



Challenge Appraisal and Employees' Acceptance of Change: The Mediating Role of Resilience

Ridwan Saptoto¹, Fernanda Putri Gisela², Lintang Ghoyda Aisyah³, Sumaryono⁴, Taufik Achmad Dwi Putro⁵

^{1,3,4}Faculty of Psychology, Universitas Gadjah Mada, Yogyakarta, Indonesia

²Faculty of Psychology, Universitas Sanata Dharma, Yogyakarta, Indonesia

⁵Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, the Netherlands;
Faculty of Psychology, Universitas Gadjah Mada, Yogyakarta, Indonesia

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Corresponding Author:

Ridwan Saptoto

Faculty of Psychology,
Universitas Gadjah Mada,
Yogyakarta, Indonesia

Email:

ridwan_psychology@ugm.ac.id

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Abstract:

Today's fast-paced, continuously changing environment can affect organizations. Such organizations include Institution X, an agency under Indonesia's Ministry of Transportation. Institution X was instructed to conduct a radical structural transformation – one that might not have succeeded if employees did not accept it. Based on the Job Demands-Resources (JD-R) framework, this study aims to investigate whether resilience mediates the link between a challenge appraisal and employees' acceptance of change. The study employs total sampling; hence, all employees of Institution X were invited to participate. As many as 183 data were collected after being cleaned based on the criterion that participants had to have worked in Institution X for at least 1 year. The acceptance scale, challenge appraisal scale, and resilience at work scale were used to collect the data. Mediation analysis shows consistency with an indirect association through resilience ($ab = 0.345$, $SE = 0.159$, 95% bootstrap CI [0.037, 0.664], 5,000 resamples), whereas the residual direct effect is not statistically distinguishable from zero in this sample ($c' = 0.148$, $SE = 0.165$, 95% bootstrap CI [-0.188, 0.460], 5,000 resamples). However, the limited discriminant validity of challenge appraisal and resilience scales indicates substantial empirical overlap and warrants cautious interpretation. Hence, future scholars may investigate whether potentially overlapping items across instruments require revision, replacement, or removal in accordance with content validation and psychometric evaluation.

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INTRODUCTION

In today's fast-paced, continuously changing environment, organizations are increasingly required to adjust and evolve to remain effective. This need for change is not limited to private entities; public sector organizations, including state-established institutions, face similar pressures to transform their structures and processes. Organizational change should be conducted systematically to achieve better conditions for both the organization and its employees (Ali & Hassan, 2022). In this way, the organization remains competitive. Such change could be achieved by adjusting the behavior of leaders and their subordinates and implementing various strategies to enhance subordinates' readiness to change (Peng et al., 2020; Rahi et al., 2021).

Yet, despite these intentions, organizational change remains a risky endeavor and is prone to failure (De Keyser et al., 2019). Some studies presented unfavorable results caused by the inadequate execution of organizational change (Hussain et al., 2018; Khaw et al., 2022). Furthermore, many organizations continue to allot a significant amount of time to handling failure in the change process (Schwarz et al., 2020), likely because the focus was on inessential variables rather than important factors in individual and organizational responses to organizational change (Alnoor et al., 2022). A key contributor to the failure of such initiatives may lie in employees' diminishing acceptance of change, even though scholars found that a leader who understands employees' conditions can boost the likelihood of successful change implementation (Bakari et al., 2017).

Per Jiao and Zhao (2014), acceptance of change refers to employees' cognitive and emotional readiness to involve themselves with organizational transformation. It reflects employees' willingness to support, adopt, or comply with changes in practices, systems, or structures. Their response also depends largely on how their managers or leaders introduce the change (Khaw et al., 2022), as well as on knowledge sharing between employees and leaders in implementing the change (Hussain et al., 2018).

A relevant example of such organizational transformation can be seen in Institution X, an agency under Indonesia's Ministry of Transportation. This change involved not just a renaming but also a significant shift in organizational structure and function. Teams were reorganized to work on regulations across all transportation modes (land, water, and air). The change disrupted previously linear and mode-based communication and task alignment, requiring significant adjustments in coordination, reporting lines, and task delegation.

Preliminary research conducted through interviews with several Institution X employees revealed that the employees were confused and perceived the previous structure as better because it aligned with their expertise and educational background, as well as with clients' field of business. In addition, they felt the need to learn and adapt quickly to the new structure, given that the change was mandatory. Employees who

perceived such a demand as a burden preferred the old structure, though others regarded it as simply part of a work-related challenge.

A negative reaction is typical when employees' expected results are linked to greater work demands, uncertainty, and exhaustion stemming from rapid changes in an organization (Beare et al., 2020; Li et al., 2017). However, a positive attitude toward change helps reduce negative behaviors and facilitates smoother transitions. Khaw et al. (2022) found that positive attitudes, including openness and a willingness to change, are linked to reduced resistance, increased loyalty, active participation, and improved adjustment outcomes.

Employees' positive attitudes, such as openness and acceptance of change, are strongly linked to improved organizational performance (Zakaria & Abdullah, 2018). When employees actively embrace change, organizations benefit from enhanced communication, collaboration, and the successful execution of new strategies. This openness to change is an essential predictor of successful outcomes in organizational change (Augustsson et al., 2017).

Collectively, these findings highlight that employee acceptance of change is not just a psychological response but also a crucial strategic resource. Roczniowska and Higgins (2019) stated that a lack of openness to change can result in misalignment between organizational aims and the change initiative. Public sector institutions undergoing structural transformations must nurture this acceptance to implement and sustain change initiatives.

Through the lens of the Job Demands-Resources (JD-R) theory, fundamental changes in Institution X can be seen as job demands, defined as physical, relationship, or organizational facets of the job that require both physical and psychological effort; hence, they drain employees' physical and mental resources (Bakker et al., 2023). Employees' response to change may stem from whether the change is perceived as a threat or an opportunity. When employees have optimal job or personal resources, they tend to be more engaged with organizational changes. In this context, employees' change appraisal becomes a critical antecedent, as those who perceive change as a challenge will be more likely to accept the change, stay motivated, and even regard the situation as an opportunity to learn and develop themselves at work. Indeed, current JD-R scholars argue that personal positive appraisals and resources help employees reshape a demanding workload as manageable, thereby improving adaptability and readiness for change (Bakker & Demerouti, 2017; Demerouti, 2025).

One way to frame employee acceptance of change is through the concept of a challenge appraisal, a perspective in which individuals see demanding situations not as threats, but as opportunities for growth and achievement (Seery, 2011). Furthermore, Jiao and Zhao (2014) revealed that a person's acceptance of change in an organization is determined by their perspective on the change and its implementation. Positive perceptions and effective implementation of change will result in employee perceptions of the change as fair, as

employees will have sufficient resources to implement the change, and management has addressed their concerns. Thus, employees will be more likely to accept the change. When employees interpret change as a challenge, they are prone to engaging favorably and adapting proactively. Furthermore, because employees wish to build meaning during organizational change, their contextual perceptions on change may predict attitudes toward organizational change beyond personality (Ahmad & Cheng, 2018; Breutner & Roth, 2024). Hence, this study investigates the impact of employees' challenge appraisal on their acceptance of change.

A challenge appraisal occurs when an individual perceives a stressful achievement situation as an opportunity for accomplishment, mastery, learning, and personal development, accompanied by the confidence that effort can overcome the demands of the situation (Skinner & Brewer, 2002). Challenge appraisals mainly involve the possibility of gain or growth inherent in an encounter and are characterized by pleasurable emotions such as eagerness, excitement, and exhilaration (Lazarus & Folkman, 1984). Such appraisals facilitate an approach orientation to stressor or task demands (Jamieson, 2017). In the workplace, this appraisal is associated with proactive engagement, better psychological outcomes, and enhanced performance (Seery, 2011). However, the appraisal may not act in isolation.

Chen et al. (2024) found that the impact of challenge appraisal on learning behavior is mediated by work engagement, while its influence on employees' turnover intention is mediated by emotional exhaustion. Mansell and Turner (2023) revealed that the impact of challenge appraisal on depressive symptoms is mediated by vitality. In addition, scholars found that the impact of challenge appraisal on flourishing is mediated by organization-based self-esteem and meaningful work (Kim & Beehr, 2020). Therefore, in this research, we may assume that the impact of a challenge appraisal on employees' acceptance of change is mediated.

Resilience, or the capacity to withstand stress and recover from adversity (Seery, 2011), can serve as a key mechanism through which a challenge appraisal is translated into actual acceptance of change. The American Psychological Association (APA) (2025) defines resilience as an adaptation process when one is facing suffering, trauma, tragic situations, or significant stressors. Resilience allows an individual to bounce back from those difficult experiences. The APA (2025) noted that humans generally can show resilience. The presence of resilience does not indicate that a person has never faced problems or adversity; rather, the person shows positive adaptation patterns when difficulties arise. Resilience is not a trait; it includes thoughts and behaviors that everyone can learn and develop.

Wilson and Drozdek (2004) described resilience as the ability to survive in threatening and challenging situations. Hartmann et al. (2019) said that resilience is a dynamic process with two defining elements: the experience of adversity and positive adaptation. Thus, resilience provides the resources necessary to achieve positive outcomes in the face of

pressure, limited time, or significant risks and costs. Resilience also includes the ability to overcome problems and respond to stressful demands.

This study focuses on resilience because it plays a pivotal role in predicting performance at work, employees' mental and physical health, and work- and change-related attitudes (Hartmann et al., 2019). Scholars have found that resilient employees demonstrate adaptive behaviors during organizational changes and are more engaged in their work amid a continuously changing corporate situation (Alam et al., 2025; Wut et al., 2022). In this sense, resilience may mediate the relationship between how change is appraised and how it is embraced. Understanding this mechanism can contribute to more effective change management strategies, particularly in the context of complex structural reforms in public sector organizations.

Regarding the resources available for an employee, Schaufeli (2017) identified various personal resources at work, for example, self-efficacy, resilience, optimism, and flexibility. Challenge appraisal may relate to these personal resources because it involves a cognitive evaluation of job demands as opportunities for growth (Skinner & Brewer, 2002). Challenge appraisal is associated with work engagement and learning behavior; it decreases employees' emotional exhaustion and turnover intention in a serial path (Chen et al., 2024). Individuals who engage in challenge appraisal also achieve higher performance (Mehmood et al., 2026; Yan et al., 2022).

Challenge appraisal increases coping expectancy, a condition in which individuals are confident in their ability to deal with problems effectively. Employees who participate in appraisal may have the self-assurance to overcome demands and perceive change as an opportunity to achieve success and rise in the organization (Skinner & Brewer, 2002). They will experience resilience and an improved ability to cope with adversity in their environment. This condition, then, encourages employees to accept and support change. Indeed, resilient employees tend to be more open and dedicated to organizational change (Hartmann et al., 2019).

Resilience is important for employees in public sectors, including government institutions. Such employees may face strains such as heavy workloads, red tape, and emotional labor demands (Awashreh & AlGhunaimi, 2024). However, according to the gain spirals of resources principle in JD-R theory, employees can create and increase their resources by translating assigned work into more meaningful terms – an activity that will simultaneously boost their motivation (Bakker & Demerouti, 2017). Hence, one could say that challenge appraisal is associated with personal resources, which this study identifies as employees' resilience. This condition helps employees manage demands, enhances learning and cooperation, and supports change (Kuntz et al., 2017). Resilience may relate to employees' ability to face demands resulting from organizational change by showing adaptive change behaviors (Alam et al., 2025).

Organizational change literature has extensively studied readiness to change, openness to change, change resistance, and commitment to change (Bae & Kang, 2021; Khaw et al.,

2022; Peng et al., 2020). However, few studies have investigated employees' acceptance of organizational change. Related to challenge appraisal, previous studies focused on individual stress and coping, not the organizational setting (Seery, 2011; Skinner & Brewer, 2002). In addition, the literature on the JD-R theory has often positioned resilience as a static trait or moderator instead of a dynamic factor connecting resources and positive related organizational output (Husnaa & Utomo, 2025; Maurer, 2022). The establishment of the idea that challenge appraisal serves as an antecedent of personal resources may suggest an extension of the conceptual JD-R theory, as previous scholars have focused more on the impact of various resources on personal resources (Moschovopoulou & Papavassiliou-Alexiou, 2025; Ojo et al., 2021), even though individual challenge appraisal may help employees deal with the negative impact of job demands (Li et al., 2021). This psychological capability is needed in the Indonesian bureaucratic context because public institution employees who face mandatory changes stemming from government policy may resist such changes (Turner et al., 2022). Therefore, in this study, challenge appraisal functions as a cognitive evaluation of demands, whereas resilience is one's adaptive capacity in the face of adversity (Hartmann et al., 2019; Skinner & Brewer, 2002).

This study addresses the aforementioned arguments and research gaps and offers novelty in several ways. First, the study focuses on the understudied construct of employees' acceptance of organizational change. Next, it proposes that challenge appraisal may relate to employees' resilience, as previous studies have focused on the impact of resources on a personal resource. Finally, this study positions employees' resilience as a dynamic that connects the independent and dependent variables, rather than as a static trait. Hence, this study aims to test the hypothesis that resilience mediates the relationship between challenge appraisal and employees' acceptance of change. The study may help leaders and human resources departments better understand how to enhance employees' acceptance of change by improving their challenge appraisal skills and using resilience as a mediating link.

METHOD

The current study combined the cross-sectional survey and population study designs to examine the mediation hypothesis. This integrated design collects data using a quantitative approach to describe participants' trends and attitudes and to explain relationships among variables in all the members of a population (Creswell & Creswell, 2018; Shah, 2023). Data were collected using three scales distributed to all employees and were subsequently analyzed by the researchers.

In this study, acceptance of change serves as the dependent variable, predicted by challenge appraisal as the independent variable. Furthermore, employee resilience acts as a mediating variable in the relationship between challenge appraisal and acceptance of change. Challenge appraisal reflects how employees view change as an opportunity, while resilience captures their capacity to adapt.

The authors of the instruments were asked for permission to translate and/or adapt the instruments and to use the scales as data-gathering tools in this research. The translation from English to Bahasa Indonesian was conducted by following the translation/back-translation guidance suggested by previous scholars (Brislin, 1970; Brislin, 1980). In addition, the acceptance scale was modified so that it could be used in this research context. The modification was conducted by changing the phrase “CRM system” to “functional approach in Institution X.”

This study employed two experts in the translation/back translation process. The criteria of expertise were those who had a prominent ability in both the psychology discipline and the English language. The first translator translated the original scales into the Indonesian version. The result was reviewed by the authors. Then, the second translator translated the Indonesian version into the English version. The authors compared the back-translated scales with the original scales, checking for linguistic and cultural equivalence. If inconsistencies were identified, the authors discussed the issue with the first translator, and then the translation/back translation process was reinitiated. After agreement was achieved on the final items, the researchers and both translators discussed the cultural equivalence. They checked whether the concepts were present and understandable, the sentences were culturally appropriate, and the items' meaning remained equivalent. In this way, cultural equivalence was maintained. Such a procedure can preserve the equivalence and semantics of translated scales with the original form, thereby maintaining content and cultural validity (Cruchinho et al., 2024).

The measurement tools were distributed via the institution's intranet with help from the human resources department, as the authors did not have permission to contact the employees directly. To encourage genuine responses, the authors obtained informed consent from the participants.

Institution X has 262 employees spread across several divisions and layers of positions. This study employed total sampling (Saldaña, 2017; Wu & Thompson, 2020), so all employees were invited to participate. In total, 192 people participated in this cross-sectional study, for a response rate of 73.28%. The criterion for participants was employees who had worked for at least 1 year, to ensure they had truly experienced the organizational change from the transportation modes approach to the functional approach. Nine respondents were excluded from further data analysis because their tenure was less than 1 year. Thus, the final respondent count was 183 employees. Participants consisted of 97 (53.0%) male and 86 (47.0%) female employees. Their average age was 34.857 years ($SD = 8.878$), and their average tenure was 6 years and 9 months. No missing data were identified.

This study was initiated by achieving cooperation with Institution X through *Unit Pengembangan Kualitas Manusia* (UPKM) and then registering the research proposal with the ethics committee. The committee assigned the following registration number: 8236/UN1/PS.1/SD/PT.01.04/2025. The researchers continued the study process by translating and/or adapting the measurement tools and building an online data collection

method using Google Forms. The platform was shared with the human resources department of Institution X, as the authors did not have permission to contact employees directly. To encourage genuine responses, the authors obtained informed consent from the participants. This consent verified the employee's willingness to participate in the study, obtained demographic data (sex, age, and tenure), and required the completion of measurement tools. We encouraged employees to participate because the research would benefit the organization, though we noted that participation was voluntary. Participants and data were anonymized, and the data were analyzed in aggregate by the research team (not by the human resources department). The results would not be connected to individual performance appraisals.

This study administered three psychological scales built by previous scholars to collect the data. Each scale used Likert's four answer options, ranging from strongly disagree to strongly agree. The neutral option was omitted from the scales because Asian respondents tend to give "middle" responses (Beuthner et al., 2018) and to avoid a situation in which respondents chose to withdraw (Kankaraš & Capecchi, 2024).

Jiao and Zhao's (2014) 6-item acceptance scale of new customer relationship management (CRM) was used to measure employees' acceptance of change. The items were adapted to the research context by changing "CRM system" to "functional approach in Institution X." An example of an adapted item is "Using the new functional approach in Institution X is a good idea." The original had a Cronbach's alpha of 0.87. Our analysis revealed that this scale's Cronbach's alpha was 0.915, while the item-rest correlation values ranged from 0.352 to 0.875. Previous scholars reported that this scale has good psychometric properties, with factor loadings > 0.80 (Klein et al., 2024).

The criteria employed for construct validity were average variance extracted (AVE) and composite reliability (CR), for which values should be no less than 0.5 and 0.7, respectively (Khanam & Tarab, 2023). Discriminant validity was present if the AVE value exceeded the maximum shared variance (MSV) (Khanam & Tarab, 2023). Confirmatory factor analysis (CFA) was used to investigate the construct and discriminant validity. The analysis was conducted for one-factor (all items are assumed to measure a single construct), two-factor (items of challenge appraisal and resilience scales are assumed to be a latent construct, while items of acceptance of change are assumed to measure this latent construct), and three-factor models (items are assumed to measure their intended latent construct). The estimation method was robust weighted least squares (WLSMV) because of the limited number of samples (less than 200). Furthermore, a research model or construct was considered to have a moderate fit if CFI > 0.90, RMSEA was 0.05 to 0.10, and SRMR < 0.10 (Hair et al., 2019). Initial analysis showed that one item of acceptance of change (AC6) had a low standardized factor loading ($\beta = 0.17$). Thus, that item was discarded. Because one item was deleted, the scale now contained 5 items. This number of items was used in the further analysis. Reliability recalculation yielded a Cronbach's alpha of 0.914, and the item-

rest correlation ranged from 0.515 to 0.753. The final CFA results and model fit values are shown in Table 1 and Table 2, respectively.

Table 1

Factor Loading and Validity Statistics

Constructs	Item	β	SE	p	AVE	CR	MSV
Acceptance of change	AC1	0.91	0.00	<.001	0.81	0.95	0.25
	AC2	0.86	0.05	<.001			
	AC3	0.93	0.04	<.001			
	AC4	0.88	0.05	<.001			
	AC5	0.91	0.04	<.001			
Challenge appraisal	CAP1	0.78	0.00	<.001	0.57	0.90	0.78
	CAP2	0.63	0.09	<.001			
	CAP3	0.76	0.09	<.001			
	CAP4	0.79	0.08	<.001			
	CAP6	0.91	0.09	<.001			
	CAP7	0.73	0.08	<.001			
	CAP8	0.66	0.09	<.001			
Resilience	Res1	0.80	0.00	<.001	0.65	0.90	0.78
	Res2	0.62	0.09	<.001			
	Res3	0.83	0.07	<.001			
	Res4	0.86	0.07	<.001			
	Res5	0.88	0.07	<.001			

SE: standard error, AVE: average variance extracted, CR: composite reliability

Table 2

Model Fit Values

Model	χ^2	df	p	CFI	SRMR	RMSEA
One-factor	279	119	<.001	0.90	0.14	0.11
Two-factor	47	118	1.000	0.99	0.06	0.03
Three-factor	46	116	1.000	0.99	0.06	0.04

df: degree of freedom, CFI: comparative fit index, SRMR: standardized root mean square residual, RMSEA: root mean square error of approximation

The CFA result showed that the acceptance of change scale had an AVE of 0.81 and a CR of 0.95, meeting the criteria of $AVE > 0.5$ and $CR > 0.7$. Furthermore, the AVE (0.81) exceeded the MSV (0.25). This confirmed the scale's construct and discriminant validity.

Next, the challenge appraisal was measured using the challenge appraisal scale created by Skinner and Brewer (2002). This scale consisted of 8 items. An example item was "I tend to focus on the positive aspects of any situation." Cronbach's alpha was 0.80. This study found that the scale obtained a Cronbach's alpha of 0.877, while the item-rest correlation ranged from 0.422 to 0.877. Scholars have argued that this scale maintains good consistency, i.e., $\alpha > 0.77$ (Altintas et al., 2023; Gillman et al., 2024; Turner et al., 2024). However, CFA showed that one item in the challenge appraisal scale had a low standardized factor loading (CAp5, $\beta = 0.38$). Thus, the item was removed from further analysis. CFA analysis showed an AVE of 0.57 and a CR of 0.90, which met the criteria of $AVE > 0.5$ and $CR > 0.7$, suggesting that the challenge appraisal scale maintains construct validity. However, the MSV value of 0.78, calculated based on the correlation between challenge appraisal and resilience ($r = 0.885$), suggested that the discriminant validity of the challenge appraisal scale was limited. Given that one item was deleted, the scale now contained 7 items. This number of items was used in the further analysis. Reliability recalculation yielded a Cronbach's alpha of 0.889, while the item-rest correlation ranged from 0.553 to 0.768.

Employee resilience was identified using the resilience at work scale (Caza & Bagozzi, 2010), which measures resilience using 5 items, such as "I find ways to handle unexpected situations." The data analysis showed a Cronbach's alpha of 0.893, while item-rest correlation values ranged from 0.608 to 0.818. Scholars who employed this scale also presented internal consistency of $\alpha > 0.77$ (Guill'en et al., 2022; Vidal-Meliá et al., 2022; Yu et al., 2022). CFA results were $AVE = 0.65 (> 0.5)$ and $CR = 0.90 (> 0.7)$, meeting the criteria of $AVE > 0.5$ and $CR > 0.7$ and supporting the resilience scale's construct validity. However, because the high correlation between resilience and challenge appraisal ($r = 0.885$) led to an MSV value (0.78) higher than the AVE value, the resilience scale's discriminant validity was limited.

The heterotrait-monotrait (HTMT) test for challenge appraisal and resilience items yielded a value of 0.994 – higher than the recommended value of 0.900 (Roemer et al., 2021). This confirmed the limited empirical distinction and discriminant validity of the challenge appraisal and resilience scales.

Lastly, the three-factor model analysis demonstrated better fit values ($CFI = 0.99$, $SRMR = 0.06$, $RMSEA = 0.04$) compared to the one-factor model ($CFI = 0.90$, $SRMR = 0.14$, $RMSEA = 0.11$). The three-factor and two-factor models had comparable fit values except for RMSEA, for which the two-factor model value was a bit lower ($CFI = 0.99$, $SRMR = 0.06$, $RMSEA = 0.03$). Nevertheless, the three-factor model was retained based on the hypothesized mediational mechanism of this study and because scholars have said that challenge appraisal depicts employees' cognitive evaluation of job demands as

opportunities for growth, whereas resilience portrays employees' adaptive capacity to bounce back under adversity (Hartmann et al., 2019; Skinner & Brewer, 2002).

The analysis tested the mediation hypothesis. Challenge appraisal was the independent variable (X), whereas employee resilience and acceptance of change were the mediating (M) and dependent (Y) variables, respectively. The mediation analysis was conducted by applying regression-based analysis (Hayes & Rockwood, 2017). The tool invoked was Jamovi 2.6.44.

RESULTS AND DISCUSSION

Before the hypothesis was tested, several analyses were conducted. These were assumption checks and Harman's single-factor test. The assumption checks used in the analysis were normality, multicollinearity, linearity, and homoscedasticity tests.

Normality was measured by examining the distribution of the observed Q-Q plot of residuals and checking the histogram of residuals. The Shapiro-Wilk statistical test resulted in a value of 0.93 ($p < 0.001$). Figure 1 shows that the data did not align with the diagonal regression line, while Figure 2 shows that the data were not bell-shaped. Hence, the research data were considered not normally distributed (Habibzadeh, 2024). The calculation of Cook's distance presented a value from $2.03e-6$ to 0.186 (below 1.0), suggesting that no single data point had a significant impact on the regression model (Altman & Krzywinski, 2016).

The multicollinearity diagnostic was calculated for the outcome regression equation model, where acceptance of change was regressed on both challenge appraisal and resilience. It revealed a tolerance value of 0.22 and a VIF value of 4.61. According to Gómez et al. (2016), the tolerance value should be greater than 0.10, and the VIF value should be less than 10. However, the high correlation between challenge appraisal and resilience, and the limited discriminant validity of those two constructs, signaled that the research data did not support the distinct theoretical constructs.

Linearity and homoscedasticity checks were conducted by observing the residual plots as presented in Figure 3. The data were generally spread and did not form a particular pattern. Hence, the linearity and homoscedasticity of the data were confirmed. In addition, the Goldfeld-Quandt test showed a statistical value of 0.830 ($p > 0.05$). Thus, the homoscedasticity assumption was supported (Çelik, 2016).

Figure 1

Q-Q Plot of Residual

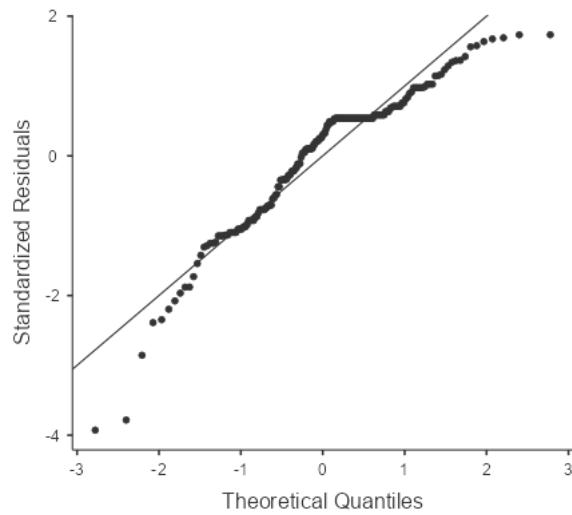


Figure 2

Histogram of Residual

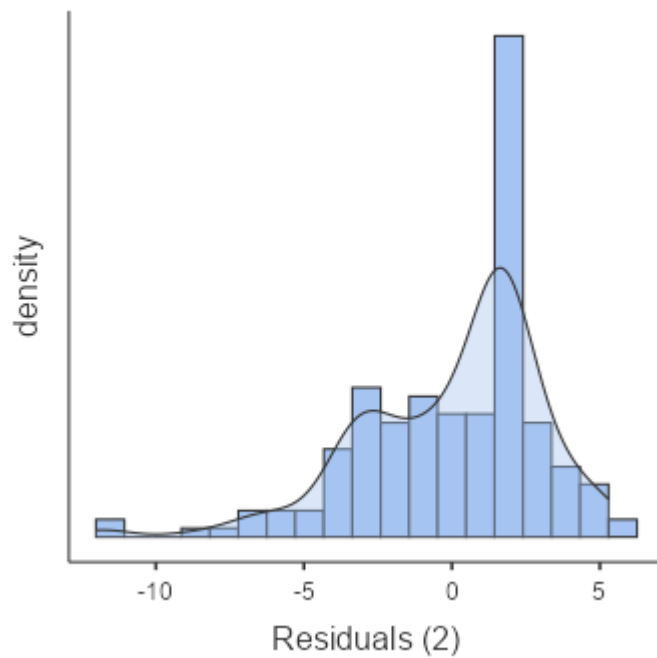
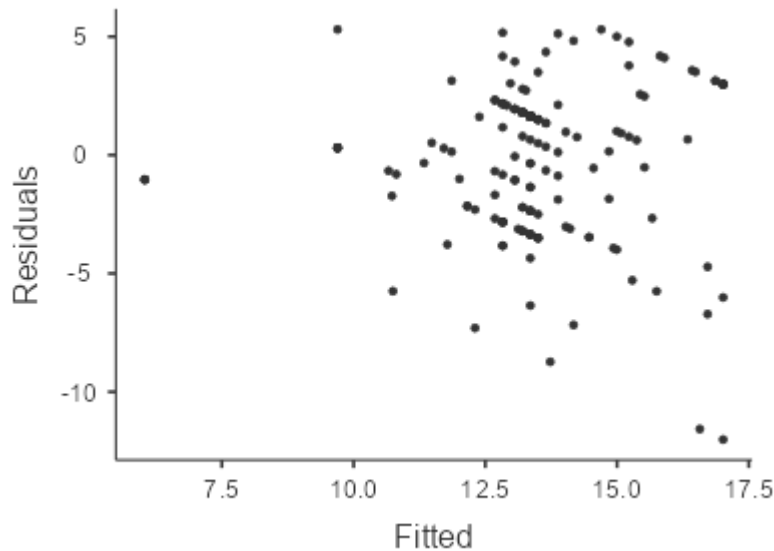


Figure 3*Residual Plot*

The cross-sectional survey is a design widely used in psychological studies; however, it may suffer from common method bias (Saptoto et al., 2026). Thus, this study employed Harman's single-factor test to detect the impact of such bias. Data analysis showed that the percentage of item variance extracted for a single construct was 40.8%, below the threshold of 50% (Rodríguez-Ardura & Meseguer-Artola, 2020). Given that no single factor dominated item variance, common method bias does not dominate in this research.

Because the sample size was small and the data did not meet the normality assumption, they were tested via jAMM in Jamovi with bootstrapping confidence intervals. Furthermore, because an indirect effect is usually not normally distributed, bootstrap testing is more appropriate and statistically powerful than normal-theory-based testing (Hayes, 2022). Following a suggestion from Hayes (2022), bootstrapping was employed by using 5,000 resamples to provide bias-corrected 95% confidence intervals for the estimated effect. Effects were considered significant when the confidence interval did not pass through zero. Such a method is robust for non-normally distributed data. Table 3 presents the analysis results.

Table 3
Indirect, Direct, and Total Effects

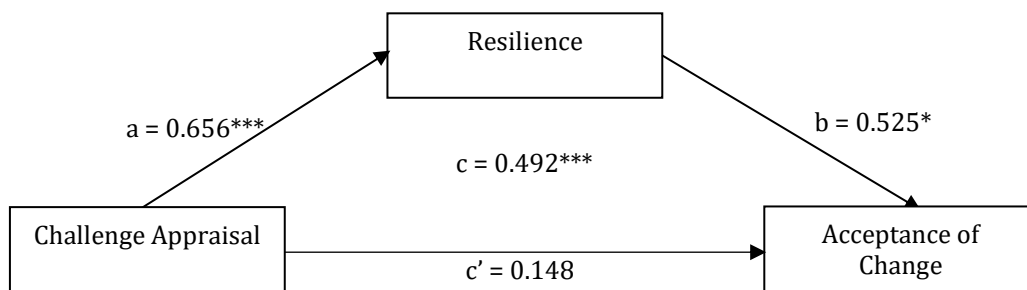
Type	Effect	Estimate	SE	95% CI		Z	p
				Lower	Upper		
Indirect							
Path <i>ab</i>	CM > RES > ACC	0.345	0.159	0.037	0.664	2.164	0.031
Component							
Path <i>a</i>	CM > RES	0.656	0.026	0.600	0.700	25.730	<.001
Path <i>b</i>	RES > ACC	0.525	0.241	0.057	1.001	2.178	0.029
Direct							
Path <i>c'</i>	CM > ACC	0.148	0.165	-0.188	0.460	0.893	0.372
Total							
Path <i>c</i>	CM > ACC	0.492	0.078	0.325	0.629	6.351	<.001

SE: standard error, *CI*: confidence interval, *CM*: challenge appraisal, *RES*: resilience, *ACC*: acceptance of change

Looking at component and estimate in Table 3, we can infer that challenge appraisal statistically predicted employees' resilience ($a = 0.656$, $SE = 0.026$, 95% bootstrap CI [0.600, 0.700], 5,000 resamples). Furthermore, higher resilience was associated with a higher employee acceptance of change ($b = 0.525$, $SE = 0.241$, 95% bootstrap CI [0.057, 1.001], 5,000 resamples). Investigating the indirect path, we find consistency with an indirect association through resilience involving challenge appraisal and acceptance of change. Challenge appraisal was associated with employee resilience, and resilience was associated with employee acceptance of change ($ab = 0.345$, $SE = 0.159$, 95% bootstrap CI [0.037, 0.664], 5,000 resamples). Hence, the current study's research hypothesis can be accepted. The path diagram presenting the mediation mechanism is displayed in Figure 4.

Figure 4

Path Diagram of Mediation Analysis



* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

In the above pictures, we can see that the indirect effect of challenge appraisal on employees' acceptance of change through resilience is statistically significant, whereas the residual direct path between challenge appraisal and acceptance of change is not statistically distinguishable from zero in this sample ($c' = 0.148$, $SE = 0.165$, 95% bootstrap CI [-0.188, 0.460], 5,000 resamples). In addition, the total effect is positively significant ($c = 0.492$, $SE = 0.078$, 95% bootstrap CI [0.325, 0.629], 5,000 resamples).

Scholars have argued that, during an organizational change, employees' acceptance of the change is essential. A high level of acceptance will improve employees' engagement with their work (Sungkawaningtyas et al., 2025). In addition, employees' positive attitude toward change will lead to their change engagement (Albrecht et al., 2022). In this way, the organizational transformation will achieve greater success.

This study supports previous scholars' findings. A challenge appraisal is associated with higher level of resilience among employees (Crane & Searle, 2016; Shao et al., 2024). Challenge appraisal is associated with coping efficacy and confidence in surmounting job demands, which this study refers to as organizational transformation. Employees with this appraisal believe that change represents an opportunity for personal achievement (Skinner & Brewer, 2002). Not only are these beliefs associated with employees' willingness to accept and assist in changes in the organization, but they also help employees bounce back after experiencing adversity during the change period. In addition, with such beliefs, employees may regard organizational change as an opportunity to develop their competency and abilities. Employees view organizational change positively and are more likely to understand their new roles and expectations, which is associated with higher resilience (Bernuzzi et al., 2023). Thus, they will make efforts to grow during the change. Indeed, various studies have found that individuals who are certain that they can develop their capabilities even in dire situations show a higher level of resilience (Min et al., 2025; Prawita et al., 2025; Prayudy et al., 2025; Ramadhona et al., 2025). Resilience is associated with openness and a commitment to supporting organizational change (Hartmann et al., 2019). Indeed, resilient individuals tend to demonstrate greater readiness and adaptability in the face of change (Hartanti et al., 2024; Sari & Suhariadi, 2019; Zaman, 2025).

This study shows that government institutions are not immune to change, including major organizational change in structure and function. Such change was mandated for Institution X; hence, one might conclude that employees would be more likely to accept it. Employees in Institution X with challenge appraisal will perceive such change more positively and adapt proactively (Skinner & Brewer, 2002). They may also see the change as an opportunity for achievement and growth; thus, they will experience feelings of desire and excitement (Lazarus & Folkman, 1984). In line with the gain spirals of JD-R theory, such positive appraisals and feelings may be associated with personal resources (Bakker & Demerouti, 2017), including resilience. Employees with high resilience will adapt and bounce back in dire situations, as mentioned by the APA (2025). Thus, this condition may be associated with acceptance of the fundamental change prevailing in Institution X. This

study supports the gain spirals principle in JD-R theory and highlights the need for government employees to have change appraisal so they can accept mandated organizational change.

Furthermore, in the Indonesian bureaucratic context, where employees are expected to adapt to mandatory changes stemming from new policies, challenge appraisal and resilience may influence employees' acceptance of change. Employees who regard mandatory organizational change as an opportunity for personal and career growth are more likely to maintain coping efficacy and confidence and exhibit resilience as a means of adaptive functioning in a work environment characterized by hierarchical decision-making, standardized procedures, and limited discretion; thus, they show more acceptance of change.

This study contributes to the conceptual extension of the JD-R theory by proposing an alternative antecedent of personal resources, namely, challenge appraisal. Previously, scholars focused more on the impact of various resources on personal resources (Moschovopoulou & Papavassiliou-Alexiou, 2025; Ojo et al., 2021). Meanwhile, the current study regards challenge appraisal as a cognitive capability that could predict personal resources. Furthermore, this study shows that resilience may act as a dynamic connecting one's personal capability and a positive psychological condition related to organizational output.

There are several practical implications for policymakers in the Indonesian Ministry of Transportation. The implications are divided into the following categories: before, during, and after changes happen. Before the change, policymakers should explain the necessity and reason for change and reframe it as an opportunity to learn and grow for both the employees and the organization. Direct intervention such as training can be carried out, as challenge appraisal is a state-like cognitive orientation whose activation depends on environmental stimuli; hence, challenge appraisal can be modified (Laurin et al., 2026; Robazza et al., 2024). During the change, policymakers can support the human resources department in conducting resilience training for employees and providing change coaching for managers. This coaching is necessary because leader support for the change may serve as a job resource that determines how subordinates view the change and helps them confront adversity during the change process. In this way, employees' acceptance of the change can be maintained. After the change process, policymakers can evaluate the employees' acceptance of the change and both personal and organizational performance. If performance is satisfactory, policymakers can embed the system to maintain such performance.

However, this study has several limitations. First, it uses only a sample from Institution X, which underwent a significant transformation. While such an approach can capture the psychodynamics of employees in a unique situation, it may limit the generalizability of the findings, as Institution X might have a unique culture, norms, organizational climate, and employee characteristics. Hence, the study results may have limited response variability

and cautiously reflect specific phenomena instead of the general situation (Creswell & Creswell, 2018; Morling, 2021). Future scholars are encouraged to test this study's findings in different organizations, especially private and entrepreneurial ones, as these organizations may have different work cultures that influence how employees perceive and respond to job demands.

In addition, the application of a cross-sectional design in this manuscript limits the authors' ability to draw conclusions on causality and examine mediation mechanism changes over time (Figueiredo et al., 2025; Maier et al., 2023). However, the causality effect can be enhanced by covariation, temporal precedence, and third-variable control (Maier et al., 2023). Hence, future scholars are encouraged to employ temporal precedence during the data collection phase, apply covariation, and control the effect of third variables in the data analysis. Future scholars may also improve the causality confidence by applying mediation and longitudinal models (Valente et al., 2026).

With regard to the instruments employed in this study, one item of the acceptance of change scale and one item of the challenge appraisal scale were deleted because they possessed a low standardized factor loading, even though previous scholars had found that those scales maintained good consistency. The post-hoc modification conducted in this study could be a sign that the functioning of an item differs across samples or contexts. In addition, the limited discriminant validity of the challenge appraisal and resilience scales signals substantial empirical overlap and warrants cautious interpretation. Hence, future scholars can evaluate whether the items of these scales demonstrate strong psychometric properties across independent samples. If the same item consistently shows a low factor loading, subsequent scholars may consider revising the item by following a systematic process of scale validation. Regarding discriminant validity, future scholars may also investigate whether potentially overlapping items across instruments require revision, replacement, or removal in accordance with content validation and psychometric evaluation.

Finally, the research design in this study is prone to common method bias (Saptoto et al., 2026). While we applied Harman's single-factor test to show that the impact of common method bias in this study was not crucial, it is suggested that future studies use an enhanced method to identify and control the negative impact of common method bias. For example, future studies can apply confirmatory factor analysis (CFA) with a latent variable or even obtain data from different resources (Saptoto et al., 2026).

CONCLUSION

In conclusion, this study's findings are consistent with a proposed indirect association involving challenge appraisal, resilience, and acceptance of change. However, substantial empirical overlap between challenge appraisal and resilience warrants cautious interpretation and further validation.

There are several recommendations based on the current study's findings. Future scholars may investigate the conceptual and empirical distinction between challenge

appraisal and resilience, as well as study whether both constructs act as dimensions of a broader adaptive personal resource. In addition, future scholars can test the mechanism with a larger sample and in various organizations, thereby improving the generalizability of the study's findings. They can also apply temporal precedence, apply covariation, isolate the impact of third data variables, and conduct longitudinal mediation studies. In this way, the causal effect could be justified. Next, researchers may obtain data from multiple sources to control the negative impact of common method bias.

Policymakers in the Indonesian Ministry of Transportation should prepare employees for organizational change by clearly communicating the rationale for change and framing it as an opportunity for individual and organizational growth. If needed, challenge appraisal training can be delivered. During the implementation process, the ministry should support the human resources department in conducting resilience-building initiatives, such as resilience training for employees and change coaching for managers. The coaching may enhance leaders' ability to act as job resources that support employees' resilience development and acceptance of change. Following implementation, policymakers should evaluate employees' acceptance of change and performance, and then institutionalize effective practices to sustain positive outcomes and long-term organizational performance.

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Conflicts of Interest

The authors state that there are no financial, professional, personal, or other conflicts of interest that could have affected how the research was conducted, how the results were interpreted, or how this paper was prepared and published.

Author Contribution Statement

Author 1: Conceptualization; Methodology; Formal Analysis; Writing-Original Draft, Visualization, and Manuscript Revision.

Author 2: Contacting Related Institutions; Data Curation; Prior Data Analysis; Writing-Editing and Manuscript Revision.

Author 3: Contacting Related Institutions; Data Curation; Prior Data Analysis; Writing-Editing and Manuscript Revision.

Author 4: Writing-Review and Editing; Supervision.

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