Analysis of Job Autonomy, Feedback, and Empowering Leadership on Innovative Work Behavior: Resilience as Mediating Factor

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ABSTRACT

This research study analyses the relationship between job autonomy, feedback, and empowering leadership and innovative work behavior, with resilience as a mediating factor. The objective is to understand how these three variables affect the innovative work behavior of employees in the manufacturing and shipyard sectors in Batam.

The research method used is quantitative, with data collected through employee surveys. The collected data were analyzed using Structural Equation Modeling (SEM) to identify the relationships between the variables studied.

The study's findings indicate that job autonomy and feedback have a positive and significant relationship with innovative work behavior. However, empowering leadership shows a positive but not significant impact on innovative work behavior. Additionally, resilience is proven to mediate the relationship between job autonomy and empowering leadership with innovative work behavior, but not the relationship between feedback and innovative work behavior.

The contribution of this study is to provide insights into the importance of resilience as a mediating factor in enhancing innovative work behavior. This research also highlights the crucial role of job autonomy and feedback in fostering innovative behavior in the workplace. The practical implications of these findings are that organizations can enhance employees' innovative behavior by increasing job autonomy, providing effective feedback, implementing empowering leadership, and developing programs to improve employee resilience.

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1. Introduction

Innovative ideas are crucial for a company's success (Suhandiah et al., 2023a). Innovative work behavior among employees is a significant factor for organizations to sustain and grow in an increasingly competitive industry (Dara, 2022). According to Baharudin & Ekowati (2022), innovative work behavior refers to the actions of employees in creating, introducing, and implementing new ideas that benefit both individuals and the organization. This behavior not only increases the company's productivity and efficiency but also enables it to adapt to changes, create added value, and maintain its competitiveness in a highly competitive market.

The creation of innovative work behavior in the workplace is closely linked to established job characteristics. Job characteristics are distinct features that differentiate one type of job from another and are specific attributes perceived by workers, influencing their work behavior (Dewinda et al., 2021). In this context, job autonomy and feedback, as elements of job characteristics, play a crucial role in influencing employee resilience levels, which can foster innovative work behavior. Suhandiah et al., 2023 mention that behavioral models show that workplace and individual aspects, including job autonomy, feedback, and resilience, are related to the creation of innovative behavior at work. Job autonomy provides employees with freedom and control in performing their tasks, while feedback offers constructive information to enhance adaptability. Both elements contribute to shaping resilience levels, ultimately affecting innovative work behavior.

Employee behavior in a company is significantly influenced by the implemented leadership style. Lİmon et al., (2023) argue that leadership style is closely related to resilience levels. One leadership model that can affect resilience levels is empowering leadership. Research by Berg et al (2022) states that empowering employees through empowering leadership can enhance resilience capacity at both the organizational and individual levels. Empowering leadership positively impacts resilience by contributing to employees' psychological resilience and well-being, which plays a crucial role in fostering innovative work behavior in the workplace.

The above explanation demonstrates that job autonomy, feedback, and empowering leadership are essential in shaping employee resilience. High resilience levels among employees help them overcome potential obstacles in their work, allowing each individual to exercise creativity and implement innovative work behavior in the workplace.

2. Literature Review

2.1. Job Autonomy

Job autonomy refers to the extent to which employees are given the freedom to schedule their work without restrictions and the independence to carry out their tasks and work activities (Chiniara & Bentein, 2016). Employees with high autonomy tend to enjoy their activities more compared to those who are not provided with adequate freedom (Oluwaseun & Boboye, 2017).

2.2. Feedback

Choi & Kang (2021) define feedback as information used by individuals regarding their job performance. Feedback from a leader is the process of communicating with employees about their performance achievements and assessing strategies to reach those goals. Mu'alimin, (2019) states that feedback should be responsive, comprehensive, objective, and behavior-based, providing individuals with specific guidance to improve themselves.

2.3. Empowering Leadership

Empowering leadership is a leadership style that aims for employees to develop self-control and encourages them to participate in decision-making (Liu et al., 2003). Singh & Rangnekar (2020) state that empowering leadership can enhance intrinsic motivation in subordinates by sharing power with them and providing motivational support and development.

2.4. Resilience

Resilience is an individual's ability to withstand challenges or difficulties due to skills and knowledge that involve various individual, social, and environmental roles (Suhandiah et al., 2023).

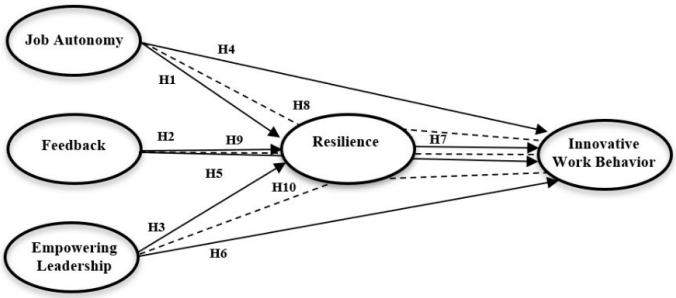
2.5. Innovative Work Behavior

Janssen (2000) defines Innovative Work Behavior as the process of creating, introducing, and applying a new idea that is useful for the survival of an organization. Simply put, Innovative Work Behavior is an individual's engagement with their group in generating innovation within the organization.

2.6. Conceptual Framework

The conceptual framework in this study illustrates how Job Autonomy, Feedback, and Empowering Leadership directly and indirectly influence Innovative Work Behavior through the enhancement of Resilience. The hypotheses state that Job Autonomy (H1), Feedback (H2), and Empowering Leadership (H3) have a direct impact on Resilience as well as a direct impact on Innovative Work Behavior (H4, H5, H6, H7). Additionally, there are indirect relationships mediated by Resilience (H8, H9, H10).

Figure 1. Conceptual Framework



Source: Data processed by the researcher, 2024

3. Method, Data, and Analysis

This study adopts a quantitative approach using purposive sampling technique. The sample is drawn from employees with more than one year of work experience in manufacturing and shipyard companies located in Batam City. Primary data is collected through questionnaires distributed and collected directly from respondents. The required sample size is calculated using the Lemeshow formula, resulting in a total of 100 respondents. Thus, this study involves 100 respondents as research subjects. Data analysis in this study is conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM).

The first stage is descriptive analysis, which aims to provide a general overview of the respondents' perceptions and experiences regarding the variables studied. This analysis is carried out by calculating the average responses of the respondents.

The second stage is the evaluation of the measurement model (outer model). In this stage, tests are conducted on convergent validity, discriminant validity, and composite reliability. Convergent validity is met if the loading factor value is greater than 0.7 and the Average Variance Extracted (AVE) value is greater than 0.50. Discriminant validity is met if the cross 1loading value is greater than 0.7. Meanwhile, composite reliability is met if both Cronbach's Alpha and composite reliability values are greater than 0.7.

The third stage is the evaluation of the structural model. In this stage, the significance of the relationships between variables is tested through path coefficients and t-statistic values. The p-value indicates the significance of these effects. Additionally, the R-squared value shows the predictive power of the model. Overall, this study aims to analyze how job autonomy, feedback, and empowering leadership contribute to innovative work behavior and to empirically test how resilience acts as a mediator in this relationship. By using PLS-SEM, the study aims to model the

complex relationships between latent variables and to simultaneously test the direct and indirect effects between these variables.

4. Result and Discussion

The questionnaire, which was distributed online to respondents, was fully completed by 100 respondents. The data processing results from the 100 surveyed respondents show that the respondents in this study were predominantly male (53%). Employees working in the shipyard sector dominated this study with a percentage of (51%). Respondents with a work duration of more than 1-5 years had the highest percentage in this study (70%).

4.1. Descriptive Analysis

Based on the descriptive analysis conducted, the following are the average responses of the respondents for each research variable:

Table 1. Descriptive analysis results (Mean)

Variable	Industrial Sector				Overall	
	Shipyard		Manufaktur			
	Mean	Category	Mean	Category	Mean	Category
(X1)	4.03	High	3.88	High	3.96	High
(X2)	4.35	Very High	4.23	Very High	4.29	Very High
(X3)	4.24	Very High	4.15	High	4.21	Very High
(Y)	4.37	Very High	4.26	Very High	4.31	Very High
(Z)	4.18	High	3.95	High	4.06	High
Total	**4.23**	**Very High**	**4.09**	**High**	**4.17**	**High**

Source: Data processed by the researcher, 2024

This descriptive analysis table presents the mean and category of the analyzed variables across two industrial sectors, namely shipyard and manufacturing, as well as the overall average. The analyzed variables include Job Autonomy, Feedback, Empowering Leadership, Innovative Work Behavior, and Resilience. In the shipyard sector, the variables Empowering Leadership, Innovative Work Behavior, and the overall average fall into the "Very High" category. In the manufacturing sector, these same variables also fall into the "Very High" category but have slightly lower mean values compared to the shipyard sector. The overall category indicates that these variables.

4.2. Measurement Model Evaluation Test Results

The measurement model testing will be conducted to show the results of validity and reliability tests. In this study, the validity test is performed to determine whether the constructs meet the

criteria to be continued as research or not. In this validity test, two types of evaluations will be carried out, namely:

a. Convergent Validity

Convergent Validity is a measurement model where items have values based on the correlation between item scores and construct values. The Convergent Validity index is measured using the Average Variance Extracted (AVE) and Loading Factor. When the Average Variance Extracted (AVE) index exceeds 0.50 and the Loading Factor exceeds 0.70, the variable is considered valid in the Convergent Validity measurement model.

Table 2. Average Variance Extraced (AVE)

Variable	*Average Variance Extraced* (AVE)
Job autonomy (X1)	0.595
Feedback (X2)	0.67
Empowering leadership (X3)	0.601
Innovative Work Behavior (Y)	0.637
Resilience (Z)	0.68

Source: Data processed by the researcher, 2024

Based on the results of the Average Variance Extracted (AVE) index above, it shows that the AVE values for each variable are above 0.5. The results for the Loading Factor can be seen in the table below.

Table 3. outer Loading

Variabel	Indikator	*Outer Loading*	*Keterangan*
Job autonomy	X1.1	0,811	Valid
	X1.2	0,729	Valid
	X1.3	0,744	Valid
	X1.4	0,770	Valid
	X1.5	0,730	Valid
	X1.6	0,797	Valid
	X1.7	0,769	Valid
	X1.8	0,812	Valid
Feedback	X2.1	0,828	Valid

Variabel	Indikator	*Outer Loading*	*Keterangan*
	X2.2	0,817	Valid
	X2.3	0,718	Valid
	X2.4	0,841	Valid
	X2.5	0,843	Valid
	X2.6	0,858	Valid
	X3.1	0,798	Valid
	X3.2	0,760	Valid
	X3.3	0,761	Valid
	X3.4	0,778	Valid
	X3.5	0,798	Valid
	X3.6	0,795	Valid
	X3.7	0,796	Valid
Empowering Leadership	X3.8	0,711	Valid
	Y.1	0,847	Valid
	Y.2	0,808	Valid
	Y.3	0,714	Valid
	Y.4	0,849	Valid
	Y.5	0,738	Valid
	Y.6	0,815	Valid
	Y.7	0,780	Valid
	Y.8	0,849	Valid
Innovative Work Behavior	Y.9	0,770	Valid
	Z.1	0,787	Valid
	Z.2	0,754	Valid
	Z.3	0,788	Valid
	Z.4	0,823	Valid
	Z.5	0,839	Valid
	Z.6	0,864	Valid
Resilience	Z.7	0,849	Valid

Variabel	Indikator	*Outer Loading*	*Keterangan*
	Z.8	0,881	Valid
	Z.9	0,830	Valid

Source: Data processed by the researcher, 2024

b. Discriminant Validity

Discriminant validity is the value of the factor cross-loading that is used to determine whether a construct has adequate discriminant validity. This is done by comparing the loading values on the target construct, which must be greater than the values on other constructs. The standard value for each construct must be greater than 0.7.

Table 4. Discriminant Validity

Indikator	*Job autonomy*	*Feedback*	*Empowering Leadership*	*Innovative Work Behavior*	*Resilience*
X1.1	**0,811**	0,625	0,595	0,677	0,615
X1.2	**0,729**	0,520	0,439	0,568	0,555
X1.3	**0,744**	0,599	0,587	0,626	0,580
X1.4	**0,770**	0,727	0,545	0,687	0,564
X1.5	**0,730**	0,568	0,503	0,591	0,615
X1.6	**0,797**	0,710	0,531	0,716	0,667
X1.7	**0,769**	0,683	0,540	0,651	0,554
X1.8	**0,812**	0,725	0,561	0,738	0,693
X2.1	0,736	**0,828**	0,596	0,753	0,634
X2.2	0,706	**0,817**	0,585	0,781	0,630
X2.3	0,526	**0,718**	0,510	0,639	0,511
X2.4	0,702	**0,841**	0,522	0,722	0,663
X2.5	0,729	**0,843**	0,656	0,753	0,698
X2.6	0,706	**0,858**	0,606	0,763	0,652
X3.1	0,538	0,556	**0,798**	0,617	0,539
X3.2	0,486	0,542	**0,760**	0,590	0,510
X3.3	0,488	0,503	**0,761**	0,542	0,505
X3.4	0,479	0,488	**0,778**	0,565	0,513
X3.5	0,592	0,507	**0,798**	0,582	0,620

X3.6	0,663	0,623	**0,795**	0,663	0,714
X3.7	0,576	0,614	**0,796**	0,574	0,597
X3.8	0,470	0,551	**0,711**	0,534	0,474
Y.1	0,699	0,747	0,648	**0,847**	0,658
Y.2	0,670	0,740	0,550	**0,808**	0,661
Y.3	0,590	0,627	0,577	**0,714**	0,623
Y.4	0,735	0,811	0,628	**0,849**	0,716
Y.5	0,614	0,619	0,516	**0,738**	0,642
Y.6	0,747	0,705	0,604	**0,815**	0,727
Y.7	0,681	0,672	0,545	**0,780**	0,721
Y.8	0,713	0,814	0,698	**0,849**	0,725
Y.9	0,677	0,700	0,645	**0,770**	0,720
Z.1	0,570	0,522	0,538	0,609	**0,787**
Z.2	0,559	0,545	0,524	0,566	**0,754**
Z.3	0,591	0,625	0,510	0,661	**0,788**
Z.4	0,579	0,592	0,551	0,696	**0,823**
Z.5	0,668	0,680	0,717	0,757	**0,839**
Z.6	0,724	0,651	0,647	0,759	**0,864**
Z.7	0,691	0,671	0,597	0,727	**0,849**
Z.8	0,711	0,733	0,611	0,829	**0,881**
Z.9	0,721	0,691	0,679	0,755	**0,830**

Source: Data processed by the researcher, 2024

Based on the above, it can be concluded that all indicators have a crossloading value of > 0.7 on their respective latent variables. This indicates that these indicators are valid in measuring their latent variables. Therefore, the measurement model in this study has good discriminant validity, meaning that the indicators can accurately measure their latent variables.

c. Construct Realiabiity

To measure the reliability of a construct in PLS-SEM using the SmartPLS application, two methods are used: Cronbach's Alpha and Composite Reliability, and both values must be greater than 0.70.

Table 5. Construct Reliability

Variabel	*Composite Reliability*	*Cronbach's Alpha*
Job autonomy (X1)	0.921	0.902
Feedback (X2)	0.924	0.901
Empowering leadership (X3)	0.923	0.905
Innovative Work Behavior (Y)	0.94	0.928
Resilience (Z)	0.95	0.941

Source: Data processed by the researcher, 2024

From the results of the high Composite Reliability and Cronbach's Alpha values (> 0.9) for all latent variables, it can be concluded that the measurement model in this study has very good reliability.

4.3. Structural Model Evaluation Test Results

The evaluation of the structural model aims to assess and test the hypothesized relationships between latent constructs in the research model. There are two main aspects considered in the evaluation of the structural model: the predictive capability of the model and the relationships between latent variables within the model.

a. Coefficient of Determination (R-Squared)

The Coefficient of Determination, commonly referred to as R-Squared, is used to measure the predictive strength of the structural model. This R-Squared value explains the influence of specific exogenous latent variables on the endogenous latent variable and whether it has a substantive effect. Table 22 below presents the estimated R-Squared results using PLS.

Table 6. R-Squared (R^2) Value

Variabel	*R Square*	*R Square Adjusted*
Innovative Work Behavior	0,889	0,884
Resilience	0,701	0,692

Source: Data processed by the researcher, 2024

Based on the table above, the R-Square values indicate that the model explains 88.9% of the variance in the Innovative Work Behavior variable and 70.1% of the variance in the Resilience variable. After adjustment (R Square Adjusted), the model explains 88.4% of the variance in Innovative Work Behavior and 69.2% of the variance in Resilience. These results show that the model has a good capability in explaining the variance in both variables.

4.4. Testing the Significance of Direct Relationships (Hypothesis Testing)

In testing that uses the Bootstrapping method, a hypothesis is considered accepted when the p-value is less than 0.05. When the p-value is greater than 0.05, the hypothesis is rejected.

Table 7. Original Sample Values, T-Statistics, and P-Values

Hubungan	*Original Sample (O)*	*T Statistics (O/STDEV)*	*P Values*
Job autonomy -> Resilience	0,369	2,970	0,003
Feedback -> Resilience	0,263	2,020	0,043
Empowering leadership -> Resilience	0,285	2,795	0,005
Job autonomy -> Innovative Work Behavior	0,156	2,169	0,030
Feedback -> Innovative Work Behavior	0,456	5,316	0,000
Empowering leadership -> Innovative Work Behavior	0,088	1,302	0,193
Resilience -> Innovative Work Behavior	0,323	5,093	0,000

Source: Data processed by the researcher, 2024

Based on the table above, the determination of whether the hypothesis is accepted or rejected is explained as follows:

- **Job autonomy** has been proven to have a positive relationship and significant effect on **Resilience** ($p = 0.003 < 0.05$).
- **Feedback** has been proven to have a positive relationship and significant effect on **Resilience** ($p = 0.043 < 0.05$).
- **Empowering leadership** has been proven to have a positive relationship and significant effect on **Resilience** ($p = 0.005 < 0.05$).
- **Job autonomy** has been proven to have a positive relationship and significant effect on **Innovative Work Behavior** ($p = 0.030 < 0.05$).
- **Feedback** has been proven to have a positive relationship and significant effect on **Innovative Work Behavior** ($p = 0.000 < 0.05$).
- **Empowering leadership** has been proven to have a positive relationship but does not have a significant effect on **Innovative Work Behavior** ($p = 0.193 > 0.05$).
- **Resilience** has been proven to have a positive relationship and significant effect on **Innovative Work Behavior** ($p = 0.000 < 0.05$).

4.5. Testing the Significance of Indirect Relationships (Mediation)

The next step in the PLS-SEM analysis with mediation effects involves examining the relationships between exogenous and endogenous constructs through a mediating variable. In

other words, the exogenous variables influence the endogenous variables not only directly but also indirectly through the mediating variable.

Table 8. Mediation Test Results

Hubungan	*Original Sample (O)*	*T Statistics (O/STDEV)*	*P Values*
Job autonomy -> Resilience -> Innovative Work Behavior	0,119	2,810	0,005
Feedback -> Resilience -> Innovative Work Behavior	0,085	1,767	0,077
Empowering leadership -> Resilience -> Innovative Work Behavior	0,092	2,397	0,017

Source: Data processed by the researcher, 2024

Based on the table above, the results of the significance testing for indirect relationships (mediation) can be explained as follows:

- **Job Autonomy** has a significant positive effect on **Innovative Work Behavior** through **Resilience** ($p = 0.005 < 0.05$). Higher job autonomy can enhance employee resilience, which in turn promotes more innovative work behavior.
- **Feedback** has a positive relationship but does not have a significant effect on **Innovative Work Behavior** through **Resilience** ($p = 0.077 > 0.05$). Well-provided feedback can encourage more innovative behavior, but when mediated by Resilience, it does not have a significant impact on Innovative Work Behavior.
- **Empowering Leadership** has a significant positive effect on **Innovative Work Behavior** through **Resilience** ($p = 0.017 < 0.05$). A leadership style that empowers employees can enhance their resilience, which in turn increases innovative work behavior.

4.6. Discussion

This research examines the relationship between job autonomy, feedback, and empowering leadership with resilience and innovative work behavior. The results show that job autonomy has a significantly positive relationship with resilience (original sample value 0.369, t-statistic 2.970, p-value 0.003). The average respondent ratings for job autonomy were 3.96 and for resilience 4.06, both in the high category. The highest rating for job autonomy was "My job gives me the opportunity to use my initiative" (4.13), and for resilience was "I can improve unexpected situations" (4.19). This study supports the views of Chiniara & Bentein (2016) and Suhandiah et al. (2023), indicating the importance of policies that enhance job autonomy to support employee resilience, which in turn improves company performance and competitiveness.

Feedback also shows a significantly positive relationship with resilience (original sample value 0.263, t-statistic 2.020, p-value 0.043). The average respondent ratings for feedback were 4.29, and for resilience, 4.06, both high. The highest rating for feedback was "Supervisors and colleagues provide information about performance effectiveness" (4.35). This research supports the views of Choi & Kang (2021) and Suhandiah et al. (2023), indicating that effective feedback increases resilience by providing useful information, thus encouraging innovation and improving company performance.

Empowering leadership also has a significantly positive relationship with resilience (original sample value 0.285, t-statistic 2.795, p-value 0.005). The average respondent ratings for empowering leadership were 4.21, and for resilience, 4.06. This study supports the views of Liu et al. (2003) and Ibrahim Limon et al. (2023), showing that empowering leadership enhances resilience by encouraging employee participation in decision-making and creating a supportive work environment, motivating employees to face challenges independently.

Job autonomy also has a significantly positive relationship with innovative work behavior (original sample value 0.256, t-statistic 2.169, p-value 0.030). The average respondent ratings for job autonomy were 3.96, and for innovative work behavior, 4.35. This study supports the views of Chung-Yan (2010) and Suhandiah et al. (2023), indicating that job autonomy encourages innovation by giving employees the freedom to manage their work according to their preferences, thereby enhancing long-term company performance and competitiveness.

Feedback also has a significantly positive relationship with innovative work behavior (original sample value 0.456, t-statistic 5.316, p-value 0.000). The average respondent ratings for feedback were 4.29, and for innovative work behavior, 4.35. This study supports the views of De Spiegelaere et al, (2016) and Atmaja & Damayanti (2022) indicating that feedback is crucial for optimizing innovative ideas and allowing employees to act and implement innovations effectively.

Although empowering leadership has a positive relationship with innovative work behavior, the relationship is not significant (t-statistic 1.302, p-value 0.193). This study indicates that bureaucratic constraints hinder its effectiveness. The lowest rating for the item "Leaders provide room to develop initiatives without too much bureaucratic interference" suggests that strict organizational structures inhibit employees from generating new ideas. This study aligns with findings by Agustina & Pradana (2020) and Hao et al. (2018), recommending further exploration of other factors that might influence this relationship. Resilience has a significantly positive relationship with innovative work behavior (original sample value 0.323, t-statistic 5.093, p-value 0.000). The average ratings for resilience were 4.06, and for innovative work behavior, 4.35. This

study supports the views of Denovan & Macaskill (2017) and Suhandiah et al. (2023), indicating that resilience promotes initiative and learning for innovation, as well as supporting employee well-being.

The study also shows that resilience can be a mediator between job autonomy and innovative work behavior (original sample value 0.119, t-statistic 2.810, p-value 0.005). This finding indicates that high job autonomy helps employees tackle challenges, enhancing resilience and promoting innovative work behavior. However, resilience cannot mediate between feedback and innovative work behavior (original sample value 0.085, t-statistic 1.767, p-value 0.077), emphasizing the importance of direct feedback in influencing innovative work behavior without requiring significant psychological adaptation.

Additionally, resilience is a mediator between empowering leadership and innovative work behavior (original sample value 0.092, t-statistic 2.397, p-value 0.017). This study shows that resilience helps overcome bureaucratic obstacles, allowing employees to remain innovative. Companies must implement policies that support resilience development through training and psychological support, creating a work environment that encourages new ideas and enhancing productivity and company competitiveness.

5. Conclusion and Suggestion

In an era of increasingly competitive business, sustainable innovation is vital for companies to survive. This research emphasizes the importance of implementing Innovative Work Behavior (IWB) to achieve such innovation. The study's findings show that Job Autonomy, Feedback, Empowering Leadership, and Resilience are essential factors in fostering innovative work behavior in the workplace.

The study was conducted with employees who have worked for more than one year in the manufacturing and shipyard sectors in Batam City, with respondents predominantly male (53%) and mainly from the shipyard sector (51%). The majority of respondents (70%) have worked for 1-5 years. The results indicate that Job Autonomy and Feedback have a significant relationship with resilience. Constructive feedback and job autonomy enhance employees' resilience and innovative work behavior. Empowering leadership has a positive impact on resilience, although it is not significant for innovative work behavior. Resilience also has a significant relationship with innovative work behavior and can mediate the relationship between job autonomy and empowering leadership with innovative work behavior.

This research reveals that these four factors can help foster innovative work behavior, both directly and indirectly, enabling companies to survive in increasingly intense competition.

However, this study is limited to two industry sectors, so the results cannot be generalized to other sectors.

Based on the research results, it is recommended that researchers conduct further studies on the complex interactions between these factors. The focus should be on how resilience can reduce the negative impacts of bureaucratic structures on innovation and on developing strategies to strengthen individual resilience. Studying the relationship of innovative work behavior with other variables is also important.

For organizations, especially in the manufacturing and shipyard sectors, it is recommended to create a work environment that supports employee autonomy, provides constructive feedback, and develops empowering leadership. It is essential to foster a work culture that supports innovation by encouraging employees to generate new ideas, tolerate failure, and reward creativity. Reducing bureaucratic barriers through streamlining processes and procedures, providing more flexibility, and encouraging open communication and collaboration are also necessary. Additionally, organizations need to develop training programs to enhance employee resilience so they are better able to face challenges and innovate. Managers and leaders in the organization should adopt an empowering leadership style, granting employees more freedom and responsibility and providing continuous support and feedback.

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