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# Intrinsic Rewards and Employee Creative Performance: Moderating effects of Job autonomy and Proactive personality A perspective of Self-determination theory

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#### **Abstract**

The purpose of this research was to explore the effects of intrinsic rewards on employee creativity. It also explored the moderating effects of job autonomy and proactive personality for the linkage between intrinsic rewards for employee creativity in public universities. This research utilized a cross-sectional survey method to investigate four Kabul public universities in Afghanistan. A total of 400 matching pairs of subordinates and their immediate supervisor's questionnaires were returned. Results demonstrated that intrinsic rewards positively correlated to employee creative performance. Furthermore, moderated path analysis showed that when job autonomy and proactive personality was high, intrinsic rewards for creativity had a positive direct effect on employee creative performance. This result adds to employee creative performance literature by empirically testing the moderating role of job autonomy and proactive personality in the intrinsic rewards for creativity and employee-creative performance link. Moreover, the outcomes showed that self-determination theory could be utilized as an overarching theory to explain how and why intrinsic reward for creativity can effect on employee creative performance.

**Keywords:** Intrinsic Rewards for creativity, job autonomy, proactive personality, employee creative performance.

Creative performance of employee can enable organizations to increase competitive advantages for organizational development, innovation, survival, and long-term achievement (Amabile, 1996; Hannam & Narayan, 2015; Malik et al., 2015; Muwahid, 2018; Oldham & Cummings, 1996; Shalley et al., 2001; Seibert & Kraimer, 2001; Xiaomeng et al., 2010; Yoon & Choi, 2010; Yoon & Choi, 2015; Yashwantrao et al., 2015). Employee creative performance refers to the making of profitable, valuable new products, services, thoughts, policies, or procedures by persons cooperating in a complicated social context (Chen & Zhang, 2018). Prior studies support the influence of rewards on employee creative performance (Hennessey & Amabile, 2010; Eisenberger, 2003; Malik et al., 2015; Yoon et al., 2015). Therefore, researchers have newly called for an exploration into the boundary conditions within which rewards influence employee creativity (Byron & Khazanchi, 2012).

Creative performance of employees is one of the performance dimension that has received increased interests among professionals and scholars with an intention to improve it (Coelho et al., 2011). Improving employee creativity has been found to benefit the organization in two ways: First is the ability to survive unforeseen challenges, and second is in attaining a competitive edge (Baer, 2012; Gong & Lee, 2013; Zhang et al., 2014; Zhang & Zhang, 2015). Creative performance of employees enables the organization to endure and flourish in a dynamic universe of unexpected difficulties and opportunities (Lu et al., 2017; Shalley & Perry-Smith, 2001). Creativity is ordinarily defined as "the generation of thoughts that are both novel and valuable" (Amabile, 1983; Ekta, Sharma. Sandeep, 2018; Hackman & Oldham, 1976, p. 607; (Teresa M. Amabile, 1983)Lu et al., 2017; Wang & Dong, 2019).

To stimulate and persuade an employee to do a creative performance, the organization provides several types of rewards, issues continue in respects to the purpose of these rewards in increasing employee

creativity. A meta-analysis by Byron and Khazanchi, (2012), recognized three moderators which influence the rewards-employee creativity linkage. These moderators are reward contingency, performance response, and the extent to which the setting suggests choice or forces control. Thus, Byron and Khazanchi, (2012) posit that the impact of rewards on employee creativity relies upon the nature of rewards and the setting in which the rewards are being presented.

With this in mind the present research uses self-determination theory as an overarching driver and an integrative framework to examine the effects of intrinsic rewards on employee creativity through the moderating effects of job autonomy and proactive personality. Drawing from the prior study, the prediction was that intrinsic rewards have both positive and negative influences (Vansteenkiste et al., 2006; Yoon & Choi, 2010) and the relative size of these conflicting influences decides the net influence of these rewards.

The current research employed the self-determination theory to describe the informational aspect of intrinsic rewards. Though scholars have tried to distinguish the boundary conditions in which rewards influence employee creativity (Byron & Khazanchi, 2012; Yoon et al., 2015) past researches have overlooked a critical theoretical perspective. The current literature centers on the assumption that rewards influence employees in the same way it does employee creativity, paying little respect to their individual differences. Personality theories, in any case, propose that the influences of contextual factors (i.e., intrinsic rewards) on human behavior rely upon individual differences that outcome in various discernments and attributions of a similar setting (Ajzen, 1991; Malik et al., 2015). To fill the gap in the present literature, we recommend that the influences of rewards are not just specified by the nature of rewards and the setting in which they are presented (Byron & Khazanchi, 2012), yet likewise by the personality attributes of an individual to whom the rewards are presented. Thus, individual dispositions are among the "additional factors" that

specified the influences of rewards on employee creativity, in this way; there is a shift on the influences of intrinsic rewards starting with one individual then onto the next.

The influence of rewards on the employee creativity contingent depends on their personal attributes, which play an important role in the interpretation of the rewards. In accordance with self-determination theory (Gagne & Deci, 2005), we propose that employees job autonomy and proactive personality are more possible to experience the positive influence of intrinsic rewards on employee creativity. Thus, the increase in employee creativity in the existence of intrinsic rewards is partially accredited to enhance their job autonomy and proactive personality toward the activity.

This research contributes to organizational behavior in different ways. First, the relationship of intrinsic rewards for creativity and employee creativity is extended. Second, job autonomy was examined, which means that workers can make decisions about their task (Hackman & Oldham, 1976), and gives chances to practice carefulness over work tasks (Sharon et al., 2015), as a moderator between intrinsic rewards and employee creativity. In contrast to prior studies (Dysvik & Kuvaas, 2013; Naqvi et al., 2013; Kuvaas, 2009), that have demonstrated the direct effect of job autonomy. Third, this research employed proactive personality, which means that individuals have strong confidence in their capacity to overcome limitations by situational forces and the capacity to start positive changes in the environment (Thomas et al., 1993), as a moderator between intrinsic rewards for creativity and employee creativity. In contrast to previous research (Akgunduz et al., 2018; Kim et al., 2010; Hermawati et al., 2017; Montani et al., 2017), that has revealed the direct influence of personal proactive behavior on employee creative performance. Fourth, this research will be the first empirically study that, refers to the relationship between intrinsic rewards and employees creative performance.

### **Hypothesis Development**

# Intrinsic rewards for creativity & employee creative performance

Intrinsic rewards for creativity are made to enhance intrinsic motivation for a given job, which has been distinguished as a positive indicator of creativity (Anderson, 2012; Baer, 2012; Dewett, 2007; Grant & Berry, 2011). In the work environment, intrinsic rewards come specifically from the activity itself and, normally, represent the sentiments of pleasure, success, test, and individual as well as professional development (Aletraris, 2010; Friedman, 2009).

Research has demonstrated the key role of employee creativity in helping the organization to makes proactive, creative, effectiveness and survival environment (Amabile, 1985; Baer et al., 2003). Nowadays managers try to create the necessary environment for creativity to flourish among employees particularly when the facing challenges (Mumford et al., 2002). Previously, scholars have tried to restrict the mechanism that makes individuals steady in creative accomplishment (Hennessey & Amabile, 2010). Both theoretical model and empirical evidence are reliable with the idea that intrinsic motivation is helpful for creative performance (Amabile, 1985). An individual whose work contribution is directed at enhancing the organizational performance is intrinsically motivated, essentially the performance of interest, happiness, fervor, and satisfaction that go with the behavior (Deci el at., 2001; Selart et al., 2008). Several scholars argue that high intrinsic motivation necessary for an excited employee in activity engages in the activity of itself and finally for creative success (Amabile, 1985; Garbers and Konradt, 2014). Another notable factor in creativity and motivation is that intrinsically motivated employees are most possible to exhibit high creativity (Amabile, 1985). Concerning the latter findings, any manager who is contemplating raising creativity must also consider performance practices and ways planned to increase the employee's intrinsic

motivation level. For instance, managers may provide opportunities for employees to obtain intrinsic rewards by giving them tasks that are challenging and stimulating in nature (Baer et al., 2003).

Although the continuing argument about the influence of rewards on creativity has been harmonious between researchers. According to the Yoon et al., (2015) intrinsic rewards associated with intrinsic task motivation are helpful for creative performance. Intrinsic rewards are "satisfying in their own particular right and they give coordinate satisfaction of essential psychological needs" (Rubin, 2007). Therefore, intrinsic rewards have a tendency to strongly affect the employee's job motivation, bringing about insistent job endeavors (Aletraris, 2010). At the point when individuals get intrinsic rewards, they are inspired to work harder and create quality performance due to intrinsic rewards (Eisenberger & Rhoades, 2001). Thus, when employees expect that their creativity will be understood through various intrinsic rewards they will demonstrate a higher level of creativity in the workplace. Thus, we hypothesize that:

**H1.** Intrinsic rewards for creativity is directly and positively related to employee creative performance.

#### Job Autonomy as a moderator

Job autonomy is defined as how most of the activity offers extensive freedom, demonstrating free hand and the decision to the individual in scheduling the work and furthermore characterizing the means to accomplish the job (Hackman & Oldham, 1976; Marchese & Ryan, 2001; Morgeson et al., 2005).

On the other hand, job autonomy means that workers can independently make decisions about their work (Hackman & Oldham, 1976) and are given chances to practice carefulness over their work tasks (Sharon Parker & Toby Wall, 2015). With job autonomy, individual activity is less obliged by formal rules or

procedures (Meyer et al., 2010). Hence, job autonomy gives employees more degree to express their ideas, demonstrate their uniqueness, and pursue objectives in view of their own qualities and requirements (Smith et al., 2007).

Dysvik and Kuvaas, (2011) view job autonomy as a probable enhancer of intrinsic rewards effects and in their study, they found that intrinsic rewards act through autonomy to effects individuals' task performance. Thus, job autonomy can explain the relationship among intrinsic reward and employee work-related behaviors by providing intrinsic motivation. Intrinsic rewards associated with intrinsic motivation are helpful for employees' creative performance. Intrinsic rewards are "fulfilling in their own specific right and they give arranged fulfillment of essential psychological needs" (Vansteenkiste et al., 2006). In the same vein, self-determination (SDT) sets that the social setting impacts intrinsic motivation through its effect on the need fulfillment or the view of autonomy, relatedness, and competence (Grouzet et al., 2004). People who are intrinsically motivated put more effort on task since they find them agreeable and stimulating, and find that interest is its own reward (Deci et al., 1989).

As per SDT, the most notable of these necessities is the need for autonomy. The need for autonomy is viewed as one of the most principal needs (Sheldon et al., 2001), and need fulfillment is necessary to be fulfilled in order to raise or support intrinsic motivation (Ryan & Deci, 2006). Regarding the work environments, various studies support the recommendations that autonomy-supportive (instead of controlling) workplaces advance need fulfillment and intrinsic motivation of employees for creative activity (Gagne' & Deci, 2005). Autonomy gives employees better decisions to the utilization of their work and it encourages them to investigate their thoughts openly (Morgeson et al., 2005). Employees' job autonomy aids them to settle on choices completely about their task (Dysvik & Kuvaas, 2013).

Kumar Sia, (2015) determined that autonomy is a person's capacity to decide their work technique, controlling their work routine and determination of work targets. As indicated by Nicholson, (2014) autonomy is identified with three aspects, the capacity to choose objectives, approaches to achieve these objectives and timing to accomplish these objectives. (Decotiis & Koys, 1980) represented 'autonomy as the impression of self-determination regarding work procedures needs and objectives'. Amabile, (1996) componential theory of creativity clarified the significance of workplace autonomy in improving employee creativity. The workplace regularly affects employees' task performance, since employees' emotional and perceptual perspectives are controlled by the conditions at work. Oldham and Cummings, (1996) discovered that employees' job autonomy has a positive relationship with employees' creative performance. They likewise focused on that controlling the workplace would contrarily affect employees' creative task performance. The results of Tierney and Farmer, (2014), Chen and Zhang, (2018), Parker et al., (2014) and Afsar et al., (2014) demonstrated that employees showed creative performance when they worked in high-task autonomy working condition with continuous counsel, self-course and control, and delegation. Hence, it can be suggested that:

**H2.** Job autonomy moderates the relationship between intrinsic rewards for creativity and creative performance such a way that intrinsic rewards is positively related to creative performance when job autonomy is high than when job autonomy is low.

# Proactive personality as a moderator

Proactive individual defined as a "self-directed" and future-centered activity in which the individual hopes to accomplish change, including a change in the situation (e.g., displaying new work systems, influencing organizational strategy) also change inside oneself (e.g., adjusting new capacities to adjust

to future solicitations) (Morgan et al., 2012; Melorose et al., 2015).

"Proactivity is about being selfstarting and changeoriented in order to enhance personal or organizational effectiveness, such as by making improvements to work procedures or using one's initiative to solve a problem" (Unsworth & Parker, 2003). More, individual behavior that is self-starting, change situated and future-focused. As works end up being more decentralized and weights for creative improved, proactive behavior goes up to advance basic part in association accomplishment (Crant, 1995; Thomas et al., 2010).

In this research, researchers focused on the moderating role of proactive personality. Drawing on self-determination theory, researchers argue that the interaction between intrinsic rewards for creativity and proactive personality will be positively related to employee creativity. In the current study environment, researchers used proactive personality, which alludes to "the belief (that) one can bring positive change to the workplace and produce creative outcomes" (Unsworth & Parker, 2003; Thomas et al., 2010).

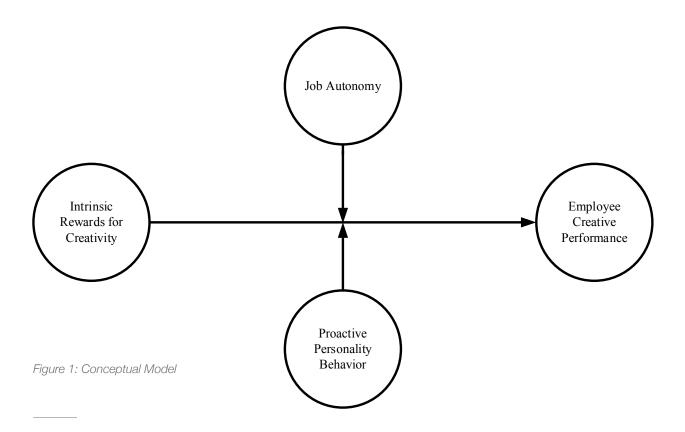
Based on self-determination theory, Strauss and Parker (2014) contended that proactivity, as a selfstarter and discretionary behavior, could generously add to employees' well-being through the fulfillment of one's basic psychological needs. First, given its self-started naturally, proactive is more averse to depend on effortful desire, instead of an increasingly dreary activity that requires self-control, for example, repetitive routine tasks. This segment of self-initiation has been formerly connected with sentiments of autonomy and self-direction (Koestner et al., 1984). Second, in light of its change-situated center, Parker et al., (2010) opine that being proactive could enhance challenging opportunities, hence easing the experience of competence and mastery (Montani et al., 2017; Strauss & Parker, 2014). Finally, regardless of their self-started emphasis, taking part in proactive is probably going to contribute to addressing the need for

relatedness (Strauss & Parker, 2014). Researchers have underscored that addressing the need for relatedness is more possible to look for feedback from peer and build social networks, which thus facilitates their profession movement (Belschak & Hartog, 2010). Furthermore, proactivity is conceivably an approach to effectively shape interpersonal relationships and social interactions (Grant & Ashford, 2008), along these lines raising individuals' feeling of relatedness at work.

As it has been expressed, self-determination theory (Ryan & Deci, 2000) indicate that individual become motivated to be involved in a task when they believe that their endeavors caused to initiate constructive changes in the environment and will enhance performance. Intrinsic rewards lead employee endeavors in the desired direction and inspire behavioral changes toward creativity when the given rewards are contingent upon creative performance (Yoon et al., 2015).

Employees with high personal proactivity believe in their capability to perform creatively. Therefore, in the existence of intrinsic rewards for creativity, these employees become extremely motivated to do things creatively and believe the outcomes of their endeavors. This confidence for great results aides and molds their behavior that produces predictable results, hence starting a virtuous via self-fulfilling prediction (Eden, 2014; Peterson et al., 2004). In this way, intrinsic rewards will be effective in producing a creative performance for people with high proactive personality due to the confidence to do creatively and the virtuous sequence among proactivity and performance. Hence, we suggest the following hypothesis:

**H2.** Proactive personality moderates the relationship between intrinsic rewards for creativity and creative performance such a way that intrinsic rewards is positively related to creative performance when the proactive personality is high than when the proactive personality is low.



#### Method

#### Sample and Procedure

Respondents were enlisted from different public universities in Afghanistan. A questionnaire was distributed to 800 subordinates and their supervisors. The employees and their immediate supervisors finished diverse questionnaires and returned them directly to the scholar. After dishonest responses and halfway data with just self- or supervisorsquestionnaires responses were excluded, the final sample comprised of 400 matching pairs of subordinates and their immediate supervisors (response rate = 50%). Our final analysis sample represented four public universities, consisting of (44%) Kabul University, (14%) Kabul Medical Science University, (20%) Kabul Polytechnic University and (22%) Kabul Education University. Respondent had the following characteristics: 76% of these respondents were male.

The mean age was 2.30 years (SD = 0.98), and the mean respondents' experience was 3 years (SD = 1.8). The majority held a master's degree (58.6%) or other Ph.D. degree (23.7%) and a small number of respondents were bachelors (17.7%). Of the 50 supervisors, 92 percent were male, 67.4 percent had master, and 32.6 percent had Ph.D. degrees. Their average age 3.5 years (SD = 0.70), 44 percent was a supervisor at Kabul University, 14 percent at Kabul Medical Science University, 20 percent at Kabul Polytechnic University and 22 percent at Kabul Education University. The respondents were in charge of different types of group level works activities, knowledge sharing, and organizational learning.

#### Measures

All the variables in this study were measured on a fivepoint Likert scale (1-strongly disagree and 5-strongly agree). To confirm the correspondence of English versions of the scales, researchers framed Persian versions by following the extensively used translation and back-translation procedure (Brislin, 1980).

#### **Intrinsic Rewards for Creativity**

Intrinsic rewards for creativity was measured by 4-items scale ( $\alpha$ =0.91) developed by Baer et al., (2003), 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." The manipulation check indicated that, as intended, participants were affected by their perception of personal luck: participants in the Luck Condition (M = 4.36, SD = 1.26) reported being luckier than participants in the control condition (M = 3.61, SD = 1.35), t(102) = 2.92, p = .004, d = .57. Likewise, participants in the Luck Condition (M = 4.10, SD = 1.72) were less likely to perceive themselves as unlucky than participants in the control condition (M = 4.83, SD = 1.86), t(101) = -2.06, p = .04, d = -.41.

#### Job Autonomy

Based on the measure created by Morgeson and Humphrey (2006) a 6-item scale was developed ( $\alpha$ =0.94) to assess job autonomy as perceived by the participants. The items includes "The job allows me to make my own decisions about how to schedule my work", "The job allows me to decide on the order in which things are done on the job" and "the job allows me to plan how I do my work".

#### **Proactive Personality Behavior**

Proactive personality measure using 10-items (=0.82) developed by Crant, and Kraimer's (1999). Sample items included "I am constantly on the lookout for new ways to improve my life," "I am always looking

for better ways to do things," and "I excel at identifying opportunities."

#### **Employee Creative Performance**

There is 13-items scale ( $\alpha$ =0.96) to assess employee creativity developed by Zhou and George (2001). A sample item is "This person suggests new ways to achieve goals or objectives" and "This person comes up with new and practical ideas to improve performance".

#### Control variables

In all the analysis, organization, age, gender, position, major, university, level of education and work experience were considered as a control variable. Prior researches (Chen & Zhang, 2018; Malik et al., 2015; Yoon et al., 2010; Yoon et al., 2015) have been reported that most of these variables have significant effect toward employee creativity.

#### **Results**

Based on procedure suggested by Fornell et al., (1988) confirmatory factor analysis (CFA) and reliability analysis in two-step using AMOS version 24 was conducted. In the first step to examine the validity

of measurement of the constructs, CFA for each constructs was conducted. In the second step to examine the linkage between all study variables in the model, CFA for structural paths was conducted. To test the hypothesis of the current research, likewise a bootstrapping method developed by Hayes, (2009) utilizing SPSS 24 was used.

Based on procedure recommended by Hayes, (2009) and Fairchild, & MacKinnon, (2009), the valid and impressive approach does not need for normality assumptions. Thus, due to its adequacy, the emerging approach was adopted.

## First step: Measurement model

In first step, based on procedure recommended by Hu & Bentler, (1998), two types of indices that comprise; absolute fit indices and incremental fit indices were adopted. Nevertheless, fit indices ( $\chi 2/df$ ), comparative fit index (CFI), Tucker Lewis Index (TLI), root mean square error of approximation (RMSEA) and Standardized Root Mean-Square Residual (SRMR) were tested. Hu & Bentler, (1998) recommend that a value close to 0.95 is reflective of good fit for TLI and CFI, and RMSEA and SRMR values close to 0.06. As demonstrated in table 1 the CFA outcomes show that all constructs have acceptable fit in the data.

**Table 1:** Validity and reliability of the constructs

Constructs	χ2/df	TLI	CFI	SRMR	RMSEA
IR	2.940	0.94	0.96	<0.05	0.03
JA	2.783	0.96	0.98	<0.05	0.05
PPB	4.134	0.95	0.97	<0.05	0.04
ECP	3.173	0.98	0.99	<0.05	0.04

IR=Intrinsic Rewards, JA=Job Autonomy, PPB= Proactive Personality Behavior, ECP=Employee Creative Performance.

Based on recommendation of Fornell & Larcker, (1981) to evaluate the composite reliability (CR) and average variance extracted (AVE); Confirmatory factor analysis (CFA) was used. To evaluate reliability and validity in the current research, Cronbach alpha suggested by Cronbach's, (1951) to evaluate in internal consistency and furtherer Kaiser-Meyer-

Olkin (KMO) suggested by Panuwatwanich et al., (2008) to evaluate sampling adequacy for each study variables in the model SPSS version 24, were used. The outcome shown in table 2 displayed that KMO, AVE, CR, and Cronbach alpha are inside suggested ranges. (KMO>0.60, AVE>0.50, CR>0.70 &  $\alpha$ >0.60).

**Table 2:** Findings on the measurement model

Constructs	Item	Loadings	α	KMO	AVE	CR
10	IR1	0.883				
	IR2	0.810				
IR	IR3	0.813				
	IR4	0.912	0.91	0.866	0.54	0.96
	JA1	0.937				
	JA2	0.961				
1.0	JA3	0.898				
JA	JA4	0.952				
	JA5	0.841				
	JA6	0.844	0.94	0.905	0.50	0.99
	PPB1	0.827				
	PPB2	0.949				
	PPB3	0.953				
	PPB4	0.859				
PPB	PPB5	0.954				
	PPB6	0.861				
	PPB7	0.965				
	PPB8	0.963				
	PPB9	0.883				
	PPB10	0.941	0.82	0.851	0.50	0.99
	ECP1	0.856				
	ECP2	0.912				
	ECP3	0.854				
	ECP4	0.827				
	ECP5	0.817				
	ECP6	0.822				
ECP	ECP7	0.857				
	ECP8	0.823				
	ECP9	0.894				
	ECP10	0.939				
	ECP11	0.808				
	ECP12	0.892				
	ECP13	0.865	0.96	0.883	0.51	0.98

CR=composite reliability, AVE= average variance extracted, KMO=Kaiser-Meyer-Olkin

### Second step: Structural model

In second step, confirmatory factor analysis (CFA) utilizing AMOS to examine the validity of four latent variables, (Intrinsic rewards for creativity, job autonomy, proactive personality behavior, and creative performance) was conducted. As exhibited "insert table 3 about here", the results of the research model comparisons demonstrated that the hypothesized model, which incorporates four variables, showed good fit to the data. The fit indices for the hypothesized model were as per the following: X2(392) = 774, p≤ 0.001, comparative fit index (CFI) = 0.92, Tucker-Lewis Index (TLI) = 0.91 and root mean square error of approximation (RMSEA) = 0.05. To test whether the intrinsic rewards for creativity and creative performance are different constructs, intrinsic rewards for creativity and creative performance were combined in a three-factor model. Intrinsic rewards for creativity, employee creativity, and personal proactive behavior were combined in a two-factor model. Finally, all variables of intrinsic rewards for creativity, creative performance, personal proactive behavior, and job autonomy were combined in a onefactor model.

As abridged in table 3, the chi-square distinction test and multiple indexes (CFI, TLI, and RMSEA) all demonstrated that the hypothesized model exhibited better fit than any other alternative models by exhibiting CFI and TLI greater than 0.90 and RMSEA less than 0.08. In summary, our hypothesized model exhibited that intrinsic rewards for creativity, creative performance, proactive personality behavior, and job autonomy are discrete forms. Table 4 shows the means, standard deviations, correlations, and reliabilities, between all variables. With coefficients of 0.82 or higher alpha Cronbach's, all variables have high reliabilities, and the correlations for all variables were in the normal way.

**Table 3:** Comparison of measurement models.

	Change from hypothesized model							
Model	Description	X <sup>2</sup>	df	CFI	TLI	RM- SEA	$\Delta X^2$	Δdf
Hypothesized model	Four-four factor model <sup>a</sup>	774	392	0.92	0.91	0.05		
Model 3	Three-four factor model <sup>b</sup>	1436	402	0.78	0.76	0.09	662***	10
Model 2	Two- four factor model <sup>c</sup>	2165	404	0.62	0.59	0.11	729***	2
Model 1	One- four factor model <sup>d</sup>	2762	405	0.49	0.45	0.13	597***	1

<sup>\*\*\*</sup> $p \le 0.001$ .

<sup>&</sup>lt;sup>a</sup> Four-factors: Intrinsic rewards for creativity; creative performance; proactive personality and job autonomy.

<sup>&</sup>lt;sup>b</sup> Three-factors: Intrinsic rewards for creativity combined; creative performance; proactive personality.

<sup>&</sup>lt;sup>c</sup>Two-factors: Intrinsic rewards for creativity and job autonomy; proactive personality combined creative performance

<sup>&</sup>lt;sup>d</sup> One-factors: Intrinsic rewards for creativity and job autonomy; proactive personality; creative performance combine

Table 4: Means, Standard Deviations, and Correlations among Study Variables

	Variables	М	SD	1	2	3	4	5	6	7	8	9	10	11
1.	Age	2.30	0.98	-										
2.	Gender	1.76	0.43	0.057	-									
3.	Position	1.99	1.19	0.706**	0.037	-								
4.	Major	2.26	0.95	0.074	0.036	0.031	-							
5.	Work Experience	3.00	1.81	0.838**	0.018	0.765**	0.032	-						
6.	Education	2.06	0.64	0.488**	0.042	0.483"	0.026	0.408**	-					
7.	University	2.20	1.22	-0.024	-0.095	-0.027	0.223"	-0.063	-0.100	-				
8.	Intrinsic Rewards for creativity	4.53	0.58	0.004	0.010	0.009	0.086	-0.009	-0.002	0.280"	-			
9.	Job Autonomy	3.90	0.79	0.083	-0.064	0.089	-0.023	0.113	0.018	0.144"	0.279"	-		
10.	Proactive Personality	4.02	0.52	-0.073	-0.088	0.019	-0.036	0.012	-0.031	0.250**	0.204**	7.369**	-	
11.	Creative Performance	4.20	0.44	0.018	0.018	0.042	0.077	-0.004	0.064	0.121	0.233**	0.329**	0.554"	(0.82)

Note. N = 400. Reliability coefficients are shown in parentheses on the diagonal.

#### **Main Effects of Intrinsic Rewards for Creativity**

In Hypotheses 1, suggested the direct effects of intrinsic rewards for creativity on employee creative performance. After controlling for age, gender, major,

position, education, and work experience, the results exhibited that intrinsic rewards for creativity were positively linked to employee creative performance. As can be seen in Model 2 (Table 2), ( $\beta$ =0.57,  $p \le 0.001$ ).

<sup>\*</sup>  $p \le 0.05$ ; \*\* p < 0.01; \*\*\*  $p \le 0.001$ .

**Table 5:** Multiple regression results on Employee Creative Performance.

	Employee Creative Performance						
Variables <sup>a</sup>	Model1	Model2	Model3	Model4			
Control Variable							
Gender	.262	.221	.906	.946			
Age	090	109	.901	.960			
Work Experience	209	180	643	707			
Education	.754	.758	.765	.700			
Major	.374	.277	.522	.492			
University Type	.450	.374	.152	.157			
Position	.380	.347	.167	.238			
Main Effects							
IR for Creativity		.573***	.170 <sup>*</sup>	.206*			
Moderator							
Job Autonomy			.182**	.232***			
IR for Creativity * Job Autonomy				.200*			
Proactive Personality			.642***	.624***			
IR for * Personal Proactive				.204 <sup>*</sup>			
Overall F	1.048	2.955***	21.852***	.402 <sup>*</sup>			
R <sup>2</sup>	.021	.065***	.385***	.402 <sup>*</sup>			
F change	1.048	15.982***	88.283***	4.665 <sup>*</sup>			
R <sup>2</sup> change	.021	.044	.320	.017			

<sup>\*</sup> p  $\leq$  0.05; \*\* p < 0.01; \*\*\* p  $\leq$  0.001. IR= Intrinsic Rewards

## Moderating Effects of job autonomy and proactive personality in the Relationship between Intrinsic Rewards and Employee Creative performance

In Hypotheses 2, it was anticipated that job autonomy would moderate the intrinsic rewards-creative performance linkage. After controlling the main effects, researchers entered the interaction terms for examining the hypothesized moderating effects. All of the variables were centered and included in the interaction terms, to diminish multicollinearity (Aiken & West, 1991). The results proposed that job autonomy was a significant predictor of creative performance, and it is significantly moderated the

linkage among intrinsic rewards and employee creativity (see Model 2, (Table 5) ( $\beta$  = 0.23, p≤ 0.001,  $\beta$  = 0.20, p≤ 0.006). Figure 2 portrays the pattern of this significant interaction acquired from two subgroups described by the high and low job autonomy (make operational as one standard deviation above and below the mean) (Anderson, 1986). This interaction pattern supports Hypothesis 2.

In Hypotheses 3, it was anticipated a proactive personality as a moderator on the linkage between intrinsic rewards and creative performance. As it can be seen in Model4 (Table 5) the moderating effect of proactive personality between intrinsic rewards and creative performance was significant ( $\beta$ = 0.20, p≤ 0.003). The figure 3 graphically demonstrates this interaction. Therefore, Hypothesis 3 was supported.

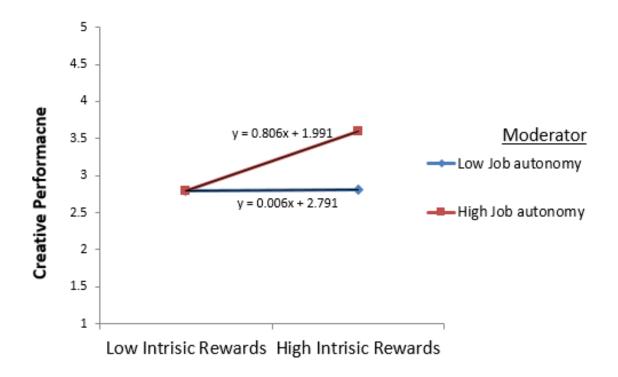


Figure 2. Interaction effect of the job autonomy for creative performance.



Figure 3. Interaction effect of the proactive personality for creative performance.

#### Discussion

The present study complemented the moderating role of job autonomy and proactive personality to the prior empirical study on intrinsic rewards-employee creativity linkage. The objective was to test the linkage between intrinsic rewards and employee creativity by focusing on the moderating role of job autonomy and proactive personality. Using self-determination theory as an overarching theory, researchers suggested job autonomy and proactive personality as the boundary condition for the effect of intrinsic rewards on employee creativity. This study proposed three significant conclusions. Firstly, as revealed in prior studies (Anderson, 2012; Chen, 2012; Yoon et al., 2015) it was found that a positive linkage between intrinsic rewards and employee creativity. This might be because of the individual, as employees in the academic context prefer intrinsic rewards than any other external incentive.

Second, job autonomy moderated the link between intrinsic rewards exhibited by leaders and creative performance displayed by subordinates (Anderson, 2012). The outcome from the current study suggests that an individual display creative performance in his/her behavior because of difference in the feeling of autonomy, freedom, respect, meaning, competence and self-determination are likely to incorporate decision-making and more tasks into the focal role, while they are working in environments where the perceived job autonomy. The findings endorsed previous research (Amabile, 1988; Decotiis & Koys, 1980; Nicholson & Nicholson, 2014; Oldham & Cummings, 1996), that job autonomy helps employees to explore their ideas liberally and make decisions freely, factors which are very critical for the creative performance of the employee. Lastly, it was discovered that proactive personality likewise moderated the effect of intrinsic rewards for creativity on employee creative performance. The findings proposed that intrinsic rewards could actually increase the creative performance of employee when they have proactive personality, consequently being cushioned from the potential effects of the compelling functions of intrinsic rewards. The findings of this study have significant implications for how researchers and supervisors comprehend the advantages of the utilization of intrinsic rewards.

#### Theoretical implications

This research result helps to explain the driver of employees' creative performance between employees via attention to enable employees and the interest they have to intrinsic rewards. Intrinsic rewards can motivate and encourage employees' creative performance including his/her ability to stimulate others to realize original ideas. Intrinsic rewards provide autonomy and freedom to employees through engaging accentuation on the importance and value of work roles. These factors inspire the intellectual capabilities of employees and stimulate them to generate occasions to meaningfully influence their work roles, which prompts more elevated amounts of creative performance. Furthermore, the results from the current study significantly increased the thoughts on the effects of intrinsic rewards in motivating the employees' creative performance. It confirmed prior researches that recognized the positive effects of intrinsic rewards on employee creative performance (Hair et al., 2014; Yoon et al., 2015).

Job autonomy and proactive personality, which have been found to influence the link between intrinsic rewards and employees creative performance are other contributions of this research. The analysis showed that both job autonomy and proactive personality have a significant moderating effect on the linkage among intrinsic rewards and employee creativity: intrinsic rewards could be positively associated with creative performance, depending on employees' job autonomy perception, and their attitude towards personal proactivity. These findings extend the prior study on the condition under which rewards might simplify creative performance by indicating to the

critical role of job autonomy perception and personal proactive priority.

Finally, contrary to some of the past research, which has been conducted in a laboratory setting and using organization justice as a mediator (Hannam & Narayan, 2015) or cognitive evaluation theory (Shalley & Perry-Smith, 2001) as a basic theatrical description of the linkage between intrinsic rewards and employees creative performance. Empirical data were analyzed by using job autonomy and proactive personality as moderator and self-determination theory (Gagne' & Deci, 2005) as a basic theoretical description of the linkage between intrinsic rewards and employee creative performance. The findings demonstrated that self-determination theory (Gagne' & Deci, 2005) can be utilized as an overarching theory to understand clearly how intrinsic rewards can impact employee creative performance.

#### **Practical implications**

The result of this research has solid implications on how to use intrinsic rewards to increase employee creative performance via job autonomy and proactive personality. Firstly, the expected role of job autonomy demonstrated that managers should attend more to employees' job autonomy perceptions. Particularly, managers must ensure that employees have an essential degree of autonomy for creative function and activity in the workplace. An autonomy support environment incorporates the prospects of employees, recognizes their feelings, provides information and options related to work, which minimize the pressure and demands of employees and positively affect employees creative performance (Kumar Sia, 2015). Secondly, regarding the role of personal proactivity, this research found that managers' likewise have to pay attention to proactive personality. Moreover, managers should facilitate an empowering work climate and further improve the work environment and experience changes, situational factors that function as a driver of personality change and supports the anticipation of the changes in an organization. In addition, managers must empower proactive individuals to maximize their proactive tendency to further enhance their creative performance. Kim et al., (2010) demonstrate that creating a climate that supports and empower proactivity, result in increased creative performance among proactive individuals.

# Limitations and recommendations for future research

Different limitations should be taken into consideration to discuss the above contribution. First, designing a cross-sectional study limited our ability to specify causality. It is conceivable, for instance, that the linkage between intrinsic rewards and employee creative performance are reciprocal. Such as intrinsic rewards influences an employee's creativity, as hypothesized in the theoretical framework. However, in the meantime, an individual's creative activity may likewise affect her/his performance (Zhang et al., 2015), which will influence her/his view of the connection between intrinsic rewards and performance. Therefore, it is firmly suggest future researches to utilize longitudinal designs strategy to investigate the intrinsic rewards and employee creative performance linkage placed in our model and these conceivable reciprocal linkages.

Second, this study analyzed the moderating role of job autonomy and proactive personality on the link between intrinsic rewards and employee creative performance. However, intrinsic rewards affect other job behavior for instance job satisfaction (Mark, 2016) organization commitment (Morgan et al., 2012). A future study might continue to test whether job autonomy and proactive personality moderate the effects of intrinsic rewards on these outcome variables.

Third, significant study has revealed situational and individual factors that encourage the creative performance of employee (Shalley, 2004), thus it is recommended that future research should

analyze the interaction role of the two factors on the creative performance, in this manner adding to the enhancement of an additional comprehensive description of the relationship between individual characteristics and creative performance.

Fourth, in the current study participants were from several universities they could bring the possible source of confusion. To decrease the likelihood, a university type was incorporated as a control variable. Nevertheless, gathering data from various organizations may expand generalizability of the investigation. In any case, future study may consider utilizing data from one or few predetermined number of organizations.

In sum, the present study is the first research to analyze the moderating effects of job autonomy and proactive personality on the linkage between intrinsic rewards and employee creative performance in several public universities and at several organizational levels.

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