



The Role of Self-Efficacy on Innovative Work Behavior Moderated by a Creative Climate

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ABSTRACT

Introduction: This study aims to investigate the influence of self-efficacy on innovative work behaviour, with the creative climate serving as a moderating variable. The study was conducted among employees of PT. Dok & Perkapalan Kodja Bahari (Persero) Galangan Cirebon, a sector currently facing challenges in promoting employee creativity. Insufficient self-efficacy and an inadequate creative milieu have been recognised as impediments to inventive behaviour.

Methods: This quantitative study employed a saturated sample of 70 employees, with data collected through questionnaires. The analysis employed Moderated Regression Analysis (MRA) to evaluate the direct impact of self-efficacy on inventive work behaviour and to examine the moderating influence of creative climate.

Result: The findings demonstrate that self-efficacy exerts a substantial beneficial influence on innovative work behaviour. Moreover, a creative climate enhances the correlation between self-efficacy and innovative work behaviour, suggesting that a supportive workplace empowers confident people to articulate novel concepts.

Conclusion and Suggestion: This study emphasises the necessity of enhancing individual psychological aspects and the organisational climate to promote innovation within the maritime sector.

INTRODUCTION

Indonesia, the largest archipelagic nation globally, possesses significant potential in the maritime sector. Shipbuilding is a major industry in this area, significantly contributing to inter-island connectivity and fostering national economic growth. Despite the presence of numerous shipyards in Indonesia, the use of production capacity for constructing new vessels remains very low. In the face of escalating rivalry and market demands, workplace innovation has emerged as a crucial factor in sustaining a company's competitiveness, particularly for PT. Dok & Perkapalan Kodja Bahari (Persero) Galangan Cirebon.

In this setting, employees' innovative work behaviour is a critical factor that must be acknowledged. Nevertheless, according to the company's internal data, employees' innovative work behaviour remains classified as inadequate, particularly in terms of initiative, communication, teamwork, and contributions to quality objectives. The inadequate indicators imply difficulties in fostering a robust innovation culture inside the company's workplace.

A key psychological component that significantly impacts innovative work behaviour is self-efficacy, defined as an individual's confidence in their capability to confront tasks and obstacles. Employees possessing self-efficacy typically exhibit greater confidence, autonomy in action, and endurance in the face of challenges. Nevertheless, the results reveal that numerous employees are employed in large numbers and are able to solve problems due to constraints on resources. This circumstance indicates that employees' self-efficacy within the firm remains comparatively low.

Alongside internal factors like self-efficacy, the work environment and creative atmosphere, significant contributions to the development of innovative work habits. The creative climate is an organizational environment that fosters creativity, encourages freedom of speech, and supports innovative ideas. Interviews with multiple employees suggest that the current environment at PT. Dok & Perkapalan Kodja Bahari (Persero) Galangan Cirebon is suboptimal. The ability of freedom to articulate ideals, in particular, creativity training, and time restriction for experimenting and innovating.

This research seeks to elucidate the impact of self-efficacy on inventive work behavior and to determine the extent to which a creative climate might either enhance or diminish this relationship. This research is theoretically significant for enhancing the literature on inventive work behavior and possesses practical significance for organizations in formulating more innovative and adaptive human resource development strategies in response to change. The primary aim of this research is to ascertain the impact of self-efficacy on innovative work behavior, together with the moderating effect of a creative climate on this relationship among employees in the shipbuilding sector.

Given the aforementioned context, numerous critical issues emerge that necessitate additional examination. How does employees' self-efficacy affect their innovative work behavior in a dynamic and demanding environment like the shipbuilding industry? Secondly, to what degree does the organizational creative atmosphere facilitate or obstruct the correlation between self-efficacy and innovative behavior? Third, how do internal elements (self-efficacy) combine with external organizational settings (creative atmosphere) in influencing employees' capacity to originate, develop, and implement innovative ideas in the workplace?

LITERATUR REVIEW

The literature review will address three points: the fundamental theory, prior studies, and hypotheses derived from those studies, which collectively offer the theoretical framework and empirical justification for this research. This part intends to elucidate the fundamental ideas of self-efficacy, inventive work behavior, and creative climate, subsequently presenting previous research and the formation of hypotheses pertinent to this study.

Self-Efficacy

Self-efficacy denotes an individual's conviction in their capacity to effectively execute a task, attain objectives, and surmount obstacles (Bandura, 1997). It affects individuals' cognition, emotions, self-motivation, and behavior. (Purnama, 2020) posits that self-efficacy is a psychological characteristic indicative of an individual's confidence in problem-solving and resilience in the face of adversity. Individuals possessing elevated self-efficacy tend to exhibit greater optimism, persistence, and proactivity when confronted with problems, which corresponds with the demands for innovation in the workplace.

Bandura further classifies self-efficacy into three dimensions: size (the level of perceived difficulty of tasks, which can be accomplished), strength (the intensity of the belief), and universality (the applicability of this belief across diverse situations). In organisational settings, self-efficacy is regarded as a crucial element in motivating people to conceive, cultivate, and excel in new concepts.

Innovative Occupational Conduct

Innovative work behavior (IWB) denotes the deliberate generation, advocacy, and execution of novel concepts inside a professional function, team, or organisation, intended to enhance role efficacy or organizational achievement (De Jong & Den Hartog, 2010). (Sidauruk, 2024) posits that innovative conduct among employees encompasses the invention, promotion, and execution of ideas. The process of innovative work behaviour is dynamic and comprises four phases: ideal exploration (identifying opportunities and challenges), ideal generation (formulating novel and valuable concepts), ideal championing (garnering support and promoting ideas), and ideal implementation (transforming ideas into practical applications). Elevated levels of IWB correlate with enhanced productivity, competitiveness, and adaptability within a business.

Creative Climate

Creative climate refers to the perceived organizational atmosphere that either fosters or obstructs creativity and innovation among personnel. (Isaksen et al., 1999) assert that a creative climate encompasses aspects such as autonomy, trust, support for ideas, risk-taking, and time allocated for idea development. A constructive creative environment fosters psychological safety, enabling employees to articulate novel ideas without apprehension of criticism, encourages experimentation, and facilitates collaboration. A rigid or unsupportive environment may stifle creativity, even in individuals with significant talent. Consequently, the creative climate may serve as a moderating variable that affects the translation of personal attributes, such as self-efficacy, into innovative behavior.

Prior Research and Hypothesis Numerous prior studies have investigated the correlation among self-efficacy, inventive work behavior, and creative climate. (Septriani, 2021) discovered that self-efficacy has a strong impact on innovative job behavior among employees. (Khairunnisa & Nurmala, 2023) shown that personnel possessing elevated self-efficacy are more inclined to take initiative and execute new ideas with greater efficacy. This corroborates the hypothesis that self-efficacy is a robust predictor of inventive performance. Conversely, research conducted by (Mustika, 2020) and (Hardanti & Novanda, 2022) underscored the significance of a creative climate in fostering innovation. (Hardanti & Novanda, 2022) discovered that a creative climate can enhance the positive influence of personal values and beliefs, such as self-efficacy, on innovative behavior, indicating a moderating effect. In light of these data, the subsequent hypothesis are proposed:

H1 : Self-efficacy significantly influences innovative work behavior.

H2 : The creative milieu influences the relationship between self-efficacy and inventive work behavior.

RESEARCH METHODS

This study employs a quantitative methodology with an explanatory framework to examine the impact of self-efficacy on inventive work behavior, with a creative climate serving as a moderating variable. The research was conducted at PT. Dok & Perkapalan Kodja Bahari (Persero) Galangan Cirebon from February to June 2025. The study population comprises all employees of PT. Dok & Perkapalan Kodja Bahari (Persero) Galangan Cirebon, amounting to 70 individuals. Given the manageable size, the employed technique is a saturated sample, indicating that all members of the population are included as the research sample, culminating in a total of 70 responses. Data gathering utilized a closed questionnaire employing a Likert scale (1 = strongly disagree to 5 = strongly agree), designed according to the indicators of each variable. The questionnaire instrument was initially assessed for validity and reliability before to its application in the research. This method underscores the library method as its theoretical foundation, which prioritizes the utilization of literature (books, scientific journals, and prior research findings) as the primary data source for constructing the conceptual framework and creating research hypotheses. The collected data were examined by Moderated Regression Analysis (MRA) to determine if the creative climate variable amplifies or diminishes the effect of self-efficacy on inventive work behavior. The analysis

encompasses conventional assumption tests (normality, validity, reliability) and partial hypothesis testing (t-test). The moderation model in this research can be articulated using the subsequent equation:

$$Y = \alpha + \beta_1 X + \beta_2 Z + \beta_3 (X \cdot Z) + \epsilon(1)$$

$$Y = \alpha + \beta_1 X + \beta_2 Z + \beta_3 (X \cdot Z) + \epsilon(1)$$

Clarification:

Y = Innovative Work Behavior

X represents Self-Efficacy.

Z = Innovative Environment

X*Z = interaction between self-efficacy and creative climate.

α is a constant.

$\beta_3 \beta_1, \beta_2, \beta_3$: Regression coefficients

ϵ = Residual Error

RESULT AND ANALYSIS

1. Validity Assessment of Self-Efficacy Results of the Validity Test Variable Item Declaration r-count r-table Remark

Self-Efficacy				
Variabel	m Pernyataan	r-hitung	r-tabel	Ket
Efikasi Diri (X)	X1	0,729	0,235	Valid
	X2	0,757		Valid
	X3	0,805		Valid
	X4	0,767		Valid
	X5	0,744		Valid
	X6	0,470		Valid
	X7	0,469		Valid
	X8	0,492		Valid
	X9	0,582		Valid
	X10	0,599		Valid

Source: IBM SPSS Version 22 Output

The table indicates that the self-efficacy variable satisfies the validity criteria, comprising 10 statements, with a calculated r-value exceeding the table r-value of 0.235. Outcomes of the Validity Assessment for Innovative Work Behavior Variable Item Statement r-count r-table Remark

Innovative Work Behavior (Y)				
Variabel	m Pernyataan	r-hitung	r-tabel	Ket
Perilaku Kerja Inovatif (Y)	Y1	0,524	0,235	Valid
	Y2	0,486		Valid
	Y3	0,707		Valid
	Y4	0,618		Valid
	Y5	0,558		Valid
	Y6	0,782		Valid
	Y7	0,767		Valid
	Y8	0,584		Valid
	Y9	0,502		Valid
	Y10	0,492		Valid

Source: IBM SPSS Version 22 Output

The table indicates that the Innovative Work Behavior variable satisfies the validity criterion, comprising 10 statements, and possesses a computed r-value exceeding the tabulated r-value of 0.235. Results of the Creative Climate Validity Test Variable Item Statement r-calculated r-table Notice

Creative Climate				
Variabel	Item Pernyataan	r-hitung	r-tabel	Ket
Iklim Kreatif (Z)	Z1	0,665	0,235	Valid
	Z2	0,636		Valid
	Z3	0,614		Valid
	Z4	0,646		Valid
	Z5	0,614		Valid
	Z6	0,575		Valid
	Z7	0,450		Valid
	Z8	0,558		Valid
	Z9	0,675		Valid
	Z10	0,543		Valid
	Z11	0,591		Valid
	Z12	0,668		Valid
	Z13	0,690		Valid
	Z14	0,626		Valid
	Z15	0,628		Valid

Source: IBM SPSS Version 22 Output

The table indicates that the Creative Climate variable satisfies the validity criterion, comprising 10 statements, with a calculated r-value exceeding the table r-value of 0.235.

2. Reliability

No.	Variabel	Cronbach Alpha	Ket
1.	Self Efficacy	0,846	Reliability
2.	Innovative Work Behavior	0,810	Reliability
3.	Creative Climate	0,880	Reliability

Source: IBM SPSS Version 22 output results

The research findings indicate that the variables of self-efficacy, inventive work behavior, and creative climate had Cronbach's alpha coefficients over 0.60, signifying a substantial degree of dependability.

3. Normality Assessment Table IV-13 Results of Normality Test

Four.

One Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		70
Normal Parameters ^{a,b}	Mean	,0000000
Most Extreme Differences	Std. Deviation	3,96056001
	Absolute	,001
	Positive	,080
	Negative	-,081
Test Statistic		,081
Asymp. Sig. (2-tailed)		,200 ^{c,d}

^a Test distribution is Normal.
^b Calculated from data.
^c Lilliefors Significance Correction.
^d This is a lower bound of the true significance.

Source: Results generated using IBM SPSS 22

The results from data processing using IBM SPSS 22 indicate a Kolmogorov-Smirnov Test value of 0.081 and an Asymp.Sig value of 0.200, both beyond 0.05; hence, it can be assumed that the data follows a normal distribution.

5. Moderation Regression Analysis

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	128,404	31,629		4,060	,000
Efikasi Diri	-1,870	,720	-2,132	-2,597	,012
Iklim Kreatif	-1,663	,541	-2,760	-3,076	,003
Efikasi Diri*Iklim Kreatif	,037	,012	3,491	3,027	,004

a. Dependent Variable: Perilaku Kerja Inovatif

Source: IBM SPSS Version 22 output

The table indicates that the hypothesis testing findings demonstrate that the Crelatalivel Climaltal (Z) model relates the relationship between Self-Efficacy (X) and Innovative Work Behaviour (Y), as evidenced by a t-value of 3.027, which exceeds the t-table value of 1.669, and a significant level of 0.004, which is less than 0.05.

6. Uji T

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
I (Constant)	31,746	4,135		7,678	,000
Efikasi Diri	,296	,100	,337	2,956	,004

a. Dependent Variable: Perilaku Kerja Inovatif

Source: IBM SPSS Version 22 output results

The output data indicates that the t-value is 2.956, however the t-table value is 1.669. The t-value of 2.956 exceeds the t-table value of 1.669. The obtained significance value is 0.004, which is less than 0.05.

CONCLUSION

From the research conducted at PT. Dok & Perkapalan Kodja Bahari (Persero) Galangan Cirebon, numerous results can be derived as follows:

1. Self-efficacy markedly affects inventive work behavior; people with confidence in their capabilities are more likely to demonstrate innovative tendencies. This is evident in their pursuit of innovative solutions, candid expression of ideas, and proactive efforts to enhance work procedures. Self-efficacy serves as a crucial basis for fostering innovation inside the workplace.
2. A creative environment influences the correlation between self-efficacy and inventive job behavior. A creative work environment that embraces diverse ideas and fosters an open, emotionally secure climate can enhance the correlation between self-efficacy and inventive work behavior. In a supportive environment, employees with elevated self-efficacy exhibit more courage and proactivity in expressing their innovative concepts.

Recommendations

In light of the aforementioned conclusions, many recommendations might be offered:

1. It is advisable for the Company to persist in augmenting employees' self-efficacy through coaching and performance recognition, thereby fostering greater confidence in their capacity to execute tasks and innovate.
2. The establishment of a creative work environment should be enhanced by promoting open communication and facilitating opportunities for experimentation and risk-taking.
3. Future researchers are advised to broaden the research topics to encompass more industries or companies and to incorporate other characteristics that may also affect innovative work behavior.

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