

From opportunities to innovation: How HR practices, engagement, personality, and autonomy drive creative performance?

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Abstract

This study aims to examine the influence of opportunity-enhancing HR practices on employees' creative performance, with work engagement as a mediating variable and proactive personality and job autonomy as moderating variables. The research addresses a gap in the literature, which often overlooks internal linkages among HR system components, particularly the role of opportunity-enhancing practices in translating employee potential into actual performance. The study involved 214 employees selected from a total population of 482 employees working in the palm oil mill industry in Riau Province, using systematic random sampling. Data were collected through a survey and analyzed using structural equation modeling (SEM) with SmartPLS 3.0. The results indicate that opportunity-enhancing HR practices positively affect creative performance through the mediating role of work engagement. Employees' proactive personality strengthens this indirect effect. However, job autonomy does not significantly moderate the relationship between engagement and creative performance. Grounded in the componential theory of creativity and the conservation of resources theory, these findings provide practical insights for organizations aiming to foster innovation and sustain competitive advantage through targeted HR practices.

Introduction

Dynamic and turbulent environmental changes require organizations to prioritize the creative performance of human resources to keep a competitive edge (Gu & Liu, 2023; Wang et al., 2018). In this context, developing effective strategies to encourage employee creative performance becomes imperative (Zheng & Ahmed, 2024). Employee creative performance stems from employee work, as reflected in the activity of producing new ideas or solutions (Zhou et al., 2003). It is essential for all organizations, including the oil industry in Riau Province. This industry faces intense pressure from dynamic environmental changes, such as evolving energy regulations, global competition, and the growing demand for innovation. In this context, employee creative performance becomes a key factor in maintaining a competitive advantage. Creative performance has been developed in the context of Western culture, which is not entirely relevant in Indonesian culture (Chiu & Kwan, 2010). In addition, the concept itself is often defined inconsistently across studies; some emphasize the final result (outcome) while others focus on the creativity process. This inconsistency complicates measurement and theoretical integration. Creative performance is often explained using stand-alone theories, such as the creative componential theory or the model of job demands and resources (Amabile, 1983; Shalley et al., 2004). Creativity performance has been explored using various approaches, such as personality, work values, emotional intelligence,

rewards, and HR management practice systems (Darvishmotevali et al., 2018; Li et al., 2020; Ren et al., 2021; Yang & Yang, 2020).

Among the HR management practice systems frequently discussed in the current era are high-performance employment frameworks, commitment-driven HR practices, participatory HR approaches, and investment-focused HR systems (Al-Jedaiah, 2020; Melián-Alzola et al., 2020; Yong et al., 2020). Unfortunately, researchers generally do not focus on the internal relationships among the components within an HR system. Theoretically, Delery (1998) highlighted the importance of “internal fit”, where HR practices are well integrated and complement each other effectively. HR procedures within an HR system might complement, replace, or even counteract each other (Gürbüz et al., 2024). Furthermore, in the context of the oil industry, HR practices are still oriented toward structural efficiency and have not fully optimized opportunity-based approaches that promote inclusivity, participation, and creativity. Addressing this gap, this current research seeks to elucidate the construct of HR systems using the Ability Motivation Opportunity framework (Prieto-Pastor & Martin-Perez, 2015). All HR systems have the same structure in their fundamental makeup, as they function through the influence of employee ability to work, motivation to work, and opportunity to work. This study will only focus on one construct of the HR system, namely opportunity-based HR practices. This practice plays an important role in ensuring that employees can maximize their knowledge, skills, and motivation through opportunities to contribute. Without adequate opportunities, employee capabilities and motivations remain underutilized (De Spiegelare et al., 2018).

In addition, previous research shows that opportunity-based practices often have synergistic effects when combined with ability-based and motivation-based practices, resulting in a greater impact on overall organizational performance (Gürbüz et al., 2024). Thus, focusing on opportunities-enhancing practices is particularly important, as it serves as a catalyst that enables the full realization of employee abilities and motivation (Gu & Liu, 2023). HR procedures that improve opportunities create an environment that motivates employees to make optimal use of their capabilities and make the best contribution to the organization, thereby enabling creative performance (El-Kassar et al., 2022). Within this relationship between opportunity-enhancing HR practices and employee creative performance, the mechanisms of mediation and moderation processes are important to explore, to help explain why a process occurs and under what conditions it occurs (Amabile & Pratt, 2016). To explore these mechanisms, this research adopts the Conservation of Resources Theory as its theoretical framework.

Hobfoll's (1989) Conservation of resources theory posits that people work to obtain, preserve, and safeguard the resources they possess, such as time, energy, and cognitive ability, to accomplish their objectives (Bon & Shire, 2022). In organizational contexts, opportunity-enhancing HR procedures can be viewed as resources provided by the organization to help employees perform more effectively (Imron et al., 2024). These practices include participation in decision-making, increased autonomy, empowerment to participate, flexible job structures, open feedback channels, information sharing, self-managed teamwork, flexible positions, and suggestion programs (Gurbuz & Hatunoglu, 2022; Mansour et al., 2022). When employees have sufficient resources, they are more likely to be more driven and involved in their job, emotionally, cognitively, and physically, commonly referred to as work engagement (Schaufeli et al., 2019). Engaged employees have enough energy, enthusiasm, and attachment to invest their additional resources into creative behaviors, such as generating new ideas or finding innovative solutions to problems. In addition, the factors that cause creative performance certainly occur in various conditions, some of which can be explained through the componential theory of creativity.

Amabile and Pratt (2016) expanded this theory by integrating multiple creativity-related processes, emphasizing the complex interplay among personality traits, cognitive styles, thinking skills, and working environments. In line with this perspective, this study assumes opportunity-enhancing HR practices as elements of a supportive and inclusive work environment to create creativity. In addition, this study adds to the role of proactive personality, which refers to a person's propensity to impact and mold their workplace actively (Crant & Bateman, 2000). Proactive individuals are more likely to (1) strengthen the relationship between opportunity-enhancing HR

practices and work engagement, and (2) amplify the indirect influence of these practices on creative performance through work engagement (i.e., moderated mediation). This supports the notion that those who take initiative and actively create their workplace are more likely to be highly engaged at work (Chong et al., 2021). In addition, an environment that encourages employee creativity is characterized by work autonomy (Dewi & Alviani, 2023). Defined as the degree of freedom employees have in determining their work schedules and methods (Hackman & Oldham, 1976), work autonomy is expected to (1) enhance the positive relationship between creative performance behavior and work engagement, as well as (2) strengthen the indirect effect of opportunity-enhancing HR practices on employee creativity through work engagement. Individuals with greater autonomy have more opportunities to generate and implement creative ideas in their work (Volmer et al., 2012). By examining the interactions among these key factors, this research provides deeper insights into how these factors collectively influence employees' creative performance.

Literature Review and Hypotheses Development

Conservation of Resources Theory

The conservation of resources theory explains that individuals strive to obtain, retain, maintain, and protect things they centrally value (Hobfoll et al., 2018). COR theory encompasses two core motivational aspects: (1) individuals seek to acquire resources, and (2) individuals aim to protect resources from loss. The first aspect explains individual behavior under stressful conditions, where individuals attempt to acquire, conserve, and safeguard the resources they possess, such as time, energy, and cognitive capacity, to achieve their goals. When individuals are unable to reach their objectives fully, they strive to minimize losses by either replacing lost resources or reevaluating their goals (Bon & Shire, 2022). In this context, resources are a central concept in COR theory, defined as characteristics, conditions, and energies of the individual that are perceived as valuable and for which individuals seek acquisition (Dong & Qu, 2023).

The conservation of resources theory is highly relevant for understanding how opportunity-enhancing HR practices contribute to employees' creative performance. Practices such as participation in decision-making, flexible work structures, empowerment, and open feedback are viewed as organizational resources provided to employees to support their work effectiveness (Gürbüz et al., 2024; Jiang et al., 2012). As a result, employees will perceive themselves as having sufficient resources and are more likely to be emotionally, cognitively, and physically engaged in their work, a condition referred to as work engagement (Schaufeli et al., 2019). High levels of work engagement enable employees to allocate their additional resources toward creative behaviors, such as generating new ideas or developing innovative solutions (Halbesleben et al., 2014). Thus, opportunity-enhancing HR practices function as catalysts that facilitate the realization of employees' creative potential through the mediation of work engagement. However, this relationship is not universal; it depends on certain conditions. For example, individuals with a proactive personality are more likely to actively take advantage of available opportunities, thereby strengthening the relationship between HR practices and work engagement as well as its indirect effect on creative performance (Chong et al., 2021; Crant & Bateman, 2000). In addition, the level of work autonomy also enhances this relationship, as autonomy provides employees with the space to actualize their creative ideas (Volmer et al., 2012). Therefore, based on COR theory, the combination of HR procedures that improve opportunities, work engagement, proactive personality, and work autonomy synergistically forms a resource system that fosters creative work behavior in the face of dynamic and high-pressure environments.

Mediating Role of Work Engagement

Conservation of resources theory states that people strive to acquire, maintain, and safeguard essential resources as a means to reduce stress and enhance their overall well-being (Hobfoll et al., 2018). These resources include various aspects, such as time, social support, energy, and personal attributes. This theory has several main principles, one of which is that the initial acquisition of resources creates a positive spiral, where the more resources obtained will increase the individual's

chances of obtaining additional resources and achieving better results (Halbesleben et al., 2014). In this context, opportunity-enhancing HR practices are conceptualized as job resources. These procedures motivate staff members to use their skills to accomplish job objectives (Gürbüz et al., 2024) and demonstrate to employees their independence and empowerment in carrying out responsibilities (Kooij et al., 2022). Based on COR theory, these HR practices act as resources that help increase employees' resource reserves. In addition to reducing the risk of resource loss, these techniques can foster a positive work environment by offering chances for meaningful contribution, autonomy, and control. When there are plenty of resources available, employees are motivated to put those resources back into their work (Hobfoll et al., 2018), which ultimately increases work engagement. Employees who experience empowerment and support are typically more energized, driven, and committed to their work, which starts a positive feedback loop of higher engagement (Bakker, 2022; Hai et al., 2020).

Employee engagement makes them intrinsically motivated and open to new opportunities and experience more positive emotions than employees who are not engaged (Bakker & Xanthopoulou, 2009). As a result, this work engagement encourages the emergence of creative behavior in completing tasks (Bakker & Xanthopoulou, 2009), in line with the creativity components theory, which emphasizes intrinsic motivation as a key driver of individual creativity (Amabile & Pratt, 2016).

H₁: Work engagement mediates the effect of HR practices that enhance opportunities on creative performance.

Moderating Role of Proactive Personality

Proactive individuals are more likely to actively seek out opportunities to improve and challenge current circumstances and to take personal initiative in changing their surroundings. Conversely, less proactive individuals are typically more reactive and happy to keep things as they are (Crant & Bateman, 2000). A proactive personality can strengthen the beneficial relationship between HR practices that increase opportunities and employee engagement. These HR practices are designed to foster employee participation in decision making, promote self-managed teamwork, encourage open information exchange, and empower individuals to influence their work environment (Prieto & Pilar Pérez Santana, 2012), will provide opportunities for proactive individuals to impact the workplace environment and enrich job resources actively (Bakker et al., 2012; Crant & Bateman, 2000). Consequently, this can make employees feel more invested in their jobs (Bakker et al., 2012). This perspective is grounded in the conservation of resources theory by (Hobfoll et al., 2018), which suggests that people strive to acquire, maintain, and safeguard essential resources.

According to COR theory, people can create a positive cycle of resource accumulation by using their current resources to acquire new ones. This theory posits that individuals with personal resources, including a proactive personality, are more likely to seek additional job resources, including HR practices that enhance opportunities. Supporting this notion, Dikkers et al (2010) revealed that a proactive personality strengthened the relationship between social support and dedication among employees in the Netherlands—similarly, Cai et al. (2018) discovered that among Chinese technology workers, proactive personality increased the beneficial impact of empowered leadership on employee engagement at work.

H₂: Proactive personality moderates the effect of HR practices that enhance opportunities on work engagement.

Moderating Role of Job Autonomy

Work engagement plays a significant role in fostering creative task performance because highly engaged individuals tend to have greater energy, concentration, and intrinsic drive to achieve optimal results (Bakker & Demerouti, 2008; Rich et al., 2010). Employees who are deeply engaged at work are more inclined to think creatively, seek innovative solutions, and explore new ideas in their tasks. However, the extent to which engagement translates into creativity is also influenced by the degree of freedom or autonomy that workers enjoy at work. Job autonomy pertains to the degree of freedom employees have to determine how they complete tasks and schedule their work

(Hackman & Oldham, 1976). When job autonomy is high, engaged employees have more flexibility to explore different work approaches, take risks, and try innovative methods without rigid administrative constraints. In this context, autonomy acts as a job resource that strengthens intrinsic motivation and supports the development of creative ideas (Deci & Ryan, 2000). Thus, the positive energy from work engagement can be converted more effectively into creative performance because employees believe they have greater control over their job performance. Conversely, employees' flexibility to try new approaches is limited when work autonomy is low. Employees with high engagement may feel frustrated because their room for maneuver is constrained by strict rules or procedures, so that their energy and motivation cannot be realized in the form of creative behavior (Volmer et al., 2012). Thus, work engagement without adequate autonomy is less likely to lead to enhanced creative performance.

H₃: Job autonomy moderates the effect of work engagement on creative performance.

Moderated-Mediation of Proactive Personality and Work Engagement

Opportunity-enhancing HR practices are designed to provide resources and work environments that support employees to maximize their potential, such as task flexibility, job rotation, involvement in the process of making decisions, teamwork, and obtaining necessary data (Jiang et al., 2012). These practices can increase employee work engagement, which in turn contributes to creative task performance because work engagement creates positive energy and sustained focus on work (Bakker & Xanthopoulou, 2009; Rich et al., 2010). However, personal traits like a proactive personality also impact the effectiveness of this interaction. A proactive mentality reflects a person's propensity to act independently, take charge, and improve their workplace (Crant & Bateman, 2000; Parker et al., 2010). Proactive individuals actively seek opportunities to optimize available resources, including those provided through HR procedures that improve opportunities (Bakker et al., 2012). In this regard, the COR theory states that people employ the resources they already have to obtain new ones, resulting in a circle of resource accumulation that never ends (Hobfoll et al., 2018).

Consequently, individuals exhibiting a strong level of proactive personality are inclined to be better able to utilize the opportunities and resources provided by HR procedures that improve opportunities to increase their engagement and, ultimately, produce higher creative performance (Fuller & Marler, 2009; Kent et al., 2010). On the other hand, individuals with weaker proactive personalities often behave passively and are less motivated to utilize the resources provided. They may not maximize the opportunities provided by HR procedures that improve opportunities, such as participation in decision making or access to information, and thus do not experience significant increases in work engagement. This weakens the impact of HR practices on creative performance (Kim et al., 2018; Parker & Bindl, 2016).

H₄: Proactive personality moderates the effect of HR practices that enhance opportunities on creative performance through work engagement.

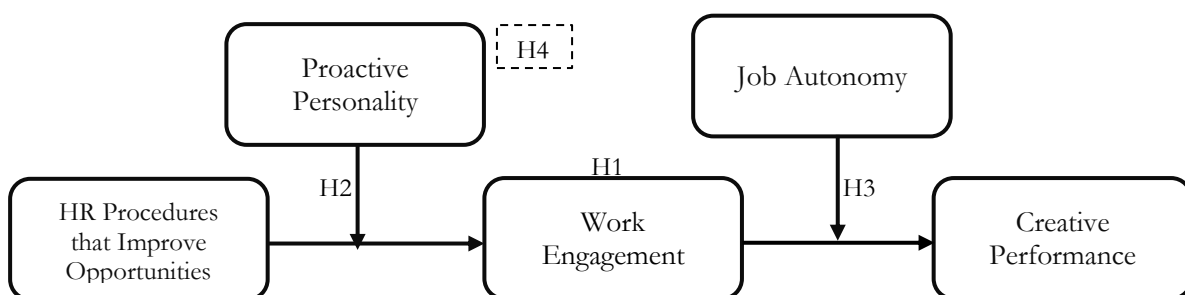


Figure 1. Theoretical Framework

Research Methods

This research employs a quantitative approach to examine the role of HR procedures that improve opportunities in driving employee creative performance through work engagement. This study also examines the role of proactive personality as a moderating variable in the relationship between HR

procedures that enhance opportunities and work engagement, as well as the moderating role of job autonomy in the relationship between work engagement and employee creative performance. The research was conducted in the palm oil mill industry in Riau Province, Indonesia. This study was designed using a cross-sectional method and focused on individual (micro) level analysis. The research population consisted of 482 employees working in the palm oil mill industry in Riau Province. Based on the Krejcie and Morgan (1970), the required sample size was 214 respondents. A systematic random sampling method was used to obtain this sample. The first step involved listing all population members according to their attendance number from 1 to 482. Next, the sampling interval (k) was determined using the formula $N/n = 482/214 \approx 2.25$, so every second respondent would be selected. A random starting number between 1 and 2 was chosen. If, for example, the number 2 was selected, the sample would include respondent numbers 2, 4, 6, 8, and so on, until the sample size reached 214. This technique was chosen to ensure that each member of the population had an equal chance of being selected, and that the data collection process could be conducted more efficiently and systematically.

The HR procedures that improve opportunities variable was measured using a ten-item scale adopted from Prieto and Pilar Pérez Santana (2012), including items such as “Participation of employees in managerial decisions and problem solving is encouraged.” The ultra-short, nine-item Utrecht Work Engagement Scale was used to measure the work engagement variable developed by Schaufeli et al. (2006), such as “I take great pride in my work.” The proactive personality variable was constructed on a six-item scale, such as “I’m quite good at seeing possibilities” by Bateman and Crant (1993). Meanwhile, work autonomy was constructed based on the concept of Van Veldhoven and Meijman (1994), which consisted of four items, one of which was “Can you calculate the amount of time you devote to a certain task?” Finally, creative performance was measured using a five-item scale developed by Zhou and George (2001), with an example of the statement such as “I often think of unique and original ideas.” The data obtained from the questionnaire will be analyzed quantitatively using the structural equation modeling statistical technique with the assistance of SmartPLS 3.0 software.

Results and Discussion

The majority of respondents were female (54.8%), held a bachelor’s degree (67.3%), were aged between 35 and 50 years old, and had 11–20 years of work experience (37.55%). This indicates the respondent profile is predominantly composed of mature, well-educated, and experienced individuals.

Table 1. Respondents Characteristics

Categories and Description	Percentage (%)
<i>Gender</i>	
Female	54.8
Male	45.2
<i>Educational background</i>	
High School	18.2
Bachelor’s Degree	67.3
Master’s Degree	14.5
<i>Ages (years old)</i>	
< 30	3.0
30-35	25.6
35-40	24.5
41-45	20.1
45-50	26.8
<i>Work Experience (years)</i>	
< 5	7.5
5-10	28.8
11-20	37.6
>20	26.1

Source: SPSS 27, 2024

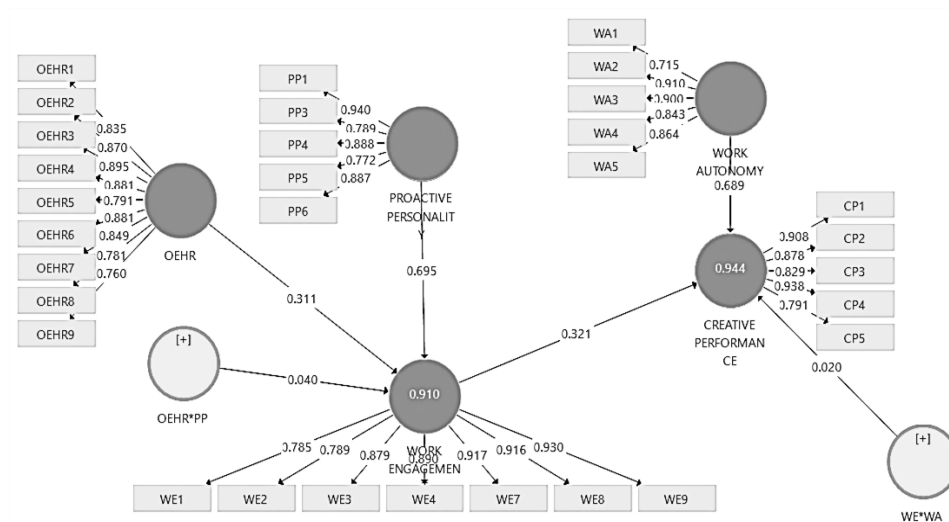


Figure 2. Assessment of Measurement Models

Source: Smart PLS 3.0, 2024.

Hair et al. (2017) stated that a factor loading above 0.7 is considered acceptable, along with Cronbach's alpha and CR values exceeding 0.7. Additionally, the AVE is deemed acceptable when it surpasses 0.5. This research underwent three stages of measurements of model testing, with the following results.

Table 2. Convergent Validity and Reliability Test

Variables	Items Code	Loadings 1	Loadings 2	Loadings 3	Cronbach's Alpha	CR	AVE
HR Procedures that Improve Opportunities	OEHR1	0.839	0.838	0.835	0.947	0.955	0.705
	OEHR2	0.857	0.859	0.870			
	OEHR3	0.888	0.887	0.895			
	OEHR4	0.879	0.879	0.881			
	OEHR5	0.778	0.781	0.791			
	OEHR6	0.874	0.874	0.881			
	OEHR7	0.844	0.845	0.849			
	OEHR8	0.774	0.776	0.781			
	OEHR9	0.784	0.782	0.760			
	OEHR10	0.700	0.698	-			
Proactive Personality	PP1	0.922	0.940	0.940	0.909	0.933	0.736
	PP2	0.687	-	-			
	PP3	0.773	0.788	0.789			
	PP4	0.877	0.889	0.888			
	PP5	0.781	0.775	0.772			
	PP6	0.878	0.885	0.887			
Work Engagement	WE1	0.749	0.773	0.785	0.948	0.958	0.721
	WE2	0.792	0.800	0.789			
	WE3	0.817	0.853	0.879			
	WE4	0.908	0.901	0.890			
	WE5	0.705	0.684	-			
	WE6	0.643	-	-			
	WE7	0.926	0.917	0.917			
	WE8	0.917	0.915	0.916			
	WE9	0.918	0.920	0.930			
Work Autonomy	WA1	0.715	0.715	0.715	0.902	0.928	0.721
	WA2	0.910	0.910	0.910			
	WA3	0.900	0.900	0.900			
	WA4	0.843	0.843	0.843			
	WA5	0.864	0.864	0.864			

Variables	Items Code	Loadings 1	Loadings 2	Loadings 3	Cronbach's Alpha	CR	AVE
Creative Performance	CP1	0.907	0.907	0.908	0.919	0.940	0.757
	CP2	0.879	0.879	0.878			
	CP3	0.830	0.830	0.829			
	CP4	0.938	0.938	0.938			
	CP5	0.789	0.789	0.791			

Source: Smart PLS 3.0, 2024.

The table above shows that in the first stage of measurement model testing, two indicators, PP2 and WE6, were found to be invalid, as their loading factors were below 0.70. Therefore, these indicators were removed from the model and were carried over to the second stage. In the second stage, two more indicators, OEHR10 and WE5, also failed to meet the loading factor threshold, necessitating a third stage of testing. In the third stage, all remaining indicators exhibited loading factors above 0.70. Furthermore, the values for Cronbach's alpha, CR, and AVE met the established criteria for both reliability and validity, confirming the robustness of the measurement model.

Table 3. Discriminant Validity Test

	CP	OEHR	PP	WA	WE
CP1	0.908	0.849	0.901	0.885	0.900
CP2	0.878	0.626	0.761	0.861	0.761
CP3	0.829	0.546	0.708	0.809	0.687
CP4	0.938	0.766	0.839	0.903	0.870
CP5	0.791	0.625	0.680	0.707	0.772
OEHR1	0.730	0.835	0.812	0.743	0.775
OEHR2	0.695	0.870	0.725	0.647	0.782
OEHR3	0.686	0.895	0.789	0.695	0.801
OEHR4	0.635	0.881	0.727	0.656	0.738
OEHR5	0.536	0.791	0.565	0.531	0.660
OEHR6	0.706	0.881	0.790	0.694	0.805
OEHR7	0.700	0.849	0.723	0.700	0.766
OEHR8	0.546	0.781	0.604	0.532	0.660
OEHR9	0.710	0.760	0.702	0.755	0.753
PP1	0.885	0.794	0.940	0.882	0.897
PP3	0.682	0.664	0.789	0.717	0.712
PP4	0.775	0.769	0.888	0.794	0.818
PP5	0.709	0.715	0.772	0.721	0.726
PP6	0.798	0.773	0.887	0.812	0.856
WA1	0.646	0.605	0.631	0.715	0.588
WA2	0.881	0.754	0.866	0.910	0.853
WA3	0.889	0.711	0.831	0.900	0.826
WA4	0.782	0.551	0.709	0.843	0.668
WA5	0.853	0.730	0.836	0.864	0.863
WE1	0.656	0.724	0.666	0.602	0.785
WE2	0.739	0.743	0.682	0.698	0.789
WE3	0.779	0.783	0.741	0.699	0.879
WE4	0.851	0.803	0.884	0.862	0.890
WE7	0.897	0.801	0.903	0.905	0.917
WE8	0.883	0.774	0.884	0.873	0.916
WE9	0.855	0.850	0.908	0.839	0.930

Source: Smart PLS 3.0, 2024.

CP: Creative performance; OEHR: HR procedure that improves opportunities; PP: Proactive personality; WA: Work autonomy; WE: Work engagement.

The discriminant validity test results show valid numbers because the correlation between items and the same indicator is more significant than the correlation with others. Therefore, it can be conclusively stated that this data exhibits discriminant validity.

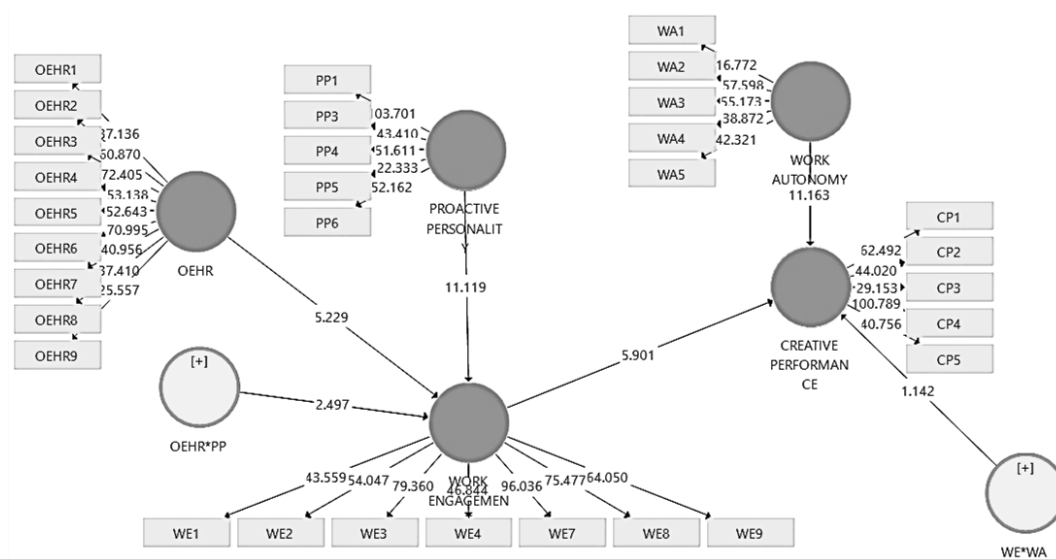


Figure 3. Structural Model Evaluation
Source: SmartPLS 3.0, 2024.

The predictive effect of the model was assessed using the R^2 value, where values of 0.75, 0.50, and 0.25 represent strong, moderate, and weak levels of prediction, respectively (García-Machado & Martínez-Ávila, 2019). The HR practices that enhance opportunities, proactive personality, job engagement, and work autonomy have a significant predictive effect, as evidenced by the predictive value of the criteria for creative performance, which accounts for the majority of the variation (0.943, or 94.3%). Similarly, work engagement of 0.909 or 90.9%, indicating the predictive effect of HR procedures that improve opportunities and proactive personality, is also in the strong category. Therefore, the relationships within the model fall well within an acceptable range of predictive accuracy.

Table 4. Evaluation of Hypotheses

Hypothesis	Relationships	Beta Coefficient	T-Statistics	P-Values	Decision
H1	OEHR → Work Engagement → Creative Performance	0.100	3.582	0.000***	Accepted
H2	OEHR*Proactive Personality → Work Engagement	0.040	2.497	0.013*	Accepted
H3	Work Engagement*Work Autonomy → Creative Performance	0.020	1.142	0.254	Rejected
H4	OEHR* Proactive Personality → Work Engagement → Creative Performance	0.013	2.244	0.025*	Accepted

Source: SmartPLS 3.0, 2024.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.000$

The hypothesis testing yielded the following results. The effect of HR practices that enhance opportunities on work engagement was statistically significant, with a coefficient value of 0.100, t-statistic of 3.582, and p-value of 0.000. The interaction effect between HR procedures that improve opportunities and proactive personality on work engagement was also significant, with a coefficient value of 0.040, t-statistic of 2.497, and p-value of 0.013. However, the relationship between work autonomy and engagement and its impact on creative performance was found to be not significant, with a coefficient value of 0.020, t-statistic of 1.142, and p-value of 0.254.

Conversely, the influence of HR procedures that improve opportunities mediated by work engagement with proactive personality moderation has a significant effect on creative performance, with a coefficient value of 0.013, t-statistic of 2.244, and p-value of 0.025. These results highlight the importance of organizations providing development opportunities and encouraging proactive personalities to elevate work engagement and creativity in performance.

Discussion

HR Procedures that Improve Opportunities → Work Engagement → Creative Performance

A crucial mediator between creative employee performance and HR tactics that expand opportunities is work engagement. This finding supports literature such as Fredrickson (2013) and Gürbüz et al. (2024) which emphasizes the importance of work engagement as a determining factor in driving creativity. This aligns with the theory of conservation of resources, a positive spiral of resource accumulation provided by organizations, such as opportunity-based HR practices, can trigger employee emotional, cognitive, and physical engagement (Halbesleben et al., 2014; Jiang et al., 2012). HR procedures that improve opportunities create an inclusive work environment, giving employees space to contribute and maximize their knowledge, skills, and abilities (KSAs) through involvement at work.

Work engagement is the core mechanism that links organizational opportunities and the emergence of creative performance. Engaged employees have high energy levels and deep focus on work, which encourages creative behavior (Schaufeli et al., 2019). This finding confirms that one crucial element is work engagement, which organizational opportunities translate into creative behavior. Thus, work engagement is not only the result of HR practices but also a foundation for employees to explore innovative ideas.

HR Procedures that Improve Opportunities * Proactive Personality → Work Engagement

Proactive personalities reinforce the favorable association between HR practices that enhance opportunity and job engagement. People with proactive personalities typically take charge, have an impact on their surroundings, and look for chances to innovate and develop (Bateman & Crant, 1993). When organizations provide opportunities through HR procedures that improve opportunities, employees who are proactive are quicker to seize these opportunities. A proactive personality strengthens individuals' perceptions of the opportunities provided by the organization as resources that can be optimized. They do not simply view opportunities as passive, but they are more likely to use them to increase their work engagement actively. In comparison, individuals with weaker proactive personality tendencies are less likely to have the same motivation or initiative to take advantage of the opportunities provided. This outcome is consistent with the COR theory, which asserts that individuals possessing personal resources, including a proactive personality, are more adept at acquiring and making use of extra resources from their workplace (Hobfoll et al., 2018), and confirms previous empirical studies by Cai et al. (2018) and Dikkers et al. (2010). That is, prioritizing individual characteristics in measuring the effectiveness of HR opportunity-enhancing practices is important, and the literature gap regarding variations in employee responses to HR practices can be addressed by recognizing that being proactive is crucial to enhancing this relationship.

Work Engagement * Work Autonomy → Creative Performance

Contrary to initial expectations, the results indicated that there was no substantial link between work engagement and creative performance, despite the initial notion that job autonomy would improve this relationship. The evidence from this study highlights that, despite its importance, work autonomy may not always be a feature that enhances work engagement on creative performance in all settings. Additionally, the factors determining the link between work engagement and creative performance may rely on other factors. Amabile and Pratt's (2016) study stated that job autonomy allows engaged employees to think innovatively and take risks. However, in the context of this study, this freedom does not seem to be enough to encourage creativity

without additional support, such as team collaboration or guidance from superiors (Volmer et al., 2012). This finding suggests the need to examine factors that may moderate this relationship, such as innovation climate or managerial support. Based on Hackman and Oldham (1976), job autonomy gives employees the freedom to determine how tasks are completed. However, in an environment supported by HR practices that increase opportunities, the opportunities available can be sufficient resources for employees to engage in creative behavior. These conditions may reduce the need for autonomy as an additional catalyst, in which case variables such as task complexity, supervisor support, or role clarity may be more relevant than job autonomy in facilitating employee creativity.

OEHR * Proactive Personality → Work Engagement → Creative Performance

Employees with proactive personalities are thought to have a higher favorable indirect association between HR practices that enhance opportunities and creative performance through job engagement. This suggests a moderated mediation effect. Employees with a proactive personality tend to take greater initiative to engage in their work when the organization provides opportunities to contribute. Increased work engagement makes them more likely to allocate their energy and resources to creative behavior. This process supports the componential theory of creativity and conservation of resources theory, where creativity emerges when a supportive work environment meets enabling individual characteristics, and the importance of proactive personality in optimizing the effects of work resources on performance outcomes (Amabile & Pratt, 2016; Bakker et al., 2012). This finding resolves the fallacy in the literature that often ignores the interaction between environmental factors and individual characteristics in the creativity process. A proactive personality acts as a catalyst that ensures that opportunities provided by the organization can be optimally utilized through increased work engagement, which ultimately drives creative performance.

Implication and Conclusion

This study found that HR procedures that improve opportunities enhance employees' creative performance through work engagement as a mediator, with proactive personality strengthening this relationship. However, job autonomy fails to moderate the connection between work engagement and creative performance. Theoretically, these findings reinforce the conservation of resources and componential theory of creativity, and provide new insights into the interaction between organizational environment and individual characteristics. Practically, implementing opportunity-enhancing HR practices promotes employee engagement and creativity, which contributes to organizational innovation and competitiveness.

Nevertheless, many limitations to this study should be taken into account. First, the research was carried out within the palm oil mill industry in Riau Province, which has specific work characteristics and organizational culture. This limits the generalizability of the findings to other industries or regions with differing environments. Second, the cross-sectional design restricts the ability to infer causal relationships among variables. Third, data collection through questionnaires can be influenced by respondent bias, such as social desirability bias. To address these limitations, future studies should consider employing a longitudinal approach to track how the connection between factors develops over time. In addition, expanding the research context to other sectors, such as services or technology, will help test the validity of the findings in different work environments, as well as provide a baseline for qualitative research to explore the extent to which work is perceived as a creative output. A combination of qualitative approaches, including interviews, providing data on length of service to understand how committed people are to their work, and case studies, offers more profound insights into employees' perceptions of HR practices and the factors that influence their creative performance. Additional variables that can be examined in future studies include task complexity, supervisor support, or role clarity, which may moderate or mediate the relationship between work engagement and creative performance. By involving areas outside Riau Province, future research results are expected to be more representative and relevant to various industrial sectors.

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