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# *Psychometric Properties of the Indonesian Version of the Challenge-Hindrance Stressor Scale*

# Properti Psikometri Skala Challenge-Hinderance Stressor Versi Bahasa Indonesia

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**Abstract**

*Indonesian lecturers face significant workloads as universities seek world-class status. This study adapts and validates the challenge-hindrance stressor scale in Indonesia using quantitative cross-sectional data from 487 lecturers. Structural Equation Modeling via Confirmatory Factor Analysis tested validity, and reliability was assessed with Cronbach's alpha and composite reliability (CR). The first-order model fit was good (CFI = 0.94, TLI = 0.935, SRMR = 0.04; factor loadings 0.59–0.87). Internal consistency reliability was also strong (coefficient above 0.70). Thus, the Indonesian CHS scale is a valid and reliable tool for measuring lecturers' work stress, supporting accurate assessment in this cultural context.*

**Keywords** : *Challenge-Hindrance Stressors, Confirmatory Factor Analysis, Reliability, Model Fit, Measurement Tool Adaptation*

**Abstrak**

Dosen di Indonesia menghadapi beban kerja yang signifikan seiring dengan upaya universitas untuk mencapai world-class university. Penelitian ini melakukan adaptasi dan validiasi skala stressor tantangan-hambatan di Indonesia menggunakan data kuantitatif cross-sectional sebanyak 487 dosen. Validitas diuji menggunakan Structural Equation Modeling (SEM) melalui Confirmatory Factor Analysis (CFA), sementara realibilitas dievaluasi dengan Cronbach's alpha dan composite realibility (CR). Hasil menunjukkan bahwa kesesuaian model first-order adalah model paling fit (CFI = 0.94; TLI = 0.935; SRMR = 0.04; factor loading 0.59–0.87). Realibilitas konsisten juga memiliki nilai yang kuat (koefisien di atas 0.70). Dengan demikian, skala CHS versi Indonesia merupakan instrumen yang valid dan reliabel untuk mengukur stres kerja dosen, serta mendukung penilana yang akurat dalam konteks budaya ini.

**Kata Kunci** : Stressor tantangan-hambatan, Analisis Faktor Konfirmatori, Realibilitas, Model Fit, Adaptasi Alat Ukur



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## BACKGROUND

In an era of globalization and increasingly competitive higher education, universities are now required to be more than just centers of knowledge transmission; they must be adaptive, innovative, and accountable organizations (Meusburger & He, 2018). The transformation towards becoming a world-class university forces higher education institutions to undergo structural reorientation and dynamic policy changes (Kemdiktisaintek, 2026). Changes at the organizational level will directly put pressure on human resources, namely, lecturers (Maria Vakola, 2018; Rusydi, 2024).

Lecturers face increasingly complex and varied work demands, known as the fulfillment of the Lecturer Performance Load (BKD), which includes teaching, research, and community service (Ashari, 2024; Azizah, 2025; Kampus, 2024a, 2024b; Nandito Putra, 2024). The complexity of this role is markedly different from other educational roles, such as teachers who focus on teaching practices or pure researchers in research institutions. Lecturers in Indonesia must perform all three functions simultaneously with high performance standards (BPK, 2018; Knight et al., 2014; Mardatillah, 2020).

These demands can trigger different implications for an individual's psychological condition. Performance pressure can be a stress trigger that has the potential to reduce lecturer performance, as seen in administrative burdens such as performance reporting and research reports that require lecturers to spend time completing tasks that should be easy (Banna et al., 2022). On the other hand, performance pressure can also be a trigger for stress that becomes an opportunity for self-development, as seen in changes in academic roles and professional demands that encourage new programs such as curriculum innovation and academic productivity that give rise to learning processes and academic career development for lecturers (Hardiansyah et al., 2025; Kohan et al., 2023; Sutanto & Budiharto, 2020)

Previous studies interpreted stressors as having only negative consequences for worker behavior (LePine et al., 2005). Cavanaugh et al., (2000) introduced the concept of work stress broadly, in relation to work attitudes, as the Challenge-Hindrance Stressors (CHS). Challenge stressors are demands or circumstances related to work that, although stressful, can benefit individuals (stressors are often perceived as promoting personal growth and achievement; the effect of stressors on retention criteria depends on the type of stressor). Hindrance stressors refer to work demands or circumstances that tend to limit or interfere with an individual's work achievement and are not associated with potential benefits (Cavanaugh et al., 2000).

Where CHS can give rise to different consequences in the form of psychological strain (Lin et al., 2020; Moin et al., 2023), thriving at work (Yang & Li, 2021), innovative work behavior (Yu et al., 2024), and service innovation (Zhang et al., 2024). Discussing this further, Yang & Li, (2021) explain from their research results that challenge stressors, or "good stressors," work demands, increase learning enthusiasm, initiative, and energy in employees. Meanwhile, hindrance stressors, or "bad stressors," negative work demands, decrease vitality, commitment, and learning for employees. In other words, "bad stressors" decrease employees' thriving.

To date, studies focusing on the adaptation and psychometric validation of the CHS are relatively limited. Although adaptations of this measurement tool are available in other language contexts, such as Chinese (Tang et al., 2022; Yang & Li, 2021; Zhang et al., 2024), this scale requires further validation in different cultural contexts. This is crucial, considering that the CHS plays a role in response to stressors that can have not only negative but also potentially positive impacts on individuals. In Indonesia, studies have discussed the CHS phenomenon (Lina, 2024), but to date, no research has comprehensively adapted and validated the scale. Therefore, this article makes a significant contribution to filling the research gap regarding valid and reliable CHS instruments in the Indonesian context.

Adapting measurement instruments across languages and cultures presents its own challenges, particularly regarding the relevance of statements in different cultural contexts. Cultural incompatibility often requires researchers to modify or eliminate certain items to ensure respondents have an accurate understanding (Weeks et al., 2007). Beaton et al. (2000) explain that a careless translation process can result in an instrument that is not equivalent to the original version. Therefore, instruments validated in one country cannot be adopted directly without an adaptation process sensitive to the local context to avoid misinterpretation.

Based on this, this study aims to adapt and validate the challenge-hindrance stressors scale in the Indonesian version to obtain a contextually valid instrument. Specifically, this study aims to test the dimensional structure and construct validity using confirmatory factor analysis (CFA) ) (Schermelleh-engel et al., 2003) and reliability verified through Cronbach's alpha and Composite Reliability (CR) (Kaplan & Saccuzzo, 2017).

## RESEARCH METHODS

This research was conducted in several stages, following the guidelines of Beaton et al. (2000) for adapting the Challenge-Hindrance Stressors measurement tool (Cavanaugh et al., 2000). The first stage was translation, in which the researchers used two translators: a sworn translator and an expert in psychology and industry to translate the measurement tool from English into Indonesian. The second stage was synthesis, in which the researchers compared each translation, weighed them, and selected the best translation. The third stage was back translation, in which the researchers provided the synthesis they had created and had it retranslated by a sworn translator. The fourth stage was expert committee review, in which the researchers collected and reviewed all versions of the questionnaire along with written reports for expert judgment and their supervisors, and attempted to compile the measurement tool for distribution. In this study, the

expert committee was reviewed by two translators and two individuals with proficiency in psychology. In the fifth stage, the researchers distributed the measuring instruments to 36 subjects to test their readability.

**Participants**

This study is a quantitative cross-sectional study of active lecturers throughout Indonesia. The sampling technique used was convenience sampling, in which participants were selected based on their availability to participate in the study (Crano et al. 2024). The sample size was determined using established psychometric guidelines. A minimum sample size of 315 participants was required to perform confirmatory factor analysis (CFA) to avoid missing data and abnormal distribution (Muthén & Muthén, 2002).

During data collection, the author sent emails to lecturers across Indonesia and disseminated the survey via social media. Before filling out the scale, they were asked to read and sign a consent form indicating their willingness to complete it. Data collection lasted approximately 2 months, from January 1, 2026, to February 27, 2026. A total of 539 participants were successfully recruited for this study. However, after data cleaning for outliers and inconsistencies, the total number of respondents available was 487. Based on this explanation, the respondents in this study met the minimum participant requirement.

**Intruments**

Challenge-Hindrance Stressors (CHS) by Cavanaugh et al., (2000) was used to measure positive and negative levels of work stress. The CHS has 11 items, and for each item, respondents are asked to indicate their views by filling in one of five points on a Likert scale from 1 = Does not cause stress; 2 = Causes a little stress; 3 = Causes considerable stress; 4 = Causes a lot of stress; 5 = Causes extreme stress.

**Data Analysis**

The validity test used Confirmatory Factor Analysis (CFA) to compare single-factor, unidimensional, first-order, and second-order models to evaluate model fit and the relationships among indicators and variables (Id et al., 2021). The model fit indicators refer to the goodness-of-fit (GOF) criteria by looking at the fit indices, which include chi-square, p-value, df, Root Mean Square Error of Approximation (RMSEA), Goodness-of-fit-index (GFI), Adjusted Goodness-of-Fit-Index (AGFI), Normed Fit Index (NFI), Non-normed Fit Index (NNFI), Comparative Fit Index (CFI), and Standardized RMR (SRMR). However, the authors did not use GFI and AGFI values because they are sensitive to sample size, leading to inconsistent results. In addition, item fit analysis was conducted by testing estimation parameters, including factor loadings, standard errors, t-values/z-values, and p-values (Schermelleh-engel et al., 2003). Reliability testing was conducted to examine Cronbach's alpha, Composite Reliability (CR), and AVE (Kalkbrenner, 2024; Kaplan & Saccuzzo, 2017). The entire data analysis process was carried out in RStudio.

**Ethical Consideration**

This research was approved by the Ethics Committee of the Faculty of Psychology, University of Indonesia, with number 244/FPsi.KomiteEtik.PDP.04.00/2025, and approval was obtained to ensure that this research has met the rules and ethics of Psychology and is valid.

## RESEARCH RESULTS

**Demographic Data**

A total of 539 respondents completed the online questionnaire distributed via Survey Monkey. However, only 487 respondents were able to continue the data analysis process with consistent data. Demographic data were processed using IBM SPSS Statistics 27. Regarding gender, women accounted for 255 respondents (52.5%). Furthermore, most respondents were aged 31–35, accounting for 18.7%. In addition, many respondents held doctoral degrees (S3), totaling 244 respondents (50.2%). Respondents with 1–5 years of work experience totaled 142 respondents or 29.2%. Most respondents worked at state universities, both PTN-BH and PTN-BLU, totaling 348 respondents (71.6%). The respondents' academic positions were dominated by lecturers, with 185 respondents (38.1%). The complete demographic results are shown in table 1.

**Table 1. Respondent Demographic Data**

| Demographic Categories | | N | % |
|---|---|---|---|
| Gender | Male | 231 | 47.5 |
| | Female | 255 | 52.5 |
| Age | 25 – 30 years | 59 | 12.1 |
| | 31 – 35 years | 91 | 18.7 |
| | 36 – 40 years | 82 | 16.9 |
| | 41 – 45 years | 73 | 15 |
| | 46 – 50 years | 73 | 15 |
| | 51 – 55 years | 60 | 12.3 |
| | 56 – 60 years | 31 | 6.4 |
| | 61 – 65 years | 12 | 2.5 |
| | 66 – 70 years | 5 | 1 |
| Education | S2 | 242 | 49.8 |
| | S3 | 244 | 50.2 |
| Length of employment | 1 – 5 years | 142 | 29.2 |
| | 6 – 10 years | 105 | 21.6 |

| Demographic Categories | | N | % |
|---|---|---|---|
| | 11 – 15 years | 73 | 15 |
| | 16 – 20 years | 69 | 14.2 |
| | 21 – 25 years | 45 | 9.3 |
| | 26 – 30 years | 33 | 6.8 |
| | 31 – 35 years | 10 | 2.1 |
| | 36 – 40 years | 5 | 1 |
| | 41 – 45 years | 4 | 0.8 |
| Type of Higher Education Institution | PTN (PTN-BH/PTN-BLU) | 348 | 71.6 |
| | PTN-Satker | 10 | 2.1 |
| | PTS | 128 | 26.3 |
| Academic position | Asisten Ahli | 178 | 36.6 |
| | Lektor | 185 | 38.1 |
| | Lektor Kepala | 94 | 19.3 |
| | Guru Besar | 29 | 6 |

**Construct Validity**

The construct validity analysis used CFA, following the criteria described in Table 2.

**Table 2. Model Fit Criteria**

| Chi-square (p-value) | df | RMSEA | SRMR | CFI & NNFI (TLI) | NFI |
|---|---|---|---|---|---|
| p-value > 0.05 | >1 | <0.08 | <0.10 | >0.95 | >0.90 |

**Sources:** Schermelleh-engel et al., (2003)

Furthermore, the author analyzed the Confirmatory Factor Analysis factors using a single-factor model, a unidimensional model, a first-order model, and a second-order model, as listed in Tables 3–8.

**Table 3. Results of Confirmatory Factor Analysis Single-Factor Model (Challenge and Hindrance Stressors)**

| Dimension | Chi-square (p-value) | df | RMSEA | SRMR | CFI | NNFI (TLI) | NFI |
|---|---|---|---|---|---|---|---|
| Challenge | 150.794 (.000) | 9 | .180 | .034 | .942 | .904 | .904 |
| Hindrance | 6.703 (.244) | 5 | .026 | .016 | .998 | .995 | .995 |

Sources: Personal Data (2026)

Based on the results of the CFA single-factor model in Table 3, the hindrance stressor scale shows a model fit level with a p-value = 0.244 > 0.05, df = 5 > 1, RMSEA = 0.026 < 0.08, SRMR = 0.016 < 0.10, TLI = 0.998 > 0.90, and NFI = 0.995 > 0.90. This means that the items in the hindrance stressor dimension are homogeneous, measuring the same variable. The challenge stressor scale meets 4 of 7 threshold criteria, with df = 9 > 1, SRMR = 0.034 < 0.10, TLI = 0.904 > 0.90, and NFI = 0.904 > 0.90. Although the RMSEA value of 0.180 > 0.08 exceeds the specified minimum limit, the CFI value of 0.942 < 0.95 is still acceptable because it is above 0.90 and close to 0.95 (Hu et al., 1999; Rahlin et al., 2019). In addition, the p-value is significant at .000 (p ≥ .01). This can be understood as the chi-square test being sensitive to large sample sizes, which leads it to reject models with large samples almost always. The criterion for a large sample is a sample size of more than 200 respondents (Gagne et al., 2006). This study had 487 respondents, making it a large sample for testing. Therefore, only the RMSEA value exceeded the specified minimum limit. This means the model remains acceptable, with values that adequately represent the data. This means that the items in the challenge stressor dimension measure the same variable. Then, the author conducted a CFA with a unidimensional form to assess whether the CHS model measures a single variable.

**Table 4. Results of Unidimensional Confirmatory Factor Analysis**

| Chi-square (p-value) | df | RMSEA | SRMR | CFI | NNFI (TLI) | NFI |
|---|---|---|---|---|---|---|
| 527.927 (.000) | 44 | .150 | .090 | .859 | .824 | .849 |

Sources: Personal Data (2026)

Based on the results of the unidimensional CFA analysis in Table 4, the CHS scale shows inadequate model fit, meeting only 2 of the 7 required fit criteria. Although the SRMR value of 0.090 meets the acceptable fit threshold (≤ .10) and the df value is above 1 at 44, other indices, such as p-value = 0.000 < 0.05, RMSEA = 0.150 < 0.08, CFI = 0.859 > 0.95, TLI = 0.824 > 0.90, and NFI = 0.849 > 0.90, are all below the minimum acceptance standard. Thus, the unidimensional model fails to represent the empirical data structure well, and therefore, the model is rejected. Next, the author conducted a CFA to assess the fit of the first- and second-order models.

**Table 5. Results of Confirmatory Factor Analysis: first and second order models**

| Model Form | Chi-square (p-value) | df | RMSEA | SRMR | CFI | NNFI (TLI) | NFI |
|---|---|---|---|---|---|---|---|
| First Order | 218.410 (.000) | 43 | .092 | .040 | .949 | .935 | .937 |
| Second Order | 218.410 (.000) | 42 | .093 | .040 | .949 | .933 | .937 |

Sources: Personal Data (2026)

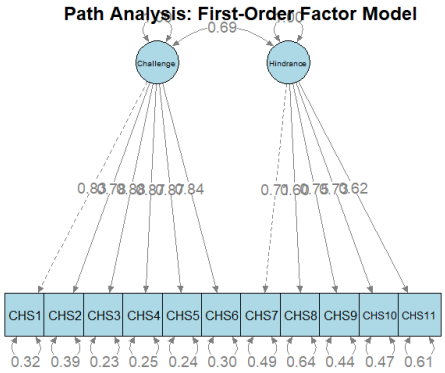


**Figure 1. Path Analysis First-Order Model (Challenge and Hindrance Stressors)**

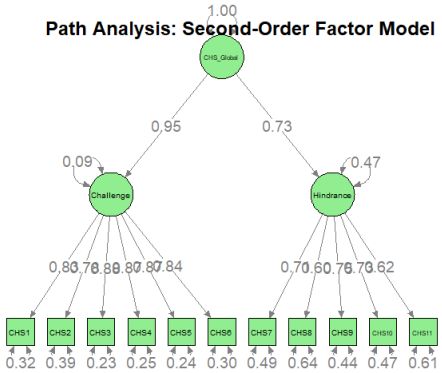


**Figure 2. Path Analysis Second-Order Model (Challenge and Hindrance Stressors)**

Sources: Personal Data (2026)

Based on the results of the first- and second-order CFA analyses in Table 5, the CHS scale shows significant model fit in both models. The results are not much different: df > 1, SRMR = 0.040 < 0.10, CFI = 0.937 > 0.90, TLI (First Order) = 0.935 > 0.90, and TLI (Second Order) = 0.933 > 0.90. Although the CFI value of 0.949 > 0.95 is still acceptable because it is above 0.90 and close to 0.95 (Hu et al., 1999; Rahlin et al., 2019). The p-value shows significance of 0.000 (p ≥ .01) for both the first order and second-order models. This is because the chi-square test is sensitive to large sample sizes, leading to chi-square values that almost always reject the null hypothesis. The criterion for a large sample is a sample size of more than 200 respondents (Gagne et al., 2006). This study had 487 respondents, making it a large sample for testing. In addition, the RMSEA (First Order) = 0.092 < 0.08 and RMSEA (Second Order) = 0.093 < 0.08 values indicate a mediocre fit. However, model fit evaluation should also consider other indices, such as SRMR and CFI, which have high values (Maccallum et al., 1996). It can be concluded that the model represents the field data, so it can be said to be a good fit.

Furthermore, the author tested the validity of the items in the model that best represented the CHS field data. However, the first-order and second-order models had values that differed only slightly. Vrieze, (2012) explains that, in psychological research, when there are two models, the method of model selection requires examining the lowest Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) values. The AIC and BIC values for the first-order model are 12283.412 and 12379.695, respectively. The AIC and BIC values for the second-order model are 12285.412 and 12385.881. The smallest AIC and BIC values are in the first-order model, namely 12283.412 > 12285.412 and 12379.695 > 12385.881. Therefore, it can be concluded that the first-order model best represents CHS, and its item validity is assessed using CFA, in accordance with the criteria described in Table 6.

**Table 6. Item Fit Criteria**

| Factor Loading | Standard Error | t-value | p-value |
|---|---|---|---|
| >0.50 | <0.10 | >1.96 | <0.05 |

Sources: Schermelleh-engel et al., (2003)

The results of the item validity test on the first-order model are listed in Table 7.

**Table 7. First-Order Item Validity**

| Dimension | Item | Pernyataan | Factor Loading | SE | z-value/t-value | p-value |
|---|---|---|---|---|---|---|
| Challenge | CHS1 | Jumlah proyek dan/atau tugas yang saya miliki | 0.826 | 0.02 | 13.493 | .000 |
| | CHS2 | Jumlah waktu yang saya habiskan di tempat kerja | 0.784 | 0.049 | 20.29 | .000 |
| | CHS3 | Besarnya beban kerja yang harus diselesaikan dalam waktu yang ditentukan | 0.875 | 0.045 | 24.032 | .000 |
| | CHS4 | Tuntutan waktu yang saya alami | 0.867 | 0.047 | 23.667 | .000 |
| | CHS5 | Besarnya tanggung jawab yang saya miliki | 0.873 | 0.048 | 23.932 | .000 |
| | CHS6 | Lingkup tanggung jawab yang melekat pada posisi saya | 0.837 | 0.051 | 22.419 | .000 |
| Hindrance | CHS7 | Sejauhmana politik, bukan kinerja, mempengaruhi keputusan organisasi | 0.712 | 0.06 | 12.597 | .000 |
| | CHS8 | Ketidakmampuan untuk memahami secara jelas apa yang diharapkan dari saya dalam pekerjaan | 0.597 | 0.056 | 11.827 | .000 |
| | CHS9 | Banyaknya prosedur birokrasi yang harus saya lalui untuk menyelesaikan pekerjaan saya | 0.751 | 0.065 | 14.54 | .000 |
| | CHS10 | Kurangnya keamanan kerja yang saya miliki | 0.731 | 0.062 | 14.214 | .000 |
| | CHS11 | Sejauh mana karir saya tampak "terhenti" | 0.621 | 0.063 | 12.273 | .000 |

Sources: Personal Data (2026)

Based on the results of the first-order model item validity analysis, the factor loadings range from 0.597 to 0.873 (> 0.50), the standard errors range from 0.02 to 0.063, the t-values range from 12.273 to 24.032 (> 1.96), and the overall p-value is 0.000 (< 0.05). Therefore, it can be concluded that the item validity in the first-order model is very well established, and each item significantly contributes to its respective latent construct.

**Realibility**

Construct reliability analysis refers to the Cronbach alpha value and Composite Reliability (CR) with a threshold value of > 0.70 (Kaplan & Saccuzzo, 2017). In addition, convergent validity is assessed through Average Variance Extracted (AVE) > 0.50, and discriminant validity is tested using the Heterotrait-Monotrait ratio (HTMT) with a value below 0.90 (Henseler et al., 2015). The results of the construct reliability test carried out on each dimension, namely challenge and hindrance, are listed in Table 8.

**Table 8. Reliability Values**

| Dimension | Cronbach's Alpha | Composite Realibilty (CR) | AVE | HTMT |
|---|---|---|---|---|
| Challenge | 0.93637 | 0.9370 | 0.713 | 0.676 |
| Hindrance | 0.8133187 | 0.8165 | 0.476 | |

Sources: Personal Data (2026)

Based on the reliability test, each CHS dimension has a Cronbach's alpha value of 0.93 for the challenge dimension and 0.81 for the hindrance dimension. The CR value is 0.93 for the challenge dimension and 0.81 for the hindrance dimension. The reliability value is above 0.70, which suggests that this research instrument has excellent internal consistency in measuring the challenge-hindrance stressor variable in research subjects (Kaplan & Saccuzzo, 2017) . The AVE value for the challenge dimension shows excellent results (0.713 > 0.50). Conversely, the AVE value for the hindrance dimension is below the minimum standard (0.476 < 0.50). However, according to Fornell & Larcker, (1981), if the AVE value is below 0.50 but the CR value has exceeded 0.6, then the construct's convergent validity can be declared valid. Considering that the CR value for the hindrance dimension is 0.81, the construct validity is still acceptable. Furthermore, the discriminant validity results had an HTMT value of 0.676 (<0.90). This means that respondents could clearly distinguish between challenging and inhibiting stressors.

## DISCUSSION

This study aims to develop a challenge-hindrance measurement tool among active Indonesian lecturers. The results show that the HCS scale demonstrates good model, item, and reliability, making it suitable for studies examining challenge-hindrance stressors. The main finding of this study is that the model representing the challenge-hindrance stressor scale is first order. This supports the research by Cavanaugh et al. (2000), which found that work stress cannot be a homogeneous concept but comprises two distinct types: work demands that can develop performance potential (challenge) and those that can hinder performance

(hindrance). Cavanaugh et al. (2000) compared the one-factor and two-factor models; the two-factor model had a CFI of 0.90, while the one-factor model had a CFI of 0.81. This study found that the unidimensional model had a CFI of 0.85, while the first-order model had a CFI of 0.94. This study also tested first-order and second-order models, which showed similar levels of fit. However, the HCS model is best represented by the first-order model.

This study also tested the single-factor model for each dimension, and the challenge stressor dimension did not meet the criteria for p-values and RMSEA. However, Gagne et al., (2006) noted that the p-value is sensitive to large samples, namely those above 200, leading to significant results in this study, which had 487 samples. Therefore, model evaluation was evident in other indicators, including SRMR and TLI, which met the criteria. In addition, the item validity results for the factor loadings ranged from 0.567 to 0.875, indicating that each item contributed strongly to its respective latent construct.

The reliability test showed results above the predetermined minimum, as indicated by Cronbach's alpha and composite reliability (CR), both of which exceeded 0.70. This high reliability indicates that the items in the CHS scale exhibit excellent stability when applied to educators in Indonesia, thereby providing accurate data to map productive and destructive workloads for lecturers.

Overall, this study contributes to the development of a challenge-hindrance stressor measurement tool developed by Cavanaugh et al., (2000) In English, which may introduce cultural bias when administered to lecturers in Indonesia (Scholaske et al., 2023). With accurate validity and reliability results, the stress construct developed using English has an equivalent meaning when translated into Indonesian. Therefore, this scale can be used to map work stress in both positive and negative forms.

This study is not without limitations. First, the participants in this study were limited to active lecturers in Indonesia, so the findings regarding the factor structure and reliability of the CHS scale may not generalize directly to other employment sectors or industries, given differences in work demands. To ensure broader application, further research is needed to confirm further validation (Thanh et al., 2024). Second, the construct validity testing in this study focused on internal structure analysis using CFA to assess model fit and item quality. However, this study did not conduct external validity or criterion validity testing, such as concurrent validity, by linking the CHS scale results to other work stress instruments or other outcome variables to strengthen the evidence of validity holistically. For future research, it may be worthwhile to assess external validity by examining whether the CHS measurement tool is related to other measurement tools.

This study aimed to adapt and validate the challenge-hindrance stressor (CHS) measurement tool among active Indonesian lecturers. The results indicate that the CHS scale exhibits good model validity, item reliability, and internal consistency, making it suitable for use in further research. The main findings of this study confirm that the first-order model is the best representation for the CHS scale, supporting research by Cavanaugh et al., (2000) . Therefore, this model indicates that lecturers do not perceive work stress as a single, homogeneous burden. Instead, lecturers consciously distinguish between demands that stimulate self-development and demands that hinder work effectiveness. Practically, university management cannot simply "reduce workloads" to reduce stress levels. Instead, they must be able to identify which challenges (such as publication targets or collaborative research) should be supported, and which hindrances (such as cumbersome administrative bureaucracy) should be trimmed.
These findings align with studies in other Asian countries, such as China Chinese (Tang et al., 2022; Yang & Li, 2021; Zhang et al., 2024), where the single-factor model is highly relevant to the CHS model. This confirms that job demands, differentiated into challenge and hindrance categories, are consistent across cultures. The model has proven effective in mapping how work stressors influence various psychological outcomes, such as thriving at work, job crafting, and psychological empowerment. This confirms that cognitive decoupling from stressors is not simply a Western construct, but rather a universally applicable phenomenon in organizational contexts.

The high reliability test results (>0.70) and solid factor loadings (0.567–0.875) ensure the stability of this measurement tool. This means that the items in the Indonesian version of the CHS scale have excellent stability when applied to educational personnel in Indonesia, providing accurate data for mapping workloads, both productive and destructive to lecturer productivity. This research contributes to the development of the challenge-hindrance stressor measurement tool developed by Cavanaugh et al., (2000) in English. This risk poses potential cultural bias if administered to lecturers in Indonesia (Scholaske et al., 2023). With accurate validity and reliability results, the stress construct developed in English has an equivalent meaning when translated into Indonesian. Therefore, this scale can be used to map both positive and negative work stress.

This study is not without limitations. First, participants were limited to active lecturers in Indonesia, so the findings regarding the factor structure and reliability of the CHS scale may not be directly generalizable to other job sectors or industries, considering work demands in other sectors. To ensure broader applicability, further research is recommended to ensure further validation (Thanh et al., 2024). Second, construct validity testing in this study focused on internal structure analysis using the CFA method to assess model fit and item quality. However, this study has not tested external validity or criterion validity, such as concurrent validity, by linking the CHS scale results to other work stress instruments or other variables to strengthen the evidence of holistic validity. Future research could consider using external validity measures such as work stress, burnout, employee performance, psychological well-being, productivity, and

other variables to determine whether the CHS measurement tool is related to other measurement tools. Third, the content validation process only involved two experts (expert judgment), making it impossible to conduct quantitative analyses such as Aiken's V or the Content Validity Index (I-CVI), which require more than two experts (Roebianto et al., 2023). Fourth, this adaptation study is still limited to a comparison of literature in English and Mandarin (China), so there is still a lack of references regarding how the CHS measurement tool behaves in other languages or cultural contexts. Therefore, future research is expected to adapt the CHS scale into other languages to expand the adaptation of the CHS measurement tool and determine whether the CHS's internal structure remains consistent when faced with different languages, while also enriching the global psychometric literature on work stress in various countries.

## CONCLUSION

The CHS (Challenge-Hindrance Stressor) scale has been validated as a reliable measure of work demands that can enhance potential and hinder performance, as a first-order model. This means that this scale distinguishes the forms of work stress. These findings reinforce the initial theory of this study, that the challenge-hindrance stressor scale is a multidimensional construct. With strong validity and reliability, the HCS measurement tool can provide organizations with data on two types of work stress.

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