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Readiness for Change Scale in Higher Education: Adaptation and Validity of the Indonesia Version

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ABSTRACT

Objective: The Readiness for Change Questionnaire was created to assess readiness and ability to face new things and change. It is still being determined whether this scale is also relevant in the context of governance changes in higher education, especially in Indonesia. **Method**: This study examines the scale of cross-cultural adaptation and assesses the modified version using higher education as an organizational context. Translation, synthesis, back-translation, engagement with subject experts, and an emphasis on readability were all part of the thorough scale adaptation process by the International Test Commission (ITC) Guidelines for Translating and Adapting Test. The researchers performed an anonymous self-administered survey and gathered 534 responses from two samples of non-academic staff working in different universities. **Results:** Results showed that the scale, consisting of 25 questions divided into four subscales, had acceptable fit indices using CFA and excellent internal consistency. **Novelty:** The findings show that the scale is appropriate for assessing organizational readiness for change and may contribute to research and practical implications for higher education institutions experiencing governance changes.

INTRODUCTION

As change is constant, adapting helps us deal with changes more skillfully. The capacity to adapt to change is vital, as society and technology are rapidly changing in today's fast-paced world. Readiness for change has been widely studied in both individual and organizational contexts (Amon et al., 2021). Change must start by preparing employees to accept it, as humans are both subjects and objects of change, and resistance is possible (Anardi et al., 2023). The process of modifying employees' cognitions to promote organizational change is called readiness for change. The readiness of individuals in an organization to change is defined as a person's willingness to participate in an activity planned by the organization after experiencing change. Individual readiness for organizational change is about the belief that good change is needed and likely to be successful. Individual readiness for change is critical because it has been shown to play an essential role in any organizational transition and is the primary driver of successful change.

Currently, as the Indonesian government is accelerating improvements by conducting bureaucratic reforms in all ministries, there is a demand for readiness for change in Indonesia higher education institutions (HEIs) to remodel the old pattern so that education continues to develop and dares to enter an uncomfortable zone with unknown competencies (Herlina, 2021; Saputro et al., 2023). Given these dynamics, it has become imperative for these institutions to initiate independent financial and managerial reforms, positioning themselves to revolutionize. The existing educational paradigm (Inandriciya et al., 2021). This transformation encourages ongoing

educational development to explore the unexplored realms of expertise (Ngo & Meek, 2019). Organizational readiness for change is a crucial factor in an organization, especially in a university, which requires immediate attention to achieve successful behavior change, whether related to health, relationships, or work. This refers to a comprehensive attitude that considers the organizational context and individual factors that must be prepared simultaneously (Mathur et al., 2023; Wang et al., 2020). It is vital to understand their level of readiness to help design interventions or methods that can help transformation to succeed. However, there is a need for a particular study on readiness for change in higher education institutions. Research on readiness for change may help identify change barriers and enablers and ways to increase readiness and successfully implement change efforts (Ullah et al., 2023). By analyzing change readiness in higher education organizations, we can design evidence-based interventions to promote successful change efforts, increase organizational performance, and improve student achievement.

Readiness for change has been widely studied in both individual and organizational contexts. Organizational and individual readiness for change focuses more on individual readiness for change because it is a determining factor in the success of organizational change. According to Dutton et al. (1994), the results still overlap between individual and organizational attributes. Holt and colleagues argue that readiness for change as a comprehensive attitude is influenced simultaneously by individual factors and the organizational context. Organizational context is associated with situations in the organizational environment related to the external level of individuals facing change. Concerning contextual elements, readiness for change within an organization can be influenced at various levels by external factors such as industry trends, market conditions, regulatory requirements, and competitive pressures (Faulks et al., 2023). The multifaceted nature of the concept of readiness for change is evident in its multilayered, multidimensional, and multilevel attributes. While there has been a comprehensive empirical investigation into individual readiness for change, an individual-level construct, the empirical scrutiny directed toward organizational preparation for change, an organizational-level concept, has not been commensurate (Wang et al., 2020).

Holt et al. (2007) have a different definition from other researchers because they see readiness for change as a comprehensive attitude influenced simultaneously by organizational and individual factors. The most frequently cited definition refers to organizational readiness for change by Armenakis et al. (1993), which mentions readiness for change as individual beliefs, attitudes, and intentions regarding the extent to which change is needed and the capacity of the organization to make such changes successfully. The extent to which organizational members see change well and anticipate it will benefit them and the organization is referred to as readiness for change. Several organizational development models indicate that the potential sources of readiness for change come from the individual and the individual's environment. Individual readiness for change refers to a person's internal and external resources that help them change their behavior (Zahara & Ridha, 2021). As organizational change can generate a sense of disruption and fear among employees, organizations should strengthen their employees' readiness for change to increase the likelihood of effective implementation (Mumtaz et al., 2023; Myklebust et al., 2020).

Discussions on change have been pervasive across various disciplines, encompassing domains such as relationships, work, and health. Organizational studies have

extensively developed methodologies for assessing change readiness. However, two to three percent of these measures have undergone rigorous reliability testing or systematic validation. Additionally, there is a notable prevalence of measures crafted for singular use in specific projects, with a need for more scrutiny of their psychometric properties. Moreover, instead of assessing the perspectives of all stakeholders engaged in the change process, scales were formulated to gauge the perceptions of those leading the change initiative, encompassing change recipients. The instrument by Moravec (in Rammusa, 2018) was primarily oriented towards facilitating the structuring of change initiatives rather than assessing readiness. It was not designed for staff members to ascertain an organization's readiness. Instead, their explicit objective was to stimulate the strategic planning of change endeavors or catalyze discussions concerning organizational change.

Systematic reviews indicate that many publicly available metrics for evaluating organizational readiness for change need more evidence to support their validity or reliability. While a few metrics have undergone comprehensive psychometric testing, their focus on individual readiness rather than organizational readiness or the inclusion of items deemed as determinants of readiness according to the theory rather than readiness per se renders these measures unsuitable for assessing organizational readiness for change (Weiner, 2020). Most researchers only measure readiness at the individual level but equate the results with readiness for organizational change. Other researchers have focused on individual factors, such as Yeap et al. (2021), and consider that the research results can also describe the organizational context in readiness for change.

A widely accepted and validated tool for assessing readiness for change in Indonesia has yet to be available. This study uses items developed by Holt et al. (2007), as the scale considers individual attributes related to acceptance of change and involves change content, processes, and organizational context. This can serve as the basis for a comprehensive organizational change theory. Waisy and Wei (2020) found differences in the relationships between transformational leadership, readiness for change, and affective commitment to change in different types of universities. In Indonesia, higher education institutions are primarily divided into two categories: PTS (*Perguruaan Tinggi Swasta*), which is a private university, and PTN (*Perguruaan Tinggi Negeri*), which is a public university, a bureaucratic institution and has a complex political system. This reinforces the notion that different organizational contexts affect readiness for change.

However, the organizational context in Holt et al. (2007) instrument model is still in the context of organizations in general, so it is possible to cause ambiguity if research is carried out in the context of governance changes using the scale without making adaptations. While some academics argue that surveys may be applied anywhere, regardless of the environment in which they were developed, others warned that the transferability of ideas and theories depends on the comparability of cultural norms and values. Since their creation, these tools have frequently been modified in various linguistic and cultural contexts. Adaptation better fits the needs of a new population, location, language, mood, or any combination of these (Gronier, 2022). Furthermore, by adapting already made and validated scales, subsequent studies could help conduct psychometric analyses of the original scale and foster scholarly inquiry into the construction of measurement scales (Gronier, 2022).

This study makes two main contributions to the readiness for change literature. First, it provides psychometric analyses of the already developed measure and transfers the

concepts and theories to new cultural norms and values from the original scale. Second, it introduces the novelty of organizational context, previously ignored by many researchers, which is reinforced by the results of Waisy and Wei's research (2020) that different organizational contexts will affect readiness for change. This study explicitly used higher education as an organizational context.

The remainder of this paper is organized as follows. In Study 1, the scale is adapted to the desired language, culture, and context by adjusting item wording, instructions, and response scale anchors and replacing some items). The translated version was tested on 244 non-academic staff in Indonesia. The validity and reliability were analyzed using CFA. In Study 2, the modified version of the Readiness for Change Questionnaire (RFCQ) that has been adapted was tested again in a different sample and compared to the Holt model.

RESEARCH METHOD

This research employed a cross-sectional approach involving the adaptation of the RFCQ scale according to the language and context of the research target. The adaptation process adhered to the guidelines outlined by the International Test Commission (ITC) for Translating and Adapting Tests (Second Edition) in 2017. The adaptation process involved several steps, including pre-conditioning, test development, confirmation, administration, score scale and interpretation, and documentation, further divided into Study 1 and Study 2. Study 1 encompassed the translation stages of the measurement instruments until the scale was deemed ready for use. Study 2 included a finalization stage involving retesting of the adapted scale. The research procedure is detailed in the flowchart, likely in Figure 1.

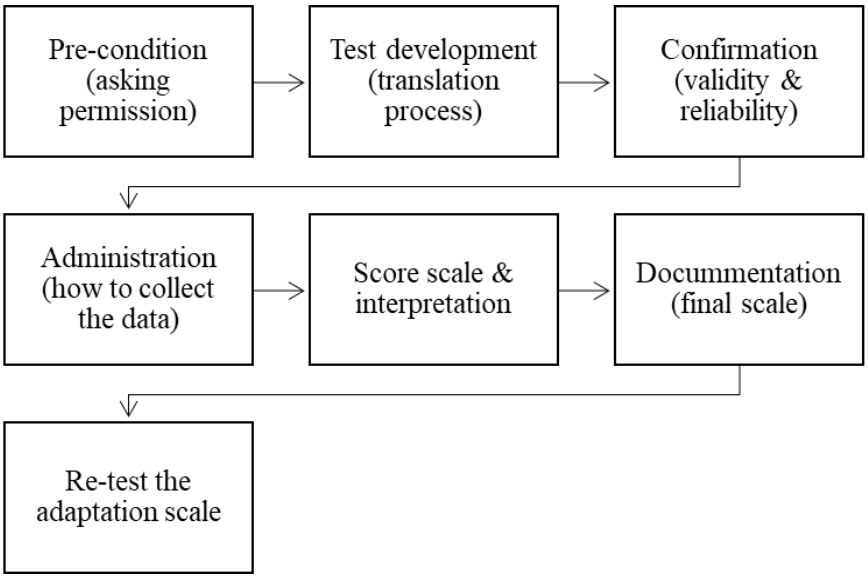

Figure 1. Research procedure.

Study 1

Study 1 considered linguistic, psychological, and cultural differences through the selection of a team of experts with relevant expertise in the research context; appropriate assessment procedures to optimize the suitability of the scale; conducting preliminary studies or readability tests to obtain evidence of similarity and understanding of instructions, scale content, administration methods that can be understood and have the same clarity and meaning for the intended population; and

collecting scale trial data that have gone through the adaptation process for item analysis, validity, and measurement reliability. The researchers translated the RFCQ into Indonesia after obtaining permission from the original author.

Translation and Adaptation of the Readiness for Change Questionnaire

Researchers used the multidimensional RFCQ developed by Holt et al. (2007), comprising 25 items. The translation and the process of adapting the readiness for change measurement tool followed the technical procedures provided by ITC (2017), as explained.

1. Forward Translation

In the initial stage, the process of translating the scale from English to Indonesian was carried out. This stage involved two translators (FT 1 and FT 2) with good language skills to optimize the scale translation process. The two translators were given a letter of request and willingness to become translators. They were provided an overview of the research objectives, context, and operational definitions of the variables in this study.

2. Forward Translation Synthesis

The forward translation result (FT 1 and FT 2) was provided to the forward translation reviewer with a background in psychology and skills in both languages to synthesize the forward translation results. The review considered the theoretical notion of readiness for change and suitability of Indonesian language translations. The synthesis results (FTS) are in the form of a review of the translation results closest to or following the original language.

3. Backward Translation

After the necessary adjustments were made, the results (FTS) were back-translated into the original language. The backward translation stage involves two experts who have lived in an English-speaking country and have yet to learn about the original version of the scale. Two experts carried out this stage to translate the synthesized results of the forward translation into English, whose results were backward translations (BT 1 and BT 2).

4. Backward Translation Synthesis

The results of the backward translation of BT 1 and BT 2 were then discussed with a reviewer with the same criteria as a forward translation reviewer in synthesizing the backward translation results. The synthesis results are a review of the translation results closest to or following the forward translation synthesis.

5. Expert Review

Experts' review in this step served as content validity consisting of two steps. This process aimed to compare the original, forward translation, backward translation, and synthesized versions of the scale. Five reviewers were selected based on language ability, knowledge of language structure, and knowledge related to the research constructs and context. First, expert reviewers judged rating scales (range 1-7) related to comparability and similarity. After assessing the items on the scale conducted by three experts, the average value of each statement item was calculated. If the mean value is more than 3 (7 is the worst agreement and 1 is the best agreement), then the item

requires a formal review of the item translation. Any mean value between 2.5 and 3 in the similarity section is also considered problematic and needs to be reviewed for possible item revision. The idea is that corresponding items have similar meanings and linguistic forms. However, similarity in meaning is preferred, while language form can be varied to ensure similarity. The following are the results of calculating each scale's mean level of comparability and similarity.

Table 1. Mean score comparability and similarity.

Scale	Comparability Mean Score		Similarity Mean Score		An item that needs evaluation
	Mean Score Total	Range	Mean Score Total	Range	
Readiness for Change Questionnaire (RFCQ)	1.76	1.00-2.67	1.43	1.00-2.33	8

The content validity process was carried out by calculating the content validity index (CVI). The CVI value can be calculated for each item (I-CVI) and the overall scale (S-CVI). To calculate the I-CVI, an assessment from at least three experts is needed to assess each scale item used. In this case, the expert's role is to rate the items based on relevancy, importance, and clarity, with a score range of 1-4. A score of 1 means very irrelevant, unimportant, and unclear, while a score of 4 means very relevant, significant, and transparent.

The result of the content review of the scale is quite good. However, some revisions need to be made according to the reviewer's notes to eliminate ambiguity and incompatibility of the content constructs to be measured. Expert 1 stated that the shift in meaning was significant enough that it needed to be adjusted to be more consistent. Expert 2 suggested the sentence to be "When this change is applied, I do not think I will gain anything." After that, a consultation was conducted with the BT synthesis expert, who explained that the item had a word change but did not change the statement's meaning. For example, in item 1, the expert reviewer suggested adding "jangka pendek" (short-term) because item 1 is similar to item 6. However, the benefits obtained can be felt in the short and long term, so it is relevant to be included in the scale. For content validity, based on the results of the calculation of CVI and S-CVI, it was found that the RFCQ scale received a value of .91 for relevancy, 0.92 for importance, and 0.89 for clarity.

6. Readability Test

In the end, researchers conducted the first readability test on ten people and the second on three non-academic staff who fit the criteria to provide an initial assessment of the scale that has undergone the adaptation process. Respondents were asked to assess the scale items with a "yes" or "no" answer based on relevancy and clarity. The relevance in question is the extent to which the scale items are relevant to the measured construct, whether by the circumstances, situation, or culture in Indonesia. In addition, respondents can also provide comments on the item or scale.

Researchers found that the results of the first readability test still contained items whose terms still needed to be understood by respondents, so researchers again

discussed the sound of the items with two expert reviewers. The corrected items are on the RFCQ scale, namely 11, 12, 13, 14, 16, 17, 21, and 24, which initially still used the context of the organization in the company (company organization, supreme leader, management), and only provided a list of terms at the top of the scattering scale so that the two expert reviews suggested adjusting the context based on the organization in higher education (university, rector/dean/head of institution/head of program study/leader according to work unit). The researcher then conducted a second readability test on three respondents who fit the criteria after completing the draft scale according to the input from the two expert reviews. All responses in the readability test for the RFCQ scale considered all items to be clear, understandable, and relevant to the context of non-academic staff.

Data Analysis

1. Confirmatory Factor Analyses

Construct validity in this study was conducted with the help of JASP using a Confirmatory Factor Analysis (CFA) Diagonally Weighted Least Square (DWLS) estimator to compare the analysis results. The DWLS estimator is used because the data from the RFCQ scale are generally not distributed, and the DWLS estimator is considered more resistant to non-normality data. Testing the suitability of the measurement model is done by comparing the reference value statistics; the criterion that the measurement model is appropriate / model fit is if at least two criteria from the four criteria above are met. The criteria for goodness of fit are the RMSEA value ≤ .08; TLI, NFI, and CFI are ≥ .9 (close to 1).

The chi-square value was not used as it was difficult to explain the results of the fit value in the study, which amounted to 244 people from the five instruments. In addition, the chi-square value (p-value > 0.5) results show that the p-value of five scales is less than 0.5, so the chi-square is not an alternative. The model fit criteria will generally be met even if the chi-square value does not meet the criteria. NFI, NNFI, and CFI can be used with a sample of fewer than 500 people to replace the chi-square parameter when the data is not standard. A fit CFA model can be obtained by checking the suitability of the measurement model results, followed by testing construct validity by testing convergence.

2. Reliability Analyses

The reliability of a test or scale is represented by the ratio of the actual score variance divided by the observed score variance. The variance components can be estimated using structural equation modeling (SEM). The resulting estimate is usually called composite reliability (CR) when using SEM. Using CR, this study's reliability test statistics. If CR is more than .70, the measurement score is said to be reliable.

Study 2

To support Study 1, researchers tested the finalized RFCQ scale again in Study 2. They examined comparing the measurement fit index and standard loading factor of the Holt model and the adapted scale and the intercorrelation of factors in the adapted readiness for change scale.

Participants and Procedure

The adapted RFCQ was then tested on non-academic staff from 12 Universities under general state financial management in Indonesia. Data collection was carried out by organizing a webinar "*Tantangan Perubahan Tata Kelola PTN Satker di Indonesia*" (Challenges in Changing the Governance of Universities under general state financial management in Indonesia) to non-academic staff of Universities under general state financial management throughout Indonesia on February 15, 2023, as a forum to facilitate the distribution of research scales. Two hundred nine participants were obtained to fill out the scale for later analysis. We obtained 290 participants to fill out the study for a later date and then be analyzed. In this scale, researchers added the phrase "*tata kelola*" (governance) to each item containing the word change.

The results of the data obtained are analyzed to determine the construct of validity and scale reliability. The validity construct is carried out with CFA first and second orders using AMOS 24.

RESULTS AND DISCUSSION

Results

Study 1

Respondent Characteristic

This study obtained 244 (81.33%) responses from 300 targeted respondents. The demographic data will be presented in Table 2.

Table 2. Description of Study 1 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), the stable stage (31-44 years), and the treatment stage (> 45 years). 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 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

Construct validity in this study was done by using CFA based on the original four-dimensional scale of RFCQ to confirm whether the criteria fit if using correlated multidimensional as done by Holt (2007). The study also conducts unidimensional CFA and second-order CFA tests. The selection of scale dimensionality properties will be based on model fit and the principle of parsimony.

Table 3. Factor loadings of RFCQ items based on CFA (N = 244).

Dimension	Item	Loading Factor
Appropriateness	Item 1	.69
	Item 2	.40
	Item 3	.78
	Item 4	.73
	Item 5	.69
	Item 6	.71
	Item 7	.70
	Item 8	-.44
	Item 9	-.48
	Item 10	.68
Management Support	Item 11	.85
	Item 12	.82
	Item 13	.81
	Item 14	.81
	Item 15	-.48
	Item 16	.74
Change Efficacy	Item 17	.41
	Item 18	.37
	Item 19	-.68
	Item 20	-.80
	Item 21	-.75
	Item 22	-.78

Dimension	Item	Loading Factor
Personal Valence	Item 23	.81
	Item 24	.85
	Item 25	.92

Confirmatory Factor Analysis resulted in the following values for TLI = .88, CFI = .89, NFI = .86, and RMSEA = .11. This indicates that the multidimensional CFA model of the DWLS estimator of the readiness for change variable fits moderately. Testing the validity of the questionnaire instrument is done by comparing the loading factor value with the minimum criterion of .40. The loading factor value of each item of the multidimensional RFCQ scale moves from .373 to .926. The minimum standard loading factor is accepted if the value exceeds .40 (Field, 2018). Some scale items (8, 9, 15, 19, 20, 21, 22) have negative loading factors. Nevertheless, according to Field (2018), we can ignore the positive and negative values of the loading factor as long as the value is high (> .40). One scale item also has a loading factor value of .37, which is still tolerable because it is included in the moderate category (>.30) (Tavakol & Wetzel, 2020). All scale items can then be said to be of good value. These results conclude that the RFCQ scale can be used for the following data collection stage. We also tested unidimensional CFA and second-order CFA. The summary of the test results is in Table 4.

Table 4. Summary of CFA results.

Scale	CFA	Model Fit	Convergent Validity	Reliability	Information
***Readiness for Change Questionnaire* (RFCQ)**	Unidimensional	CFI = .85 TLI = .84 NFI = .83 RMSEA = .13	SLF Range = .35 – .75	CR = .93	Fit, Valid & Reliable
	Multidimensional	CFI = .89 TLI = .88 NFI = .86 RMSEA = .11	SLF Range = .37 – .92	AP = .88 MS = .92 CE = .71 PV = .89	Fit, Valid & Reliable
	Second Order	CFI = .89 TLI = .88 NFI = .86 RMSEA = .11	SLF Range = .43 – .93	CR = .96	Fit, Valid & Reliable

Reliability of RFCQ Indonesian Version

The composite reliability values of the RFCQ in the Indonesian version are shown in Table 5.

Table 5. Composite reliability

Scale	Composite Reliability
Readiness for Change Questionnaire (RFCQ)	AP = .88 MS = .92 CE = .71 PV = .89

AP = appropriateness, MS = management support, CE = change efficacy, PV = personal valence

The results of RFCQ show that the composite reliability value is more than .70, with composite reliability for each subscale at .88, .92, .71, and .89.

Study 2

Respondent Characteristic

This study obtained 290 (81.33%) responses from 300 targeted respondents. The demographic data will be presented in Table 6.

Table 6. Description of study 2 subjects' characteristics.

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 for as many as 28 people (9.65%), Diploma for as many as 24 people (8.28%), Bachelor's degree in as many as 167 people (57.59%), and Master's degree in 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 Comparison

In Holt et al. (2007), RFCQ was tested by comparing if the measuring instrument uses one, two, three, and four factors. The test results showed that RFCQ is more suitable to be used with four factors (multidimensional). For that, researchers also did the same thing by conducting a multidimensional model feasibility test and comparing the results with those of Holt et al. (2007). Researchers re-exerted the feasibility test of the second-order model.

Table 7. Fit INDEX COMPARISON

RFCQ by Holt et al. (2007)	RFCQ Indonesian Version (Second Order)
NFI = .96	NFI = .81
CFI = .98	CFI = .85
RMSEA = .08	RMSEA = .10

Table 7 shows the results of the fit index do show that NFI and CFI do not reach .90 and RMSEA are more than .8. However, researchers refer to the cut-off criteria of the Aktürk et al. (2021) index where there are some differences regarding the goodness of fit criteria, where the values of .80 ≤ CFI ≤ .90; .80 ≤ In the RFCQ Indonesian Version second-order table (NFI = .81, CFI = .85, RMSEA = .10) shows that the CFA item readiness for change scale of the Indonesian version is reasonably fit.

Standard Loading Factor

A fit model can be obtained by checking the conformity of the measurement model results, then continued with construct validity testing by testing convergence. The convergent validity test is a test by looking at the loading factor value of the statement item. Hair et al. (2019) stated that the loading factor reference value of .60 or more is considered to have strong validation to explain the construct. However, Sharma (1996) and Ferdinand (2000) stated that the weakest acceptable loading factor was .40 or close to .40.

Table 8. Loading factor valid item.

			Valid item
			Estimate
appropriateness	<---	readiness_for_change	.94
management_support	<---	readiness_for_change	.87
change_efficacy	<---	readiness_for_change	.87
personal_valance	<---	readiness_for_change	.45
AP10	<---	appropriateness	.76
AP9*	<---	appropriateness	.36
AP8*	<---	appropriateness	.37
AP7	<---	appropriateness	.70
AP6	<---	appropriateness	.81
AP5	<---	appropriateness	.75
AP4	<---	appropriateness	.80
AP3	<---	appropriateness	.70

			Valid item
			Estimate
AP2*	<---	appropriateness	.34
AP1	<---	appropriateness	.56
MS6	<---	management_support	.74
MS5*	<---	management_support	.38
MS4	<---	management_support	.90
MS3	<---	management_support	.84
MS2	<---	management_support	.86
MS1	<---	management_support	.82
CE6	<---	change_efficacy	.83
CE5	<---	change_efficacy	.81
CE4	<---	change_efficacy	.86
CE3	<---	change_efficacy	.71
CE2*	<---	change_efficacy	.37
CE1	<---	change_efficacy	.45
PV3	<---	personal_valance	.86
PV2	<---	personal_valance	.86
PV1	<---	personal_valance	.85
Total valid item			**25**

*Items with < 0.40 value.

The loading factor value is obtained in the results of the second order of the CFA. Five items have a loading factor value of less than .40 (AP2, AP8, AP9, MS5, CE2). However, the researchers decided to keep them because their loading factor value was close to .40. The result moved from .34 to .94 with composite reliability values (CR = .88). This indicates that the measurement score has been reliable.

Discussion

This study's objectives were to create an Indonesian version of the scale and evaluate its validity in a particular organizational context using the RFCQ developed by Holt et al. (2007). The translational validation process aims to obtain a standardized RFCQ scale to measure readiness for change in the research subjects of non-academic staff from Universities under general state financial management in Indonesia. It is necessary to translate into a form that is culturally relevant and easy to understand while maintaining the meaning and intent of the original instrument.

The testing of an adapted instrument is different from testing a translated instrument. Testing an adapted instrument involves deciding whether an instrument that has been adapted in a particular language and culture can measure the same constructs as the original language, then selecting a translator and evaluating the translator's background, checking the equivalence of the instrument in the second language and culture, and conducting any necessary validity studies. Meanwhile, test translation has a more limited meaning with a straightforward approach to changing an instrument from one language to another without regard to education and psychological equivalence. Previous studies on readiness for change in Indonesia have

been conducted, such as the work by Asbari et al. (2021), who utilized a scale derived from Holt et al. (2007) to measure employees' readiness for change in the industrial sector, comprising a total of 7 items. Novitasari and Asbari (2020) also employed a scale based on Holt et al. (2007) with seven items to assess readiness for change. Arbiansyah et al. (2023) conducted a study investigating readiness for change in Indonesian construction companies, employing the Holt theory and utilizing a scale comprising 16 items.

In contrast, Mardhatillah and Rahman (2020) and Tsalits and Kismono (2019) adapted Holt et al.'s RFCQ (2007), incorporating 25 items. These studies exhibit variations in psychometric properties, resulting in differences in the number of statement items and variations in a research context. These distinctions prompted researchers to readapt the RFCQ scale for their specific study population, the non-academic staff of universities under general state financial management in Indonesia.

The results of the RFCQ adaptation into Indonesian showed good content validity. This is shown by the mean comparability and similarity value of each item, which is not more than 2.50, and the assessment results of items and scale indexes I-CVI and S-CVI, which are close to 1 (see Table 1). An item is considered good with an I-CVI of .78 or more. Establishing a satisfactory level of goodness-of-fit for the measurement model and obtaining distinct evidence of construct validity are essential steps in determining the validity of a measurement model (Hair et al., 2019). The results of the goodness-of-fit analysis indicated a moderate fit (NFI = .81; CFI = .85; RMSEA = .10, p-value = .00). Although these values do not meet the conventional cut-off criteria (≤ .90), researchers referred to Aktürk et al.'s (2021) index, which allows for some variation in the goodness-of-fit criteria. According to this alternative criterion (.80 ≤ CFI ≤ .90; .80 ≤), the Indonesian version of RFCQ is deemed acceptable. Regarding construct validity, five items (AP2, AP8, AP9, MS5, CE2) have loading factor values below .40. While this falls below conventional thresholds, Tavakol and Wetzel (2020) consider it tolerable as it falls within the moderate category (> .30). Despite this, researchers chose to retain these items due to their loading factor values being in proximity to .40. The loading factor value for one item increased from .34 to .94.

In summary, when assessed for readability, the RFCQ demonstrates commendable internal consistency and reliability. The structural validity is assessed through the four dimensions outlined in the original scale by Holt et al. (2007). The multidimensional CFA model processing results for RFCQ suggest marginal yet acceptable performance. On the whole, the items within the scale exhibit good value (Akhbar et al., 2020). Analysis of composite reliability value reinforces the notion that the measurement score is reliable. Researchers also undertook unidimensional and second-order CFA model analysis for RFCQ. The initial two model tests reveal somewhat marginal goodness-of-fit values. Nevertheless, it can be asserted that the goodness-of-fit for both the unidimensional and second-order CFA model tests is acceptable. Additionally, the composite reliability value supports the measurement score's reliability.

CONCLUSION

Fundamental Finding: In conclusion, our findings support using the Indonesian version of the RFCQ Scale in the organizational context of education. The study's findings revealed that the adapted RFCQ had strong content validity, internal consistency, and reliability. The study also validated the initial scale's structural validity, consisting of four dimensions. The CFA second-order model initially had

marginal goodness of fit values. However, the measurement scale can be used. This emphasizes assessing a modified scale's psychometric features to ensure it measures the same concept as the original scale. **Implication:** The results of this study have applications for academics and professionals involved in organizational change. The adapted RFCQ may be utilized as a valid and reliable tool to assess the level of change readiness among Indonesian education staff from State University undergoing a governance change. This makes it easier to spot places where people and organizations require assistance to execute change successfully. **Limitation:** Some limitations to the study include conducting research by holding webinars due to distance limitations to meet participants in person. Secondly, the research questionnaire was only distributed at one time during an online activity (webinar), so only 244 subjects (for study 1) and 290 subjects (for study 2) were obtained. In addition, there were repeated fillings in the questionnaire that the researcher could not control, so accuracy was needed to check and minimize the occurrence of double data. Third, the readability test procedure was carried out twice because the subjects did not understand the context of the changes referred to in the first version of the items; after revisions were made by adding a sentence about changes in governance to each item, a readability test was conducted again for the final scale items. Fourth, researchers should have conducted further analysis of the demographic data obtained so researchers could not further explain the relationship between demographic factors and readiness for change. **Future Research**: To enrich the findings, the RFCQ can be explored by linking demographic factors and adding sub-data such as marital status, job position, and spirituality. Furthermore, other researchers can examine in more detail the version of the RFCQ that is more suitable for data collection, whether using four subscales as the original version and this study did or by using a total score. This study's reliability and validity were limited to a sample of universities under general state financial management non-academic staff. Therefore, future research can make adaptations using samples other than non-academic staff (e.g., leaders).

REFERENCES

Akhbar, M. N., Harding, D., & Yanuarti, N. (2020). Peran kesejahteraan di tempat kerja terhadap kesiapan untuk berubah. *Psikologika: Jurnal Pemikiran dan Penelitian Psikologi*, *25*(2), 229-244. https://doi.org/10.20885/psikologika.vol25.iss2.art5

Aktürk, S. O., Meseri, R., & Özentürk, M. G. (2021). Evaluation of the psychometric properties of the turkish version of the osteoporosis awareness scale. *Turkish Journal Osteoporos, 27*(3), 151-158. https://doi.org/10.13140/RG.2.2.36123.80166

Amon, L., Ping, T., & Poernomo, S. A. (2021). Tugas dan fungsi manajemen pendidik dan tenaga kependidikan. *Gaudium Vestrum: Jurnal Kateketik Pastoral*, *5*(1), 1-12.

Anardani, S, Riyanto, S, & Setiawan, D. (2021). Perancangan knowledge management system berbasis web pada tenaga kependidikan fakultas teknik universitas PGRI Madiun. *Jurnal Teknologi Informasi dan Ilmu Komputer*, *8*(1), 77-84. http://doi.org/10.25126/jtiik.0813252

Arbiansyah, T. P. T., Guritna, E. T., & Baihaqi, A. (2023). Factors affecting employee readiness to change in construction state-owned enterprises. *Organization and Human Capital Development (ORCADEV), 2*(1), 103-117. https://doi.org/10.31098/orcadev.v2i1.1505

Armenakis, A. A., Harris, S. G., & Mossholder, K. W. (1993). Creating readiness for organizational change. *Human Relations*, *46*(6), 681-703. https://doi.org/10.1177/001872679304600601

Asbari, M., Purba, J. T., Hariandja, E. S., & Sudibjo, N. (2021). Membangun kesiapan berubah dan kinerja karyawan: kepemimpinan transformasonal versus transaksional. *Jurnal Ilmiah Manajemen dan Bisnis, 22*(1), 54-71. https://doi.org/10.30596/jimb.v22i1.4888

Dutton, J. E., Dukerich, J. M., & Harquail, C. V. (1994). Organizational images and member idenfication. *Administrative Science Quarterly, 39*(2), 239–26. https://doi.org/10.2307/2393235

Faulks, B., Yinghua, S., Khudaykulov, A., & Jumanov, A. (2023). Exploring organizational readiness to change and learn: A SciVal analysis from 2012 to 2021. *Journal of International Business Research and Marketing, 7(4)*, 18-22. https://doi.org/10.18775/jibrm.1849-8558.2015.74.3002

Ferdinand, A. (2000). *Structural equation modelling dalam penelitian manajemen*. semarang. *structural equation modelling dalam penelitian manajemen*. Penerbit Universitas Diponegoro.

Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics (5th ed.)*. SAGE Publication Ltd.

Gronier, G. (2022). Psychometric Analyses in the transcultural adaptation of psychological scales. In Misciagna, S (Ed.). *Psychometrics - New Insights in the Diagnosis of Mental Disorders*. IntechOpen. https://doi.org/intechopen.105841

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis, eight edition*. Cengange Learning.

Herlina, N. (2021). Kampus merdeka dalam menyongsong society 5.0. *Dikti Kemendikbud.*

Holt, D. T., Armenakis, A. A., Feild, H. S & Harris, S. G. (2007). Readiness for organizational change: the systematic development of a scale. *The Journal of Applied Behavioral Science, 43*(2), 232-255. https://doi.org/10.1177/0021886306295295

Inandriciya, R. A., Suswati, E., & Joesoef, J. R. (2021). Kepuasan kerja memediasi pengaruh kompensasi dan motivasi terhadap kinerja pegawai: studi pada pegawai non PNS tenaga kependidikan bagian pelayanan administrasi subbag rumah tangga di universitas negeri malang. *Warta Pendidikan, 5*(8), 20-28. https://doi.org/10.0503/wp.v5i8.105

International Test Commission. (2017). ITC guidelines for translating and adapting tests (second edition) international. *International Journal of Testing*. https://doi.org/10.1080/15305058.2017.1398166

Mardhatillah, A., & Rahman, S. A. (2020). Readiness to change in higher education: Do demographic differences in psychosocial predictors matter?. *Jurnal Psikologi Sosial, 18*(1), 1-10.

Mathur, M., Kapoor, T., & Swami, S. (2023). Readiness for organizational change: the effects of individual and organizational factors. *Journal of Advances in Management Research, 20*(4), 730-757. https://doi.org/10.1108/JAMR-02-2023-0032

Mumtaz, S., Selvarajah, C., & Meyer, D. (2023). How does human relations climate and organizational support affect readiness to change? The mediating role of employee participation and leadership excellence. *Global Business and Organizational Excellence.* https://doi.org/10.1002/joe.22223

Myklebust, T., Motland, K., Bjørkli, C. A., & Fostervold, K. I. (2020). An empirical evaluation of the relationship between human relations climate and readiness for change. *Scandinavian Journal of Work and Organizational Psychology, 5*(1), 1–12. https://doi.org/10.16993/sjwop.74

Ngo, J., & Meek, L. (2019). Higher education governance and reforms in Indonesia: Are the matrices of autonomy appropriate?. *Journal of International and Comparative Education (JICE), 8*(1), 17-26. https://doi.org/10.14425/jice.2019.8.1.17

Novitasari, D., & Asbari, M. (2020). Pengaruh kepemimpinan transformasional terhadap kinerja karyawan: peran kesiapan berubah sebagai mediator. *Jurnal Manajemen, 10*(2), 84-99. https://doi.org/10.30656/jm.v10i2.2371

Rammusa, A. M. (2018). *Client readiness for executive coaching in south africa*. Dissertation. Wits Business School.

Saputro, R., Wahyuni, E. S., & Prayogo, I. (2023). Investigating the effect of merdeka belajar kampus merdeka on the success of its implementation: Moderating role of readiness to change. *Global Journal of Business, Economics & Social Development, 1*(1), 7-15. https://doi.org/10.56225/gjbesd.v1i1.2

Sharma, S. (1996). *Applied multivariate techniques*. John Wiley and Sons Inc.

Tavakol, M., & Wetzel, A. (2020). Factor analysis: A means for theory and instrument development in support of construct validity. *International journal of medical education, 11*, 245-254. https://doi.org/10.5116/ijme.5f96.0f4a

Tsalits, A. H., & Kismono, G. (2019). Organizational culture types and individual readiness for change: evidence from Indonesia. *Diponegoro International Journal of Business, 2*(2), 86-95. https://doi.org/10.14710/dijb.2.2.2019.86-95

Ullah, L., Sajjad, S., & Sattar, Z. A. (2023). Impact of personal factors on individual readiness for organizational change among academia in balochistan. *Journal of Education and Humanities Research (JEHR), University of Balochistan, Quetta, 15*(1), 106-118. http://journal.uob.edu.pk/journal/index.php/jehr/article/view/413

Waisy, O. H., & Wei, C. C. (2020). Transformational leadership and affective commitment to change: The roles of readiness for change and type of university. *International Journal of Innovation, Creativity and Change, 10*(10), 459-482. https://www.ijicc.net/images/vol10iss10/101033_Waisy_2020_E_R.pdf

Wang, T., Olivier, D. F., & Chen, P. (2020). Creating individual and organizational readiness for change: conceptualization of system readiness for change in school education. *International Journal of Leadership in Education, 26*(6), 1037-1061. https://doi.org/10.1080/13603124.2020.1818131

Weiner, B. J. (2020). A theory of organizational readiness for change. In Nilsen, R., & Birken, S. A. (Eds), *Handbook on Implementation Science*, 215-232. Edward Elgar Publishing Limited.

Weiner, B. J., Amick, H., & Lee, S. Y. D. (2008). Conceptualization and measurement of organizational readiness for change: a review of the literature in health services research and other fields. *Medical Care Research and Review, 65*(4), 379-436. https://doi.org/10.1177/1077558708317802

Yeap, S. B., Abdullah, A. G. K., & Thien, L. M. (2021). Lecturers' commitment to teaching entrepreneurship: do tra nsformational leadership, mindfulness and readiness for change matter?. *Journal of Applied Research in Higher Education, 13*(1), 164-179.https://doi.org/10.1108/JARHE-12-2019-0311

Zahara, C. R., & Ridha, I. (2021). *Kampus merdeka seri 6: Penerapan kurikulum kampus merdeka di era COVID-19 dalam prespektif tenaga didik*. Syiah Kuala University Press.

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