

Determinants of Employee Innovative Work Behavior

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Abstract

The objective of this study is to examine the direct and indirect effects of resilience, transformational leadership, competence, and religious attitudes on innovative work behavior. The data were collected using a questionnaire. The population in this study was 1491 employees. A total of 579 employees participated were subjected to statistical analysis using Partial Least Square-Structural Equation Modeling (PLS-SEM). The findings indicate that the resilience, transformational leadership, and competence have a direct effect on the innovative work behaviour. Similarly, the competence and transformational leadership are also found to have a direct effect on the resilience. However, the religious attitudes have no direct effect on either transformational leadership or resilience. Further, the resilience plays a mediating role in the indirect effect of competence and transformational leadership on the innovative work behavior. In contrast, the resilience fails to mediate the indirect effect between religious attitudes and innovative work behavior. These empirical findings highlight the significant influence of determinants of innovative work behavior.

Keywords: *Resilience, Transformative Leadership, Competence, Religious Attitudes, Innovative Work Behaviour.*

Introduction

In light of the global food and energy crises, the current trend is to prioritize survival. As defined by Sugiarto and Huruta (2023), the Sustainable Development Goals (SDGs) represent global commitments to achieve sustainable development. This is to be achieved by focusing on poverty alleviation, reducing inequality, and caring for the environment. In response to such conditions, it is imperative to cultivate innovative work behavior that is supported by resilience, superior competence, religious attitudes, and transformational leadership.

Choi et al. (2016) and Elrehail et al. (2018) have observed that innovative work behavior is an effective approach for navigating change and achieving success. The capacity for resilience will have an impact on the ability to survive and adapt. Amir (2015), Ratnaningsih et al. (2016), and Sameer (2018) explained that resilience can influence innovative work behavior.

Individuals who possess competence will seek alternative solutions to problems. As evidenced by the findings of Darmaileny et al. (2022), Pribadi and Suhariadi (2021), and Thi et al. (2024), competence has a significant impact on innovative work behavior.

Those in leadership roles who possess the requisite spirit and aptitude for leadership can also encourage innovative work behavior. Chongvisal (2020) found that leadership exerts a significant influence on innovative work behavior. Similarly, religious attitudes prompt individuals to persevere and not merely acquiesce to fate or remain silent. The findings of Ranasinghe and Samarasinghe (2019) indicated that religious attitudes have an influence on innovative work behavior.

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Literature Review

Innovative Work Behavior

The emergence of different and diverse human behaviors is undoubtedly the result of a causal process, and thus, cannot be explained in the absence of a causal explanation. The cause of a crying baby may be attributed to a number of factors, including the need to urinate or defecate, hunger or thirst, the presence of insect bites, or other underlying issues. A number of scholars have examined human behavior, including Thorndike (1911), Skinner (1938), Hovland et al. (1953), Puspitasari et al. (2023), and Jie and Lan (2024), among numerous others. Previous researchers concurred that human behavior is exclusive to the human species. According to Puspitasari et al. (2023), behavior may be understood as an attitude that is either individual or collective in nature. An attitude may be defined as a form of behavioral change, occurring as a reaction or response. Similarly, Jie and Lan (2024) posited that behavior is a reaction or response to a stimulus. Skinner (1938) added that behavior is a function of the relationship between a stimulus and a response. The scope of human behavior is broad and complex, encompassing a multitude of factors and not solely constrained by a single need.

The theory proposed by Skinner (1984) comprises three components: stimulus, organism, and response. These elements function as a system, whereby the stimulus acts as a trigger for the organism's behavior. This theory underscores that human behavior is a causal phenomenon. The process of behavioral change can be observed in the following figure.



Figure 1. SOR Model

As illustrated in Figure 1, the advent of novel behavioral patterns, or “innovative behavior”, is predicated on the receipt of stimuli in the form of messages by individuals. This theory posits that behavioral change is contingent upon the efficacy of the stimulus in persuading the organism to alter its behavior.



Figure 2. Process of Innovative Work Behavior Change

Figure 2 illustrates that stimuli, specifically those pertaining to transformational leadership, competence, and religious attitudes, influence resilience as an organism and motivate the desired behavioral change, namely innovative work behavior.

According to (Bhatta et al. 2024), the presence of innovative work behavior in human resources can be identified through observable behavior within the workplace. This may manifest as a tendency to proactively seek out and capitalize on opportunities for advancement and growth. George and Zhou (2001) argued that innovative work behavior is characterized by a proclivity to identify novel technologies, processes, techniques, and ideas; generate creative concepts; advocate for these ideas with others; investigate and provide requisite resources to facilitate the realization of these ideas; develop comprehensive plans and schedules to operationalize these ideas; and embrace a creative mindset.

Resilience

The advent of resilience theory can be traced to the field of developmental psychopathology (Smith & Osborne, 2007). This indicates that resilience research has its roots in psychological research, which has subsequently influenced other academic disciplines, including management research. The term “resilience” was first introduced in 1980 by Block and Block (1980). Despite the fact that research on resilience has been conducted since 1955 by Werner and Smith (1982). Resilience can be defined as the capacity to not only endure, but also to adapt and overcome adversity (Grotberg, 1999).

Similarly, Reivich and Shatte (2002) articulated similar perspective on the definition of resilience. They explained that the event in question is invariably a stressful one, as opposed to a pleasant one. This is because positive events facilitate the ability to cope and, in some cases, even enhance motivation to do so. The experience of unpleasant events is accompanied by feelings of tension and discomfort.

Transformative Leadership

The concept of transformational leadership was initially proposed by Burn (1978). This form of leadership aims to transform the values espoused by workers in alignment with the vision and goals of the organization. Transformational leaders are defined as those who stimulate and inspire (transform) members to achieve extraordinary results Amalo et al. (2024). The essence of transformational leadership is that members or followers deliberately undertake extraordinary changes to achieve organizational goals. Such change and conscious effort are not the result of coercion from leaders who exercise transformational leadership.

Competence

It is crucial for every individual to possess superior competence in order to effectively compete and not become a disadvantageous burden to others. Those with greater competence are more likely to make valuable contributions, whereas those with lower competence may become a burden to others. As defined by Thi et al. (2024), competence is comprised of three essential elements: proficiency, ability, and authority.

Religious Attitudes

Religious attitudes can be defined as those that espouse the value of religious principles, adherence to teachings, and the capacity to refrain from prohibitions. Indeed, the values associated with religious attitudes are not exclusive to a specific religion; rather, they are universal values that are widely recognized by society. As posited by Glock and Stark (1966), religious attitudes serve to elucidate the interrelationship between the degree of conceptualization and the level of commitment demonstrated by adherents of each religion. Those who possess a greater understanding of their religious values are more likely to be able to overcome the tensions that arise in life Gorelik et al. (2023).

The indicators of religious attitudes utilized in this study are adopted from Glock and Stark (1966) and encompass five domains: ideological involvement, ritualistic involvement, intellectual involvement, consequential involvement, and experimental involvement.

Methods

This study was a quantitative research. The population of this study was all junior high school employees registered in the Education Office of Semarang City. The number of samples was determined according to Hwang and Squires (2024) who explained that the number of samples must be based on an error rate of 1%, 5% and 10%. There was a total of 579 respondents participating as the sample of this study.

The data was collected a cluster sampling technique through a questionnaire distributed online through Google Form on March 29-30, 2023 at the same time through all 12 subdistricts. Further, this study has one dependent variable (innovative work behavior), one mediating variable (resilience), and three

independent variables (transformational leadership, competence, and religious attitude). Each variable was measured abased on the response category. The innovative work behavior, resilience, transformational leadership, competence, and religious attitude were measured through 10, 11, 14, 7, and 9 indicators, respectively. Each scale was measured using a five-point Likert scale, split in an interval of 0.8. Table 1 shows that the increase in the scale and points of the variable is directly proportional to the higher the response category. The following Table 1 presents the response measurement:

Table 1. Response Measurement

Scale	Interval	Category
1	1.00 – 1.80	Very low
2	1.81 – 2.60	Low
3	2.61 – 3.40	Medium
4	3.41 – 4.20	High
5	4.21 – 5.00	Very high

The data was analyzed statistically using Partial Least Square–Structural Equation Modeling (PLS-SEM) using SmartPLS software in two stages. The researchers estimated the measurement of reflective model, analyzing the internal consistency, convergent validity, and discriminant validity. The convergent validity was measured using Cronbach’s alpha and composite reliability (CR). The convergent validity was measured using Average Variance Extracted (AVE) and outer loadings. Next, the discriminant validity was measured using Heterotrait-Monotrait (HTMT) correlation ratio.

Measurement

Innovative lwork behavior can be defined as an employee who is able to work in a creative manner. This behavior can be defined as an overall innovative action that leads to the search for ideas, the emergence of ideas, or the introduction and application of ideas. Furthermore, it can be interpreted as a harmonious relationship between employees and leaders. The indicators utilized were derived from the perspective of De Jong and Den Hartog (2007), such as opportunity exploration, idea generation, championing, and application.

The innovative work behavior was measured using 10 indicators. Overall, the mean value of innovative work behavior is 4.015, which is in the high category. The indicators with the highest value are the “Having the opportunity to come up with new ideas in carrying out duties” (Y1) and “Trying to come up with new ideas to move forward” (Y2). Meanwhile, the indicator that has the lowest value is “Convincing the school community of the new ideas discovered”. Other indicators of innovative work behavior are also in the high category (Y3, Y4, Y5, Y6, Y7, Y8, Y9, and Y10). These include indicators of the ability to generate new ideas (Y3), to have new ideas (Y4), to solve problems with new ideas (Y5), to promote new ideas (Y6), to present new ideas (Y7), to convince new ideas (Y8), to develop new ideas (Y9), and to implement new ideas at work (Y10).

The resilience was measured using 11 indicators. The indicator with the highest value is “Feeling easy to get along with at work”, and the lowest value is “Having the ability to anticipate or be visionary about future issues”. The indicators utilized were based on the opinions of Reivich and Shatte (2002), including emotion regulation, impulsive control, optimism, causal analysis, empathy, self-efficacy, and reaching out.

The competence was measured using 7 indicators. The indicator with the highest value is “Being able to communicate clearly, firmly and politely”, and the lowest value is “Able to direct the team to achieve the desired results?”. The indicators were derived from Franziska et al. (2023), which identifies three dimensions of competence: knowledge, skills, and attitudes.

The principal’s transformational leadership was measured using 11 indicators. The indicator with the highest value is “The principal provides opportunities for training”, and the lowest value is “The principal masters technology”. The indicators utilized were based on a study by Bass and Riggio (2006), which posited

that individuals are influenced by four factors: idealization, inspirational motivation, intellectual stimulation, and individual consideration.

The religious attitude was measured using 10 indicators. The indicator with the highest value is “Having a belief in the truth of my religion”, and the lowest value is “Following all religious employees”. The level of religiosity of each individual was measured using dimensions developed by Glock and Stark (1966), including ideological involvement, ritualistic involvement, intellectual involvement, consequential involvement, and experimental involvement.

Research Conceptual Framework

In accordance with the background and literature review, the following research conceptual framework was employed.

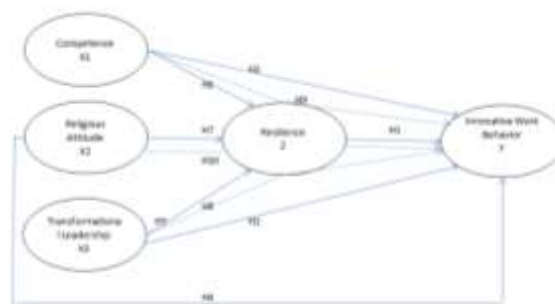


Figure 3. Research Conceptual Framework

Results and Discussion

In accordance with this conceptual framework, hypothesis testing was conducted. The results are presented in Table 2 below.

Table 2. Results of Direct and Indirect Effect Tests

No.	Hypothesis	β	t-Statistics	p-Value	Conclusion
1.	RE \rightarrow IWB	0.544	12.517	0.000***	Accepted
2.	TL \rightarrow IWB	0.176	4.787	0.000***	Accepted
3.	CO \rightarrow IWB	0.122	1.987	0.047**	Accepted
4.	RA \rightarrow IWB	0.042	1.302	0.194	Rejected
5.	TL \rightarrow RE	0.084	2.416	0.016**	Accepted
6.	CO \rightarrow RE	0.715	24.802	0.000***	Accepted
7.	RA \rightarrow RE	0.056	1.746	0.081*	Rejected
8.	TL \rightarrow RE \rightarrow IWB	0.046	2.396	0.017**	Accepted
9.	CO \rightarrow RE \rightarrow IWB	0.389	10.716	0.000***	Accepted
10.	RA \rightarrow RE \rightarrow IWB	0.030	1.700	0.090*	Rejected

Source: Processed data (2023)

Note: RE = Resilience; IWB = Innovative Work Behavior; TL = Transformational Leadership; CO = Competence; RA = Religious Attitudes.

Direct Effect

It can be demonstrated that hypothesis testing is significant when the t-statistic value is greater than 1.96 and the p-value is smaller than 5%. The first hypothesis (H1) proposing a direct effect of resilience on the innovative work behavior is accepted. Its t-statistic value is 12.517 (≥ 1.96) and its p-value is 0.047 ($\leq 5\%$), indicating that the relationship is positive and significant. This is in line with previous researchers who found that the resilience influences the innovative work behavior (Caniëls et al., 2022; Damayanti & Kurniawan, 2023; Suhandiah et al., 2023; Chongvisal, 2020). The leadership shares characteristics with a coach who is able to provide guidance and direction to those around him when he encounters an obstacle. Anticipation is critical in preparing to deal with a change that happens. For this reason, the second hypothesis that can be proposed is as follows

The second hypothesis (H2) proposing a direct effect of transformational leadership on the innovative work behaviour is accepted. Its t-statistic value is 4.787 (≥ 1.96) and its p-value is 0.000 ($\leq 5\%$), indicating that the relationship is positive and significant. These results are in accordance with research conducted by previous researchers who said that leadership influences innovative work behavior (Chongvisal, 2020; Okada, 2008). Leadership is like a coach who is able to give direction and guidance to the people around him if they experience a problem or obstacle. Anticipation is very important as preparation for facing changes that occur.

The third hypothesis (H3) proposing a direct effect of competence on the innovative work behaviour is accepted. Its t-statistic value is 1.987 (≥ 1.96) and its p-value is 0.047 ($\leq 5\%$), indicating that the relationship is positive and significant. This is in accordance with several previous research results (Carvalho et al., 2023 and Huu, 2023), which confirmed that the competence has an influence on innovative work behavior. Strong competence makes the employees rely on their ability to perform their tasks, which implies that the employees' competence is equivalent to the innovative work behavior. Therefore, the third hypothesis that can be proposed is as follows

The fifth hypothesis (H5) proposing a direct effect of transformational leadership on the resilience. Its t-statistic value is 2.416 (≥ 1.96) and its p-value is 0.016 ($\leq 5\%$), indicating that the relationship is positive and significant. This result is in accordance with research by Trigueros et al., (2020); Harland et al., (2005); dan Valero et al., (2015) that leadership influences resilience. Leadership must be able to inspire subordinates or followers within these workers. Apart from that, there must be trust between the leader and those being led in achieving goals

The sixth hypothesis (H6) proposing a direct effect of competence on the resilience. Its t-statistic value is 24.802 (≥ 1.96) and its p-value is 0.000 ($\leq 5\%$), indicating that the relationship is positive and significant. These results are in accordance with research (Aziznejadroshan et al., 2022; Mansfield, 2021; Wieland & Wallenburg, 2013) that competence influences resilience

No Effect

The fourth hypothesis (H4) proposing a direct effect of religious attitudes on the innovative work behavior. Its t-statistic value is 1.302 (≤ 1.96) and its p-value is 0.194 ($\geq 5\%$), indicating that there is no effect in the relationship. This is in line with literature studies from research conducted (Li & Zheng, 2014) where no one states that religion or spirituality is a factor that influences innovation behavior. The relationship between indicators of religious attitudes and indicators of innovative work behavior variables does not have a direct influence.

The seventh hypothesis (H7) proposing a direct effect of religious attitudes on the resilience. Its t-statistic value is 1.746 (≤ 1.96) and its p-value is 0.081 ($\geq 5\%$), indicating that there is no effect in the relationship.

The tenth hypothesis (H10) proposing an indirect effect of religious attitudes on the innovative work behaviour through the resilience. Its t-statistic value is 1.700 (≤ 1.96) and its p-value is 0.090 ($\geq 5\%$),

indicating that there is no effect in the relationship. This is in line with previous research that resilience has no effect on resilience and innovative work behavior.

Indirect Effect

The eight hypothesis (H8) proposing an indirect effect of transformational leadership on the innovative work behaviour through the resilience. Its t-statistic value is 2.396 (≥ 1.96) and its p-value is 0.017 ($\leq 5\%$), indicating that there is an indirect effect in the relationship, which is positive and significant. The role of resilience can be a link between transformational leadership variables and innovative work behavior. This means that resilience mediates innovative work behavior.

The ninth hypothesis (H9) proposing an indirect effect of competence on the innovative work behaviour through the resilience. Its t-statistic value is 10.716 (≥ 1.96) and its p-value is 0.000 ($\leq 5\%$), indicating that there is an indirect effect in the relationship, which is positive and significant. The role of resilience can be a link between competency variables and innovative work behavior. This means that employees who have competence will be resilient and have innovative work behavior.

Conclusions

Based on the analysis of research results and discussion, it can be concluded that the resilience has a direct and significant effect on the *employees'* innovative work behavior. In addition, the resilience is proven to serve as the mediator for the independent variables, namely the transformational leadership and competence. However, there are also several variables that do not have direct effect on the *employees'* innovative work behavior, yet the resilience manages to have a significant effect on it. Furthermore, the transformational leadership has a direct effect on the resilience and innovative work behavior. The effect principals' transformational leadership on the *employees'* innovative work behavior is greater than that of resilience. In addition, the principal's transformational leadership also has an indirect effect on the *employees'* innovative work behavior through the resilience. Furthermore, the competence has a direct effect on both the resilience and innovative work behavior. The effect of competence on the resilience is greater than that on innovative work behavior. In addition, the competence is also found to have an indirect effect on the innovative work behavior through the resilience. However, the religious attitude has no direct effect on the innovative work behavior and resilience. In addition, the religious attitude do not have an indirect effect on the *employees'* innovative work behavior through the resilience.

The results of this study have several practical implications, especially for stakeholders responsible for encouraging the *employees* to exhibit the innovative work behavior. First, the *employees* recruitment should place a greater focus on potential *employees'* competence. Second, considering that the transformational leadership affects the development of *employees'* innovative work behavior, it is important to consider the appropriate leadership qualities of a manager during the recruitment process. Future researches are suggested to investigate other independent variables and dimensions of each variable to acquire a more in-depth understanding. The results of this study are also expected to serve a reference for future researchers interested in conducting further researches.

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