task. This extrinsic task motivation can enhance employee creativity given that creativity in the workplace comprises a critical part of task performance (Doyle, 2011). Unsworth (2001) acknowledged that creativity in organizations often results from external forces, such as expectations and elicitation of suggestions and ideas. When creativity is required and recognized at the workplace, extrinsic motivation can be a positive predictor of creativity (Choi, 2004). Given these reasons, tangible and intangible rewards for creativity are expected to be positively related to the extrinsic motivation of employees, which in turn predicts their creativity at work.

Hypothesis 3: Situational extrinsic motivation mediates the relationship between tangible and intangible rewards for creativity and employee creativity.

Although various forms of rewards are generally expected to generate extrinsic motivation, the effects of rewards and incentives on intrinsic motivation remain controversial. The meta-analysis of 128 experimental studies by Deci et al. (1999) showed that tangible and intangible (verbal) rewards have negative and positive effects on intrinsic motivation, respectively. Unlike tangible rewards that are "used to persuade people to do things they would not otherwise do, that is, to control their behavior" (Deci et al., 2001, p. 9), verbal rewards tend to "enhance perceived competence and thus enhance intrinsic motivation" (p. 3). In a similar vein, Hennessey and Amabile (2010) pointed out that "rewards can actually enhance intrinsic motivation and creativity when they confirm competence, provide useful information in a supportive way, or enable people to do something that they were already motivated to do" (p. 581). Thus, intangible rewards for creativity are likely to increase intrinsic motivation for a given task, which has been identified as a positive predictor of creativity (Anderson et al., 2014; Baer, 2012; Dewett, 2007; Grant & Berry, 2011). For this reason, intrinsic task motivation may operate as an intervening mechanism in the relationship between intangible rewards for creativity and employee creativity.

Hypothesis 4: Situational intrinsic motivation mediates the relationship between intangible rewards for creativity and employee creativity.

METHOD

Research Setting

Data were collected from one of the largest insurance companies in South Korea. This company initiated a campaign to emphasize team-level sales efforts, knowledge sharing, and organizational learning because of the fierce competition in the insurance market. At the time of data collection, the main managerial agendum of the company was innovation, and employees were encouraged to generate and share creative ideas. Financial planners and their sales managers routinely interacted because their activities were team based. Consequently, sales managers were given opportunities to observe the daily work activities and the creativity of financial planners.

Gong, Huang, and Farh (2009) reported that the task of financial planners requires extensive creative efforts, such as designing custom-made insurance packages, solving concerns of clients and their relatives, and developing

creative marketing and sales strategies using various means and channels. Typical of insurance companies, each financial consultant received a small amount of fixed monthly pay based on seniority and a performance incentive. The performance incentive was based on each employee's sales volume, contribution to the recruitment of new clients, and enhancement of client satisfaction. Along with the campaign, which emphasized teamwork and innovative sales efforts, the company introduced new incentive practices that reward creativity, knowledge sharing, and organizational learning of its employees.

Data Collection Procedure and Sample

Survey instrument was distributed to 350 employees (financial planners), who comprised approximately 15% of the company's sales personnel. Through this employee survey, financial planners reported their perceptions regarding the rewards for creativity and situational motivation in their current job, whereas their supervisors (sales managers) were requested to provide ratings on the employees' creativity. To ensure confidentiality of the survey responses, all participants sealed their own questionnaires and returned these directly to the human resource management team at the company headquarters. Among the 284 returned questionnaires, 13 responses were excluded because of unreliable response patterns. This procedure yielded usable responses from 271 matching pairs of employees and 91 supervisors (response rate = 77.4%). On average, each sales manager rated the creativity of three subordinates. The sample was 47% women. The average age of the employees was 39.93 years ($SD = 8.92$), with an average company tenure of 3.98 years ($SD = 5.66$). Finally, the participating employees reported that they had 13.11 years ($SD = 1.60$) of formal education.

Measures

The constructs in this study were measured using multi-item scales with acceptable levels of reliability. For all the measures explained in the following, the response format followed a six-point Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*).

Tangible Rewards for Creativity

To assess the level of tangible rewards for creativity, four items ($\alpha = .88$) were employed to represent the critical domains of tangible rewards used by Malik et al. (2015). The four items are as follows: "If I perform creatively in my job, I receive additional financial incentives," "Proposing creative ideas positively affects my income in this company," "My company offers substantial bonuses when employees perform creatively," and "In this company, creative performance has positive implications for promotion."

Intangible Rewards for Creativity

Items used by Malik et al. (2015) were adopted to assess intangible rewards for creativity. This scale includes the following three items ($\alpha = .92$): "When I offer innovative ideas, my colleagues recognize and encourage me," "The more creative ideas I propose, the more my supervisor or coworkers show positive attitudes toward me," and "If I perform creatively, I would receive positive feedback from my company."

Situational Extrinsic Motivation

The measure used by Guay et al. (2000) was adopted to assess situational extrinsic motivation. Specifically, four items ($\alpha = .81$) representing the external regulation of behavior were used. The items include: "I usually work or engage in task activities in this company (a) for economic reasons, (b) to receive what I need, (c) because I can be offered incentives or bonuses, and (d) because this task will benefit me financially."

Situational Intrinsic Motivation

Situational intrinsic motivation was measured with four items ($\alpha = .94$) adopted from Guay et al. (2000): "I usually work or engage in task activities in this company because (a) I think that the activity is interesting, (b) I think that the task activity is pleasant, (c) the activity is fun for me, and (d) I feel good when doing the activity."

Employee Creativity

To assess employee creativity, the three-item measure ($\alpha = .93$) of idea generation developed by Janssen (2003) was used. The items include: "This employee generates new ideas to address challenging issues," "This employee seeks new methods, techniques, or instruments," and "This employee generates original solutions for problems." Each item was rated by the sales managers.

Control Variables

In the current analysis, the effects of demographic factors, such as age and gender, were controlled (Yi, Hu, Scheithauer, & Niu, 2013).

RESULTS

Consistent with prior studies (e.g., Cheung & Leung, 2013), exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted to test the

validity of the current scales used to measure the study variables. EFA results showed that all scale items have factor loadings greater than .68 on their corresponding factors with low cross-loadings (lower than .40), indicating an acceptable factor structure (Chin, 1998). CFA results of the 18 items or indicators of the five latent factors also showed that the hypothesized five-factor structure fits the data well, $\chi^2(df = 84) = 242.89$, $p < .01$, CFI = .94, RMSEA = .084. This five-factor model performed significantly better than any of the competing models based on the alternative four-factor or three-factor solutions ($p = .006$ for all χ^2 comparisons). Moreover, in the hypothesized five-factor model, all indicators were significantly loaded on their corresponding factors ($p = .008$), and the latent factors were only moderately correlated with each other, which indicates the discriminant and convergent validity of the present measures. Table 1 reports the descriptive statistics and correlations among all study variables.

Hypothesized Structural Model and Alternative Models

As an analytic strategy for hypothesis testing, structural equation modeling was conducted to explore the multiple steps of the causal relationships involving multiple mediating variables after controlling for the measurement error of the latent factors (Price, Choi, & Vinokur, 2002). Although no directional hypothesis for the link between tangible rewards for creativity and intrinsic motivation was proposed in the theoretical model, this path was included as control. The hypothesized structural relations exhibited a good fit to the present data, $\chi^2(df = 128) = 320.76$, $p < .001$, CFI = .94, RMSEA = .075.

The hypothesized model was further compared with theoretically plausible alternative models. First, the possibility that tangible and intangible rewards have direct effects on creativity, aside from their indirect effects through situational motivation, was tested. This first alternative model produced a good model fit, $\chi^2(df = 126) = 319.69$, $p < .01$, CFI = .94, RMSEA = .075, but failed to improve the fit of the hypothesized model significantly, $\Delta\chi^2(\Delta df = 2) = .73$, $p > .50$. In this alternative model, none of the two added direct paths was statistically significant, which indicates that after controlling for the indirect effects through motivation, rewards did not have any direct effects on creativity.

Second, another alternative model was created in which tangible rewards predicted only extrinsic motivation, whereas intangible rewards predicted only intrinsic motivation. This alternative model resulted in an acceptable fit, $\chi^2(df = 130) = 339.35$, $p = .001$, CFI = .94, RMSEA = .077, but was significantly worse compared with the hypothesized model, $\Delta\chi^2(\Delta df = 2) = 18.59$, $p < .0002$. Overall, the structural relationships observed in our data were best accounted for by the proposed conceptual model. Results derived from this best-fitting model are reported in Figure 1.

Statistical Tests of Hypothesized Relationships

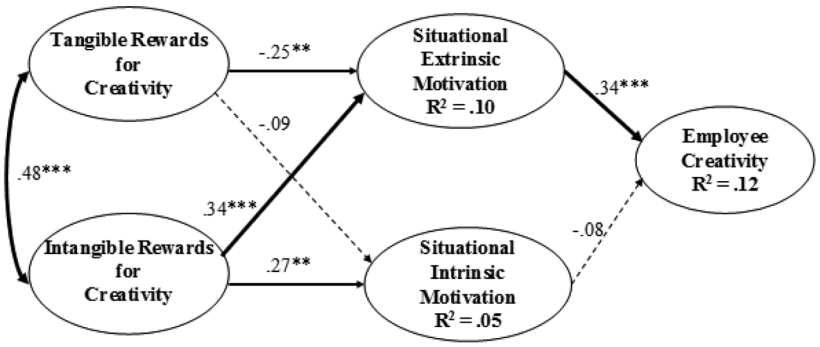
Hypotheses 1 and 2 proposed that tangible and intangible rewards for creativity are positively related to employee creativity. To test these hypotheses, the hypothesized structural model was modified by adding two direct paths between rewards and creativity and by removing the two paths that link motivation and creativity. Thus, in this model, tangible and intangible rewards were the only main effect variables predicting creativity. In this model, an interesting pattern emerged. Intangible rewards for creativity were significantly related to employee creativity ($\beta = .16$, $p = .03$), which supported Hypothesis 2. By contrast, tangible rewards for creativity unexpectedly showed a negative effect on employee creativity ($\beta = -.17$, $p = .03$). Therefore, Hypothesis 1 was not supported.

Hypotheses 3 and 4 posited that extrinsic and intrinsic motivation (mediators) mediate the relationships between tangible and intangible rewards (independent variables) and employee creativity (outcome). These mediation hypotheses were tested based on the procedure suggested by Baron and Kenny (1986). First, with regard

TABLE 1
Means, standard deviations, and correlations

Variables	*M*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*
1. Age	39.83	8.92	–						
2. Gender	.47	.50	−.18**	–					
3. Tangible Rewards for Creativity	2.48	1.16	−.10	.04	–				
4. Intangible Rewards for Creativity	4.24	1.20	−.12	−.02	.52**	–			
5. Situational Extrinsic Motivation	4.46	.99	.04	.07	−.02	.16**	–		
6. Situational Intrinsic Motivation	4.24	1.20	−.18**	.06	.06	.19**	.38**	–	
7. Employee Creativity	4.08	1.10	−.05	−.04	−.08	.08	.40**	.09	–

Note. Gender (0 = female, 1 = male), $N = 271$.
*$p < .05$; **$p < .01$.



Note. Solid lines represent statistically significant results. Dotted lines represent statistically insignificant results. ** $p < .01$, *** $p < .001$

FIGURE 1 Structural relationships among rewards for creativity, situational motivation, and creativity.

to the direct effects of the independent variables on the outcome, tangible and intangible rewards for creativity had negative and positive main effects on creativity, respectively, as reported earlier. Second, with regard to the effects of the independent variables on the mediators, as shown in Figure 1, intangible rewards for creativity were positively related to both extrinsic and intrinsic motivation ($\beta = .34$, $p = .001$ and $\beta = .27$, $p = .007$, respectively). However, tangible rewards for creativity were negatively related to extrinsic motivation ($\beta = -.25$, $p = .008$), with a nonsignificant association with intrinsic motivation ($\beta = -.09$, *ns.*). Third, with regard to the effects of the mediators on the outcome, only extrinsic motivation, but not intrinsic motivation, was a significant predictor of creativity ($\beta = .34$, $p = .001$ and $\beta = -.08$, *ns.*, respectively). Finally, when the independent and mediating variables simultaneously predicted the outcome, the effects of independent variables (tangible and intangible rewards) became insignificant ($p = .34$), whereas a mediator (extrinsic motivation) remained significant ($\beta = .32$, $p = .001$), which suggests full mediation.

Overall, these mediation analyses indicate that intrinsic motivation was not a significant mediator between rewards and creativity, disconfirming Hypothesis 4. By contrast, by meeting all the criteria for mediation (Baron & Kenny, 1986), situational extrinsic motivation fully mediated the effects of tangible and intangible rewards on employee creativity, although tangible rewards exhibited unexpected negative effects on both extrinsic motivation and creativity. Indirect effects of tangible and intangible rewards on employee creativity through extrinsic motivation were statistically significant (Sobel test: $z = -2.52$, $p = .02$ and $z = 2.96$, $p = .009$, respectively). The results supported Hypothesis 3. This analyses demonstrated the role of extrinsic motivation, rather than intrinsic motivation, as a meaningful intermediate psychological process between rewards and creativity in organizations.

DISCUSSION

This study examined the effects of reward practices on creativity, as well as the mediating effects of situation-specific intrinsic and extrinsic motivations on the reward–creativity relationship. Intangible rewards for creativity were significantly and positively related to both situational extrinsic and intrinsic motivation. Unexpectedly, tangible rewards for creativity were negatively related to situational extrinsic motivation. The relationship between tangible rewards for creativity and situational intrinsic motivation was not significant. Furthermore, of the two dimensions of situational motivation, extrinsic motivation (not intrinsic motivation) was a significant predictor of employee creativity. These findings supported the overall theoretical framework, although an unexpected pattern involving the tangible rewards for creativity–situational extrinsic motivation relationship was observed. The implications of the current study and its limitations that warrant future research are discussed in the following.

Theoretical and Practical Implications

Contrary to the less-than-desirable effects of tangible rewards on creativity, these results clearly demonstrate the significance of intangible rewards in the workplace. Intangible rewards for creativity include verbal praise, public recognition and its accompanying reputation, and social encouragement following an employee's creative performance. The results revealed that when employees are exposed to intangible rewards for creativity, they develop higher levels of both intrinsic and extrinsic motivation toward their tasks. The facts that intangible rewards increase both intrinsic and extrinsic motivation and that the two types of situational motivation are positively related ($r = .38$, $p = .001$) depart from the antagonistic image of the two motivational forces, and possibly endorses an additive model (Gagne & Deci, 2005).

Contrary to the expectation, tangible rewards for creativity were negatively related to extrinsic motivation and employee creativity. This seemingly counterintuitive pattern carries substantive implications that cast new theoretical insights. The negative connotation of tangible monetary rewards on motivation and performance is at the core of cognitive evaluation theory (Deci et al., 2001; Ryan & Deci, 2000), as well as the social psychology of creativity (Amabile, 1996; Latham, 2007; Putwain et al., 2011). Despite previous arguments on how tangible rewards may backfire on motivation and performance, this study proposed and demonstrated that tangible rewards contingent on creativity are positively related to creativity by drawing on the notion of instrumentality (Byron & Khazanchi, 2012; Malik et al., 2015). Studies on compensation showed that monetary compensation functions as a significant driver of employees' desirable attitude and behavior, conducive to various organizational functioning and effectiveness (Cadsby, Song, & Tapon, 2007; Lazear, 2000). A survey of human resource management also reported that tangible reward was ranked second in importance by employees, following job security (Victor, 2012). Nonetheless, the results demonstrated that tangible rewards hold detrimental effects even when these are specifically targeted at creativity.

Although the negative effect of tangible rewards on creativity may support the position of the cognitive evaluation theory, the finding that tangible rewards are also negatively related to extrinsic motivation remains counterintuitive. A potential reason for this pattern might be the distinct cultural orientation of Korean employees who comprised this sample. DeVoe and Iyengar (2004) pointed out that national differences could play a crucial role in the effects of rewards on various job-related outcomes. According to the analyses, Korean employees seem to be strongly driven by extrinsic motivation in the workplace. However, their negative reactions to tangible and often publicly noticeable rewards seem to reflect the Asian tradition that discourages materialism. Perhaps, the influence of Confucian values regulates the behavior of Koreans, such that they tend to undervalue the significance of monetary rewards (at least in public) or consider that a virtuous person should not express or pursue individual materialistic desire to save face. Thus, the employees in the current sample might have felt uncomfortable encountering explicit material incentives.

In addition, our sample of employees, who are used to incentive systems based on their sales performance, might feel uncomfortable about the explicit link between creativity and financial incentives if they believe that their main goal is to increase sales, not to generate creative ideas. Employees' creative role identity (Farmer, Tierney, & Kung-McIntyre, 2003) and perceptions of required levels of creativity in their job (Shalley et al., 2004) may shape the meaning of explicit forms of creativity-contingent rewards for the job incumbents.

Another interesting finding is the significant effect of situational extrinsic motivation on employee creativity. Extrinsic motivation served as the intermediate mechanism between tangible and intangible rewards for creativity and employee creativity, whereas intrinsic motivation failed to offer such an intervening process. The roles of intrinsic and extrinsic motivation in relation to creativity may be contingent on the nature of the task. Existing studies that showed positive effects of intrinsic motivation on creativity were conducted mostly in the R&D setting (Dewett, 2007; Shin & Zhou, 2003), which may be characterized by more complex and unstructured tasks than our setting of insurance sales, in which tasks tend to be more structured and often regulated by the government. Prior studies suggested that intrinsic motivation tends to enhance performance in interesting and complex tasks, whereas extrinsic motivation is advantageous in mundane or well-structured tasks (Gagne & Deci, 2005). As both positive and negative moods boost individual creativity by initiating intuitive and systematic cognitive processes, respectively (dual-tuning theory, George & Zhou, 2007), intrinsic and extrinsic motivations may be responsible for different dimensions of creativity. For instance, intrinsic motivation can allow free association and explorative, intuitive thinking, thus promoting the novelty of generated solutions. By contrast, extrinsic motivation can focus a person's attention on external evaluation criteria, thus enhancing the plausibility or utility of solutions. Further studies may investigate the possibility that intrinsic and extrinsic motivations are favorable for different types of tasks, and that these contribute to (or result in) different forms of creativity.

Given the lack of field studies on creativity that include both intrinsic and extrinsic motivations, a definite conclusion is unwarranted. Nonetheless, these findings raise questions with regard to the prevailing belief that extrinsic motivation distracts one's interest from the task itself, and consequently has a detrimental effect on creativity. In an effort to resolve these inconsistencies, Ryan and Deci (2000) suggested the presence of autonomous or self-determined types of extrinsic motivation in addition to the controlling types of extrinsic motivation (cf. Gagne & Deci, 2005). Amabile (1997) also distinguished synergistic extrinsic motivators from controlling extrinsic motivators, suggesting that extrinsic motivation is not necessarily controlling and that some types of rewards can improve performance without decreasing intrinsic motivation.

The findings suggest the need to carefully design a pay system and pay configuration by taking into account the task properties and desired form of performance.

Managers need to use rewards with caution because these may result in unintended consequences. The results indicate that single-minded reliance on tangible rewards can backfire on the organization by impeding, rather than promoting, employee motivation and creativity. These analyses highlight the importance and efficacy of domain-specific intangible rewards in generating desirable task behavior and outcomes. Goodman (2000) suggested that such intangible incentives can help employees perceive their work climate as positive, leading to increased pro-social activities and task performance. Although intangible rewards may reduce social risks associated with creativity by encouraging such efforts (Putwain et al., 2011), the risk of failure and its accompanying negative performance outcomes may still present a barrier to employee creativity. Thus, in addition to encouraging risk-taking, organizations need to properly manage employees' fear of failure by not penalizing their innovative failures.

Study Limitations and Future Research Directions

This current study has several limitations. First, although these data were based on multiple sources, all variables were collected at a single period. Consequently, the causal directions among the constructs became ambiguous. In addition, both independent (rewards) and mediating variables (motivations) were reported by the focal employees. Although EFA and CFA results are reassuring, our data are not free from potential threats of the same method variance. Second, following a common practice in literature (Deci et al., 2001; Shepherd & DeTienne, 2005), tangible (often financial) rewards from intangible (verbal and social) rewards were distinguished in this study. In reality, however, this kind of distinction can be difficult to carry out, and numerous daily incentives can fall somewhere in the middle. For example, a corner office or coffee with the supervisor with performance-related conversation can be categorized as a tangible or intangible reward depending on how the employee perceives the event. Assessing the level of *tangibleness* of various external events and their effects on employee motivation and creativity may be an interesting topic for further research. Third, our measures of tangible and intangible rewards may reflect both the actual rewards employees received and their perceptions of the rewards. Further empirical research is needed to isolate the sources of this confusion and to differentiate the effects of actual versus perceived reward contingencies in organizations.

This study points to several directions for future research. For instance, the meaning of the same reward practices may shift depending on cultural orientation or individual values. The relative importance of certain types of rewards could differ significantly from one culture to another because some cultures devalue materialistic incentives and quantitative achievements. Bartol and Locke (2000) found that those who value money less than other rewards would not readily and positively respond to monetary incentives. Given that HR practices or policies initiate different sense-making processes, theorizing and empirically examining the process by which culture or individual values operate as moderators is necessary, especially when determining individual reactions to tangible and intangible rewards.

A key finding of this study is the critical role of extrinsic motivation in enhancing employee creativity. Prior field studies singularly focused on the role of intrinsic motivation (Dewett, 2007; Shalley et al., 2009; Shin & Zhou, 2003; Zhang et al., 2012); hence, the relative contribution of extrinsic and intrinsic motivations on creativity should be further validated. Future studies may expand these findings and identify boundary conditions (e.g., task characteristics, types of creativity, etc.) that make extrinsic motivation more important than intrinsic motivation in promoting employee creativity or vice versa. Finally, isolating the ways through which negative implications associated with tangible rewards can be reduced would be an interesting topic. After all, monetary compensation and other tangible rewards are the most common and unavoidable tools for encouraging desirable task behavior and performance of employees. Therefore, management scholars need to develop efficacious strategies that can maximize the beneficial effects of material incentives while minimizing the undesirable side effects particularly for employees with cultural values that depreciate the value of materialistic achievements.

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