Journal of Educational Analytics (JEDA)
Vol. 2, No. 4 2023: 41-426

Openness to Change Scale in Higher Education: Adaptation and Validity of the Indonesia Version

Neka Erlyani[1]*, Rahkman Ardi[2], Fendy Suhariadi[3]
[1]Psychology Doctoral Program, Faculty of Psychology, Airlangga University, Surabaya,
[2,3]Department of Psychology, Faculty of Psychology, Airlangga University, Surabaya
Corresponding Author: Neka Erlyani neka.erlyani-2020@psikologi.unair.ac.id

A R T I C L E I N F O

Keywords: Openness to Change, Higher Education, Psychometric Property, Scale Adaptation

Received : 22, September
Revised : 23, october
Accepted: 25, November

A B S T R A C T

As change is unavoidable, there is a need for reform in higher education systems across the world. One's openness to change is one of the many elements contributing to an effective change. There is a need for a capable instrument to assess openness to change within the higher education sector. This study investigates the scale developed by Miller for use in Indonesia. The research matches its findings with the pioneering work, offering insight into the CFA analyses performed. The findings revealed results on scale adaptation, substantiating its strong validity, internal consistency, and reliability. The scale contributes considerably to the academic discourse around transformational dynamics within higher education institutions by providing a tangible method for assessing their openness to change.

DOI: https://doi.org/10.55927/jeda.v2i4.6503
ISSN-E: 2830-0432
https://journal.formosapublisher.org/index.php/fjmr

INTRODUCTION

Human existence is marked by constant change, and its relevance extends beyond personal spheres to include wider societal and technical landscapes. The speed at which society and technology are developing is unprecedented in history, emphasizing the importance of a mindset that is open to adapting to change. The development of adaptation skills has emerged as a crucial element in successfully interacting with transformational processes in modern settings, marked by an unheard-of rate of societal and technical growth. The Indonesian government is now expediting advances by implementing bureaucratic reforms across all ministries, including higher education (Astridina et al., 2017). The ability to skillfully adapt to change is relevant to everyone, but it also assumes more significance within the context of organizations, particularly in higher education institutions.

The higher education scene in Indonesia requires a paradigm shift to stimulate continuous development and welcome novel capabilities that demand major restructuring to promote educational expansion and to meet the difficulties provided by new competencies. (Herlina, 2021). Education employee is one of the human resources that must play a part in change or transformation in higher education (Zahara & Ridha, 2021). Additionally, as stressed by Nurziah (2016), it is essential for these employees to take on a strategic role and successfully manage the Tri Dharma of Higher Education to fulfill the changing administrative and service needs within higher education governance.

Navigating the ever-changing environment of organizational transformation requires a thorough awareness of individual attitudes and reactions to these metamorphic endeavors. The concept of openness to change, a complex construct comprising an individual's proclivity to accept and actively promote adjustments indicated within an organizational change plan, is at the center of this investigation. One factor that contributes to the efficacy of a change is openness to the change itself. The working world is rife with change efforts, and being open to change is critical to navigating this transforming terrain. Armenakis et al. (1993) establish the groundwork by emphasizing the need for high levels of adaptability in promoting employee preparedness for organizational transformation. This preparedness, which is inextricably linked to openness, emerges as a critical prerequisite for effective transformational activities.

The absence of an appropriate adaptation scale in the Indonesian setting drove the choice to adapt the openness to change scale. Researchers have discovered no scale adapted to the Indonesian language more specifically in higher education settings prior to this adaption. As a result, adapting the Miller et al. (1994) scale appeared as a feasible solution to fill this gap in the existing research environment. Given the government's objectives on governance changes inside Universities in Indonesia, there is an urgent need to develop a tool capable of measuring the degree of openness to change within the higher education sector. It is worth noting that the notion of openness to change has been extensively researched across a wide range of academic fields, including healthcare, industry, and social services. However, there is a notable lack of

studies concentrating explicitly on the readiness for change inside higher education institutions. We may develop evidence-based interventions designed to increase the success of change attempts by examining openness to change within the higher education organizational setting. Such interventions have the potential to improve organizational performance and, as a result, lead to higher levels of student accomplishment.

LITERATURE REVIEW

Openness to change is defined by Wanberg and Banas (2000) and Hinduan et al. (2009) as an individual's ability to tolerate but also embrace change within an organizational framework. This construct, according to Edwards (2003) and Hinduan et al. (2009), is intrinsically related to emotional stability and openness to experience traits. Devos et al. (2007) define openness to change as the willingness to promote change and positive thoughts about the prospective repercussions (benefits) of the change. Amis and Assaoui (2013), Rafferty et al. (2013), and Vakola (2013) add to the discussion by categorizing openness to change as both an individual-level and a group-level predictor of intervention results.

This study investigates the critical significance of openness to change as a powerful predictor in the context of organizational changes. Using insights from Augustsson et al. (2017), Armenakis et al. (1993), and Yue et al. (2019), this study demonstrates that openness, both at the individual and group levels, extends beyond the simple substance of change and into the process of its implementation. The study emphasizes that employees' readiness to change, with a special emphasis on openness to change, can be increased when proposed solutions are perceived as addressing relevant concerns. Furthermore, Yue et al. (2019) reveal a key association between organizational trust, employee attitudes, and behavioral preparedness to change. This sophisticated perspective emphasizes the construct's adaptability, as it affects both individual and community reactions to change.

Miller et al. (1994) underline the importance of openness to change as a precondition for the success of planned change initiatives. This construct is a crucial building piece that shapes the landscape in which change may thrive. Miller's investigation is based on a pioneering study done by Coch and French (1948), which suggests that high levels of openness to organizational change are connected with higher collaboration. Furthermore, this design acts as a deterrent to a wide range of resistant behavior issues, including quarrels, animosity, intentional production limits, and a lack of collaboration with management. Miller et al. (1994) define openness to organizational change as having two basic components: a) willingness to support change and b) the cultivation of positive affect about the potential consequences of change, such as the belief that change will benefit certain individuals. The concept of openness to change encompasses various elements beyond its basic meaning. These include receiving knowledge about the change, actively participating in the change process, self-efficacy beliefs in one's ability to change, the

availability of social support networks, and assessing personal effect as a result of the change.

METHODOLOGY

A survey questionnaire was administered to education employees in 15 Public University Units (universities under general state financial management) in Indonesia. The selection criteria included educational staff with civil servant status who were affiliated with Public University Units (universities under general state financial management) under the Ministry of Education and Culture. Data collection was conducted through the distribution of scales using a Google form. This form was distributed during two webinar events on October 5, 2022 (involving 244 participants from 3 universities) and on February 23, 2023 (involving 290 participants from 12 universities). To ensure comprehensive responses, the author made the response to each statement item mandatory by activating the "required" option. The link to the research scale was also shared in the WhatsApp group of webinar participants to ensure that all participants completed the scale. It's worth noting that the scale used was adapted based on the guidelines from ITC (2016) after obtaining approval from the original scale owner. This research upheld ethical standards, having received approval from the Health Research Ethics Commission at the Faculty of Medicine, Lambung Mangkurat University. Approval Number 371/KEPK-FK ULM/EC/IX/2022 affirms research underwent an ethical due diligence assessment and highlights the ethical integrity and robust methodology employed.

RESEARCH RESULT

A full battery of psychometric tests was used to analyze the openness to change scale, including confirmatory component analysis, face validity evaluation, item loading analysis, and internal and external consistency evaluations. This research used an existing scale developed by Miller et al. (1994), which originally included eight questions, to assess individuals' propensity to endorse organizational change and positively participate in the change process. Miller et al. (1994) created a measure to assess openness to change used in this study. However, it was discovered during the validation process that three questions had to be removed owing to their combined influence, which caused more than 5% of the inter-item correlations to exceed the confidence interval. Internal consistency was assessed using a series of statistical analyses, which revealed that there was no statistically significant difference between the observed and predicted correlations, all of which remained within the predefined confidence interval limits (at p 0.05). Furthermore, the model fit evaluation revealed that the sum of squared errors was not statistically significant ($X2 = .686$, 9 df, $p > .05$). These findings revealed that the modified openness to change measure adhered to the hypothesized unidimensional model first proposed by Miller et al. (1994), with no significant deviations. This scale has two core dimensions: change acceptance (four items) and a favorable opinion of the changes (one item). Each item on this scale has

the following dependability: item 1 (α = 0.54), item 2 (α = 0.72), item 3 (α = 0.72), item 4 (α = 0.62), and item 5 (α = 0.73).

Study 1

The Openness to Change scale was translated into the required language using the rules established by the International Test Commission (ITC) for Translating and Adapting Tests (Second Edition) in 2016. The adaption procedure took linguistic, psychological, and cultural variables into consideration, and included the participation of a panel of experts with knowledge relevant to the research environment. The purpose was to improve the scale's appropriateness, clearness, and consistency of meaning for the intended demographic. This adaption process was divided into various stages:

Translation and Adaptation of the Openness to Change Scale

1. Forward Translation

During this initial step, the scale was translated from English to Indonesian by two experienced translators (FT 1 and FT 2). These translators were given a letter outlining the research objectives, background, and operational terminology.

2. Forward Translation Synthesis

The findings of the forward translations by FT 1 and FT 2 were synthesized by a reviewer who was fluent in both languages and had a background in psychology. The goal of this synthesis was to guarantee that the translated scale was as near to the original English version as possible.

3. Backward Translation

After appropriate revisions, the synthesis translation (FTS) was back-translated into English by two experts who lived in English-speaking nations and were uninformed of the original version of the scale (BT 1 and BT 2).

4. Backward Translation Synthesis

The outcomes of the backward translation by BT 1 and BT 2 were examined with a reviewer with qualifications identical to the forward translation reviewer. This synthesis aims to improve the translation even further.

5. Expert Review

A critical component of content validity, the expert review procedure comprised a comparison of the original, forward translation, backward translation, and synthesis versions of the scale. Five reviewers were chosen based on their expertise of language structure, language competency, and familiarity with the study constructs and context. The evaluators graded items on a scale of 1 to 7 in terms of comparability and resemblance. The mean values for each item were derived using three expert judgments. Sperber (2004) said that mean values greater than 3 suggested the necessity for a formal evaluation of the item translation. Furthermore, mean values in the similarity section ranging between 2.5 and 3 raised concerns and recommended prospective item change. While

linguistic form differences were permitted, it was critical that equivalent items retained identical meanings.

Table 1. Mean Score Comparability dan Similarity.

Scale	Comparability Mean Score		Similarity Mean Score		Item that needs evaluation
	Mean Score Total	Range	Mean Score Total	Range	
Openness to Change	1,93	1,67-2,67	1,53	1,00-2,00	-

The Content Validity Index (CVI) calculation technique was used to evaluate content validity in accordance with the standards published by Polit et al. (2007). This evaluation included determining CVI values at both the item and overall scale levels (I-CVI and S-CVI). To calculate the I-CVI, a panel of at least three specialists was assembled to independently evaluate each item on the scale. The experts' involvement comprised ranking the items on a scale of 1 to 4 based on their assessed relevance, significance, and clarity. A score of 1 meant that an item was thought to be highly irrelevant, insignificant, and unclear, whereas a score of 4 meant that an item was thought to be very relevant, very important, and very clear. The scale's content evaluation resulted in a highly satisfactory conclusion, as no adjustments were required following the expert reviewers' assessment. In terms of content validity, the Content Validity Index (CVI) and Scale Content Validity Index (S-CVI) produced notable findings. The Openness to Change scale has a CVI of 0.85 for relevance, 0.90 for importancy, and 0.85 for clarity.

6. Readability Test

Following that, the researchers conducted two successive readability tests to assess the usefulness of the revised scale. A sample of ten people took part in the first exam, which was followed by a second test involving three education workers who satisfied the stated requirements. These tests were used to provide a first assessment of the scale once it had been modified. During these evaluations, respondents were directed to provide feedback by evaluating the relevance and clarity of each scale item and providing a binary response in the form of 'yes' or 'no.' In this context, relevance referred to the degree to which the scale items corresponded with the construct under inquiry as well as their alignment with the current circumstances, situational environment, and cultural milieu inside Indonesia. Furthermore, respondents were given the choice to provide feedback on specific elements or the entire scale.

Participant and Procedure

The scale was administered to education employees at three Public University Units (universities under general state financial management) in Indonesia after it had been adapted and tested for content validity. To guarantee proper sample size, a statistical power analysis was performed. The analysis aimed for a statistical power of 80% for the structural model, with expected effect sizes (ES) of 0.1, 0.3, and 0.5. A minimum sample size of 700 respondents was judged essential to detect the appropriate ES, with minimum sample sizes ranging from 4 (at ES 0.5), 10 (at ES 0.3), and 87 (at ES 0.1). This power analysis used the rule of thumb based on model parameters, with suggested sample sizes derived as a function of predicted ES magnitude. According to these estimates, a sample size of 75 to 300 was necessary. The appropriate minimum sample size for this investigation, which required 15 parameters (q = 15), was calculated as 20 times the number of parameters, resulting in a minimum sample size of 300 individuals. The survey was distributed to universities under general state financial management education professionals having Civil Servant (ASN or PNS) status.

Data Analysis

Measurement validity is used to examine the cohesive alignment of the conceptual and operational definitions, assuring that they correspond (Silalahi, 2015). It is also useful in assessing the faithfulness of indicators indicating a variable in reference to the operational description of the variable. This study employs a validity paradigm that includes both content validity done by expert review and construct validity using CFA, incorporating both content substantiation and the investigation of internal structural coherence.

1. Confirmatory Factor Analyses

   Confirmatory Factor Analysis (CFA) using the Diagonally Weighted Least Squares (DWLS) estimator was used in this work to examine construct validity, which was carried out using the JASP program. Because of the non-normal distribution of data collected from the RFCQ scale, the DWLS estimator was used, and DWLS is known for its resilience in dealing with non-normally distributed data (Mîndrilă, 2010). The measuring model's appropriateness was determined by comparing numerous reference value statistics. The model was deemed acceptable or fit if it fulfilled at least two of the following four criteria: RMSEA (Root Mean Square Error of Approximation) 0.08, Tucker-Lewis Index (TLI), Normed Fit Index (NFI), and Comparative Fit Index (CFI) 0.9 or near to 1. The chi-square statistic was not used since it was difficult to understand the data, especially in research with 244 individuals. Furthermore, the chi-square values produced p-values less than 0.5, discouraging its use as an alternative fit index. Model fit criteria may often be met even if the chi-square value does not fulfill set standards. NFI, NNFI, and CFI were used to deal with non-normal data, notably for sample sizes under 500 people (Beauducel & Witmann, 2005). An analysis of the measurement model findings was

followed by an evaluation of construct validity using convergence testing to determine an appropriate CFA model fit.

2. Reliability Analyses

The degree to which a test or scale consistently measures the genuine underlying variance was evaluated. The reliability test statistic used was composite reliability (CR), which was obtained using structural equation modeling (SEM) (Peterson & Kim, 2013). The measurement score was judged trustworthy if the CR surpassed 0.70.

Respondent Characteristic

This study obtained responses from 244 people out of the 300 intended respondents, for a response rate of 81.33%. Demographic information will be presented in Table 2.

Table 2. Description of Study 1 Research Subjects' Characteristic

Subject Characteristic	Frequency	Percentage
Sex		
Male	90	36.89%
Female	154	63.11%
Age		
Range (min-max)	22 – 57 years old	
Mean ± SD	37.86 ± 8.97	
Age Category		
< 31 years old	70	28.69%
31 – 44 years old	104	42.62%
> 45 years old	70	28.69%
Education		
High School	23	9.43%
Diploma	35	14.34%
Bachelor's degree	152	62.30%
Master's degree	34	13.93%
Duration of Work		
Range (min–max)	1 – 36 years old	
Mean ± SD	11.68 ± 8.22	
Duration of Work Category		
1 - 10 years	123	50.40 %
11 - 20 years	78	31.98 %
21 – 30 years	39	15.98%
> 30 years	4	1.64%

The age division is based on three age-based career managerial stages, namely the experimental stage (< 31 years), stable stage (31-44 years), and treatment stage (> 45 years) (Pogson dkk., 2003; Kunze dkk., 2013). An overview of the level of education, high school graduates (9.43%), diploma (14.34%), bachelor's degree (62.30%), and master's degree (13.93%). In the category of length of service, subjects with a length of service of 1-10 years (50.40%), 11-20 years (31.98%), 21-30 years (15.98%), and more than 30 years (1.64%) were obtained

(Mean = 11.68, SD = 8.22). The division of length of service is based on the idea proposed by Hanpachern (1998) who classifies length of service into four groups: employees with 1-10 years of service, 11-20 years, 21-30 years, and those working for more than 30 years.

CFA Results

Miller et al. (1994) created the Openness to Change scale as an adaptation measure with unidimensional properties, which was subjected to a unidimensional Confirmatory Factor Analysis (CFA) in this study. Four independent criteria were used to assess the suitability of the unidimensional CFA model. The results of the unidimensional CFA model fit test criteria for the openness to change scale are as follows:

Tabel 3. Openness to Change CFA result

Criteria	Result	Description
Chi-square	< 0,001	Not Fit
CFI	0,926	Fit
TLI	0,853	Not Fit
NNFI	0,853	Not Fit
NFI	0,916	Fit
PNFI	0,458	Not Fit
RFI	0,832	Not Fit
IFI	0,927	Fit
RNI	0,926	Fit
RMSEA	0,153	Not Fit
SRMR	0,120	Not Fit
GFI	0,967	Fit

Upon evaluating the goodness-of-fit indices for the Openness to Change scale using the CFA model, it was observed that the Comparative Fit Index (CFI) and Normed Fit Index (NFI) demonstrated satisfactory fit values, surpassing the threshold of 0.90. The Root Mean Square Error of Approximation (RMSEA) was, nevertheless, less than the acceptable fit criteria (>0.08). Notably, the Tucker-Lewis Index (TLI) demonstrated an excellent match (>0.85). According to Akturk et al. (2021), there may be some variation in the established goodness-of-fit criteria, although values in the 0.80 CFI 0.90, 0.80 TLI 0.90, 0.80 NFI 0.95, and RMSEA 0.08 range are typically considered acceptable. Based on these findings, it is reasonable to conclude that the unidimensional CFA model with the DWLS estimate for the Openness to Change variable reasonably matches with the data.

Table 4. Factor loadings of Openness to Change items based on CFA (N = 244).

Item	Loading Factor	Total
Item 1	0,820	
Item 2	0,568	
Item 3	0,624	**5**
Item 4	0,470	
Item 5	0,712	

Testing the validity of the questionnaire instrument is done by comparing the loading factor value with the minimum criterion of 0.4. The loading factor value of each item of the openness to change scale moves from 0.470 to 0.820.

Reliability of Openness to Change Scale in Indonesian Version

The composite reliability value of the Openness to Change scale in the Indonesian version is is 0.779. The results show that the measurement score is reliable (> 0.70) as follows:

Table 5. Composite Reliability

Instrument	Composite Reliability	Description
Openness to Change	0.779	Reliable

Study 2

A following examination was carried out to bolster the conclusions of Study 1. The purpose of this research was to reassess the finished Openness to Change scale and compare the measurement fit indices and standard loading factors between the Miller model and the modified scale. The intercorrelation of components on the modified willingness to change scale was also investigated.

Participants and Procedure

The adapted scale was administered to education employees from Indonesia's 12 Public University Units (universities under general state financial management). A webinar named "Tantangan Perubahan Tata Kelola PTN-Satker di Indonesia" (Challenges against Changing the Governance of Universities under General State Financial Management in Indonesia) was organized to collect data. This webinar, held on February 15, 2023, provided as a venue for distributing research scales to universities under general state financial management education workers throughout Indonesia. Initially, 290 people were recruited to take part in the study. Following that, 290 people successfully supplied replies, which were analyzed. The acquired data were subjected to a thorough analysis to determine concept validity and scale reliability. The construct validity was evaluated using AMOS 24 and first- and second-order Confirmatory Factor Analysis (CFA).

Respondent Characteristic

From 300 intended respondents, this survey received 290 (81.33%) replies.

Table 6. Description of Study 2 research subjects' characteristic

Subject Characteristic	Frequency	Percentage
Sex		
Male	130	44.83%
Female	160	55.17%
Age		
Range (min-max)	23 – 60 years old	
Mean ± SD	39.20 ± 9.55	
Age Category		
< 31 years old	71	24.48%
31 – 44 years old	127	43.80%
> 45 years old	92	31.72%
Education		
High School or equivalent l	28	9.65%
Diploma	24	8.28%
Bachelor's degree	167	57.59%
Master's degree	71	24.48%
Duration of Work		
Range (min – max)	1 – 37 years	
Mean ± SD	12.69 ± 9.30	
Duration of Work Category		
1 - 10 years	145	50.00 %
11 - 20 years	88	30.35 %
21 – 30 years	42	14.48%
> 30 years	15	5.17%

The results of demographic data obtained 130 participants were male (44.83%) and 160 participants were female (55.17%). The average age of participants is between 23-60 years (Mean = 39.20, SD = 9.55) with age categories < 31 years as many as 71 people (24.48%), 31-44 years as many as 127 people (43.80%), and > 45 years as many as 92 people (31.72%). The level of education is High School or equivalent as many as 28 people (9.65%), Diploma as many as 24 people (8.28%), Bachelor's degree as many as 167 people (57.59%), and Master's degree as many as 71 people (24.48%). The average tenure of participants was between 1-37 years (Mean = 12.69, SD = 9.30) with a tenure category of 1-10 years as many as 145 people (50.00%), 11-20 years as many as 88 people (30.35%), 21-30 years as many as 42 people (14.48%), and > 30 years as many as 15 people (5.17%).

Fit Index

Result of fit index indcate GFI and NFI above 0.80, RMSEA = 0.222 (above 0.80), AGFI = 0.726, TLI = 0.726 (close to 0.80). This shows the items CFA for openness to change in Indonesian is quite fit.

Table 7. Fit Index Comparison

Openness to Change Indonesian Version
GFI = .909
NFI = .856
RMSEA = .222
AGFI = .726
TLI = .726

Standard Loading Factor

A well-suited model is obtained by an examination of the congruence of measurement model outputs, followed by an evaluation of construct validity via convergence testing. Convergence validity is determined by examining the loading factor values of particular statement items. According to Sharma (1996) and Ferdinand (2000), the minimum acceptable loading factor is 0.40 or near to this value.

Table 8. Loading factor valid item

			Valid item		
			Standardized β	**Estimate**	**P**
OTC1	<---	openness_to_change	.818	1.000	.000
OTC2	<---	openness_to_change	.553	.982	.000
OTC3	<---	openness_to_change	.732	.949	.000
OTC4	<---	openness_to_change	.486	.898	.000
OTC5	<---	openness_to_change	.774	.962	.000
Total valid item				**5**	

*Items with < 0.40 value.

The result of the loading factor value moved from 0.486 to 0.818 with composite reliability values 0.673. This indicates that the measurement score has been reliable.

DISCUSSION

The key objectives of this study were to create an Indonesian version of the scale and to assess its validity within a specific organizational environment, using the Openness to Change scale developed by Miller et al. (1994). The translational validation procedure aims to produce a standardized scale capable of evaluating openness to change among study participants, especially education employees from Indonesian universities under general state financial management. This undertaking required the modification of the scale into a culturally relevant and understandable form while retaining the spirit and function of the original instrument.

It is critical to distinguish between testing an adapted instrument and evaluating an instrument that has been translated. An adapted instrument is evaluated by examining if an instrument that has been adapted to a certain language and culture can successfully measure the same constructs as the original instrument. This method entails selecting a competent translator, evaluating the translator's credentials, checking the instrument's equivalency in the second language and culture, and conducting any necessary validity studies. Test translation, on the other hand, takes a simpler method, involving the conversion of an instrument from one language to another without diving into concerns of educational and psychological comparability (International Test Commission, 2017). The adaption of the Openness to Change scale into Indonesian demonstrated good content validity. Furthermore, as shown in Table 3, the assessment of item and scale indexes, including the Item-Content Validity Index (I-CVI) and the Scale-Content Validity Index (S-CVI), neared unity. If an item has an I-CVI of 0.78 or above, it is regarded as good (Polit et al., 2007).

Overall, the Openness to Change scale demonstrated commendable internal consistency and reliability during readability testing. The findings of the unidimensional Confirmatory Factor Analysis (CFA) for the Openness to Change scale suggested a model fit that was rated slightly satisfactory. The standard loading factors derived using CFA demonstrated the dependability of the measurement scores. Overall, the items had noteworthy qualities, with good composite reliability findings confirming the trustworthiness of the assessment scores.

CONCLUSIONS AND RECOMMENDATIONS

To summarize, our findings support the use of the Indonesian version of the Openness Toward Organizational Change Scale in educational settings. The substantial content validity, internal consistency, and reliability of the modified scale were proven in this study. Furthermore, the investigation confirmed the structural validity of Miller and colleagues' original scale. These findings have practical relevance for both academics and professionals involved in organizational transformation initiatives. The modified scale is a viable and reliable instrument for measuring the degree of openness to change among Indonesian education employee working in Universities under General State Financial Management that are experiencing governance changes. It makes it

easier to identify areas where individuals and organizations may require assistance in order to effectively implement change projects.

Several limitations, however, should be noted. First, due to geographical restrictions, the research was performed via webinars, preventing participants from interacting face-to-face. Furthermore, the study questionnaire was only administered during online events (webinars), yielding a sample size of 244 for Study 1 and 290 for Study 2. Some participants gave numerous replies, which, while unintentional, caused data accuracy and control issues. Furthermore, demographic data from participants were not analyzed further, restricting our capacity to investigate the links between demographic characteristics and openness for change. Future studies might investigate the scale's value by including demographic parameters and providing sub-data such as marital status, work position, employment status, and spirituality to supplement the research findings. Furthermore, the reliability and validity tests in this study were limited to education employees working in Universities under General State Financial Management. Subsequent studies might broaden these adaptations to include a broader range of samples, such as leaders and individuals from other professional fields.

ADVANCED RESEARCH

Openness to change adaptation scale is crucial for understanding and assessing individuals' capacity to embrace and adapt to change, including changes in governance. This scale plays a vital role in various domains, including psychology, organizational development, and education, by providing valuable insights into how individuals respond to change. Advanced studies in this area can lead to the refinement and development of more accurate and reliable measurement tools. By digging deeper into the psychometric properties of the scale and exploring its applicability across diverse populations and contexts, researchers can improve our understanding of adaptability, which is increasingly important in today's fast-paced and ever-changing world. This research can ultimately contribute to the development of strategies and interventions aimed at fostering greater openness to change in the face of public higher education governance and, consequently, improving individual and organizational outcomes.

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