

Research Article

Intrinsic Rewards for Creativity and Employee Creativity to the Mediation Role of Knowledge Sharing and Intrinsic Motivation

Sayed Sami Muzafary ¹, Mohammad Naim Wahdat,¹ Mudassir Hussain ²,
Bonga Mdletshe,³ Shouket Ahmad Tilwani,⁴ and Robi Khattak⁵

¹Kabul University, Kabul, Afghanistan

²University of Lakki Marwat, Lakki Marwat, Khyber Pakhtunkhwa, Pakistan

³Huazhong University of Science and Technology, Wuhan, China

⁴Prince Sattam Bin Abdulaziz University, Al-Kharj, Saudi Arabia

⁵Kohat University of Science & Technology, Kohat, Khyber Pakhtunkhwa, Pakistan

Correspondence should be addressed to Mudassir Hussain; mudassir@ulm.edu.pk

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The purpose of this research is to examine the mediating role of knowledge sharing and intrinsic motivation on the relationship between intrinsic rewards for creativity and employee creativity and furthermore explore the mediating role of intrinsic motivation on the relationship between intrinsic rewards for creativity and knowledge sharing. A total of 400 matched data were collected from employees and their immediate supervisors of four public universities in Afghanistan. The results revealed that knowledge sharing and intrinsic motivation mediated the linkage between intrinsic rewards for creativity and employee creativity, which comprises idea generation. The results have shown that the relationship between intrinsic rewards for creativity and knowledge sharing is mediated by intrinsic task motivation. The current research contributes to the employee creativity literature by empirically examining the mediating role of knowledge sharing and intrinsic motivation in the relationship between intrinsic rewards for creativity and employee creativity in the one hand and the mediating role of intrinsic motivation in the relationship between intrinsic rewards for creativity and employee creativity in other.

1. Introduction

Creativity plays a crucial role in nurturing organizational performance, effectiveness, improvement, transformations, and development [1–4]. Particularly, the ability to generate and implement novel thoughts that are both useful and constructive has become a critical achievement factor for any organizations including universities [5]. In universities, creativity can be helpful for the creation of worth and facility of services, thus facilitating the understanding of organizational objectives and answering to the anticipated transformations in the society [6]. Moreover, creativity occupies an essential role in universities since it is a place where new knowledge and new ventures are produced as well as

innovative ideas, the necessity for new ideas is to enable employees to preserve the organizational position [7, 8].

Public universities are essential as public organizations that offer educational services for the much-needed capital of any country, which is the workforce [9]. Generally, students are a future capital of the country, and they anticipate to receive new services or seeing novel methods in the existing services together with environmental and technological changes from the universities [7, 10]. Furthermore, universities are expected to utilize creativity to generate new concepts such as new knowledge, development knowledge, and new skills; thus, the creativity of universities is a sacrosanct element to keep them relevant and productive [5].

Creativity performed or displayed by employees is a basic factor amongst other approaches to cultivate innovation and organizational achievement [1]. Researchers and professionals alike concur that creativity is vital for organizations' survival, regardless of its presence, whether heavy novelty or slight modifications to the workplace [11, 12]. As a result, organizations achieve innovation when they invest in their employees, since innovation is attainable by increasing employee knowledge, skills, and creativity [10].

Employee creativity can be influenced by numerous factors. Among others, intrinsic rewards originate from the activity itself and usually express senses of achievement, enjoyment, satisfaction, challenge, autonomy, and individual, proficient progress and job autonomy, and proactive personality [13–15]. By providing psychological basic needs to employees, intrinsic rewards satisfy them in their own right in organizations [16]. Given this, using intrinsic rewards for creativity can be a plausible way to boost employee creativity in the workplace. However, empirical evidence on the impact of reward on employee creativity has been ambiguous, declaring positive relations among rewards and creativity in some cases (e.g., [14, 17, 18]) and negative relations in others (e.g., [19, 20]). Moreover, researchers also have recently required an examination regarding the mechanisms on how or through what mediators will reward influence employee job performance [17]. This is an indication that there is a need to comprehend the mechanisms and procedures to describe the types of rewards that affect the creativity enhancement behavior of the employees [12].

To provide some evidence on how the said mechanisms and procedures can be understood, the current study questions the oversimplified reward advances (or delay)—creativity show with the end goal to think about how (through what mediators) intrinsic reward may prompt higher levels of creativity [17, 21]. It further clarifies the nature of the intrinsic rewards—creativity relation and the mediating effects of knowledge sharing as well as intrinsic motivation.

In the current research, our concentration was on intrinsic rewards and the ways they affect the creativity of employees in the workplace. The first point was to comprehend the relation between intrinsic reward and creativity, better, and scholars have supported examining the particular kind of rewards (e.g., rewards for creativity or creativity-contingent rewards), that is, most important to creativity, since the impacts of various kinds of reward and creativity are not equivalent [21, 22]. Hence, we contributed with the role of creativity-contingent rewards on predicting employees' creative behavior with the critical objective to keep up a key separation from the ambiguity caused by rewards represented in general. Therefore, we studied the impact of intrinsic rewards for creativity on employee creativity and further posit that employees' intrinsic motivation for creativity may be a potential mediating psychological state in the connection between intrinsic rewards and employees' creativity. Few field studies have concentrated on exploring the positive role of intrinsic motivation dependent on the thought that it is the key mediating process between the setting and employee creativity [23]. Second, we aim to

clarify the role of intrinsic motivation in this case as it is considered a mediator; furthermore, we study how intrinsic motivation mediates the effect of intrinsic rewards on knowledge sharing. Generally, employee motivation is viewed as a key component for directors in knowledge-sharing procedures [20, 24, 25]. The significance of knowledge sharing to organizations expands their enthusiasm for understanding the power of persuasion between employees. However, individual factors, which are able to motivate, persuade, or undermine knowledge sharing, are not understood in its entirety. Studies which used tools, for example, rewarded practice are insufficient [26], and their findings are uncertain and demonstrate ambiguous and controversial results [12, 17, 27, 28]. Thus, the present research uses self-determination theory (SDT) [29], to examine the mediation role of intrinsic motivation in the relationship between intrinsic rewards and knowledge sharing. SDT shows that intrinsically motivated behavior happens when an individual identifies with specific tasks leading to one feeling the sense of autonomy, relatedness, and competence (self-efficacy). This approach supplements existing examinations that have exclusively centered on intrinsic motivation [30, 31]. Thirdly, we explore the mediating role of knowledge sharing on the relationship between intrinsic reward and employees' creativity. The study recognizes the factors that empower the intrinsic motivation of employees to share knowledge as an organizational improvement, which leads to the distribution of original ideas in an organization. According to the Dysvik [32], Hung et al. [33], and Yeh et al. [34], researchers consider knowledge sharing as an enhancer of organizational creativity, which stimulates the generation of creative thoughts, which have the possibility to improve work procedures and to grow new prospects. The current research is advanced in the environment of a competitive intelligence procedure dependent on data gathering and knowledge sharing when, in the perspective of the follower, there is a signal of essential future competitive changes in the workplace. Knowledge sharing is a volunteer performance [34–36]. Motivation assumes a vital role in this performance, and it cannot be required, however, the outcome from an intrinsic motivation to share [37].

Finally, the current study adds to the existing literature by concurrently exploring the effect of intrinsic reward for creativity in shaping knowledge sharing and intrinsic motivation, and in turn, employee creativity. Furthermore, it adds to the literature examining the role of intrinsic reward for creativity in shaping intrinsic motivation, and in turn encouraging employee knowledge sharing. By testing a model that incorporates intrinsic rewards for creativity, our research examines whether intrinsic rewards for creativity have an incremental predictive validity in explaining knowledge sharing and intrinsic motivation. As we examine our molds between employees of public universities in a non-Western cultural setting, our results will add to a better understanding of cultural specificity on the generalizability of employee knowledge sharing and intrinsic motivation reactions in the face of intrinsic rewards for creativity. The current research will definitely suggest some interesting perceptions concerning the effectiveness of intrinsic rewards

for creativity in a relatively understudied country, Afghanistan, with specific importance to the public universities in the country.

2. Theory and Hypotheses

2.1. Employee Creativity. To create a competitive edge, creativity is an essential factor for the contemporary organization including universities [2, 38, 39]. It is crucial for motivating organizational improvement and leads to profitable success [40–42]. Thus, creativity has been a common topic in scientific discs long-windedly. Numerous scholars (e.g., [5, 10, 38, 41, 43]) argue that creativity is an essential factor, which assesses an organizational competitive aptitude. Employee creativity has mainly concentrated on identifying factors that assist to create new thoughts from employees [44]. In the workplace environment, employee creativity is affected by diverse contextual factors [45]. Based on Andriopoulos [46], creativity in an organization is specified by the creativity of the employees and collections who establish an organization.

Prior researches have attempted to analyze the effect of cognitive style and personality of employee creativity even though others have estimated the effect of contextual factors, which structure part of the setting, on an employees' creativity [31]. Different personal and job-related factors have been recognized to control employee creativity. The nature of the activity assumes a significant role in affecting employees' inclination to demonstrate creative behavior in the work environment [47]. The present research focuses on personal and contextual factors such as intrinsic rewards for creativity, intrinsic motivation, and knowledge sharing, which appears to have a considerable effect on employee creativity in workplaces.

2.2. Intrinsic Rewards for Creativity and Employee Creativity. In the work environment, intrinsic rewards originate from the activity itself and usually express senses of self-satisfaction, accomplishment, enjoyment, challenge, and individual professional development [13, 48]. Intrinsic reward is an untouchable honor of acknowledgment, a feeling of accomplishment, or a sense of fulfillment [49]. Intrinsic rewards and going to intrinsic task motivation are useful for creative performance [14]. Intrinsic rewards are "satisfying in their own right and they give the coordinate satisfaction of essential psychological needs" ([16], p. 22). Consequently, intrinsic rewards tend to influence employees' task motivation, bringing about insistent task endeavors [13]. When individuals get intrinsic rewards, they are stimulated to work harder and make superior performance because intrinsic rewards advance top-to-bottom job processing and persistence [16]. In the same vein, Chen et al. [23] indicate that when employees believe that their creativity will be comprehended by different intrinsic rewards, they would show a larger amount of creativity in the working environment. Therefore, we hypothesize the following:

H1: intrinsic rewards for creativity are positively related to employee creativity

2.3. Intrinsic Rewards for Creativity and Knowledge Sharing. According to the Wickramasinghe and Widyaratne [50], intrinsic rewards could support knowledge sharing through an individual contribution in collaboration, group task achievement, and formal interactions inside and among teams [51]. Intrinsic rewards had significant and positive associations with knowledge sharing. Intrinsic rewards frequently emphasize and encourage employees on collaboration, group task accomplishment, learning through knowledge sharing, control and autonomy in decision-making, and giving authority to implement ideas that promote employee contribution in the generation and execution of ideas [52]. Furthermore, while employees obtain intrinsic rewards, they are motivated to share knowledge, work more earnestly, and produce quality execution since intrinsic rewards advance inside and out task preparation and diligence [51]. Constant with the previous study, it is hypothesized as follows:

H2: intrinsic rewards for creativity are positively related to knowledge sharing

2.4. Intrinsic Rewards for Creativity and Intrinsic Motivation. Intrinsic rewards for creativity had a significant and positive association with intrinsic task motivation [53–55]. Intrinsic reward as defined earlier is that reward which is unseen, yet it is expressed by the manager or supervisor towards employees [49]. Intrinsic motivation is derived from intrinsic rewards that refer to behaviors, which are originated from within individuals [56]. An experimental study on the incremental effect of rewards on creativity demonstrated that intrinsic rewards positively affect intrinsic motivation [22]. Deci et al. [57] indicate that the intrinsic reward will, in general, enhance the obvious ability and consequently increment intrinsic motivation. Thus, we suggest the following hypothesis:

H3: intrinsic rewards for creativity are positively related to intrinsic motivation

2.5. Knowledge Sharing and Employee Creativity. Scholars have mentioned that organizations can effectively advance the knowledge sharing culture by not just combining knowledge in their strategies but also mold employee attitudes and behaviors towards advancing willing and steady knowledge sharing [58–60]. Zhang et al. [61] view knowledge sharing as those activities of how to aid societies of individuals to cooperate, encouraging the trading of their insights, improving the authoritative learning limit, and increasing their capacity to accomplish individual and organizational objectives. In addition, various scholars have shown that the organizational value of employee knowledge increments when it is shared [25, 36]. When employees are ready to share knowledge with partners, organizations would be able to start to oversee knowledge resources successfully. Dong et al. [35] proposed that creativity needs the support of knowledge. Knowledge is, therefore, a composite flow property, which can be utilized to direct human thinking, communication, and behaviors [62]. Yang

et al. [63] recommended that knowledge is a type of human logical thinking for information and data, which can improve human execution at work in decision-making, critical thinking, and adapting; hence, creativity and innovation need new knowledge [64]. Creativity itself is the consequence of knowledge creation [27]. Furthermore, while employees normally share knowledge with their colleagues, they do so in recognition that achieving novel solutions to organizational issues is paramount [65]. Such solutions will require an assorted arrangement of abilities and aptitudes, making it try for workers to recognize them without any help [66]. At the point when employees are not involved in usual knowledge sharing, they may neglect novel manners by which their organization should be able to keep up its competitive advantage [65]. Researchers confirm that if employees were able to recognize pertinent knowledge and actuate the importance of knowledge dispersed between individuals, they will accomplish larger amounts of creativity. Conversely, if singular experience and assets are not shared, the intellectual assets within an employee remain underutilized [67, 68]. Improved knowledge sharing prompts an increasingly far-reaching thought of information that is an important stage for empowering aggregate creativity [11]. The positive linkage between knowledge sharing and employee creativity has lately received some empirical support, involving study and growth employees, and management employees' collaboration [11, 52, 69, 70]. In light of a meta-analysis, Anderson and Salgado [71] determined that inner correspondence of knowledge and other collaboration-related subjects among colleagues developed as a standout amongst the most dominant operators of new idea generation and implementation. Consequently, it is hypothesized as follows:

H4: knowledge sharing is positively related to employee creativity

2.6. Intrinsic Motivation and Employee Creativity. Intrinsic motivation implies that people have an intrinsic propensity to enhance their abilities and find and learn new things. From the earliest starting point of their lives, people can act just for the interest and the craving for learning without any extrinsic rewards [72]. As it were, when people look in on their work for the excitement, consideration, or fulfillment evoked by interest, self-articulation, or challenge, they are motivated intrinsically. Intrinsic motivators are the inner pieces of the person's activities. They emerge from the feelings identified with the activity, and they ought to be identified with the person's work [73]. Intrinsic motivation is known as an internal feeling of motivation which individuals may utilize to enhance one's aptitude or capacity by means of exercise or experiment [12]. Intrinsic motivation is unique to every individual, and it variates within an individual as dictated by the tasks [74]. As indicated by Smith et al. [54], motivated intrinsically people will, in general, be progressively inquisitive, the more intellectually adaptable, increasingly willing, and ready to hunt for new knowledge and additionally eager to utilize nontraditional ways to deal with achieving choices, which thus may slant these people to

be creative. In accordance with this reasoning, intrinsic motivation is perceived as an important segment of creativity [75], and the immediate linkage among the two factors has discovered empirical support [48, 73]. Thus, it is hypothesized as follows:

H5: intrinsic motivation is positively related to employee creativity

2.7. Intrinsic Motivation and Knowledge Sharing. Galia [76] emphasized that intrinsic motivation refers to taking part in a movement or activity benefitting its own, beyond intrigue, or for the joy and fulfillment got from the skill. For instance, via sharing knowledge, employees are able to fulfill through increasing their knowledge, self-confidence, and self-efficacy in their capacity to give knowledge that is valuable to the organization [62, 77]. According to Zhang et al. [28], in addition, workers who share knowledge in online networks advance opportunities to aid other people. The study has identified the essential role of intrinsic motivators in clarifying human behavior in numerous areas [25] comprising knowledge sharing [33]. From an intrinsic motivational perspective, the behavior is extracted by the necessity of employees to sense self-determination and competence in managing their situation [78]. Competence is considered as the intercessions of people with respect to their ability to sort out and execute action plans required to accomplish explicit dimensions of performance [79]. Competence can aid, motivate, and encourage workers to share knowledge with their partners [79–81]. Scholars have additionally discovered that individuals with high self-confidence in their capacity to give profitable knowledge are sure to achieve explicit errands [62]. Knowledge self-efficacy is normally shown in individuals trusting that their knowledge can aid to resolve job-related issues and increase work effectiveness [76]. Employees who trust that they are able to contribute to organizational performance through knowledge sharing can produce further constructive approaches to and meanings with respect to knowledge sharing. Pleasure in aiding and serving other people derives from the perception of altruism [25]. According to Yang et al. [63], altruism is optional action or behaviors, which aid explicit others with an organizationally pertinent task or issue. Past study demonstrates that workers are intrinsically motivated to add knowledge since taking part in knowledgeable interests and resolving issues are interesting or enjoyable, and they like serving other people [25]. Knowledge supporters who get happiness and pleasure from helping other people might be more positively concerned with knowledge sharing and further motivated to share knowledge. Hence, it is hypothesized as follows:

H6: intrinsic motivation is positively related to knowledge sharing

2.8. Mediation Role of Knowledge Sharing between Intrinsic Rewards for Creativity and Employee Creativity. Almeida et al. [62] emphasized that knowledge sharing as a possible improver of intrinsic rewards impacts and established that

intrinsic rewards performances via knowledge sharing affects employees' work results. Knowledge sharing explains the links between intrinsic rewards and employees' job-related behavior by giving extensive motivational mechanisms [76, 82]. Employees encouraged through intrinsic rewards, feel psychologically empowered, and enabled in since that they understand the organization's requirements from them and are well organized to manage their skills, attitudes, and behaviors to these requirements, performance consequences, and requests. They have an advanced sense of power and self-efficiency in their activities and work environments. Greater freedom and decision-making provide employees with the ability to answer with greater levels of creative procedure and engagement [83]. Intrinsic rewards encourage the diffusion of knowledge [62], allocate stimulating tasks [84], and produce knowledgeable inspiration [85], which are all related definitely to creativity. This type of reward gets ready for individuals to be more concerned and increases convictions about their ability to do tasks and achieve work with uniqueness and creativeness [84]. Such types of rewards represent sentiments of satisfaction, accomplishment, challenge, and individual and professional development [14]. The results of [11, 35, 52, 70, 71] presented that employees showed creativity when they work in high-task independence at the work setting with continuous discussion, delegation, and self-direction. Continuous with the prior exploration, it is hypothesized in this research:

H7: knowledge sharing mediates the relationship between intrinsic rewards for creativity and employee creativity

2.9. Mediating Role of Intrinsic Motivation between Intrinsic Rewards for Creativity and Employee Creativity. In the work environment, intrinsic rewards come particularly from the action itself and regularly speak to sentiments of joy, achievement, and individual development [13, 18]. Yoon et al. [14] exhibited that the intrinsic reward will, in general, enhance the observable ability and consequently increment intrinsic motivation. Intrinsically motivated employees contribute more vital endeavors, as they have an unusual condition of concern, solid interest, and a need to know [25]. Intrinsic motivation produces positive fondness, psychological flexibility, interest in hazard taking, and diligence, prompting the advancement of creativity [31]. Three possible ways were recognized by researchers to know how intrinsic motivation boosts creativity. First, as proposed by emotion theorists, intrinsic motivation positively affects [86], which stimuli creative behavior through growing the volume of psychological indications accessible, expanding the scope of consideration accessible for adapting different thoughts, and advancing the subjective flexibility for defining designs and likings among thoughts [85]. Second, as contended by self-determination theorists, employees who are motivated intrinsically will probably have a larger amount of interest and a superior concern in knowing, enabling them to create cognitive flexibility, a readiness to go for broke, and receptiveness to a multifaceted nature, which finally prompts increments in

creativity [87]. Lastly, both self-determination and emotion theorists concur that determination assumes a basic role in intrinsic motivation, boosting creative behavior. From the emotion theorist perspective, intrinsic motivation promotes positive liking, which, thus, creates continued emotional involvement and a more prominent time promise to job [88]. From the self-determination theorist perspective, intrinsic motivation empowers self-efficacy and intrigue, which enables employees to endure, stimulating, confused, and unique errands [89], and furnishes them with a more prominent focus for those errands [87]. Based on the prior shreds of evidence, we hypothesize the following:

H8: intrinsic motivation plays a mediating role in the relationship between intrinsic rewards for creativity and employee creativity

2.10. Mediation Role of Intrinsic Motivation between Intrinsic Reward for Creativity and Knowledge Sharing. According to self-determination theory (SDT), knowledge sharing is regarded as an intrinsically motivated behavior because it aligns an individual's psychological basic needs for relatedness, independence, and competency (increasing one's self-efficacy) [29, 62]. The nature of knowledge sharing and intrinsically motivation is dependent upon the different individual abilities of employees, for example, personality [90], objective orientation [91], and commitment [28]. Bock and Kim [92] pointed out that employees' desire for relations' enhancement with other colleagues (for example, a feeling of relatedness) and adding to the organization (for example, a feeling of competency) effectively affected their behavior towards knowledge sharing. Correspondingly, Kankanhalli et al. [93] verified that the increase of the feeling of self-efficacy and satisfaction in aiding other people meaningfully affected individuals' commitment to knowledge sharing through the utilization of an electronic knowledge source. In recent research, Martin-perez and Martin-cruz [51] demonstrate that intrinsic rewards, for example, the enhancement of self-identification and self-fulfillment, positively affected employees' enthusiasm in sharing knowledge. From an administrative point of view, a substantial dependence on employees' intrinsic motivation to share knowledge is nevertheless very indeterminate and precarious.

Wole and Chinazom [25] noticed, "Intrinsically motivated employees do not usually work to the benefit of their supervisors. Instead, workers must be motivated to perform in an organized and objective situated way." Thus, negative results, for example, infinite stalling, will happen if workers are overseen just via intrinsic motivations [94].

Wilkesmann et al. [95] caution that one ought not to expect that employees should share normally what they know with their colleagues, particularly the expenses and hazards related to the behavior of sharing. Based on Connelly et al. [96] and Husted [97] covering up or retaining, instead of sharing, knowledge is regularly an increasingly supported selection of workers because of personal

responsibility. Based on the prior evidence, we hypothesize the following:

H9: intrinsic motivation plays a mediating role in the relationship between intrinsic rewards for creativity and knowledge sharing

3. Method

3.1. Samples and Procedures. We conducted our study in four Kabul public universities in Afghanistan. Data were gathered from subordinates and their immediate supervisors. Two reasons led us to collect our data from these four universities. First, we need to have a data set including from diverse types of universities. This will ensure the generalizability of the study results. Second, these four universities initiated to emphasize team-level work efforts, organization learning, and knowledge sharing, due to the increasing ability of employees in group working and knowledge sharing and skills with each other. A convenience sampling approach was utilized to guarantee representation inside every one of the demographic characteristics of significance to this research (i.e., age, gender, position, and work experience). The data were gathered during work hours by one of the researchers. Subordinates evaluated intrinsic rewards for creativity, job autonomy, and proactive personality, and immediate supervisors assessed their subordinates' creativity. The scales were translated from English to Persian according to [98] back-translation procedure.

A total of 400 subordinate-supervisor pair questionnaires were returned (80 percent response rate). Due to missing data, the last usable sample included 395 subordinate-supervisor matched questionnaires. Twenty-four percent of the employees were women. Their average age was 2.3 years (SD = 0.9), and the average work experience was 3.0 years (SD = 1.8). Of the 50 immediate supervisors, 8.0 percent were women. Their average age was 3.5 years (SD = 0.7), and the average working experience was 5.0 years (SD = 1.5). The participants were from different positions containing junior assistant, senior assistant, assistant professor, associate professor, and professor.

3.2. Measures. The variables in the current research were measured on a five-point Likert scale (1 = strongly disagree and 5 = strongly agree).

3.3. Intrinsic Rewards for Creativity. We measured intrinsic rewards for creativity utilizing 7 items ($\alpha = 0.91$) developed by Baer and Frese [99]. Sample items include "When I perform creatively, I feel an increased sense of self-confidence," "Creative performance is beneficial for my personal growth," and "I feel self-achievement when I suggest innovative ideas."

3.4. Intrinsic Motivation. We measured intrinsic motivation utilizing 4-items ($\alpha = 0.87$) developed by Malik et al. [12]. This scale was constructed based on the items from Yoon and Choi [55], Deci and Ryan [100], and Baer and Frese [99].

Sample items comprise "I feel satisfaction when I perform creatively" and "I feel a sense of achievement when I suggest new task ideas".

3.5. Knowledge Sharing. We assessed knowledge sharing using 10-item ($\alpha = 0.87$) developed by Vries et al. [101] and used by Dysvik [32]. Sample items include "I regularly inform my colleagues of what I am working on" and "When a colleague is good at something, I ask him/her to teach me."

3.6. Employee Creativity. We assessed employee creativity utilizing 13-item ($\alpha = 0.88$) developed by Zhou and George's [102]. Sample items included "suggesting new ways to achieve goals or objectives" and "Comes up with new and practical ideas to improve performance."

3.7. Control Variables. We controlled for gender, age, work experience, and position consistent with previous research (e.g., [1, 12, 14, 55, 103]).

4. Results

To test the distinctiveness of the variables used in the model, we conducted a confirmatory factor analysis to investigate the distinctiveness of intrinsic rewards for creativity, intrinsic motivation, knowledge sharing, and employee creativity utilizing Amos23.0. As displayed in Table 1, the outcomes of our model comparisons revealed that our hypothesized model, which incorporates a four variables' models, exhibited a generally good fit to the data. The fit indices for our hypothesized model were as per the following: $\chi^2(362) = 718$, $p \leq 0.001$, comparative fit index (CFI) = 0.91, Tucker Lewis Index (TLI) = 0.90, and root mean square error of approximation (RMSEA) = 0.05. To test whether the intrinsic rewards for creativity and employee creativity are diverse constructs, we combined intrinsic rewards for creativity and employee creativity in a three-factor model. Intrinsic rewards for creativity, employee creativity, and intrinsic motivation were combined in a two-factor model. Lastly, all variables of intrinsic rewards for creativity, employee creativity, intrinsic motivation, and knowledge sharing were combined in a one-factor model (Table 2).

As brief in the chi-square distinction test and multiple indexes (CFI, TLI, and RMSEA), all revealed that the hypothesized model generally demonstrated good fit than any other alternative model by presenting CFI and TLI greater than 0.90 and RMSEA less than 0.08. Finally, our hypothesized model showed that intrinsic rewards for creativity, employee creativity, intrinsic motivation, and knowledge sharing are separate constructs.

4.1. Measurement Model. The factor loading evaluates reached from 0.84 to 0.89 for intrinsic rewards; for intrinsic motivation, from 0.82 to 0.85; for knowledge sharing, from 0.68 to 0.89, for employee creativity, from 0.75 to 0.89. When the study variables have a correlation with each other, in line

TABLE 1: The reliability of the constructs and factor loadings of indicators.

Constructs	Indicators	Factor loadings	α	KMO	AVE	CR
Intrinsic rewards	IR1	0.842	0.91	0.867	0.50	0.99
	IR2	0.801				
	IR3	0.892				
	IR4	0.899				
	IR5	0.858				
	IR6	0.989				
	IR7	0.898				
Intrinsic motivation	IM1	0.826	0.87	0.801	0.58	0.97
	IM2	0.882				
	IM3	0.850				
	IM4	0.846				
Knowledge sharing	KS1	0.861	0.87	0.861	0.50	0.98
	KS2	0.864				
	KS3	0.818				
	KS4	0.841				
	KS5	0.687				
	KS6	0.897				
	KS7	0.703				
	KS8	0.891				
	KS9	0.872				
	KS10	0.813				
Employee creativity	ECR1	0.841	0.88	0.885	0.50	0.98
	ECR2	0.772				
	ECR3	0.757				
	ECR4	0.818				
	ECR5	0.823				
	ECR6	0.841				
	ECR7	0.877				
	ECR8	0.891				
	ECR9	0.867				
	ECR10	0.750				
	ECR11	0.783				
	ECR12	0.899				
	ECR13	0.765				

TABLE 2: Comparison of measurement models.

Model	Description	X^2	Df	CFI	TLI	Change from hypothesized model		
						RMSEA	ΔX^2	Δdf
Hypothesized model	Four-four factor model ^a	718	362	0.91	0.90	0.05		
Model 3	Three-four factor model ^b	1432	374	0.74	0.72	0.09	714***	12
Model 2	Two-four factor model ^c	2165	376	0.57	0.53	0.12	733***	2
Model 1	One-four factor model ^d	2484	377	0.49	0.45	0.13	319***	1

*** $p \leq 0.001$. ^aFour factors: intrinsic rewards for creativity, employee creativity, intrinsic motivation, and knowledge sharing. ^bThree factors: intrinsic rewards for creativity combined; employee creativity, intrinsic motivation, and knowledge sharing. ^cTwo factors: intrinsic rewards for creativity, intrinsic motivation, and knowledge sharing combined with employee creativity. ^dOne factor: intrinsic rewards for creativity and intrinsic motivation; knowledge sharing and employee creativity combine.

with the theoretical foundation, it shows a convergent validity. As displayed in Table 1, the convergent validity was signified by significant loading and high composite reliability [104]. The analysis results showed satisfactory adaptability of the model.

To specify the degree of distinctness for each construct, we examine discriminant validity [105]. Table 3 demonstrates the correlations between study variables, in which square roots of the AVE in each study variable were greater

than their correlation. Furthermore, the model discriminant validity was effectively supported. The discriminant validity defining the stated condition is illuminated in Table 3.

We carried out Harman's one-factor analysis recommended by Podsakoff et al. [106] to test the possibility of common method bias in the current study. Common method bias is a common subject in the behavioral study when similar respondents assess the predictor and outcome variables. To discover this issue, Harman's one-factor

TABLE 3: Descriptive statistics of the study variables.

Variables	M	SD	1	2	3	4	5	6	7	8
1. Gender	1.76	0.42	—							
2. Age	2.30	0.98	0.057	—						
3. Work experience	3.00	1.82	0.018	0.838**	—					
4. Position	1.99	1.22	0.037	0.706**	0.65**	—				
5. Intrinsic reward	4.53	0.19	0.010	0.004	0.002	0.009	(0.762)			
6. Intrinsic motivation	4.27	0.58	-0.075	-0.019	0.043	0.054	0.395**	(0.804)		
7. Knowledge sharing	4.03	0.52	-0.088	-0.075	0.012	0.019	0.304**	0.218**	(0.873)	
8. Employee creativity	4.06	0.49	0.216	0.227	0.211	0.253	0.221**	0.230**	0.574**	(0.814)

* $p \leq 0.05$; ** $p \leq 0.01$. The diagonal elements indicate the square root of AVE. The average variance extracted square root values shown in bold.

analysis was employed. In this analysis, the study variables are included as a principal component factor. The outcomes displayed four factors in the model with the highest covariance illuminated by one factor of 31.72%, which is below the 50% recommended. Thus, common method bias was not a problem. As displayed in Table 1, the reliability of all item scales was greater than 0.70 and met the suggested levels of reliability.

5. Hypothesis Testing

5.1. Main Effects. In Hypothesis 1, we suggested the direct effects of intrinsic rewards for creativity on employee creativity. This hypothesis was supported, and intrinsic rewards for creativity were significantly associated with employee creativity ($\beta = 0.58$, $p \leq 0.001$).

In Hypotheses 2 and 3, we suggested that the intrinsic reward for creativity would be positively associated with knowledge sharing and intrinsic motivation. These hypotheses were supported, and intrinsic rewards for creativity were significantly associated with knowledge sharing ($\beta = 0.29$, $p \leq 0.001$) and intrinsic motivation ($\beta = 0.47$, $p \leq 0.001$).

In Hypotheses 4 and 5, we suggested that intrinsic motivation would be positively associated with knowledge sharing and employee creativity. These hypotheses were supported, and intrinsic motivation was significantly associated with knowledge sharing ($\beta = 0.35$, $p \leq 0.001$) and employee creativity ($\beta = 0.63$, $p \leq 0.001$).

In Hypothesis 6, we suggested that knowledge sharing would be positively associated with employee creativity. This hypothesis was supported, and intrinsic motivation was significantly associated with employee creativity ($\beta = 0.63$, $p \leq 0.001$). Table 4 displays the results of a direct hypothesis test.

Furthermore, the coefficients of the model showed that about 54% and 46% of the variance of intrinsic motivation and knowledge sharing were influenced by the employee creativity, and about 58% of the variance of intrinsic rewards was expected by the sum of its outcome variables Figure 1.

5.2. Mediating Effect. In Hypotheses 7, 8, and 9, we predicted that intrinsic motivation and knowledge sharing for creativity would mediate the relationship between intrinsic rewards for creativity and employee creativity, as well as intrinsic motivation for creativity would mediate the

relationship between intrinsic rewards for creativity and knowledge sharing. The mediation hypothesis was tested based on the procedure suggested by Mathieu and Taylor [107].

In the first step, with respect to the direct influence of predicting variables on the outcome, all predicting variables had a positive effect on the outcome variables, as reported earlier in Table 4. In the second step, with respect to the influence of the independent variables on the outcome, intrinsic rewards for creativity were significantly associated with intrinsic motivation and knowledge sharing ($\beta = 0.47$, $p \leq 0.001$ and $\beta = 0.29$, $p \leq 0.001$). In the third step, with respect to the influence of mediators' variables on the outcome, intrinsic motivation and knowledge sharing were a significant predictor of employee creativity ($\beta = 0.53$, $p \leq 0.001$ and $\beta = 0.63$, $p \leq 0.001$). However, intrinsic motivation was also a significant predictor of knowledge sharing ($\beta = 0.35$, $p \leq 0.001$).

In the fourth step, we examined to find whether the impact of the predictor variables on the outcome would vanish with the introduction of mediators or not. The results established that the impacts of predictor variables were significant, whereas intrinsic motivation and knowledge sharing on creativity were a significant predictor of employee creativity, as well as intrinsic motivation was a significant predictor of knowledge sharing. Table 5 shows the mediation analysis results.

The four-step analysis findings specify that the direct effect of intrinsic rewards for creativity on employee creativity was partially mediated by intrinsic motivation and knowledge sharing for creativity. Moreover, in the case of intrinsic rewards for creativity, although intrinsic rewards have a direct effect on knowledge sharing, intrinsic rewards were also significantly associated with intrinsic motivation, which, in turn, had a significant effect on knowledge sharing. This relational pattern determines that intrinsic motivation to creativity could also partially mediate in the relationship between intrinsic rewards for creativity and knowledge sharing [107]. Therefore, the results supported Hypotheses 7, 8, and 9.

6. Discussion

This study examined the effect of intrinsic reward for creativity on knowledge sharing and intrinsic task motivation and further explored whether knowledge sharing and

TABLE 4: The results of direct hypothesis testing.

Hypothesis	Path	β	p value	Test results
H ₁	Intrinsic rewards \rightarrow employee creativity	0.58	≤ 0.001	Confirmed
H ₂	Intrinsic rewards \rightarrow intrinsic motivation	0.47	≤ 0.001	Confirmed
H ₃	Intrinsic rewards \rightarrow knowledge sharing	0.29	≤ 0.001	Confirmed
H ₄	Intrinsic motivation \rightarrow employee creativity	0.53	≤ 0.001	Confirmed
H ₅	Knowledge sharing \rightarrow employee creativity	0.63	≤ 0.001	Confirmed
H ₆	Intrinsic motivation \rightarrow knowledge sharing	0.35	≤ 0.001	Confirmed

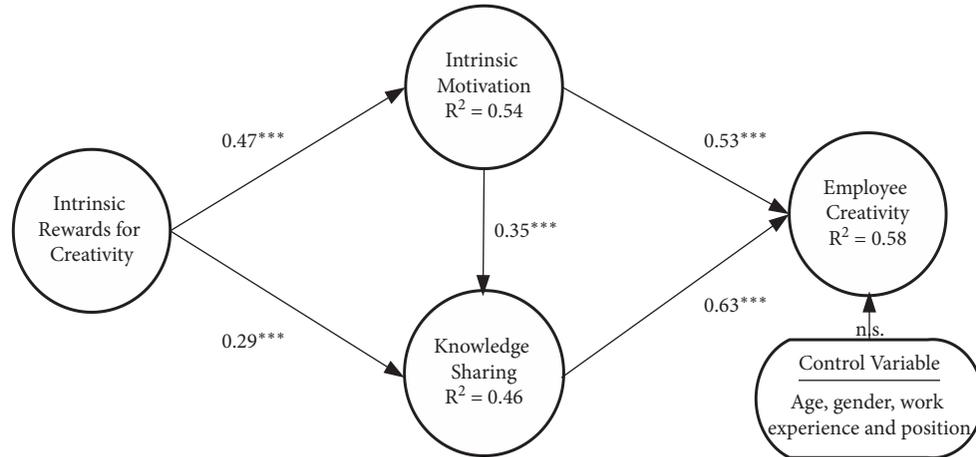


FIGURE 1: Results of the structural equation model.

TABLE 5: The mediation analysis of intrinsic motivation and knowledge sharing.

Mediating variable	Step	Independent variable	Dependent variable	β	R^2	p value
Intrinsic motivation	1	Intrinsic rewards	Employee creativity	0.58	0.38	≤ 0.001
	2	Intrinsic rewards	Intrinsic motivation	0.47	0.42	≤ 0.001
	3	Intrinsic motivation	Employee creativity	0.28	0.29	≤ 0.001
	4	Intrinsic rewards	Employee creativity	0.20	0.39	≤ 0.001
			Intrinsic motivation		0.27	≤ 0.001
Intrinsic motivation	1	Intrinsic rewards	Knowledge sharing	0.25	0.35	≤ 0.001
	2	Intrinsic rewards	Intrinsic motivation	0.47	0.43	≤ 0.021
	3	Intrinsic motivation	Knowledge sharing	0.25	0.25	≤ 0.037
	4	Intrinsic rewards	Knowledge sharing	0.28	0.34	≤ 0.001
			Intrinsic motivation		0.23	≤ 0.041
Knowledge sharing	1	Intrinsic rewards	Employee creativity	0.58	0.38	≤ 0.001
	2	Intrinsic rewards	Knowledge sharing	0.25	0.30	≤ 0.001
	3	Knowledge sharing	Employee creativity	0.63	0.56	≤ 0.001
	4	Intrinsic rewards	Employee creativity	0.32	0.20	≤ 0.040
			Knowledge sharing		0.23	≤ 0.022

intrinsic motivation play a mediating role in the relationship between intrinsic reward for creativity and employee creativity. Furthermore, the study explored the linkage between intrinsic rewards and knowledge sharing by concentrating on intrinsic motivation as an intermediate mechanism. The present study endeavored to expand the public organization literature, and it is the first to build and examine the linkage between intrinsic rewards for creativity and employee creativity in Kabul public universities.

First, the findings of this study, as opposite to the prior studies (e.g., [55, 108, 109]), revealed the positive association between intrinsic rewards for creativity and employee creativity. The results also propose that intrinsic rewards for

creativity foster employee creativity and develop a creative workplace environment. With the intention of best proposing rising competition in public universities, creative employees are wanted to have a continued competitive skill [41]. It is essential for the organizational manager to have a detailed consciousness and knowledge of the linkage among intrinsic rewards for creativity and employee creativity. Thus, public university managers need to make a more attractive work environment by using intrinsic rewards for creativity since this is the one way that managers can grow and increase employees' creative skills. Intrinsic rewards for creativity provide employees as a stimulus in a work setting to encourage them to be more creative. Furthermore,

intrinsic rewards for creativity increase employees' self-achievement and give them the freedom to increase their skills and in turn their creative ability in the workplace environment. These skills should improve the employees' observational and practical skills to go for challenges and provide quality services in public universities.

Second, intrinsic motivation mediates the relationship between the intrinsic reward provided by the activity itself and the organization and the employee creativity exhibited by employees. The results propose that employees should have intrinsic aspirations and self-confidence in their abilities and support their self-determination to provide creative results. In addition, the findings propose that an employee shows creative activity in his/her behavior because of several reasons, such as positive liking, which, thus, creates continued emotional involvement and a more prominent time promise to job [88], and empowers self-efficacy and confidence, which enables employees to endure with challenging, confused, and new jobs [89]. A possible clarification for mediating the role of employee motivation is the inherent desire of an individual to be creative, believed by their abilities and knowledge. Moreover, our findings suggest that an employee displays creative activities when he senses empowerment, admiration, autonomy, importance, and competence. Regarding this, managers in public universities need to know that creativity is one approach for their university to reach and endure an employee's competitive ability, and it is essential for them to study more about the links that might be present among intrinsic rewards for creativity, intrinsic motivation, and employee creativity. Therefore, it recommends that public universities have to make further efforts to motivate their employees and provide them self-confidence to increase their creative abilities. Furthermore, by motivating employees through making attractive activities, universities could aid their employees to gain the creative abilities required by enhancing their confidence and their involvement in creative activities, to efficiently perform creative tasks.

Third, we found that knowledge sharing mediated the effect of intrinsic rewards on demonstrating a willingness to generate novel ideas or affect employees' work outcomes, which prompts creativity. Our outcome provided evidence on the linkage between intrinsic rewards and employee creativity via knowledge sharing, since when the employee feeling enjoyment in the workplace, it means he/she motivates intrinsically and refers to take part in an activity benefitting its own, out of conspiracy, or for the joy and fulfillment got from the experience. Moreover, an employee with high self-confidence in their capacity to give profitable knowledge is sure to achieve clear tasks. Knowledge self-efficacy is normally shown in individuals trusting that their knowledge may aid to resolve work-related issues, thus, in turn, increasing employee creativity. As employee creativity is supported by sharing knowledge, our findings further discovered the idea that employee views of intrinsic rewards for creativity expect an important enhancement in employee creativity when employees share their knowledge with colleagues. The results suggest that when an employee is stimulated and motivated to share knowledge by intrinsic

rewards, his/her favorite to insert among colleagues to encourage the cooperative personality of the organization and the importance of organizational objectives aids employees to think and perform creative behavior. Creativity wants workforces to discover aid for their thoughts between colleagues, associate in teams, comprehend group essential forces, and link with others. Creativity is not just about creating constructive results for issues and producing valuable and new thoughts, but it is also about embodying thoughts into certainties and constructing them as part of the organizational development. Realizing thoughts required aid from teams, groups, and administration.

Finally, intrinsic motivation mediates the relationship between intrinsic rewards and knowledge sharing. Intrinsic rewards stimulate employees to communicate easily, what their colleagues, in addition, inspire and satisfy them to share knowledge with their colleagues within the organization. Intrinsic rewards provide independence, freedom, and self-determination to employees through emphasizing the importance and value of work roles. Intrinsic rewards inspire the intellectual aptitude and skills of employees and stimulate them to generate opportunities, which meaningfully influence their work roles and arise from the employee level of collaboration. Our findings propose that the employees share knowledge with the colleagues, while they motivated intrinsically due to knowledge sharing, is assumed as an inherently motivating behavior, as it can be able to satisfy individuals' psychological and basic needs for relatedness "a social action with collaborators," autonomy "decide what to share and whom to share with," and competency "increasing one's self-efficacy." Moreover, our findings recommend that an employee needs a solid sense of self-achievement to continue knowledge sharing with their colleagues.

7. Conclusion

The results have shown that the relationship between intrinsic rewards for creativity and knowledge sharing is mediated by intrinsic task motivation. The current research contributes to the employee creativity literature by empirically examining the mediating role of knowledge sharing and intrinsic motivation in the relationship between intrinsic rewards for creativity and employee creativity in the one hand and the mediating role of intrinsic motivation in the relationship between intrinsic rewards for creativity and employee creativity in other.

Considering the positive effects of intrinsic rewards on employees' creativity, managers may need to pay more attention to managing factors that affect employees' creativity. Furthermore, it is critical for managers to have a more profound comprehension of the relation, which exists between intrinsic rewards and employee creativity. Thus, it can be proposed that public university managers need to make an environment that motivates and encourages employees to provide a novel idea and adopt a culture, which pursues employees to share knowledge with their colleagues and intrinsic rewards as a supporter of employee's basic needs such as relatedness, autonomy, and competence to establish

an enriched linkage with employees. Moreover, managers should pay more attention, supporting relatedness, autonomy, and competence as basic needs are ways of intrinsic motivation, and a recommendation might be to stimulate sharing knowledge gathering, encouraging connection, and learning. According to Amabile [87], intrinsically motivated employees will probably have more concern in learning and empowering to create intellectual flexibility, a readiness to go from insolvent, and receptiveness to complicate nature, which finally prompts increments in creativity. Furthermore, intrinsic motivation empowers self-efficacy and confidence, which enables employees to endure, stimulating, confused, and new jobs.

To worry about the uncovering of the propriety information, employees mostly do not have the interest to share knowledge with their peers or colleagues. Thus, a system is required while communicating with different employees of the organization and exchanges must occur on the particulars of the knowledge, which have to be apportioned. In addition, meetings must be carried out on the significance of sharing knowledge where such behavior is stimulated and supported, and managers themselves need to approach to make a conceivable procedure of knowledge sharing.

Therefore, managers can use intrinsic rewards as the best way for improving the creative skills of their employees and thus create viable and effective answers for their issues. Our results revealed that intrinsic rewards motivate employees intrinsically and encourage them to share knowledge with their colleagues since knowledge sharing can help an employee to solve job-related problems and increase work efficiency, which promotes creativity.

Since teaching is a process that requires new knowledge and skills for employees, it would be essential to acquire confidence for creating new ideas. Knowledge sharing occurs when an individual is quick to take part in knowledge gathering and knowledge giving for expanding new ideas. Thus, managers should make a conducive environment, which encourages and stimulates employees to share knowledge with their colleagues, since knowledge sharing activates creative efforts between employees and likewise increases the employee's level of confidence in creating creative results. Our findings likewise have shown that knowledge sharing and intrinsic motivation are both critical for increasing employee creativity and that they improve confidence and trust in employee capacity and in their knowledge to actualize particular tasks.

8. Limitations and Recommendations

Numerous essential assets answered the limitations of this research. First, we utilized a cross-sectional design, which cannot deduce causality. Invert causality may exist [110]. Thus, we strongly suggest future researches that utilize longitudinal designs to investigate the intrinsic rewards for creativity-employee creativity associations placed in our model and these conceivable proportional connections. Second, this research adds to the creativity literature by exploring situational indicators, which can prompt intrinsic rewards related to employee creativity based on the self-

determination theory [89]. In addition, it was repeated the effects of intrinsic rewards on employee creativity in the less developed encomia society (i.e., Afghanistan).

Third, by gathering data from multisources, such as subordinates and their managers, we decrease the possibility of common method bias. Subordinates reported intrinsic rewards, intrinsic motivation, and knowledge sharing, and their creativity rated by their managers. Therefore, in the current research, worries of response biases and self-generated validity were diminished. This sample variety enhances our confidence that the outcomes were not just originated from individual characteristics of a particular faculty or from determined desires into a specific organization [111]. Hence, the characteristics of our data expanded the confidence of the findings, and these findings may advance the generalizability of our research, especially in the Asian context. Still, future studies may consider utilizing a sample from one or a couple of limited numbers of organizations. Fourth, the sample was only gathered from an appropriate sample of Kabul public university in Kabul, Afghanistan. Thus, future researchers might consider studying the model examined in the present study in other tertiary institutions such as private universities or industry and organizations, for instance, airlines, travel agencies, call centers, and banks.

Data Availability

Data will be available on request during the review process. The corresponding author can be mailed at mudassir@ulm.edu.pk.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

- [1] B. Afsar, Y. F. Badir, and B. Saeed, "Transformational leadership and innovative work behavior," *Industrial Management & Data Systems*, vol. 114, no. 8, pp. 1270–1300, 2014.
- [2] J. Guo, Q. Su, and Q. Zhang, "Individual creativity during the ideation phase of product innovation: an interactional perspective," *Creativity and Innovation Management*, vol. 26, no. 1, pp. 31–48, 2017.
- [3] J. Jiang, S. Wang, and S. Zhao, "Does HRM facilitate employee creativity and organizational innovation? A study of Chinese firms," *International Journal of Human Resource Management*, vol. 23, no. 19, pp. 4025–4047, 2012.
- [4] M. Meinel, T. Wangnar, C. V. Baccarella, and K.-I. Voigt, "Exploring the effects of creativity training on creative performance and creative self-efficacy: evidence from a longitudinal study," *Journal of Creative Behavior*, vol. 0, no. 0, pp. 1–13, 2018.
- [5] J. Gu, C. He, and H. Liu, "Supervisory styles and graduate student creativity: the mediating roles of creative self-efficacy and intrinsic motivation," *Studies in Higher Education*, vol. 24, no. 4, pp. 721–742, 2017.
- [6] H. Zacher and E. Johnson, "Leadership and creativity in higher education," *Studies in Higher Education*, vol. 40, no. 7, pp. 1210–1225, 2015.

- [7] C. Liang, C. Y. Ip, S.-C. Wu et al., "Personality traits, social capital, and entrepreneurial creativity: comparing green socioentrepreneurial intentions across Taiwan and Hong Kong," *Studies in Higher Education*, vol. 44, no. 6, pp. 1086–1102, 2019.
- [8] X. Zhang, Y. Zhang, Y. Sun, M. Lytras, and P. Ordóñez de Pablos, "Exploring the effect of transformational leadership on individual creativity in e-learning: a perspective of social exchange theory," *Studies in Higher Education*, vol. 43, no. 11, pp. 1964–1978, 2018.
- [9] D. S. Fleith and N. Pereira, "Creativity in higher education: challenges and facilitating factors," *Trends in Psychology/Temas Em Psicologia*, vol. 25, no. 2, pp. 553–561, 2017.
- [10] A. Khorakian, H. M. Shahroodi, and M. Jahangir, "Innovative work behavior in public organizations: the roles of ethical and knowledge sharing behaviors," *Creativity Research Journal*, vol. 31, no. 2, pp. 164–173, 2019.
- [11] Y. Gong, T. Kim, and D. Lee, "A multilevel model of team goal orientation, information exchange, and creativity," *Academy of Management Journal*, vol. 56, no. 3, pp. 827–851, 2013.
- [12] M. A. R. Malik, A. N. Butt, and J. N. Choi, "Rewards and employee creative performance: moderating effects of creative self-efficacy, reward importance, and locus of control," *Journal of Organizational Behavior*, vol. 36, no. 1, pp. 59–74, 2015.
- [13] L. Aletraris, "How satisfied are they and why? A study of job satisfaction, job rewards, gender and temporary agency workers in Australia," *Human Relations*, vol. 63, no. 8, pp. 1129–1155, 2010.
- [14] H. J. Yoon, S. Y. Sung, and J. N. Choi, "Mechanisms underlying creative performance: employee perceptions of intrinsic and extrinsic rewards for creativity," *Social Behavior and Personality: International Journal*, vol. 43, no. 7, pp. 1161–1179, 2015.
- [15] S. S. Muzafary, A. Ihtesham, and H. Mudassir, "Intrinsic reward and employee creative performance: moderating effects of job autonomy and proactive personality: a perspective of self-determination theory," *International Journal of Innovation, Creativity and Change*, vol. 15, no. 2, pp. 701–725, 2001.
- [16] M. Vansteenkiste, W. Lens, and E. L. Deci, "Intrinsic versus extrinsic goal contents in self-determination theory: another look at the quality of academic motivation," *Educational Psychologist*, vol. 41, no. 1, pp. 19–31, 2006.
- [17] K. Byron and S. Khazanchi, "Rewards and creative performance: a meta-analytic test of theoretically derived hypotheses," *Psychological Bulletin*, vol. 138, no. 4, pp. 809–830, 2012.
- [18] R. S. Friedman, "Reinvestigating the effects of promised reward on creativity," *Creativity Research Journal*, vol. 21, no. 2-3, pp. 258–264, 2009.
- [19] E. L. Deci, R. Koestner, and R. M. Ryan, "A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation," *Psychological Bulletin*, vol. 125, no. 6, pp. 627–668, 1999.
- [20] R. Hendijani, D. P. Bischak, J. Arvai, and S. Dugar, "Intrinsic motivation, external reward, and their effect on overall motivation and performance," *Human Performance*, vol. 29, no. 4, pp. 251–274, 2016.
- [21] Y. Zhang, L. Long, and J. Zhang, "Pay for performance and employee creativity," *Management Decision*, vol. 53, no. 7, pp. 1378–1397, 2015.
- [22] R. Eisenberger and L. Rhoades, "Incremental effects of reward on creativity," *Journal of Personality and Social Psychology*, vol. 81, no. 4, pp. 728–741, 2001.
- [23] C. X. Chen, M. G. Williamson, and F. H. Zhou, "Reward system design and group creativity: an experimental investigation," *The Accounting Review*, vol. 87, no. 322, pp. 1885–1911, 2012.
- [24] A. Lopez-Cabrales, A. Pérez-Luño, and R. V. Cabrera, "Knowledge as a mediator between HRM practices and innovative activity," *Human Resource Management*, vol. 48, no. 4, pp. 485–503, 2009.
- [25] O. Wole and I. Chinazom, "The effect of extrinsic and intrinsic motivation on knowledge sharing intentions of civil servants in Ebonyi State, Nigeria Wole," *Information Development*, vol. 28, no. 3, pp. 216–234, 2012.
- [26] J. E. Burroughs, D. W. Dahl, C. P. Moreau, A. Chattopadhyay, and G. J. Gorn, "Facilitating and rewarding creativity during new product development," *Journal of Marketing*, vol. 75, no. 4, pp. 53–67, 2011.
- [27] S. Wang and R. A. Noe, "Knowledge sharing: a review and directions for future research," *Human Resource Management Review*, vol. 20, no. 2, pp. 115–131, 2010.
- [28] X. Zhang, S. Liu, Z. Deng, and X. Chen, "Computers in Human Behavior Knowledge sharing motivations in online health communities: a comparative study of health professionals and normal users," *Computers in Human Behavior*, vol. 75, no. 1, pp. 797–810, 2017.
- [29] E. L. Deci and R. M. Ryan, "Intrinsic motivation and self-determination in human behavior," *Perspectives in Social Psychology*, vol. 4, no. 3, pp. 334–355, 1985.
- [30] T. Dewett, "Linking intrinsic motivation, risk taking, and employee creativity in an R&D environment," *R & D Management*, vol. 37, no. 3, pp. 197–208, 2007.
- [31] C. E. Shalley, J. Zhou, and G. R. Oldham, "The effects of personal and contextual characteristics on creativity: where should we go from here?" *Journal of Management*, vol. 30, no. 6, pp. 933–958, 2004.
- [32] A. Dysvik, "Perceived training intensity and knowledge sharing: sharing for intrinsic and prosocial reasons," *Human Resource Management*, vol. 51, no. 2, pp. 167–188, 2012.
- [33] S. Hung, A. Durcikova, H. Lai, and W. Lin, "The influence of intrinsic and extrinsic motivation on individuals' knowledge sharing behavior," *Journal of Human Computer Studies*, vol. 69, no. 6, pp. 415–427, 2011.
- [34] Y. Yeh, Y. Yeh, and Y. Chen, "From knowledge sharing to knowledge creation: a blended knowledge-management model for improving university students' creativity," *Thinking Skills and Creativity*, vol. 7, no. 3, pp. 245–257, 2012.
- [35] Y. Dong, K. M. Bartol, Z. Zhang, and C. Li, "Enhancing employee creativity via individual skill development and team knowledge sharing: influences of dual-focused transformational leadership," *Journal of Organizational Behavior*, vol. 458, no. 9, pp. 439–458, 2017.
- [36] T. T. Kim and G. Lee, "Hospitality employee knowledge-sharing behaviors in the relationship between goal orientations and service innovative behavior," *International Journal of Hospitality Management*, vol. 34, no. 11, pp. 324–337, 2014.
- [37] P. Van Herck, D. De Smedt, L. Annemans, R. Remmen, M. B. Rosenthal, and W. Sermeus, "Systematic review: effects, design choices, and context of pay-for-performance in health care," *BMC Health Services Research*, vol. 10, no. 3, pp. 1–13, 2010.
- [38] D. Jaiswal and R. L. Dhar, "Impact of human resources practices on employee creativity in the hotel industry: the impact of job autonomy," *Journal of Human Resources in Hospitality & Tourism*, vol. 16, no. 1, pp. 1–21, 2017.

- [39] B. B. Joo, B. Yang, and G. N. Mclean, "Employee creativity: the effects of perceived learning culture, leader-member exchange quality, job autonomy, and proactivity," *Human Resource Development International*, vol. 17, no. 3, pp. 297-317, 2014.
- [40] B. A. Hennessey and T. M. Amabile, "Creativity," *Annual Review of Psychology*, vol. 61, no. 5, pp. 69-98, 2009.
- [41] W. Jiang and Q. Gu, "Leader creativity expectations motivate employee creativity: a moderated mediation examination," *International Journal of Human Resource Management*, vol. 28, no. 5, pp. 1-26, 2017.
- [42] S. Mammadov, T. L. Cross, and J. R. Cross, "In search of temperament and personality predictors of creativity: a test of a mediation model," *Creativity Research Journal*, vol. 31, no. 2, pp. 174-187, 2019.
- [43] S. L. Kim, "The interaction effects of proactive personality and empowering leadership and close monitoring behaviour on creativity," *Creativity and Innovation Management*, vol. 28, pp. 230-239, 2019.
- [44] N. Anderson, C. K. De Dreu, and B. A. Nijstad, "The routinization of innovation research: a constructively critical review of the state-of-the-science," *Journal of Organizational Behavior*, vol. 25, no. 2, pp. 147-173, 2004.
- [45] Oldham and A. G. R. Cummings, "Employee creativity: personal and contextual factors at work," *Academy of Management Journal*, vol. 33, no. 2, pp. 607-634, 1996.
- [46] C. Andriopoulos, "Determinants of organisational creativity: a literature review," *Management Decision*, vol. 30, no. 10, pp. 834-840, 2001.
- [47] C. M. Ford and D. A. Gioia, "Factors influencing creativity in the domain of managerial decision making," *Journal of Management*, vol. 26, no. 4, pp. 705-732, 2000.
- [48] R. Eisenberger and K. Byron, "Author's personal copy Rewards and Creativity," *Encyclopedia of Creativity*, Vol. 2, Elsevier, Amsterdam, Netherlands, 2nd edition, 2011.
- [49] P. A. Obicci, "Influence of extrinsic and intrinsic rewards on employee engagement (empirical study in public sector of Uganda)," *Management Studies and Economic System*, vol. 2, no. 1, pp. 59-70, 2015.
- [50] V. Wickramasinghe and R. Widyaratne, "Effects of interpersonal trust, team leader support, rewards, and knowledge sharing mechanisms on knowledge sharing in project teams," *Vine*, vol. 42, no. 2, pp. 214-236, 2012.
- [51] V. Martin-perez and N. Martin-cruz, "The mediating role of affective commitment in the rewards-knowledge transfer relation," *Journal of Knowledge Management*, vol. 19, no. 6, pp. 1167-1185, 2016.
- [52] S. Y. Sung and J. N. Choi, "Effects of team knowledge management on the creativity and financial performance of organizational teams," *Organizational Behavior and Human Decision Processes*, vol. 118, no. 1, pp. 4-13, 2012.
- [53] H. Lin, "Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions," *Journal of Information Science*, vol. 33, no. 2, pp. 135-149, 2007.
- [54] E. Smith, P. Joubert, and A. M. Karodia, "The impact of intrinsic and extrinsic rewards on employee motivation at a medical devices company in South Africa," *Kuwait Chapter of Arabian Journal of Business and Management Review*, vol. 5, no. 1, pp. 39-87, 2015.
- [55] H. J. Yoon and J. N. Choi, "Extrinsic and intrinsic rewards and creativity in the workplace: reward importance as a moderator," *Academy of Management Annual Meeting*, vol. 5, no. 3, pp. 68-88, 2010.
- [56] Y. Chen and L. Zhang, "Be creative as proactive? The impact of creative self-efficacy on employee creativity: a proactive perspective," *Current Psychology*, vol. 23, no. 7, pp. 72-82, 2018.
- [57] E. L. Deci, R. Koestner, and R. M. Ryan, "Extrinsic rewards and intrinsic motivation in education: reconsidered once again," *Review of Educational Research*, vol. 71, no. 1, pp. 1-27, 2001.
- [58] Y. Chiang, C. Hsu, H. Shih, and Y. Chiang, "Extroversion personality, domain knowledge, and the creativity of new product development engineers extroversion personality, domain knowledge, and the creativity of new product development engineers," *Creativity Research Journal*, vol. 29, no. 4, pp. 387-396, 2017.
- [59] H. Lee and B. Choi, "Knowledge management enablers, processes, and organizational performance: an integrative view and empirical examination," *Journal of Management Information Systems*, vol. 20, no. 1, pp. 179-228, 2014.
- [60] S. Y. Son, D. H. Cho, and S. Kang, "The impact of close monitoring on creativity and knowledge sharing: the mediating role of leader-member exchange," *Creativity and Innovation Management*, vol. 26, no. 2, pp. 256-265, 2017.
- [61] W. Zhang, S. L. Sun, Y. Jiang, W. Zhang, and S. L. Sun, "Openness to experience and team creativity: effects of knowledge sharing and transformational leadership," *Creativity Research Journal*, vol. 31, no. 1, pp. 62-73, 2019.
- [62] F. C. D. Almeida, H. Lesca, and A. W. P. Canton, "Intrinsic motivation for knowledge sharing-competitive intelligence process in a telecom company," *Journal of Knowledge Management*, vol. 20, no. 6, pp. 1282-1301, 2016.
- [63] Z. Yang, V. T. Nguyen, and P. B. Le, "Knowledge sharing serves as a mediator between collaborative culture and innovation capability: an empirical research," *Journal of Business & Industrial Marketing*, vol. 33, no. 7, pp. 958-969, 2018.
- [64] H. K. Shehadeh and M. H. Mansour, "Role of knowledge processes as a mediator variable in relationship between strategic management of human resources and achieving competitive advantage in Jordan banks," *Academy of Strategic Management Journal*, vol. 18, no. 1, pp. 1-20, 2019.
- [65] Z. Rahman, "Explaining employee creativity: the roles of knowledge-sharing efforts and organizational context," *Knowledge and Process Management*, vol. 33, no. 2, pp. 334-335, 2016.
- [66] H. Hsieh and J. Huang, "The effects of socioeconomic status and proactive personality on career decision self-efficacy," *The Career Development Quarterly*, vol. 62, no. 3, pp. 29-43, 2014.
- [67] T. L. Griffith and J. E. Sawyer, "Multilevel knowledge and team performance," *Journal of Organizational Behavior*, vol. 1031, no. 5, pp. 1003-1031, 2010.
- [68] F. Gino, L. Argote, E. Miron-spektor, and G. Todorova, "First, get your feet wet: the effects of learning from direct and indirect experience on team creativity," *Organizational Behavior and Human Decision Processes*, vol. 111, no. 2, pp. 102-115, 2010.
- [69] G. Radaelli, E. Lettieri, M. Mura, and N. Spiller, "Knowledge sharing and innovative work behaviour in healthcare: a micro-level investigation of direct and indirect effects," *Creativity and Innovation Management*, vol. 23, no. 4, pp. 400-414, 2014.
- [70] A. Yan, A. S. Tsui, and D. Xu, "Leadership behaviors and group creativity in Chinese organizations: the role of group

- processes," *The Leadership Quarterly*, vol. 22, no. 5, pp. 851–862, 2011.
- [71] N. Anderson and J. F. Salgado, "Team-level predictors of innovation at work: a comprehensive meta-analysis spanning three decades of research," *Journal of Applied Psychology*, vol. 94, no. 5, pp. 1128–1145, 2009.
- [72] D. S. Dave, M. J. Dotson, J. A. Cazier, S. K. Chawla, and T. F. Badgett, "The impact of intrinsic motivation on satisfaction with extrinsic rewards in a nursing environment," *Journal of Management and Marketing in Healthcare*, vol. 4, no. 2, pp. 101–107, 2011.
- [73] T. M. Amabile, "Motivation and creativity. Effects of motivational orientation on creative writers," *Journal of Personality and Social Psychology*, vol. 48, no. 2, pp. 393–399, 1985.
- [74] K. Woolley and A. Fishbach, "Underestimating the importance of expressing intrinsic motivation in job interviews," *Organizational Behavior and Human Decision Processes*, vol. 148, no. 5, pp. 1–11, 2018.
- [75] H. Zhang, H. K. Kwan, X. Zhang, and L. Z. Wu, "High core self-evaluators maintain creativity: a motivational model of abusive supervision," *Journal of Management*, vol. 40, no. 4, pp. 1151–1174, 2014.
- [76] F. Galia, "Intrinsic-extrinsic motivations, knowledge sharing and innovation in French firms," *The Academy of Management Annals*, vol. 33, no. 4, pp. 344–360, 2007.
- [77] K. S. Jaussi and A. E. Randel, "Where to look? creative self-efficacy, knowledge retrieval, and incremental and radical creativity," *Creativity Research Journal*, vol. 26, no. 4, pp. 400–410, 2014.
- [78] E. L. Deci, *Intrinsic Motivation*, Plenum Press, New York, NY, USA, 1975.
- [79] A. Bandura, *Social Foundations of Thought and Action: A Social Cognitive Theory*, Prentice-Hall, Englewood Cliffs, NJ, USA, 1986.
- [80] A. Kankanhalli, B. Tan, and K. Wei, "Contributing knowledge to electronic knowledge repositories: an empirical investigation," *MIS Quarterly*, vol. 29, no. 1, pp. 113–143, 2005.
- [81] M. M. Wasko and S. Faraj, "It is what one does: why people participate and help others in electronic communities of practice," *The Journal of Strategic Information Systems*, vol. 9, no. 1, pp. 155–173, 2000.
- [82] M. Batey and A. Furnham, "Creativity, intelligence, and personality: a critical review of the scattered literature," *Genetic, Social, and General Psychology Monographs*, vol. 132, no. 4, pp. 335–429, 2010.
- [83] X. Zhang and K. M. Bartol, "Linking empowering leadership and employee creativity: the influence of psychological empowerment, intrinsic motivation, and creative process engagement," *Academy of Management Journal*, vol. 53, no. 1, pp. 67–89, 2010.
- [84] J. Deere and L. Martin, "Rewards and recognition in knowledge management," *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, vol. 33, no. 6, pp. 1–5, 2002.
- [85] S. A. Stumpf, W. G. Tymon Jr., N. Favorito, R. R. Smith, and S. A. Stumpf, "Employees and change initiatives: intrinsic rewards and feeling valued," *Journal of Business Strategy*, vol. 14, no. 4, pp. 131–134, 2016.
- [86] P. Silvia, "Interest: the curious emotion," *Current Directions in Psychological Science*, vol. 17, no. 1, pp. 57–60, 2008.
- [87] Amabile, *Creativity in Context*, Vol. 88, Westview Press, Boulder, CO, USA, 1996.
- [88] B. L. Fredrickson, "What good are positive emotions?" *Review of General Psychology*, vol. 2, no. 3, pp. 300–319, 1998.
- [89] Gagne and Deci, "Self-determination theory and work motivation," *Journal of Organizational Behavior*, vol. 26, no. 4, pp. 331–362, 2005.
- [90] K. Matzler, B. Renzl, and J. Mu, "Personality traits and knowledge sharing," *Journal of Economic Psychology*, vol. 29, no. 1, pp. 301–313, 2008.
- [91] K. Matzler and J. Mueller, "Antecedents of knowledge sharing—examining the influence of learning and performance orientation," *Journal of Economic Psychology*, vol. 32, no. 3, pp. 317–329, 2011.
- [92] G. Bock and Y. Kim, "Breaking the myths of rewards: an exploratory study of attitudes about knowledge sharing," *Information Resources Management Journal*, vol. 15, no. 2, pp. 14–21, 2001.
- [93] A. Kankanhalli, B. C. Y. Tan, and K. K. Wei, "Contributing knowledge to electronic knowledge repositories: an empirical investigation," *MIS Quarterly*, vol. 29, no. 1, pp. 113–143, 2019.
- [94] R. W. Malott, "Notes from an introspective behaviorist notes from an introspective behaviorist: achieving the positive life through negative reinforcement," *Journal of Organizational Behavior Management*, vol. 24, no. 1-2, pp. 75–112, 2008.
- [95] U. Wilkesmann, M. Wilkesmann, and A. Virgillito, "The absence of cooperation is not necessarily defection: structural and motivational constraints of knowledge transfer in a social dilemma situation," *Organization Studies*, vol. 30, no. 10, pp. 1141–1164, 2009.
- [96] C. E. Connelly, D. Zweig, J. Webster, and J. P. Trougakos, "Knowledge hiding in organizations," *Journal of Organizational Behavior*, vol. 33, no. 1, pp. 64–88, 2012.
- [97] K. Husted, "Diagnosing and fighting knowledge-sharing," *Organizational Dynamics*, vol. 31, no. 1, pp. 60–73, 2002.
- [98] R. W. Brislin, "Translation and content analysis of oral and written material," in *Handbook of Cross-Cultural Psychology*, H. C. Triandis and J. W. Berry, Eds., Allyn & Bacon, Boston, MA, USA, 1980.
- [99] M. Baer and M. Frese, "Innovation is not enough: climates for initiative and psychological safety, process innovations, and firm performance," vol. 24, no. 1, pp. 45–68, 2003.
- [100] E. L. Deci and R. M. Ryan, "The "what" and "why" of goal pursuits: human needs and the self-determination of behavior," *Psychological Inquiry*, vol. 11, no. 4, pp. 227–268, 2000.
- [101] R. E. de Vries, B. V. den Hooff, and J. A. de Ridder, "Explaining knowledge sharing the role of team communication styles, Job Satisfaction and Performance Beliefs," *Communication Research*, vol. 33, no. 2, pp. 115–135, 2006.
- [102] J. Zhou and J. M. George, "When job dissatisfaction leads to creativity: encouraging the expression of voice," *Academy of Management Journal*, vol. 44, no. 4, pp. 682–696, 2001.
- [103] J. G. Lu, M. Akinola, and M. F. Mason, "Switching on" creativity: task switching can increase creativity by reducing cognitive fixation," *Organizational Behavior and Human Decision Processes*, vol. 139, no. 1, pp. 63–75, 2017.
- [104] D. M. Cable and D. S. Derue, "The convergent and discriminant validity of subjective fit perceptions," *Journal of Applied Psychology*, vol. 87, no. 5, pp. 875–884, 2002.
- [105] C. Fornell and D. F. Larcker, "Evaluating structural equation models with unobservable variables and measurement error," *Journal of Marketing Research*, vol. 18, no. 1, pp. 39–50, 1981.

- [106] P. M. Podsakoff, S. B. Mackenzie, J. Lee, and N. P. Podsakoff, "Common method biases in behavioral research: a critical review of the literature and recommended remedies," *Journal of Applied Psychology*, vol. 88, no. 5, pp. 879–903, 2003.
- [107] J. E. Mathieu and S. R. Taylor, "Clarifying conditions and decision points for mediational type inferences in organizational behavior," *Journal of Organizational Behavior*, vol. 27, pp. 1031–1056, 2006.
- [108] N. Anderson, K. Potočník, and J. Zhou, "Innovation and creativity in organizations: a state-of-the-science review, prospective commentary, and guiding framework," *Journal of Management*, vol. 40, no. 5, pp. 1297–1333, 2012.
- [109] G. Chen and E. M. Campbell-bush, "Teams as innovative systems: multilevel motivational antecedents of innovation in R & D teams," *Journal of Applied Psychology*, vol. 98, no. 6, pp. 1018–1027, 2013.
- [110] B. J. Tepper, M. K. Duffy, J. Hoobler, and M. D. Ensley, "Moderators of the relationships between coworkers' organizational citizenship behavior and fellow employees' attitudes," *Journal of Applied Psychology*, vol. 89, no. 3, pp. 455–465, 2004.
- [111] T. Kim, D. M. Cable, and S. Kim, "Socialization tactics, employee proactivity, and person–organization fit," *Journal of Applied Psychology*, vol. 90, no. 2, pp. 232–241, 2005.