

**Psychological States Behind the Proactivity-Creative Behaviour Relationship: The  
Impact of Flow and Recognition**

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## **ABSTRACT**

We already know that proactive employees are more creative (e.g., Li et al., 2020; Pan et al., 2018; Peng et al., 2020), but what are the psychological states behind this proactivity-creative behaviour relationship? This study's primary contribution is its examination of how flow encourages proactive individuals to generate radically new ideas that disrupt the status quo (e.g., creative behaviour). Using social cognitive literature, we propose a theoretical model in which proactive employees are more likely to experience flow, which subsequently enhances their creative behaviour. The analyses are based on multisource data, including a three-wave field panel of 328 employees from both private and government organizations in the Indonesian forest products industry. Our moderated mediation results provide support for the model. Proactivity appears to positively impact creative behaviour through flow experience and the likelihood of this indirect relationship is contingent on recognition. This study contributes meaningful theoretical and practical insights into the interactive effects of proactivity, flow experience, recognition, and creative behaviour in organizations.

**Keywords:** Proactivity; Flow experience; Recognition; Creative behaviour; Social-Cognitive Theory

## INTRODUCTION

In today's highly competitive global environment, creativity is an essential factor for organizations to survive, innovate, and compete (Mao et al., 2020; Shalley et al., 2004). In Indonesia alone, the creative economy contributed over 1,100 trillion rupiah (\$70 million USD) to the national gross domestic product (GDP) in 2020 (Bhwana, 2021). Creative behaviour is described as an individual's capability to generate radically new ideas that disrupt the status quo to their organization's success (De Clercq & Pereira, 2019). This type of creative employees in an organization is an indication of organizational success to the extent that their ideas help resolve organizational shortcomings or failures (Bos-Nehles, Bondarouk, & Nijenhuis, 2017). Due to its importance, creative behaviour has become a focal point for organizations (Babalola et al., 2021). Many executives consider creative behaviour, specifically, a necessary skill for their employees, and accordingly design reward and promotion opportunities (Breidenthal et al., 2020; Burt, 2004; Gilson, 2008).

Creativity research has tended to focus on the factors that will encourage creativity at work (Anderson et al., 2014; Liu et al., 2016). Koh et al. (2019) in their meta-analytic review paper, these authors mention that prior research has used self-determination theory, social identity theory, role identity theory, and relational identification theory to explain the predictor-creativity relationship. We take a unique perspective, based on social-cognitive theory, to explain predictors of creative behaviour. Despite its importance, creative behavior is hard to nurture in the workplace (Ng & Lucianetti, 2016). In many cases, employees believe that their ideas will not be taken seriously or implemented by others in the organization (Baer, 2012), unless they themselves possess a strong sense of agency—a desire to intentionally make things happen through their own actions (Bandura, 2001). The proactive personality research stream explains the strong sense of agency that connects with creativity. A proactive personality is self-initiated, future oriented, and change oriented to be minimally hindered by situational

constraints and maximally empowered to take personal initiative to ensure a positive outcomes (Yousaf, Sanders, & Shipton, 2013; Liu et al., 2019).

Studies have found that employees with a proactive personality are more likely to exhibit improved creative performance, due to felt responsibility for change (Jiang & Gu, 2015); job reflecting learning (Li et al., 2020); informal leadership status (Pan et al., 2018); and subordinate identification (Peng et al., 2020). Immersion in an activity that connects the proactive personality-disruptive creative behaviour relationship has not been examined. We extend these studies by investigating explanatory intervening factors that explain how employees' psychological states might translate proactivity into enhanced creative behaviour, that is, flow experience, which is defined as a peak performance involving intense concentration and absorption in an activity (Csikszentmihalyi, 2014; Schutte & Malouff, 2020). Prior studies also mention that proactive individuals are especially effective at looking for better ways to learn and improve their work performance (Kim et al., 2009). However, our focus on creative behaviour is notable as it brings a novel idea into how creative behaviour comes from flow. This flow is most likely to arise when challenges and skills are in balance—e.g., when an employee has a higher level of proactivity (Ramsey & Lorenz, 2020).

Moreover, we argue that flow acts as a mediating role linking proactive personality and creative behaviour—it all depends on how an employee receives the reward (recognition) for work accomplishment. Recognition is defined as a non-monetary reward for personal endeavour and job achievement. The purpose of recognition is to strengthen the desired behaviours shown by an employee (Brun & Dugas, 2008; Long & Shields, 2010; Montani et al., 2020). Receiving recognition from others will encourage employees to take on even greater challenges. Thus, these relationships support the positive reinforcement of creative behaviour as an outcome of proactivity, though a flow experience is particularly salient when the

employee receives a high level of recognition. We explain these relationships further in the hypotheses section.

## **Contributions**

This study makes several contributions. First, we theorize and empirically identify the mediating role of the flow experience that connects employees' proactiveness with their creative behaviour. Prior creativity studies have indicated how contextual characteristics affect employee creativity through intrinsic motivation (Amabile et al., 2018). Previous research of intrinsically motivated, skill-stretching activity has focused almost exclusively on exploring the flow state (Schüler & Nakamura, 2013). Building on Montani et al. (2020), the current study contributes insights into how flow will increase employees' motivation to invest in their creative endeavours. Being proactive will provide a double gain to employees: (1) from gaining fluency at performing the task at hand, and (2) from increasing creative behaviour, as these employees will see their organization in a positive light and exert effort in their job (Tsarenko et al., 2018). By detailing the mediating role of the flow experience, we complement studies that reveal similar mediating roles of flow experience, such as the link between curiosity and creativity (Schutte & Malouff, 2020). We also complement similar proactivity-creativity studies that used different mediators, such as informal leadership status (Pan et al., 2018); job reflective learning and activated positive affective states (Li et al., 2020); and felt responsibility for change (Jiang & Gu, 2015).

Second, we describe how the likelihood of this relationship may depend on recognition. Recognition, due to its symbolic value, is the simplest way to reward employees, and is also an effective mechanism for positive reinforcement. Employee recognition has received significant attention from scholars and practitioners as an effective tactic to encourage positive behaviour in organizations (Brun & Dugas, 2008; Long & Shields, 2010; Montani et al., 2020). Specifically, the likelihood of experiencing flow, which encourages creative behaviour, may

depend on receiving recognition as a signal that the invested effort is worthwhile (Tsarenko et al., 2018). The moderating role of recognition might make this positive proactivity-flow and flow-creative behaviour relationship look like an effective path, because recognition is a reward and incentive to motivate employees to work harder (Deci et al., 1999). This will result in an increase in radical idea generation (Schutte & Malouff, 2020). By considering this moderating role of recognition, we extend the prior research on recognition. For example, prior research has shown that recognition acts as a mediator in the relationship between social resources and behaviour (Tsarenko et al., 2018), and as an antecedent of behavioural involvement (Montani et al., 2020). Further, we build on the prior research that has found goal orientation to be a connection between proactiveness and creativity, through work engagement (Bakker et al., 2020).

Third, as most studies of employee creativity have been based in the West, we answer the call to expand studies of organizations in non-western countries (Anderson et al., 2004; Zhou & Su, 2010). Our study is based in Indonesia, an emerging economy with the 4<sup>th</sup> largest population in the world. Indonesians tend to have more collectivist cultural values than do Anglo countries (Hofstede, 1980, 2001). Bandura (2001) mentions that a collectivistic cultural orientation might possibly influence the efficacy-behaviour connection. He proposes that a collectivistic orientation is not necessarily contrary to the need to feel agentic. That is, people with improved self-efficacy convictions may improve their performance to reach higher collective goals, assuming they accept that those aggregate objectives are crucial. Moreover, Indonesia's low uncertainty avoidance characteristic would mean Indonesian employees would generally encounter less strain, more peace, and more openness to new and unformed ideas (Hofstede, 1980, 2001). It is important to study a diversity of responses to enhanced work related behaviour within low uncertainty avoidance values, as it is correlated with a tolerance

for uncertainty (Hofstede, 2011). We believe Indonesia is a suitable study context for the proposed conceptual model.

### **Conceptual framework**

Figure 1 summarizes the proposed framework. The model suggests a moderated mediation dynamic. A proactive personality will be more likely to experience a flow state of mind, which enhances creative behaviour. Recognition moderates this mediated link. The translation of a proactive personality into higher creative behaviour, through flow experience, is more likely when the employees receive recognition from others.

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Insert Figure 1 about here  
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## **THEORETICAL BACKGROUND**

### **Social cognitive theory**

Within this study, we propose that proactivity affects creative behaviour. Proactive employees take on work roles that go beyond the job requirement. This brings them access to resources, and ultimately facilitates their creative behaviour (Pan et al., 2018). Wood and Bandura (1989) note that individuals' convictions about efficacy can be installed and strengthened both through (1) their psychological state—when they assess their capabilities, and (2) social persuasion—realistic encouragements. The current study proposes the mediating role of flow in the relationship between proactivity and creative behaviour. Flow is an intrinsically optimal state when a person maintains strong concentration on a task (Pelet et al., 2017). We propose that flow comes due to proactivity, which contains self-initiated, intentional activity to strive for perfection (Meyers, 2020; Parker & Collins, 2010). This later leads to positive outcomes. Csikszentmihalyi (1997) mentions flow as an individual factor that can enhance creative ideas. Previous research supports this. For example, Zubair and Kamal (2015) found a positive relationship between employees' flow and their work-related creativity. Thus,

we propose the similar argument that flow experience mediates the relationship between proactivity and creative behaviour.

We posit, also, that recognition moderates the indirect relationship between proactivity and creative behaviour, through the flow experience. We use cognitive future depictions to guide and motivate present behavioural efforts (Bandura, 1989, 2006). Social cognitive theory argues that performance-based rewards boost self-efficacy in terms of an individual's ability to get what they are striving for (i.e., creative behaviour). In other words, this ability can be successfully encouraged by recognition from others. Organizations commonly use recognition programs to motivate employees, such as awards (formal recognition) or kudos in conversation (informal recognition) (Winterich et al., 2013). Through receiving individual recognition for their efforts and performance, employees would come to believe that they may achieve their desired outcomes (Stajkovic & Luthans, 1998, 2001). They would then self-regulate their upcoming behavioural involvement—specifically their creativity—as this recognition reward is a positive reinforcement that enhances creative behaviour (Malik & Butt, 2017).

By investigating both recognition and flow, we give pertinent insights into the individual intrinsic and extrinsic conditions in which employee proactivity is more likely to lead to creative behaviour.

### **Mediating role of flow experience**

We propose that more proactive employees will be more likely to experience flow. Bandura and Schunk (1981) mention that an awareness of personal efficacy in overcoming any challenges in an activity is likely to increase one's interest in this activity. A proactive personality is someone who takes the initiative to make present conditions better, and this may involve challenging the status quo (Crant, 2000; Wu et al., 2019). Parker et al. (2010) propose that individual and environmental factors have an impact on proactivity by influencing personal motivational states. As applied to this study, proactivity has the potential to lead to

experiencing flow—a work related state that contains fluency on task performance and absorption (Christandl et al., 2018). This is because proactive employees have a “can-do” attitude and experience a sense of significance, enthusiasm, and challenge which makes them strongly immersed in their work (Neneh, 2019).

Further, proactive employees have a tendency to initiate change and persevere until they accomplish their goals (Crant, 2000). They are more likely to experience flow due to their need to understand and learn from their task, and to inform and improve their future change initiatives (Li et al., 2020). Conversely, these employees will be less likely to experience flow when they believe their efforts cannot change in the ways they want (Ng et al., 2021). This idea is in line with prior research on proactive vitality, which argues that individuals proactively manage their scarce resources with the intention of enhancing their work engagement (Bakker et al., 2020; Schaufeli & Bakker, 2004). As the concept of flow has similarities to work engagement—a work-related state that is characterized by vigour, dedication, and absorption (Bakker et al., 2014; Ramsey & Lorenz, 2020), we propose:

*Hypothesis 1. Proactivity is positively related to flow experience.*

We also argue that employees who experience flow develop more creative behaviour. Previous studies have mentioned that engaged employees have more flexible thinking and invest significantly in their work (Bakker & Xanthopoulou, 2013; Eldor & Harpaz, 2016; Koch et al., 2015). When employees are experiencing flow, their skills and the challenges they face are well-matched at a high level (Pelet et al., 2017). That is, those who are immersed are motivated to utilize their ability and skills, and will perform creatively (Bakker & Xanthopoulou, 2013). Prior studies have found that the flow experience prompts creativity. For example, flow has been noted to have a positive impact on employee work-related creativity (Zubair & Kamal, 2015) and creativity in the creation of musical compositions (Byrne, MacDonald, & Carlton (2003) .

This argument is in line with social cognitive theory, which posits that individuals learn behaviour by observing their own behaviours (Bandura, 1977). It can assist with building convictions about one's capabilities to come up with ideas and minimize the obstacles to creative work. It can enhance the motivation for creative behaviour and performance (Gong et al., 2009; Tierney & Farmer, 2011). The higher level of flow experienced when engaging in the activity, as determined by participants after taking part in the job, would be related to a higher level of creative behavior (Schutte & Malouff, 2020). In sum, focusing on creative behaviour, we propose the following hypothesis:

*Hypothesis 2. Flow experience is positively related to creative behaviour.*

We combine hypotheses one and two, to indicate the mediating role of employee flow experience. That is, proactive employees will be more likely to enhance their creative behaviour, due to experiencing flow (Rheinberg et al., 2003). Proactive employees are more likely to seek opportunities, take action, and persevere until they achieve their goals. They are more likely to be creative because they are fully involved and engaged in the activity (Leung, 2020; Neneh, 2019). Previous research has mentioned a similar mediating role of flow experience in the relationship between curiosity and creativity (Schutte & Malouff, 2020); and between multitasking behaviour and performance (Peifer & Zipp, 2019). We add to this literature stream. We propose that employee proactivity leads to creative behaviour because the employees are experiencing flow. Taking all these arguments together, we hypothesize:

*Hypothesis 3. Employees' flow experience mediates the relationship between their proactivity and creative behaviour.*

### **Moderating role of recognition**

Social cognitive theory posits that recognition provides a clear sign from nonrecipients' attention to the recipient's organizationally valued behaviours. In essence, it confers authorized role model status on recipients, and therefore motivates an essential learning process (Bandura, 1986). Applied to this study's context, we posit that the increase of employee proactivity into

an enhanced flow experience depends on whether they gain recognition or not. By receiving individual recognition from others for their own endeavour and performance, employees would have the perception that their desired personal outcomes are likely to occur (Stajkovic & Luthans, 1998, 2001). In this manner, they would self-regulate their future behavioural involvement (Montani et al., 2020).

As a more indirect route, receiving a significant amount of perceived recognition becomes a signal to employees that their organization esteems their efforts and shows them where to contribute these efforts. Feeling valued, these employees will see their employer positively and apply more role-prescribed and voluntary behaviour for their organization (Montani et al., 2020). For example, immersing themselves in the task and fluence of performance, which is defined as flow (Shin, 2018; Teng, 2011). Conversely, when employees get less recognition from others in the organization, they will be more likely to feel the organization does not value their efforts. Hence, they are less likely to experience flow. Therefore,

*Hypothesis 4. Recognition moderates the positive relationship between proactivity and flow experience, such that this relationship is stronger among employees with higher levels of recognition.*

Also using the same logic from social cognitive theory (Bandura, 1986)--that recognition gives a vivid signal that will motivate an essential learning process--we argue that receiving more recognition will enhance the positive relationship between flow experience and creative behaviour. Recognition is categorized as one type of reward. Rewards can improve performance and other positive outcomes because they motivate employees to work more (Deci et al., 1999). Prior research mentions that recognition enhances behavioural involvement (Montani et al., 2020); and well-being (Gilbert & Kelloway, 2018). When employees receive a higher level of recognition, it provides them with more motivation and thus makes it more

likely they will experience flow (or peak motivational states). Ultimately, this will give rise to more enjoyment and creativity (Csikszentmihalyi, 1990).

Applied to this study, the distinct relationship between flow experience and creative behaviour is stronger when employees receive higher levels of recognition, because recognition communicates to employees that they are valued at work (Day et al., 2014; Gilbert & Kelloway, 2018). In contrast, when employees feel they lack recognition, the indirect effect of proactivity on creative behaviour through flow experience becomes weaker because they do not receive such motivation. In the current study, we suggest that:

*Hypothesis 5. Recognition moderates the positive relationship between flow experience and employee creative behaviour, such that this relationship is stronger among employees with higher levels of recognition.*

Self-perception in social cognitive theory comprises a belief in one's ability to arrange and execute the tasks needed to achieve desired outcomes (Bandura, 1995). It addresses one's perceived competence, one's belief that the individual can fulfil the task required to reach a goal, and an optimistic assessment of one's probability of success (Ng & Lucianetti, 2016). As flow is a combination of both immersion and fluency, we hypothesize that the indirect relationship between proactivity on creative behaviour, through a flow experience, is stronger when the employee perceives high levels of recognition. Thus,

*Hypothesis 6. Recognition moderates the indirect relationship between an employee's proactivity and creative behaviour, through a flow experience, such that this indirect relationship is stronger among employees who get higher levels of recognition.*

## **METHODS**

### **Sample and Procedure**

Our analyses are based on a three-wave field panel of 328 employees from both private and government organizations in the forest products industry (e.g., oil palm plantations, plywood, ministry of forestry) in Indonesia between March and April, 2020. We used multi-source data from different organizations to reduce the potential for the same source of common

method bias (Podsakoff et al., 2012). Data were collected using paper-and-pencil questionnaires separated into two weeks between Time 1 (employee demographics and proactivity), Time 2 (employee perceptions of recognition and flow experience), and Time 3 (supervisor ratings for their employees' creative behavior). At Time 1, we distributed 600 questionnaires. A total of 435 employees completed the Time 1 survey. At Time 2, 367 employees completed the survey. At Time 3, 30 supervisors completed ratings for their 339 employee subordinates. After matching the data sets, we obtained a final sample of 328 employees (a return rate of 54.67%). The questionnaires were translated into the Indonesian language, following Brislin et al. (1973) back-translation procedure. The participants were guaranteed that their rights were protected from diminished probability of social desirability or acquiescence biases (Spector, 2006). This final sample consists of 41.5% female respondents, 53.4% of respondents holding a bachelor's degree, 34.8% of employees having worked for over five years, with the majority between 25-34 years old.

## **Measures**

All measures used Likert scales from “1” (strongly disagree) to “7” (strongly agree).

***Proactivity.*** To measure proactivity, we adopted a six-item scale developed by Bateman and Crant (1993) at time 1. This version is also used by prior studies (e.g., Stephens et al. (2013)). Sample items are, “If I see something I don’t like, I fix it,” and “I am always looking for better ways of doing things.” Cronbach’s Alpha 0.856.

***Flow Experience.*** Ten items developed by Rheinberg et al. (2003) were used to assess employees’ flow experience at Time 2. Sample items are, “I feel just the right amount of challenge,” and “I am totally absorbed in what I am doing.” Cronbach’s Alpha 0.906.

***Recognition.*** We used the three items developed by Shockley et al. (2016) to assess employees’ perceptions of other people recognition towards them in Time 2. Sample items are, “Considering my career as a whole, the organizations I have worked for have recognized me

as a good performer,” and “my supervisors have told me I do a good job.” Cronbach’s Alpha 0.913.

***Creative Behaviour.*** At Time 3, a supervisor rated the focal employee’s creative behaviour using three items created by De Clercq et al. 2017; Janssen, 2001. This creativity version has also been used by prior studies (e.g., De Clercq and Belausteguigoitia (2019) and De Clercq et al. (2017)). Sample items are, “She/He often create radically new ideas for organizational improvement” and “She/He often generate disruptive solutions to organizational problems” Cronbach’s Alpha 0.831.

***Control variables.*** Following prior research, we used four demographics as control variables: gender, education, age, and organizational tenure. We used gender, as it may impact the probability of employees participating in creative behaviours (Baer & Kaufman, 2008). We likewise controlled for employees’ organizational tenure (1= 1 year; 2= 2-5 years; 3= 6-10 years; 4= >10 years), because employees who work for a longer time will have more latitude to engage in creative behaviours, in addition, they are more confident that their novel ideas would have value for the organization, and would not be met with undue doubt and obstruction (Bandura, 1997; Gong et al., 2009). Employee age (1= 15-24 years old; 2= 25-34 years old; 3= 35-44 years old; 4= 45-54 years old; and 5= 55-64 years old) and job tenure are important control variables. Older, more experienced employees may possess more knowledge and skills (Grant & Ashford, 2008). Age, gender, education (1= Senior High School; 2= Undergraduate; 3= Master; 4= Doctorate), and tenure with organization have been found to influence employees’ proactive behaviour (Bindl & Parker, 2011).

## **Statistical Technique**

We followed the De Clercq et al. (2014) multistep approach to test our hypotheses. To test the direct relationship and moderating role of recognition and flow experience in the relationship between proactive personality-flow experience, and between flow experience-

creative behaviour, we used simple regression. To test the existence of the possible mediation role of flow experience (Hypothesis 3), we followed Preacher et al. (2007). To check the moderated mediation effect mentioned in Hypothesis 6, we used SPSS PROCESS MACRO model 58 and its bootstrapping function. We computed bias-corrected confidence intervals (CIs) at three selected levels of EI, with 5,000 random samples and replacement from the full sample (Shrout & Bolger, 2002). Confidence interval (CI) in the Process macro, pinpoints three sequences of events. The moderators are one standard deviation (SD) above, equal, and below their mean.

### **Construct Validity.**

In this study, we used AMOS 22.0 to provide discriminant validity for the four key constructs, conducting the confirmatory factor analysis. Our confirmatory factor analysis showed a good fit for the four-factor model. The chi-square value was  $\chi^2$  ( $df = 174$ ) = 1,805; comparative fit index (CFI) = .97; tucker-lewis index (TLI) = .96; root-mean square error of approximation (RMSEA) = .05; standardized root mean square residual (SRMR) = .08. We compared the fit of our three-factor model with four factors (combined recognition and flow experience), The chi-square value was  $\chi^2$  ( $df = 206$ ) = 5,399; CFI = .78; tucker-lewis index TLI = .76; RMSEA = .12; SRMR = .16. Our four-factors model is better than the three-factors models. We likewise tested convergent and divergent validity for the measurements of the construct validity, in which each item should have the expected variables with a standardized loading larger than 0.5, scale composite reliability larger than 0.7, and average variance extracted larger than 0.5 (Fornell & Larcker, 1981; Hair et al., 2006). The factor loading ranged from .72 to .78 for proactivity, from .90 to .94 for recognition, from .60 to .79 for flow experience, and from .77 to .92 for creativity. Scale composite reliability showed .89, .94, .92, .90, respectively, and average variance extracted was .58, .85, .54, and .75, respectively.

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Insert Table 1 about here

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## RESULTS

Means, standard deviations, and intercorrelations for all study variables are presented in Table 2.

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Insert Table 2 about here

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Tables 3 and 4 present the regression results for the main effect in our proposed moderated mediation relationship. We hypothesized that proactivity would positively affect flow experience (Hypothesis 1), and that flow experience would be positively related to creative behaviour (Hypothesis 2). Results show that proactivity is positively related to flow experience ( $\beta = 0.462, p < 0.001$ ), and flow experience positively affects creative behaviour ( $\beta = 0.158, p < 0.001$ ). The existence of a mediating role of flow experience in the connection between proactivity and creative behaviour also gains support (Hypothesis 3). Table 2 shows the bias corrected 95% results, in which its CI did not include 0 [0.070, 0.202].

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Insert Table 3 about here

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To test the presence of moderation for recognition in the relationships between proactivity and flow experience (Hypothesis 4), and between flow experience and creative behaviour (Hypothesis 5), we used multiple regression. Table 3 and Figure 2 show the results, along with Figures 3 and 4 that indicate the graphical key results. There is a positive connection of the proactivity x recognition interaction term ( $\beta = .843, p < 0.001$ ) for predicting flow experience. That is, the positive relationship between proactivity and flow experience becomes stronger at increasing levels of recognition, lending support for Hypothesis 4. Similarly, there is a positive significant effect of the flow experience x recognition interaction term ( $\beta = 0.565,$

$p < 0.05$ ) for predicting creative behaviour. The positive interrelationship between flow experience and creative behaviour is stronger when recognition is higher, giving support for Hypothesis 5. To test the presence of moderated mediation of recognition in the indirect relationship between proactivity and creative behaviour through flow experience, we apply PROCESS MACRO model 58. Table 3 shows an enhancing effect size when recognition is high: 0.023 [-0.003; 0.063] at one SD below the mean; 0.070 [0.030; 0.119] at the mean; and 0.129 [0.067; 0.215] at one SD above the mean respectively. CI scores for the moderating effect in average levels (except at one SD below the mean) do not include 0. This indicates the presence of moderated mediation. Hypothesis 6 is supported.

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Insert Table 4 and Figures 2, 3 & 4 are about here

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## DISCUSSION

This study extends the previous proactivity-creativity literature by unveiling the psychological process behind the connection between employee proactivity and creative behaviour. Prior research indicates that employees who proactively manage their vitality are more likely to have higher levels of creativity (Bakker et al., 2020), but this prior research has focused on a specific form of proactive behaviour. It has not explored the common view of proactive personality itself to explain this proactivity-creativity connection. Drawing from social cognitive theory (Bandura, 1976), we posit that the likelihood of enhancing levels of disruptive creative behaviour in response to employee proactivity can be explained by the employee's propensity to experience flow. Recognition also affects the proactivity-flow as well as the flow-creative behaviour link in the process. Based on our empirical findings, we find support for the conceptual hypotheses.

### Theoretical implications

The mediating role of flow experience provides useful theoretical knowledge. A flow experience explains how proactivity affects employee creative behaviour. Flow experience is an interpretation of individual immersion in a state of optimal functioning in which one is deeply involved in an activity (Csikszentmihalyi, 1990). Flow is also categorized as one of intrinsic motivation (Schüler & Nakamura, 2013). Amabile's (1983) componential theory of creativity posits that inherent motivation is one of the most crucial and strongest predictors of creativity. This proposed idea also fits with social cognitive theory, in which Bandura (1997) proposes that an essential, prevalent condition that controls the key features of human agency are an individuals' belief toward their own capability to exert several measures of control over their own functioning. Both recognition and flow experience highlight employees' proactivity and increase the likelihood of creativity through the *intrinsic* (flow experience) and *extrinsic* (recognition) motivations.

The second theoretical implication of this study is that this positive dynamic relationship gets reinforced, depending on employee recognition. We provide empirical support for the theoretical hypothesis that recognition increases creative behaviour due to proactivity and is more likely to come from employees who experience flow. Consistent with social cognitive theory, to have high levels of creative behaviour, employees should have a solid agency conviction--purposely accomplish desired outcomes through one's own actions; (Bandura, 2001). We provide empirical evidence that strong conviction in one's capability to come up with ideas is related to higher levels of creativity—supporting prior research (Ng & Lucianetti, 2016). The belief that they have performed well (as evidenced by recognition) strengthens the positive relationship between proactivity and creative behaviour, through flow experience. Individuals are immersed and fluent in an activity (as a result of the flow experience) making the indirect relationship between proactivity and creative behaviour through recognition even stronger.

The third theoretical contribution is that this study illustrates concepts that can be generalized to other parts of the world. Although prior scholarship has mostly conducted creativity research in western countries, within this study, we provide evidence that creativity research also holds true in a non-western country (Indonesia). So, we expect that the reported empirical outcomes apply to a wider set of nations and are not restricted to Western or to developed nations. Nonetheless, unique cultural values may intervene with the tested theoretical conceptual model. That is, the average values of the variables that comprise this framework may vary depending on the countries and the strength of the hypothesized relationship among them (but not the nature of these connections). For example, in a highly collectivist country such as Indonesia, individuals are expected to follow the collective norms and standards (Triandis, 2018). Even in a highly collectivist society, however, individual recognition is clearly a motivator.

To conclude, this research study provides a deeper understanding of the relationship between proactivity and enhanced creative behaviour, by focusing on the hitherto overlooked factors that influence this relationship. We add to prior research that focuses on the intermediate role of work engagement in connection between proactive vitality management and creativity (Bakker et al., 2020). We do this by explaining the process through which proactive employees enhance their creative behaviour through the influence of flow experience (an internal aspect), in which this relationship depends on recognition (external reward). The concept of flow shares similarities with work engagement (Bakker et al., 2014). We focus on flow instead of work engagement because work engagement and its operationalisation have been criticized as including additional, distinct components (or subdimensions) such as attachment to the organization and job satisfaction (Mäkikangas et al., 2012). Therefore, because our focus is not on attachment to the organization, we believe that flow is the more appropriate concept for our study (Ramsey & Lorenz, 2020).

## **Practical implications**

Based on this study's results, we have several suggestions for organizational practice. Given the many advantages that proactive behaviour can provide (Parker et al., 2006), organizations should develop a culture to enhance such behaviour. For example, in the screening and hiring process of new employees, organizations could prioritize proactive employees. Moreover, excellent mentorship could become essential way to generate proactive behaviour. Accordingly, organizations should motivate their employees to foster individual proactivity in the workplace. Because training and mentoring is also beneficial for improving employee quality (Allen et al., 2006), we recommend that management provide employee training on the most effective methods of enhancing their proactivity.

In addition, this study reiterates to management and organizations that the feeling of being valued by an organization is critical. Feeling valued increases the likelihood that employees will devote extraordinary effort to their work. Also, direct supervisors should understand that recognition programs will be more effective in sustaining behavioural involvement to the degree that both vertical and horizontal types of recognition and appreciation are given to employees. Hence, beyond depending on the managerial actions illustrated above, managers would benefit from setting up and supporting a positive climate of recognition among subordinates. For instance, managers could provide support such as empowering positive feedback on a subordinate's proficient capabilities, or the affirmation of a subordinate who has overcome higher levels of work challenges. Accordingly, these examples will help the manager to increase the viability of his own recognition practices in the promotion of job meaningfulness and employee social contributions. This could increase the likelihood that employees experience flow, which would enhance their creative behaviour.

For years, organizations have been attempting to encourage employee creativity, and to support it over the long run (Amabile, 1998; Catmull & Wallace, 2014). Our study results also

confirm that proactivity will enhance creativity, thus, managers can and do play an important part in invigorating creativity in their employees (Shin & Zhou, 2003). For example, learning and development programs have become a well-known strategy to accomplish these objectives, as enhanced knowledge is related with higher levels of creative performance. Second, because a supervisor is responsible for mentorship with a dynamic involvement in creative work, helping stressed subordinates develop coping strategies, and providing generous recognition could be good strategies for increasing creative process engagement. Third, managers should focus on the interpersonal stress among subordinates due to creative-related activities. We recommend leadership that accentuates aggregate goals, provides individual incentive creative performance, and trains employees based on their abilities and strategies to become more creative.

### **Limitations and future research**

This study has some shortcomings, which indicate opportunities for future research. First, we focused on flow experience to explain the relationship between proactivity and creativity. Previous studies mention that flow and work engagement is similar (Bakker et al., 2014). Flow is a positive, fulfilling, work-related state of mind that contains vigour, dedication, and immersion (Schaufeli et al., 2002). This definition is similar to that of work engagement--which is related to positive job attitudes, customer satisfaction, and performance (Harter et al., 2002). Thus, future research could consider using work engagement instead of flow experience to examine the relationship between proactivity and creativity.

Second, within this study, we did not explicitly indicate which type of recognition that moderate the relationship between proactivity and creativity. Future research could test the different types of recognition used by supervisors and co-workers on employee well-being outcomes. The effect of both formal and informal recognition (e.g. monetary rewards, gifts, and social recognition) on employee outcomes are under explored (Condly et al., 2003).

Third, the core of this study's theoretical background is social cognitive theory. Social cognitive theory focus on the self-efficacy beliefs that determine behavioural intensity. This assumes that beliefs and behaviour are in accordance (Bandura, 2001). In this study, we use disruptive creative behaviour instead of the self-efficacy related construct. Future inquiry could identify factors related to self-efficacy beliefs, such as idea generation, growth in persuasion and change-related self-efficacy.

Fourth, in using the country setting of Indonesia, we expand creativity research to a non-western country (Anderson et al., 2004; Zhou & Su, 2010). The results confirm that the creativity framework can be applied to a different setting than developed western countries. We also acknowledge that a country's particular cultural values might determine the strength of the connections that comprise the study's hypothetical model. The limitation of this study is that we focus on a single country. Resources did not allow for cross-country comparisons. Future research, accordingly, could benefit from cross-country research that uses a broader cultural context to shed additional light on the positive effect of the proactivity-creativity relationship, in connection with flow experience and recognition.

## **CONCLUSION**

In conclusion, this study extends prior work on the predictors of employee creativity. The degree to which a person experiences flow and recognition represents a critical link between proactive personalities and enhanced creative behaviour levels. We develop an interactive outcomes model, in which flow experience serves as a mediation effect, and recognition serves as a moderation effect. We hope these insights inform future research on how proactive employees can increase their creative behaviour levels by getting immersed in their work activity and how getting recognized by others for their effort might influence this relationship.

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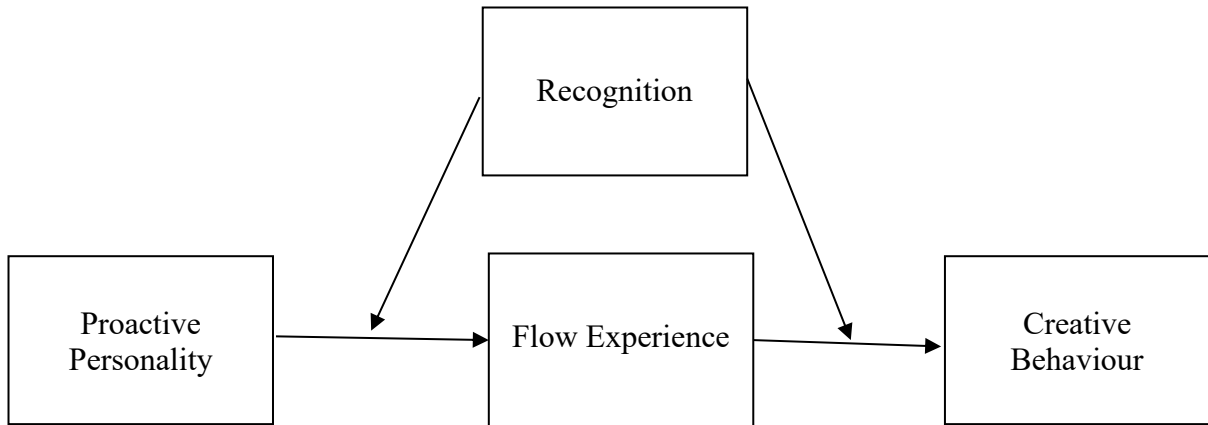
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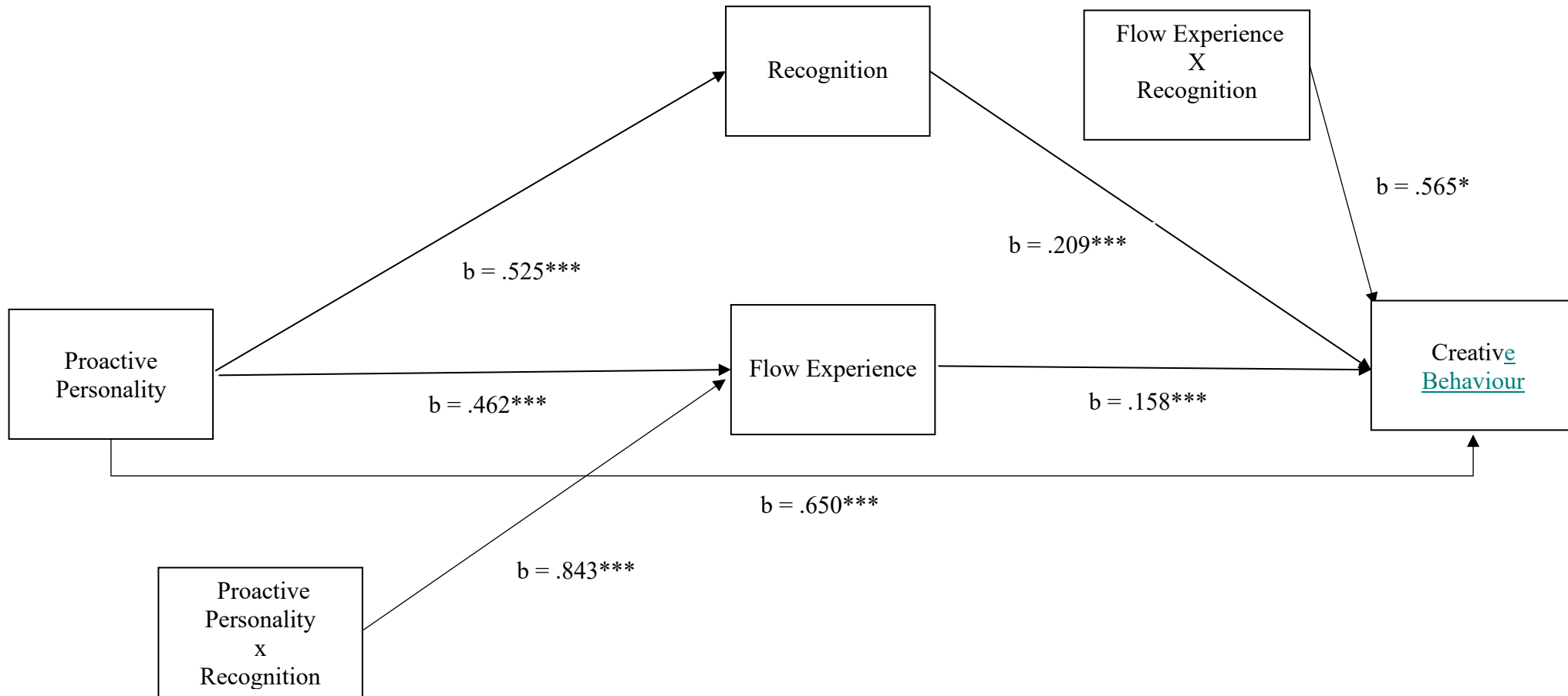
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**Figure 1.**

**The proposed conceptual model.**



**Figure 2**  
**Statistical results**



Notes: For additional details, see Table 2 & 3.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

**Table 1.**  
Constructs and measurement items

|                                                                                                            | <b>Factor Loading</b> |
|------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>Proactivity (CR = .893; AVE = .581)</b>                                                                 |                       |
| If I see something I don't like, I fix it.                                                                 | .771                  |
| No matter what the odds, if I believe in something I will make it happen.                                  | .783                  |
| I love being a champion for my ideas, even against others' opposition.                                     | .713                  |
| I excel at identifying opportunities.                                                                      | .739                  |
| I am always looking for better ways of doing things.                                                       | .784                  |
| If I believe in an idea, no obstacle will prevent me from making it happen.                                | .777                  |
| <b>Recognition (CR= .945; AVE= .852)</b>                                                                   |                       |
| Considering my career as the whole, my supervisors have told me I do a good job.                           | .903                  |
| Considering my career as the whole, the organizations I worked for have recognized me as a good performer. | .938                  |
| Considering my career as the whole, I have been recognized for my contributions                            | .927                  |
| <b>Flow Experience (CR= .921; AVE= .539)</b>                                                               |                       |
| I feel just the right amount of challenge.                                                                 | .662                  |
| My thoughts/activities run fluidly and smoothly.                                                           | .602                  |
| I do not notice time passing.                                                                              | .755                  |
| I have no difficulty concentrating.                                                                        | .711                  |
| My mind is completely clear.                                                                               | .740                  |
| I am totally absorbed in what I am doing.                                                                  | .761                  |
| The right thoughts/movements occur of their own accord.                                                    | .777                  |
| I know what I have to do each step of the way.                                                             | .762                  |
| I feel that I have everything under control.                                                               | .792                  |
| I am completely lost in thought.                                                                           | .760                  |
| <b>Creative behaviour (CR= .899; AVE= .749)</b>                                                            |                       |
| I often create radically new ideas for organizational improvement.                                         | .770                  |
| I often generate disruptive solutions to organizational problems.                                          | .897                  |
| I often develop completely new working methods or practices that add to organizational effectiveness.      | .921                  |

**Table 2.****Means, standard deviations and inter-correlations for the study variables**

| Variables                | 1       | 2      | 3     | 4     | 5      | 6      | 7      | 8     |
|--------------------------|---------|--------|-------|-------|--------|--------|--------|-------|
| 1. Gender                | ---     |        |       |       |        |        |        |       |
| 2. Age                   | -.265** | ---    |       |       |        |        |        |       |
| 3. Tenure                | -.122*  | .615** | ---   |       |        |        |        |       |
| 4. Education             | -.086   | .041   | .006  | ---   |        |        |        |       |
| 5. Proactive Personality | .027    | -.021  | .004  | .093  | ---    |        |        |       |
| 6. Recognition           | .037    | .034   | .092  | .063  | .528** | ---    |        |       |
| 7. Flow                  | .029    | .038   | .085  | -.049 | .455** | .541** | ---    |       |
| 8. Creative Behaviour    | .022    | .151** | .105  | .031  | .644** | .543** | .489** | ---   |
| Means                    | .41     | 2.23   | 1.83  | 1.55  | 5.277  | 5.199  | 4.708  | 4.936 |
| Standard Deviation       | .493    | .923   | 1.289 | .578  | 1.091  | 11.261 | 1.004  | 1.240 |

N = 328, \*p < .05; \*\*p < .01

**Table 3.**  
**Hypotheses results for mediation**

| Variables                                           | Flow   |                    | Creative Behaviour |           |           |
|-----------------------------------------------------|--------|--------------------|--------------------|-----------|-----------|
|                                                     | Step 1 | Step 2             | Step 1             | Step 2    | Step 3    |
| Age                                                 | .034   | .021               | .068               | .050      | .039      |
| Gender (1 = Female)                                 | -.009  | .007               | .159*              | .181***   | .182***   |
| Tenure                                              | .095   | .082               | .015               | -.003     | -.037     |
| Education                                           | -.046  | -.091 <sup>+</sup> | .030               | -.033     | -.022     |
| Proactive Personality                               |        | .462***            |                    | .650***   | .467***   |
| Recognition                                         |        |                    |                    |           | .209***   |
| Flow Experience                                     |        |                    |                    |           | .158***   |
| F-value                                             | .905   | 18.431***          | 2.328 <sup>+</sup> | 51.719*** | 48.569*** |
| R <sup>2</sup>                                      | .011   | .223               | .028               | .445      | .515      |
| Δ R <sup>2</sup>                                    |        | .212               |                    | .417      | .070      |
| Bias corrected 95% confidence interval <sup>a</sup> |        |                    |                    |           |           |
|                                                     | LLCI   |                    | ULCI               |           |           |
| Flow Experience                                     | .070   |                    | .202               |           |           |

N = 328. Standardized beta coefficients are presented.

<sup>a</sup>5000 bootstrap samples were employed

\*p < .05; \*\*p < .01; \*\*\*p < .001

LLCI = Lower Limit Confidence Interval; ULCI = Upper Limit Confidence Interval

**Table 4.**  
**Hypotheses results for moderation**

| Variables                                                    | Flow Experience |                    |            | Creative Behaviour |           |           |
|--------------------------------------------------------------|-----------------|--------------------|------------|--------------------|-----------|-----------|
|                                                              | Step 1          | Step 2             | Step 3     | Step 1             | Step 2    | Step 3    |
| Age                                                          | .034            | .021               | .008       | .068               | .171**    | .165**    |
| Gender (1= female)                                           | -.009           | .007               | .027       | .159*              | .039      | .035      |
| Tenure                                                       | .095            | .082               | .016       | .015               | -.056     | -.062     |
| Education                                                    | -.046           | -.091 <sup>+</sup> | -.113      | .030               | .017      | .003      |
| Proactive Personality                                        |                 | .462***            | -.171      |                    |           |           |
| Recognition                                                  |                 |                    | -.113      |                    | .391***   | .045      |
| Flow Experience                                              |                 |                    |            |                    | .275***   | -.011     |
| Proactive X Recognition                                      |                 |                    | .843***    |                    |           |           |
| Flow X Recognition                                           |                 |                    |            |                    |           | .565*     |
| F-value                                                      | .90             | 18.431***          | 767.054*** | 2.328 <sup>+</sup> | 30.887*** | 27.675*** |
| R <sup>2</sup>                                               | .011            | .223               | .944       | .028               | .357      | .363      |
| Δ R <sup>2</sup>                                             |                 | .212               | .732       |                    | .329      | .006      |
| Moderated Mediation (Process Macro Model 58) for Recognition |                 |                    |            |                    |           |           |
| -1 SD                                                        |                 | .023               | .017       |                    | -.003     | .063      |
| Mean                                                         |                 | .070               | .023       |                    | .030      | .119      |
| +1 SD                                                        |                 | .129               | .037       |                    | .067      | .215      |

N = 328. Standardized beta coefficients are presented.

<sup>a</sup>5000 bootstrap samples were employed

\*p < .05; \*\*p < .01; \*\*\*p < .001; LLCI = Lower Limit Confidence Interval; ULCI = Upper Limit Confidence Interval

Figure 3.

Moderating plot for recognition in the relationship between proactivity and flow experience.

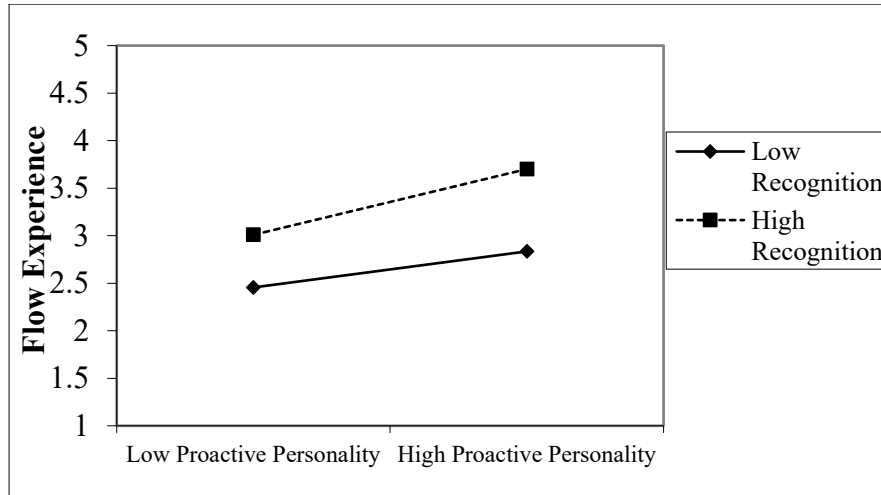


Figure 4.

Moderating plot for recognition in the relationship between flow experience and creativity.

