

Adaptation and Psychometric Evaluation of the Feedback Orientation Scale Among Indonesian Employees

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Abstract: The growing use of performance feedback systems in Indonesian organizations has increased the need for valid instruments that can assess how employees respond to feedback. However, validated Indonesian-language measures of employees' receptivity to feedback remain limited. This study aimed to adapt and validate the Feedback Orientation Scale (FOS) for use in the Indonesian employee context. The FOS assesses an individual's general tendency to receive, value, use, and feel accountable for feedback through four dimensions: Utility, Accountability, Social Awareness, and Feedback Self-Efficacy. The adaptation process followed the International Test Commission Guidelines for Translating and Adapting Tests and included translation, expert review, readability testing, item analysis, reliability testing, exploratory factor analysis, and confirmatory factor analysis. A total of 326 employees from various organizations in Indonesia participated in the study. Item analysis showed that one negatively worded item in the Accountability dimension had a low item-rest correlation and was therefore removed. The final Indonesian version consisted of 19 items. The psychometric findings indicated that all retained items demonstrated adequate item discrimination and that the four dimensions showed satisfactory internal consistency. Confirmatory factor analysis further indicated that the original four-factor structure provided a better fit than the alternative two-factor model identified through exploratory analysis. Overall, the adapted Indonesian FOS demonstrated acceptable validity and reliability for assessing feedback orientation among employees. The findings support the use of the 19-item Indonesian FOS in research and organizational practice, particularly in studies and interventions related to performance management, coaching, employee development, and feedback-based learning in diverse Indonesian workplaces.

Keywords: Confirmatory Factor Analysis, Feedback Orientation Scale, Indonesian Employees, Psychometrics Evaluation, Scale Adaptation

A. Introduction

In recent years, performance feedback practices have become an integral part of human resource management systems in Indonesian organizations. Companies ranging from multinational corporations to local enterprises have invested substantial resources in building a continuous feedback culture through periodic performance evaluations, coaching sessions, and digital feedback platforms. Nevertheless, studies indicate that the effectiveness of feedback does not depend solely on its quality or frequency. An equally critical factor is whether employees possess a positive disposition toward feedback, including their willingness to receive, value, and act upon it (Linderbaum, Beth A.; Levy, 2010). The construct that describes this individual disposition is known as feedback orientation. Feedback orientation refers to an individual's overall tendency toward feedback, including the extent to which a person actively seeks, receives, processes, and uses feedback to improve performance (Xu, 2021). Employees with high feedback orientation tend to be more proactive in seeking feedback, develop professionally more rapidly, and demonstrate better performance. In contrast, employees with low feedback orientation tend to respond defensively, resist criticism, and miss valuable opportunities for self-development.

The Feedback Orientation Scale (FOS) was developed to measure feedback orientation comprehensively (Linderbaum, Beth A.; Levy, 2010). The FOS consists of 20 items measuring four dimensions: (1) Utility, the belief that feedback is useful and instrumental in achieving performance goals; (2) Accountability, an individual's sense of responsibility to actively follow up on received feedback; (3) Social Awareness, an individual's sensitivity to how others, particularly supervisors and coworkers, perceive their performance; and (4) Feedback Self-Efficacy, confidence in one's ability to receive and respond to feedback constructively. The instrument has been validated in Italy and Chile and has demonstrated adequate psychometric properties across cultures. The feedback orientation scale was originally developed for Western work environments, in which work practices, organizational culture, and feedback patterns may differ from those prevailing in Indonesia. Without an appropriate adaptation process, the instrument may no longer represent feedback orientation as intended in the original construct; instead, it may capture other attributes or produce biased scores because Indonesian employees understand and respond to feedback differently. To date, the FOS has not been formally adapted into Indonesian. The absence of an Indonesian-language version represents a significant barrier to the development of feedback orientation research in Indonesia. Without adaptation procedures that follow international standards, researchers risk using measures that are not conceptually equivalent to the original construct or relying on unvalidated ad hoc translations (Commission, 2017). Moreover, Indonesian workplace culture is characterized by distinctive features, particularly strong hierarchy and high power distance, which may influence how employees respond to feedback from supervisors and may affect the FOS dimensions differently (Kitt & Sanders, 2024).

This study addresses this gap by: (1) adapting the FOS into Indonesian through forward-backward translation and expert review; (2) conducting item analysis using item-rest correlations; (3) examining construct validity through confirmatory factor analysis (CFA) of a four-factor model; and (4) evaluating reliability using Cronbach's alpha (α) and McDonald's omega (ω). The adaptation procedure followed international test-adaptation guidance. The availability of a validated Indonesian-language FOS is expected to support the quality and quantity of research and practice in Industrial and Organizational Psychology in Indonesia, particularly in employee development and feedback-based performance management.

B. Methods

This study involved 326 active employees aged 18 to 55 years ($M = 35.31$; $SD = 8.49$) from various types of organizations in Indonesia. Purposive sampling was employed using the following inclusion criteria: (1) active employment under permanent, contract, freelance, or internship arrangements; (2) at least one month of work experience, ensuring actual experience of receiving workplace feedback; and (3) voluntary consent to participate. The questionnaire was distributed online through Google Forms. Of the 326 participants, 170 (52.1%) were women and 156 (47.9%) were men. Mean job tenure was 8.84 years ($SD = 7.05$; range = 0-35 years). Complete demographic characteristics are presented in Table 1.

Table 1. Demographic Characteristics of Participants (N = 326)

Variable	Category	n	%
Gender	Male	156	47.9
	Female	170	52.1
Age	18-25 years	52	16.0
	26-35 years	103	31.6
	36-45 years	127	39.0
	46-55 years	44	13.5
Highest Education	Senior High School/Equivalent	85	26.1
	D1	8	2.5
	D3	41	12.6
	D4	4	1.2
	S1	162	49.7
	S2	25	7.7
	S3	1	0.3
Position/Job Level	Staff	145	44.5
	Non-Staff	70	21.5
	Manager	30	9.2

Variable	Category	n	%
Employment Status	Senior Staff	29	8.9
	Supervisor	28	8.6
	Assistant Manager	14	4.3
	Director/Deputy Director	8	2.4
	General Manager	2	0.6
	Permanent	205	62.9
	Contract	90	27.6
	Freelance	24	7.4
	Internship	7	2.1

The instrument-adaptation study employed a psychometric, cross-sectional design. Data were collected online during a single period and were subsequently analyzed statistically to evaluate the validity and reliability of the adapted instrument (Arifin et al., 2022). The instrument used was the Indonesian-language adaptation of the Feedback Orientation Scale (FOS) (Linderbaum, Beth A.; Levy, 2010). The original FOS consists of 20 items across four dimensions: Utility (5 items), Accountability (5 items), Social Awareness (5 items), and Feedback Self-Efficacy (5 items). Responses were recorded on a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Agree, 4 = Agree, and 5 = Strongly Agree).

The adaptation procedure comprised five systematic stages and followed the ITC guidelines. First, during forward translation, two bilingual translators with backgrounds in Industrial and Organizational Psychology independently translated all items from English into Indonesian. Second, during reconciliation, the research team discussed both translations and produced a single consensus version (Cruchinho et al., 2024; Teig et al., 2023). Third, during backward translation, two independent translators translated the consensus version back into English without consulting the original version. Fourth, a panel of Industrial and Organizational Psychology and language experts reviewed the semantic and conceptual equivalence of the items. Fifth, a readability test was conducted with a small sample ($n = 20$) to ensure that all items were understood as intended.

The statistical analysis consisted of several stages. First, item analysis was conducted using item-rest correlations, with $r > .40$ used as the criterion for a well-performing item (Qian et al., 2025). Second, reliability was evaluated using Cronbach's alpha (α) for each dimension and McDonald's omega (ω) for the total scale, accompanied by the Standard Error of Measurement ($SEM = SD \times \sqrt{1-\alpha}$). Third, the unidimensionality of each domain was examined using a one-factor CFA model. Fourth, the overall construct validity was evaluated using first-order and second-order four-factor CFA models. Model-fit criteria were $\chi^2/df < 3.0$, $GFI \geq .90$, $CFI \geq .90$, $RMSEA < .08$, and $SRMR < .08$. The Akaike Information Criterion (AIC) was used to compare models,

with lower values indicating better relative fit (Kubara & Kopczewska, 2024). All analyses were conducted using JASP.

C. Results and Discussion

This section presents the psychometric evaluation of the Indonesian-language Feedback Orientation Scale (FOS), including item analysis, dimensionality assessment through exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and reliability testing. The original FOS consists of 20 items across four dimensions: Utility (5 items), Accountability (5 items), Social Awareness (5 items), and Feedback Self-Efficacy (5 items) (Linderbaum, Beth A.; Levy, 2010). Item-rest correlation analysis identified one negatively worded item in the Accountability dimension – "I feel that using the feedback I receive is my responsibility" – with a correlation below the minimum criterion ($r = -.289$; criterion $r > .40$). The item was therefore removed. The final Indonesian-language FOS used in all subsequent analyses comprised 19 items: Utility (UT001-UT005; 5 items), Accountability (AC001-AC004; 4 items), Social Awareness (SA001-SA005; 5 items), and Feedback Self-Efficacy (FS001-FS005; 5 items).

The low item-rest correlation was likely related to the item's negatively worded or reverse-worded format within the cross-cultural adaptation process (García-Batista et al., 2021). Negatively worded items in self-report instruments often show poorer psychometric performance than positively worded items because respondents may experience greater cognitive difficulty processing negation consistently, particularly when an instrument is translated across languages and cultures (Commission, 2017). In the Indonesian context, this difficulty may have been amplified by differences between English and Indonesian sentence structures in expressing negated responsibility. Consequently, the item may have been interpreted ambiguously or even in the same direction, rather than the opposite direction, as the positively worded Accountability items. Removing the item is consistent with the ITC guidelines, which emphasize evaluating the linguistic, conceptual, and psychometric equivalence of adapted items and revising or excluding items when empirical evidence indicates inadequate functioning in the target population (Commission, 2017). Thus, the deletion should be viewed not as a weakness of the adaptation, but as part of the effort to obtain an instrument that better fits the characteristics of Indonesian respondents (Fuady et al., 2023; Muliadi et al., 2025). The psychometric evaluation of the Indonesian-language FOS began with item analysis using item-rest correlations. This analysis assessed the quality of each item by correlating the item score with the total score calculated without that item (Ahorsu et al., 2022). Table 2 summarizes the results and shows that all 19 retained items met the psychometric criterion of $r > .40$.

Table 2. Item-Rest Correlations of the FOS (19 Items)

Dimension	Item	Statement	Item-Rest Correlation
<i>Utility</i>	UT001	I find feedback essential for achieving my goals.	.745
	UT002	I ask for feedback about my performance.	.791
	UT003	Feedback is a useful tool for improving my performance.	.769
	UT004	Feedback helps me correct mistakes before they become more serious.	.739
	UT005	I use feedback to improve my performance at work.	.799
<i>Accountability</i>	AC001	I feel obligated to follow up on the feedback I receive.	.741
	AC002	I hold myself responsible for responding appropriately to feedback.	.794
	AC003	I take responsibility for following up on feedback seriously.	.781
	AC004	I make sure to follow up on every piece of feedback given to me.	.835
<i>Social Awareness</i>	SA001	I pay attention to how other people evaluate my performance.	.647
	SA002	I care about how other people perceive me at work.	.587
	SA003	I use feedback to understand how other people perceive me.	.771
	SA004	It is important for me to know what other people think about my performance.	.661
	SA005	I am aware of how my supervisor perceives my performance.	.761
<i>Feedback Self-Efficacy</i>	FS001	I am confident in my ability to use feedback effectively.	.828
	FS002	I know how to translate feedback into performance improvement.	.820
	FS003	I am able to act on feedback in ways that improve my performance.	.833
	FS004	I am confident in receiving and managing feedback from my supervisor.	.819
	FS005	I am confident that I can respond to negative feedback constructively.	.780

Note. All 19 items met the item-rest correlation criterion of $r > .40$. Item A5 (negatively worded; $r = -.289$ in the original 20-item version) was removed before this analysis.

As shown in Table 2, all 19 items of the Indonesian-language FOS had adequate item-rest correlations, ranging from .587 to .835. The lowest coefficient was found for SA002 ($r = .587$), whereas the highest was found for AC004 ($r = .835$). Overall, Feedback Self-Efficacy and Accountability items showed higher item-rest correlations ($> .70$) than Social Awareness items. This pattern may reflect the more perceptual and socially context-dependent nature of Social Awareness. No additional items were removed because all 19 items exceeded the minimum criterion of $r > .40$.

Exploratory factor analysis (EFA) was then conducted to examine the dimensionality of the adapted FOS and evaluate the psychometric performance of individual items (Rand et al., 2024). The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were first examined to determine sampling adequacy and whether the inter-item correlations were suitable for factor analysis (D. F. Teshome et al., 2021; F. Teshome et al., 2022). The KMO coefficient was .960, indicating excellent sampling adequacy. Bartlett's test was also statistically significant, $\chi^2 = 6146$, $p < .001$, confirming that the correlation matrix was appropriate for factor analysis. The number of factors in the EFA was determined primarily from eigenvalues and factor loadings. Initial extraction using the eigenvalue-greater-than-one criterion produced a two-factor solution (Jaspal et al., 2022). All retained items met the specified factor-loading threshold. The first factor comprised 13 items (UT001, UT002, UT003, UT004, UT005, AC001, AC002, AC003, AC004, FS001, FS002, FS003, and FS005) and explained 43.2% of the total variance. The second factor comprised six items (FS004, SA001, SA002, SA003, SA004, and SA005) and explained 25.5% of the total variance.

Table 3. Exploratory Factor Analysis Results

	Factor 1	Factor 2
UT003	0.945	
UT001	0.925	
UT002	0.922	
UT005	0.898	
UT004	0.891	
AC002	0.868	
AC001	0.772	
AC003	0.683	
AC004	0.660	0.247
FS003	0.514	0.404
FS002	0.471	0.434
FS001	0.459	0.455
FS005	0.445	0.413
FS004	0.438	0.469
SA002	-0.322	1.035
SA003	0.259	0.599
SA001		0.859
SA004		0.831
SA005		0.671

The composition of the two-factor solution provides insight into how feedback orientation was represented in this sample of Indonesian employees (Koncar et al.,

2022; Yan et al., 2025). The first factor included all Utility and Accountability items and four of the five Feedback Self-Efficacy items (FS001, FS002, FS003, and FS005). It was labeled Feedback Utilization Orientation because the items collectively reflected an instrumental disposition toward feedback: believing that feedback is useful, being willing to act upon it, and feeling capable of converting it into performance improvement. The second factor included all Social Awareness items and one Feedback Self-Efficacy item (FS004: "I am confident in receiving and managing feedback from my supervisor"). It was labeled Social-Relational Feedback Sensitivity because the items concerned the relational and hierarchical aspects of receiving feedback, particularly from supervisors and coworkers (Hillman et al., 2023). Table 4 summarizes the interpretation and labels of these emergent dimensions.

**Table 4. Interpretation and Labels of the EFA-Derived Dimensions
(Two-Factor Model)**

New Factor	Constituent Items	Original Dimension	Interpretation
Factor 1 Feedback Utilization Orientation	UT001-UT005, AC001- AC004, FS001, FS002, FS003, FS005 (13 items)	<i>Utility, Accountability, and part of Feedback Self-Efficacy</i>	An instrumental disposition toward feedback: believing in its usefulness, being willing to act upon it, and feeling confident in converting it into performance improvement.
Factor 2 Social-Relational Feedback Sensitivity	SA001-SA005, FS004 (6 items)	<i>Social Awareness and part of Feedback Self- Efficacy</i>	Sensitivity to social evaluation and confidence in receiving feedback within hierarchical relationships with supervisors and coworkers.

Note. The researchers conceptually assigned the factor labels and interpretations based on similarities in the psychological themes represented by the items within each EFA-derived factor.

This clustering pattern may be understood in relation to Indonesian workplace culture, which tends to be collectivistic and characterized by relatively high power distance (Wang et al., 2022). In strongly hierarchical cultures, beliefs about the usefulness of feedback (Utility), responsibility for acting upon it (Accountability), and confidence in processing it (Feedback Self-Efficacy) may be perceived as a unified expression of professionalism or compliance with workplace norms rather than as distinct self-regulatory processes, as conceptualized in the individualistic Western context in which the instrument was developed. By contrast, Social Awareness items emphasizing sensitivity to supervisors' and coworkers' perceptions formed a separate factor because they carried stronger emotional and relational content linked to hierarchical workplace norms (Mostafa et al., 2025). The loading of FS004 on this factor

is also conceptually plausible because the item explicitly identifies the supervisor as the feedback source, making it psychologically closer to relational-hierarchical concerns than the more general Feedback Self-Efficacy items. The remaining Feedback Self-Efficacy items (FS001, FS002, FS003, and FS005) also showed cross-loadings, with similar loadings on both factors in the .40 range. This pattern suggests that, among Indonesian employees, confidence in managing feedback may lie empirically at the intersection of instrumental and social-relational processes. Because the EFA produced a two-factor solution, CFA was conducted for this empirically derived model. A four-factor CFA corresponding to the original theoretical model was also examined (Linderbaum, Beth A.; Levy, 2010). The two models were then compared using the AIC to identify the relatively better-fitting model. Table 5 presents the complete CFA results.

Table 5. Confirmatory Factor Analysis Results for the FOS (19 Items)

Model	χ^2/df	GFI	CFI	RMSEA	SRMR	AIC	Reliability Coefficient
Unidimensionality Test - Utility (1-5)	12.256	0.926	0.962	0.186	0.031	2536	0.940
Unidimensionality Test - Accountability (6-9)	0.382	0.999	1.000	0.000	0.004	2066	0.930
Unidimensionality Test - Social Awareness (10-14)	4.825	0.974	0.980	0.108	0.024	3361	0.898
Unidimensionality Test - Feedback Self-Efficacy (15-19)	2.758	0.983	0.994	0.073	0.014	2495	0.939
<i>First-Order CFA (4 Factors, 19 Items)</i>	3.410	0.863	0.943	0.086	0.054	9510	0.977
<i>Second-Order CFA</i>	3.618	0.849	0.937	0.090	0.061	9543	0.916
Unidimensionality Test - Factor 1 (13 Items)	11.027	0.683	0.849	0.175	0.059	6546	0.964
Unidimensionality Test - Factor 2 (6 Items)	11.566	0.914	0.923	0.180	0.044	3936	0.908
<i>First-Order CFA (2 Factors, 19 Items)</i>	7.882	0.666	0.831	0.145	0.076	10190	0.979
Expected Value	< 3.0	≥ .90	≥ .90	< .08	< .08	Lower	≥ .70

Note. χ^2/df = chi-square divided by degrees of freedom; GFI = Goodness of Fit Index; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; AIC = Akaike Information Criterion. Expected values were based on established recommendations.

CFA was used to examine two alternative models: the two-factor model derived from the EFA and the four-factor model based on the original instrument (Linderbaum, Beth A.; Levy, 2010). The models were compared using the AIC. Overall, the four-factor model demonstrated superior fit. The domain-level unidimensionality tests were also generally satisfactory. Accountability, consisting of four items, showed nearly perfect fit (χ^2/df = 0.382; GFI = .999; CFI = 1.000; RMSEA = .000), indicating that the removal of item A5 strengthened the unidimensionality of this dimension.

Feedback Self-Efficacy also showed good fit ($\chi^2/\text{df} = 2.758$; GFI = .983; CFI = .994; RMSEA = .073; SRMR = .014).

Although the GFI for the first-order four-factor model did not reach .90 and the RMSEA (.086) slightly exceeded the strict .08 criterion, the CFI and SRMR met commonly used fit criteria and the model remained aligned with the theoretical structure. Less-than-ideal values for some indices can occur in models with numerous estimated parameters. Similar patterns have been reported in FOS validations in Italy and Chile (Lo Piccolo et al., 2025). The relative model comparison provided clearer evidence: the four-factor model had a lower AIC than the two-factor model. These findings indicate that the four-factor structure fit the data more adequately than the EFA-derived alternative and support retaining the original four-factor structure in the Indonesian-language FOS.

The decision to retain the four-factor model rather than the EFA-derived two-factor model was based on several considerations. First, EFA is exploratory and data driven; therefore, its solution is highly dependent on the characteristics of the present sample and may reflect statistical artifacts, such as a halo effect across socially desirable, positively worded Utility, Accountability, and Feedback Self-Efficacy items, rather than true construct equivalence (Brown & Zhao, 2023). Second, CFA directly tests the fit of a theoretically specified structure, and the results consistently favored the four-factor model through better fit indices (χ^2/df , CFI, and RMSEA) and a lower AIC. Third, high intercorrelations among Utility, Accountability, and Feedback Self-Efficacy items in the two-factor solution do not necessarily mean that they represent an identical construct. Strong correlations among conceptually related dimensions are common in multidimensional attitude instruments, and the eigenvalue-greater-than-one criterion may under extract factors when dimensions are highly correlated (Khan et al., 2021; Li et al., 2022). Fourth, retaining the original four-factor structure preserves the conceptual equivalence and comparability of the Indonesian-language FOS with the original version and adaptations in other countries, thereby supporting cross-cultural research and future replication. Fifth, the four separate subscales provide richer diagnostic information for human resource practitioners than a combined two-factor score, including information that may guide coaching interventions targeting specific aspects of employees' feedback orientation (Moullin et al., 2020). Accordingly, the first-order four-factor model corresponding to the original construct is recommended for scoring and interpreting the Indonesian-language FOS. Reliability analysis was conducted in the next stage. Table 6 presents the reliability coefficients and Standard Errors of Measurement (SEM) for each FOS dimension and the total scale (Barbado et al., 2020; Tahernejad et al., 2025).

Table 6. Reliability of the FOS (19 Items)

Dimension	Item No.	Item-Rest Correlation	Reliability Coefficient	Mean	SD	SEM	AVE
<i>Utility</i>	1-5	.791-.870	.940	21.55	3.673	.900	0.761
<i>Accountability</i>	6-9	.826-.846	.930	20.46	3.401	1.390	0.766
<i>Social Awareness</i>	10-14	.718-.795	.898	19.71	3.806	1.216	0.638
<i>Feedback Self-Efficacy</i>	15-19	.779-.868	.939	20.38	3.806	.940	0.756
Total FOS Scale (19 Items)	1-19	.587-.835	.965	78.49	12.42	2.320	-

Note. SD = standard deviation; SEM = $SD \times \sqrt{(1-\alpha)}$; AVE = Average Variance Extracted.

Reliability was evaluated using internal-consistency coefficients, which indicate the extent to which observed score variation represents individual differences among respondents (Bean & Bowen, 2021; Perry et al., 2020). As shown in Table 6, all reliability coefficients exceeded .80, indicating adequate to excellent internal consistency. Average Variance Extracted (AVE) was additionally calculated to evaluate convergent validity by comparing the variance captured by each construct with variance attributable to measurement error. All AVE values exceeded .50, supporting the convergent validity of the Indonesian-language FOS. As shown in Table 6, all dimensions of the Indonesian-language FOS demonstrated good to excellent reliability ($\alpha = .898-.940$). These coefficients were numerically higher than the $\alpha = .740-.880$ reported in the original validation study, indicating that the adapted version achieved at least comparable internal consistency in the present sample (Linderbaum, Beth A.; Levy, 2010). The total scale demonstrated very high internal consistency ($\omega = .965$), confirming that the 19 items consistently assessed feedback orientation. Utility had the highest reliability ($\alpha = .940$), whereas Social Awareness had the lowest ($\alpha = .898$). The highest mean score was observed for Utility ($M = 21.55$ out of a possible 25), indicating that participants generally regarded feedback as useful. Social Awareness had the lowest mean score ($M = 19.71$), suggesting that concern with others' evaluations may be expressed more implicitly in the Indonesian workplace context.

Table 7. Summary of the Psychometric Evaluation of the Indonesian-Language FOS

Analysis Stage	Main Findings	Conclusion/Decision
Item Analysis (item-rest correlation)	One negatively worded Accountability item was removed ($r = -.289$); the remaining 19 items met the $r > .40$ criterion (range = .587-.835).	Nineteen items were retained for subsequent analyses.
Exploratory Factor Analysis (EFA)	KMO = .960; Bartlett's test was significant ($\chi^2 = 6146, p < .001$); a two-factor solution emerged (Factor 1: 13 items, 43.2% of variance; Factor 2: 6 items, 25.5% of variance).	The two-factor solution was exploratory and data driven; it was further examined through CFA alongside the theoretical four-factor model.

Analysis Stage	Main Findings	Conclusion/Decision
<i>Confirmatory Factor Analysis (CFA)</i>	Four-factor first-order model: $\chi^2/df = 3.410$, CFI = .943, RMSEA = .086, AIC = 9510; two-factor model: $\chi^2/df = 7.882$, CFI = .831, RMSEA = .145, AIC = 10190.	The four-factor model showed better fit and a lower AIC; the original theoretical structure was retained.
Reliability	$\alpha = .898-.940$; $\omega = .965$; AVE = .638-.766 (all dimensions > .50).	All dimensions and the total FOS scale demonstrated adequate reliability.
Final Indonesian-Language FOS Structure	Nineteen items across four dimensions: Utility (5), Accountability (4), Social Awareness (5), and Feedback Self-Efficacy (5).	The instrument demonstrated adequate validity and reliability for use with Indonesian employees.

Note. χ^2/df = chi-square divided by degrees of freedom; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; AIC = Akaike Information Criterion; α = Cronbach's alpha; ω = McDonald's omega; AVE = Average Variance Extracted.

Discussion

This study aimed to cross-culturally adapt the Feedback Orientation Scale (FOS) into Indonesian and evaluate its psychometric properties among employees (Linderbaum, Beth A.; Levy, 2010). Overall, the findings indicate that the Indonesian-language FOS demonstrates adequate validity and strong reliability and may be used as a scientific and practical measurement instrument in Industrial and Organizational Psychology in Indonesia. The findings also support the central objective of test adaptation: to produce an instrument that is not only linguistically equivalent, but also conceptually and psychometrically comparable to the source version (Commission, 2017).

Item-rest correlation analysis showed that all 19 retained items had coefficients ranging from .587 to .835, exceeding the minimum criterion of $r > .40$. Coefficients above .40 indicate that an item has adequate discriminatory capacity to distinguish individuals according to the level of the measured construct. Thus, each retained FOS item was sufficiently consistent with the corresponding scale score. One negatively worded Accountability item was removed because its coefficient was below the criterion ($r = -.289$). Item removal is not unusual in cross-cultural adaptation because cultural, linguistic, and social-context differences may affect how respondents interpret a statement (Commission, 2017). The deletion of this item should therefore not be considered a weakness of the instrument, but part of the process of obtaining a measure that functions more appropriately for Indonesian employees (Kausar et al., 2023; Soemarko et al., 2023).

In instrument-adaptation research, EFA is used to explore patterns of relationships among items, whereas decisions about construct structure must also remain grounded in theory (Shams et al., 2025; Singh et al., 2025). The EFA produced a two-factor solution that initially appeared inconsistent with the four-dimensional structure

proposed in the original scale (Linderbaum, Beth A.; Levy, 2010). The first factor combined Utility and Accountability items, whereas the second factor was dominated by Social Awareness items and included one Feedback Self-Efficacy item (FS004). This pattern is conceptually understandable because Utility and Accountability both reflect an instrumental orientation: believing that feedback is beneficial and being willing to act upon it (Weidlich et al., 2025). Consequently, the dimensions may overlap empirically in this Indonesian employee sample. Several Feedback Self-Efficacy items (FS001, FS002, FS003, and FS005) also cross-loaded on both factors.

The EFA findings were not used as the sole basis for selecting the final model. CFA was subsequently conducted to compare the exploratory two-factor model with the original four-factor model (Linderbaum, Beth A.; Levy, 2010). Comparisons using CFA indices and the AIC consistently showed that the four-factor model fit the data better than the two-factor EFA solution. This finding supports the four-dimensional theoretical structure of the FOS as the more conceptually defensible representation and is consistent with the original structure and cross-cultural validation findings from Italy and Chile (Linderbaum, Beth A.; Levy, 2010; Lo Piccolo et al., 2025).

Regarding model fit, the GFI for the first-order four-factor model ($GFI = .863$) did not reach the .90 criterion, and the RMSEA (.086) slightly exceeded the strict .080 threshold. Such results are not uncommon in CFA models with relatively large numbers of parameters. Comparable patterns have been reported in the Italian and Chilean FOS validation studies (Lo Piccolo et al., 2025). The CFI and SRMR met the specified criteria, indicating that the factor structure remained acceptable overall. In addition, the lower AIC of the first-order model compared with the second-order model suggests that the four FOS dimensions are better conceptualized as related but distinguishable constructs rather than as indicators of a single higher-order general factor. This interpretation is consistent with the original conceptualization of feedback orientation as a multidimensional construct (Linderbaum, Beth A.; Levy, 2010).

The Indonesian-language FOS demonstrated strong internal consistency across its dimensions ($\alpha = .898-.940$), while the total scale showed a McDonald's omega of .965. These values were numerically higher than the alpha coefficients of $\alpha = .740-.880$ reported in the original validation study, although coefficient differences across studies may also reflect sample composition, cultural context, and data-collection procedures rather than superior instrument quality (Linderbaum, Beth A.; Levy, 2010). The strong internal consistency in this study may be partly related to the relatively large and heterogeneous sample ($N = 326$) and the systematic adaptation procedure, including forward-backward translation and expert review, which may have supported consistent item interpretation. AVE values above .50 for all factors further supported convergent validity by indicating that the latent constructs explained more item variance than measurement error (Cheung et al., 2024).

Differences in mean scores across dimensions also provide tentative insight into Indonesian workplace culture (Wardiyanto et al., 2025). Utility had the highest mean, indicating that participants generally believed feedback was beneficial for performance. Social Awareness had the lowest mean. In a relatively hierarchical and high-power-distance workplace context, employees' sensitivity to supervisors' and coworkers' evaluations may be understood implicitly and may not always be expressed through direct statements such as those in the Social Awareness items. This interpretation is also consistent with the comparatively lower item-rest correlations observed for Social Awareness, suggesting that Indonesian employees' understanding of social sensitivity to feedback may be more varied and context dependent than their understanding of the more instrumental dimensions.

Theoretically, this study extends evidence for the cross-cultural applicability of the FOS four-factor structure beyond the United States, Italy, and Chile (Linderbaum, Beth A.; Levy, 2010; Lo Piccolo et al., 2025). The relative consistency of the factor structure across different cultural settings, including a collectivistic and hierarchical context such as Indonesia, suggests that feedback orientation may be structurally stable even though the expression and intensity of its dimensions are influenced by local cultural values. Practically, the validated Indonesian-language FOS may help Industrial and Organizational Psychology researchers and practitioners assess employees' psychological readiness to receive performance feedback, design more targeted coaching and training programs, and evaluate feedback-based performance-management interventions. It also creates opportunities for further research on the antecedents and consequences of feedback orientation in Indonesian workplaces (Afrianty et al., 2025; Suhandiah et al., 2023).

Several limitations should be considered when interpreting these findings. First, the cross-sectional design and single-time-point data collection did not permit assessment of temporal stability through test-retest reliability or causal relationships among variables. Second, purposive sampling combined with online questionnaire distribution may have produced a sample that does not fully represent the broader Indonesian employee population because participation was voluntary and depended on access to digital technology. Third, the use of self-report measures may have introduced social desirability bias, particularly for items concerning social evaluation and accountability (Zhu et al., 2024). Fourth, although the four-factor model fit better than the two-factor alternative, some fit indices, specifically GFI and RMSEA, did not fully meet strict recommended criteria. Further refinement of selected items, especially within Social Awareness, may therefore be warranted in future research.

Future studies should examine test-retest reliability to determine the temporal stability of Indonesian-language FOS scores and test measurement invariance across demographic groups, including gender, employment status, and industrial sector, to ensure that scores can be compared equivalently across groups. Convergent and discriminant validity should also be examined using related constructs, such as

feedback-seeking behavior and reactions to performance appraisal. In addition, recruiting participants from a broader range of regions and industrial sectors, rather than primarily from Jakarta, would improve the generalizability of the findings to Indonesian employees more broadly (Alexandro, 2025; Permana, 2025).

Overall, the findings indicate that the Indonesian-language Feedback Orientation Scale is a valid and reliable instrument for assessing employees' feedback orientation. The four-factor structure of the original scale was more strongly supported than the EFA-derived two-factor alternative and appears applicable within the Indonesian workplace context (Linderbaum, Beth A.; Levy, 2010). These findings strengthen the cross-cultural evidence for the FOS and provide a foundation for further research and professional practice in feedback-based performance management within Industrial and Organizational Psychology in Indonesia.

D. Conclusions

The adaptation of the Feedback Orientation Scale (FOS) into Indonesian provides an additional instrument for research and professional practice in Industrial and Organizational Psychology. The psychometric analyses indicated that the 19 retained items adequately represented feedback orientation among Indonesian employees. The first-order four-factor model was recommended because it offered a theoretically coherent and empirically better-fitting representation than the alternative two-factor model. This structure distinguishes four related but conceptually separate dimensions: Utility, Accountability, Social Awareness, and Feedback Self-Efficacy. The Accountability dimension consisted of four items after one negatively worded item was removed because it demonstrated an inadequate item-rest correlation. Evidence from item analysis, exploratory factor analysis, confirmatory factor analysis, and internal consistency estimates collectively supported the psychometric adequacy of the adapted scale. The four dimensions demonstrated good to excellent reliability, with Cronbach's alpha coefficients ranging from .898 to .940, while the total scale showed very high reliability, with a McDonald's omega coefficient of .965. Although the GFI and RMSEA values of the four-factor model did not fully satisfy strict cutoff criteria, the model consistently outperformed the two-factor alternative and remained aligned with the original theoretical structure of the FOS. These findings indicate that the 19-item Indonesian-language FOS can be used to assess employees' orientation toward feedback in both research and applied organizational settings, including performance management, coaching, employee development, and feedback-based learning. Nevertheless, the findings should be interpreted with consideration of the study's cross-sectional design, purposive sampling strategy, and reliance on self-report data. Future studies should examine test-retest reliability, measurement invariance across demographic and occupational groups, and convergent and discriminant validity using related organizational constructs. Broader sampling across regions, industries, and employment categories is also recommended to strengthen the generalizability and practical applicability of the Indonesian FOS.

Replication using independent samples would provide evidence regarding the stability of its factor structure.

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