

## Structural Validity and Reliability of the Indonesian Version of Self-Leadership

Gianti Gunawan<sup>1</sup>, Anissa Lestari Kadiyono<sup>2\*</sup>, Fasya Adisa Raspati<sup>3</sup>

<sup>1</sup> Psychology Study Program, Faculty of Psychology, Universitas Kristen Maranatha, Bandung, 40164, Indonesia

<sup>2,3</sup> Psychology Study Program, Faculty of Psychology, Universitas Padjadjaran, Sumedang, 45363, Indonesia

### ARTICLE INFO

#### Keywords:

factor analysis, reliability, self-leadership, structural validity, questionnaire

#### Article History:

Received

2024-04-21

Received in revised form

2024-09-22

Received in revised form

2025-01-26

Accepted

2025-02-06

DOI: 10.22146/jlo.95641

\* Corresponding Author at  
Department of Psychology,  
Faculty of Psychology,  
Universitas Padjadjaran,  
Sumedang, 45363, Indonesia  
E-mail address:  
anissa.lestari@unpad.com

### ABSTRACT

**Introduction/Main Objectives:** This study aims to provide a self-assessment of self-leadership among the Indonesian workforce, contributing to a deeper understanding of self-leadership at the individual level and supporting personal growth and development. **Background Problems:** As self-leadership increasingly becomes recognized as a key factor in organizational success, there is a need for an assessment tool adapted to the Indonesian context. This study addresses the gap by developing and validating an instrument that measures self-leadership's cognitive and behavioral processes, including behavioral, motivational, and constructive thought patterns. **Novelty:** This study pioneers the cultural adaptation and validation of a self-leadership assessment tool for the Indonesian workforce. By utilizing a validated self-assessment tool with theoretical and practical implications, this study promotes personal and organizational improvement. **Research Methods:** Data were analyzed using Structural Equation Modeling (SEM), with confirmatory factor analysis (CFA) and reliability testing applied to evaluate the psychometric properties of the instrument. **Finding/ Results:** The instrument demonstrated a high level of reliability, with a Cronbach's Alpha coefficient of 0.933, indicating strong internal consistency. The CFA confirmed the factor structure, with factor loadings exceeding 0.3, affirming the construct validity of the tool. **Conclusion:** The Indonesian version of the Self-Leadership Questionnaire (SLQ) is a valid and reliable instrument for measuring self-leadership. This study offers a novel contribution by being the first to culturally adapt and validate a self-leadership measure for the Indonesian context and filling a gap in current leadership research.

## 1. Introduction

In the face of ever-changing global and local challenges, individuals at various levels within companies and organizations must be able to manage themselves effectively. This phenomenon is becoming increasingly important due to the rapid pace of technological change, more demanding market requirements, and shifting political and economic dynamics in Indonesia. To achieve maximum potential, it is necessary to have managers who possess strong leadership qualities and are held in high regard by their employees. Both managers and staff must cultivate their leadership abilities, referred to as 'self-leadership' (Nan-Nan & Saribut, 2020). Self-leadership is one of the most important concepts individuals can use to succeed in today's dynamic business and organizational landscape (Moelyono, 2016).

Recent scholarly research has shifted focus from traditional leadership styles to self-leadership to improve individual and team performance. This shift is based on the recognition that self-leadership can significantly impact how leaders and supervisors influence their followers and subordinates (Alnakhli et al., 2020; Hauschildt & Konradt, 2012; Inam et al., 2023; Marques-Quinteiro et al., 2022; Stewart et al., 2019). Self-leadership facilitates the cultivation of self-awareness, self-efficacy, and the ability to influence one's communication, emotions, and behavior to achieve desired objectives, resulting in improved workplace performance (Manshi & Sunil K. Mishra, 2019). Self-leadership is a broader theory than self-influence that incorporates self-regulation theory, self-management, important aspects of cognitive evaluation theory, and social cognition

theory (Stewart et al., 2011). It also significantly impacts individuals' motivation to complete their work (Stewart et al., 2019). Self-leadership enables an individual to effectively manage and regulate different incidents or behaviors that arise from dynamic circumstances (C.C. Manz & Sims, 2001; Charles C Manz & Sims, 1986). This concept includes the ability to analyze situations critically, as well as self-control over motivation, cognition, and actions to be able to perform the tasks that are their responsibility properly (Houghton & Yoho, 2005).

Self-leadership entails managing and maintaining four pairs of opposing forces: the balance between challenging tasks and routine tasks, the balance between focusing on oneself and interacting with others, the balance between personal life and work life, and the balance between mental and physical well-being (Lovelace et al., 2007). According to (Roberts & Foti, 1998) research, those with a high level of self-leadership will be very satisfied when working in an organizational structure that allows for greater autonomy, freedom, and intrinsic work motivation. In line with this, (Hauschildt & Konradt, 2012) research findings show that self-leadership benefits an individual's performance within their team's work role. Their inclination towards collectivism determines the impact of self-leadership on the skills of team members.

In the context of self-leadership research, most studies and measurement instruments have predominantly been developed in English and within Western countries (Knotts et al., 2022; Neck & Houghton, 2006). In Indonesia, research on self-leadership remains limited, particularly regarding the development and validation of instruments that fit the local cultural context (Aurelia &

Leon, 2023; Wuryaningrat, 2013). This gap highlights the need for a validated and reliable self-leadership measurement tool in the Indonesian language. Therefore, examining the structural validity of the Indonesian version of the self-leadership instrument is crucial to ensure that this concept can be measured accurately and is relevant to the Indonesian context.

This study presents a comprehensive development and adaptation of self-leadership measurement tools that are relevant and valid for use in the Indonesian context. While numerous self-leadership measurement tools are available, a significant portion were designed based on Western cultural norms. This raises concerns regarding their suitability and accuracy when applied in non-Western settings like Indonesia. Indonesia's cultural nuances, social norms, and organizational dynamics may impact how self-leadership behaviors are perceived and expressed. Therefore, it is important to adapt and validate measurement tools to ensure their reliability and relevance in this specific context.

Self-leadership has become increasingly critical for Indonesia's evolving workforce, especially in the Fourth Industrial Revolution (Industry 4.0). As automation, digitalization, and technological advancements rapidly transform the nature of work, individuals must develop adaptability, self-motivation, and proactive problem-solving skills to remain competitive and effective in the modern workplace. In this dynamic environment, self-leadership enables employees to take the initiative, regulate their behavior, and continuously learn, which are essential qualities for navigating the complexities of Industry 4.0 (Sesen et al., 2017). For the Indonesian workforce, which is currently experiencing

significant shifts due to the integration of technology and innovation, fostering self-leadership is vital for enhancing productivity, job satisfaction, and overall organizational performance. This research aims to examine the concept of self-leadership to be implemented in an industrial or organizational environment that can improve organizational capabilities and increase the competence of human resources to compete in the era of the Industrial Revolution 4.0. The concept of self-leadership is a discussion that has been considered lately, especially in the scope of industry and organizations.

Trends in industry and organizations are entering the era of the Industrial Revolution 4.0, which integrates activities or processes in industry and organizations with automated technology systems. Rapid changes and competitive competition due to technological and information developments are the most important challenges faced by organizations (Sesen et al., 2017). Research on self-leadership assessment has not much developed in Indonesia, while the most recent development was carried out in South Africa (Mahembe et al., 2017). So, this research aims to examine the concept of self-leadership to be implemented in Indonesia that can improve organizational capabilities and increase the competence of human resources involved in it to compete in the era of the Industrial Revolution 4.0.

## 2. Literature Review

People have control over their thoughts and actions, which is called self-leadership. It enables them to achieve the necessary self-direction and self-motivation to achieve the desired performance and behavioral outcomes (Houghton & Neck, 2002).

There is a measurement instrument about Self-Leadership, which assesses how individuals exert influence on themselves to attain the self-direction and self-motivation required to exhibit desirable behaviors and achieve optimal performance (Knotts et al., 2022). Self-leadership tactics can be broadly classified into three main categories: behavior-focused strategies, natural reward strategies, and constructive thinking pattern strategies (J. C. Anderson et al., 1988; C.C. Manz & Sims, 2001; Charles C Manz & Sims, 1987; Houghton & Yoho, 2005).

Behavior-focused strategies are aimed at increasing self-awareness, which leads to self-management. These strategies include goal setting, self-reward, self-correcting feedback, and practice (Houghton & Neck, 2002). Behavior-focused strategies allow one to monitor behaviors that need to be modified, improved, or eliminated when it comes to certain situations (C.C. Manz & Sims, 2001; Charles C Manz & Sims, 1986) (Houghton & Neck, 2002). Based on this, a person can make personal goals that improve performance (Charles C. Manz & Sims, 1991; Houghton & Yoho, 2005).

Natural reward mechanisms prioritize the pleasurable elements associated with a specific task or activity (Houghton & Neck, 2002). This approach will pertain to both extrinsic motivation and inner motivation. Natural or intrinsic rewards manifest when incentives are inherently embedded into a certain task or activity, hence motivating or rewarding individuals through the inherent nature of the work or activity itself (Charles C Manz & Sims, 1980; Houghton & Neck, 2002). Natural reward strategies increase competence, self-control, and goals (Charles C Manz & Sims, 1987; J. S. Anderson & Prussia, 1997; Houghton & Neck, 2002). These tactics encompass efforts to integrate

more enjoyable elements into a certain activity or work and modify individuals' views of the activity by emphasizing its intrinsically gratifying parts (Charles C. Manz & Sims, 1991; Houghton & Neck, 2002). An example of its application is when someone assesses the ideal work environment. He will try to make his work environment ideal, for example, by maintaining good interpersonal relationships, maintaining the cleanliness of the work environment, and organizing his workplace to become more comfortable. Through these strategies, a person can improve their performance by focusing on the pleasant aspects of the task or job (Houghton & Neck, 2002).

Constructive cognitive strategies encompass the establishment and perpetuation of habitual cognitive functioning patterns (Charles C. Manz & Sims, 1991; Neck & Manz, 1996; Houghton & Neck, 2002). These strategies involve specifically oriented thinking patterns, including evaluation of assumptions, irrational beliefs, and mental imagery about successful performance and positive self-talk (Houghton & Yoho, 2005). This particular approach emphasizes the cultivation of good cognitive patterns to substitute negative assumptions and irrational beliefs. The findings of (C.C. Manz & Sims, 2001) constructive thought pattern strategies showed that people who participated in self-leadership training programs experienced increased mental performance, enthusiasm, job satisfaction, and decreased nervousness (Tat & Zeitel-Bank, 2013).

In adapting the self-leadership construct to the Indonesian context, it is essential to consider the country's unique cultural framework. Indonesia's cultural values, such as collectivism, power distance, and a strong

sense of community, significantly influence leadership behaviors and practices (Hofstede, 2011). These cultural aspects can impact how individuals perceive and exercise self-leadership strategies, making it crucial to develop a tool that accurately captures these nuances.

For instance, in a collectivist culture like Indonesia, self-leadership may manifest differently compared to more individualistic societies, as individuals might prioritize group harmony and collective goals over personal ambitions. By incorporating these cultural dimensions, the adapted self-leadership questionnaire provides a more accurate and relevant measure of how Indonesian professionals engage in self-leadership behaviors, ensuring that the instrument aligns with the country's specific cultural context.

### 3. Method, Data, and Analysis

The research was conducted using a quantitative approach with a non-experimental research design. The measuring instrument used in this study is the Self-Leadership Questionnaire (SLQ) developed by (Houghton & Neck, 2002). Testing SLQ in Indonesian is intended to empirically determine the quality of measuring instruments by analyzing psychometric properties in reliability and validity. The study's population consisted of employed individuals from Indonesian organizations selected through convenience sampling. This sampling technique was used due to constraints in accessing a more representative sample, such as time, resources, and the ongoing pandemic conditions at the time of data collection. While convenience sampling can introduce bias, it remains a practical approach for exploratory research where the primary aim

is to assess the psychometric properties of the instrument. Up to 160 persons were randomly chosen to participate, with 70.6% men and 29.4% women. Data were collected by asking participants to complete 35 SLQ statements online.

Guidelines for adapting and translating measuring instruments refer to the Stages of Adaptation issued by the International Test Commission (ITC) in 2017 (International Test Commission, 2017). The researchers conducted a comparative analysis of translations and reached an agreement to analyze any semantic inconsistencies, including linguistic and conceptual concerns. The instrument was assessed by considering the attributes of a manager as a leader in Indonesia. Subsequently, a group of linguistics specialists conducted a blind retroversion, yielding a pair of original and retranslated copies of the self-leadership questionnaire prepared for validation.

The original Self Leadership Questionnaire underwent a two-step translation process, consisting of forward translation and reverse translation, to be converted into Bahasa Indonesia. Four translators were engaged in the execution of these two stages. All translators possessed Indonesian nationality, demonstrated sufficient proficiency in English (as evidenced by a minimum score of 600 on the Test of English as a Foreign Language [TOEFL]), and had a background in psychology. The optimization of translation quality was assessed based on the standards established by the International Test Commission (International Test Commission, 2017). The initial two translators performed the forward translation process, after which the writers reconciled the resulting translations. Subsequently, the reconciled outcome

underwent back-translation from Bahasa Indonesia to English by the subsequent pair of translators. The comparative analysis involved assessing the back-translation results of the original version of the Self-Leadership Questionnaire. The authors made revisions to the reconciled translation of Bahasa Indonesia based on the findings of this comparison. The researchers conducted a comparative analysis of many translations and reached a consensus-based evaluation of semantic inconsistencies, encompassing both language and conceptual aspects. The instrument was assessed by considering the attributes of managers as leaders in Indonesia.

The empirical validity evidence of the Self-Leadership Questionnaire was evaluated through two steps: examination of the test content, analysis of the internal structure, and exploration of its link to other factors (Goodwin L.D. & Leech N.L., 2003). The evidence presented in this study is based on exam content and involves a quantitative calculation of the evidence. The calculation was performed by three raters, as described by (Polit et al., 2007). The participants were presented with the theoretical framework employed, the conceptual definition, the operational definition, the dimensions, the instrument grid, and the items inside the instrument.

The proportion agreement approach enables three experts to conduct a thorough and independent assessment of the relevance of a sample of items to the content dimension of a tool. This assessment encompasses several aspects, including item definitions, content, formats, and administration process. Following this, the team of researchers proceeds to calculate the ratio of instances in which the experts reach a consensus and assess the reliability of their concurrence. A

Likert scale, consisting of four response options related to relevancy, is utilized. The provided responses are categorized based on a rating scale of four: 1 indicating lack of relevance, 2 indicating partial relevance, 3 indicating considerable relevance, and 4 indicating high relevance. The proponents of this technique argue that ratings of 1 and 2 are classified as "content invalid," whereas ratings of 3 and 4 are classified as "content valid." The field (Waltz et al., 2010) defines the Content Validity Index (CVI) as the expert reviewer's ratio of items rated as 3 or 4. The researchers subsequently combined four ordinal response ranks into two dichotomous categories: "content invalid" and "content valid." As a result, the Content Validity Index (CVI) was transformed into a two-category nominal scale (Polit et al., 2007).

An initial investigation was undertaken to examine the translation involving a sample of 80 people. The adjusted item-total correlation of each facet item was investigated. To assess the necessity of revising the question, a cutoff value of .3 was employed, as (Crocker & Algina, 1986) suggested, which served as an indicator of the item's somewhat lower discrimination capacity. We have identified a total of ten things that are recommended for modification. Upon conducting a comprehensive analysis, it has been determined that a mere six items necessitate revision due to inaccuracies in translation. As an illustration, the individual in question expresses the practice of formulating precise objectives for personal achievement, as indicated by Item 34 in the Self-Goal Setting assessment.

Before conducting the item analysis, the term "write" was translated as "*menulis*." Furthermore, apart from its conventional meaning of "write," this term can also encompass the notion of "create," emphasizing the similarity to the absence or ambiguity of goal establishment. To preempt this misinterpretation, we substituted the term "*menulis*" with "*membuat*," a word that does not possess any explicit connotation of writing. The modifications above led to the ultimate iteration of the Self Leadership Questionnaire in Indonesian.

Comprehensive data were presented for each dimension. The researchers employed the internal consistency approach to assess the reliability. The study will involve the analysis of independent variables (IV), which can be either continuous or discrete, and dependent variables (DV), which can also be either continuous or discrete (Ullman, 2006). Meanwhile, Confirmatory Factor Analysis (CFA) is used to confirm indicator variables can be used to confirm a factor (Schreiber et al., 2006). CFA is a statistical technique used to test whether the data fit a hypothesized measurement model, thereby confirming the underlying factor structure of the instrument. Cronbach's Alpha was used to assess the reliability, or internal consistency, of the SLQ, ensuring that the items within each dimension consistently measure the intended construct. A Cronbach's Alpha value above 0.7 is typically considered acceptable, indicating that the instrument is reliable for research purposes. These statistical tests are commonly used in validation studies to ensure the accuracy and consistency of measurement tools.

This method allows testing a series of relationships that occur simultaneously, such as the concept of self-leadership, divided into behavioral, motivational, and visualization

strategies. All statistical processing in this study was conducted through IBM SPSS software version 25 and JASP version 16.4.

Self-leadership encompasses individuals' cognitive and behavioral mechanisms to exert influences over themselves, enabling them to achieve the self-direction and self-motivation necessary for attaining desired objectives (Neck & Houghton, 2006). The categorization of self-leadership has three main classifications, including (1) behavior-focused strategies, (2) natural systems of rewards, and (3) tactics using constructive thinking patterns (J. C. Anderson et al., 1988; Houghton & Yoho, 2005; Charles C Manz & Sims, 1986).

This study measured self-leadership using the SLQ, which consists of 35 statements. The statements measure the three strategies, which are divided into specific strategies. Behavior-focused techniques, referred to as behavioral strategies in this study, encompass self-goal setting, self-reward, self-punishment, self-observation, and self-cueing. Motivation tactics, also known as natural reward systems, encompass various components, including work thoughts, work adaptations, work choices, work activities, and work approaches.

The cognitive technique known as the constructive thought pattern approach referred to as the visualization method henceforth, encompasses three distinct components: picturing success, engaging in self-talk, and analyzing beliefs. Subsequently, the scores attributed to each method are employed to ascertain the proficiency level of each self-leadership strategy.

## 4. Results and Discussion

### 4.1. Reliability

Self-leadership is a unidimensional psychological construct. That is, the categories contained in self-leadership have only one underlying characteristic or construct (Hattie, 1985; McDonald, 1981 in (J. C. Anderson et al., 1988). In this study, the reliability test used is internal consistency, which looks at the consistency between items. Table 1 shows the results of the initial reliability calculation of the SLQ.

Based on these results, Cronbach's Alpha reliability coefficient of .931 was obtained, which is included in the very high-reliability category because it is in the range of .80 to 1.00 (Guilford, 1956). This shows that the

Self-leadership Questionnaire has very high-reliability results, which is reliable for this study.

Furthermore, the reliability test was conducted on each strategy in the Self-leadership Questionnaire. Table 1 shows that Cronbach's Alpha reliability coefficient on the visualization strategy is 0.856, and the behavioral strategy is 0.858. This value ranges from 0.80 to 1.00, included in the very high-reliability category (Guilford, 1956). Meanwhile, the motivation strategy has a Cronbach Alpha of 0.743, included in the high-reliability category because it is in the range of 0.600 to 0.800 (Guilford, 1956). Based on these results, all strategies are highly reliable, so they are valid and consistent for use in this study.

**Table 1.** Reliability Self-Leadership Questionnaire Frequentist Scale Reliability Statistics

		n	Cronbach's Alpha
All	Self-Leadership	35	0.931
Dimensions	Visualization	12	0.856
	Motivation	5	0.743
	Behavior	18	0.858

### 4.2. Confirmatory Factor Analysis

Evidence of validity is obtained through internal structure analysis to see the suitability between the internal components of a tool adapted to the construct. Construct validity in this study uses a confirmatory factor analysis (CFA) test. The Self-Leadership Questionnaire model is then compared with the goodness of fit criteria (Hooper et al., 2008).

In this study, CFA was conducted in 2 stages, namely the stage before and after item modification presented in Table 3. Based on the initial CFA calculation results, it is known that the initial SLQ model has met several criteria (Hooper et al., 2008). The CFI value = 0.975 (> 0.90), TLI = 0.974 (> 0.90), IFI = 0.946 (> 0.90), GFI = 0.966 (> 0.90), RMSEA = 0.052 (< 0.08), SRMR = 0.094 (< 0.08), and p-value = < 0.01.



Overall, the initial CFA model shows a fit model, but when looking at factor loading, several items do not meet the criteria. Factor loading is the alleged correlation between latent variables and indicators or items that are being observed (Tarka, 2018).

The factor loading values of all SLQ items are presented in more detail in Table 2. If an item with a loading factor of less than 0.3 is found, it will be deleted to improve the goodness of fit test results (M. Tavakol & A. Wetzal, 2020). Based on the analysis results, two items were found to have low factor loading values, namely P6 ( $\lambda = 0.265$ ) and P13 ( $\lambda = 0.261$ ). After analyzing each item, both items will be deleted because they have a relatively small influence on the measured variables (Briggs & MacCallum, 2003).

P6 and P13, which had factor loadings below the accepted threshold, could be attributed to cultural nuances specific to the Indonesian context. Item P6 related to self-reward, and item P13 pertained to self-punishment. In Indonesian culture, which emphasizes collectivism and harmony, individuals may be less inclined to engage in self-rewarding or self-punishing behaviors, as these practices might be perceived as drawing attention to oneself or disrupting group cohesion. This cultural tendency could explain why these items did not perform as expected, suggesting that self-leadership behaviors in Indonesia may be less individually focused compared to Western contexts.

After modifying and eliminating items, the researcher conducted CFA calculations again from the final 33 items. CFI = 0.990 ( $> 0.90$ ), TLI = 0.989 ( $> 0.90$ ), IFI = 0.988 ( $> 0.90$ ), GFI = 0.991 ( $> 0.90$ ), RMSEA = 0.034 ( $< 0.08$ ), and SRMR = 0.078 ( $< 0.08$ ). All final items in this study meet the criteria (Hooper et al., 2008), so the measurement model on this test tool is valid because it can measure the appropriate construct, namely self-leadership.

Based on this, the goodness of fit criteria used to test the SLQ measurement tool show that the model fits with good results and has good structural validity. Table 3 shows the results of further CFA testing on the pre-modification and final items.

**Table 2.** Factor Loading Value

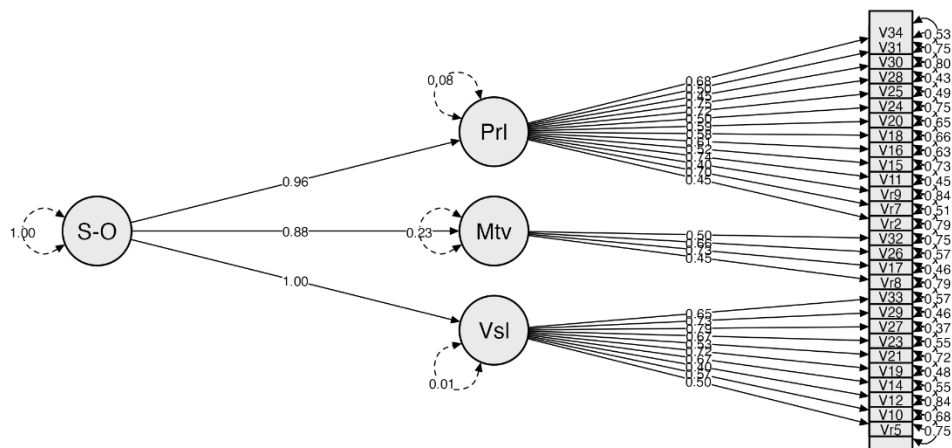
<b>Dimensions</b>	<b>Items</b>	<b>Standardize estimate</b>
Visualization	V1	0.540
	V3	0.484
	V5	0.517
	V10	0.567
	V12	0.434
	V14	0.663
	V19	0.701
	V21	0.542
	V23	0.652
	V27	0.780
	V29	0.707
	V33	0.656
	Motivation	M8
M17		0.737
M26		0.632
M32		0.499
M35		0.713
P2		0.452
P4		0.365
P6		0.265
Behavior	P7	0.685
	P9	0.421
	P11	0.744
	P13	0.261
	P15	0.502
	P16	0.607
	P18	0.553
	P20	0.630
	P22	0.452
	P24	0.501
	P25	0.797
	P28	0.732
	P30	0.451
P31	0.508	
P34	0.665	

**Table 3.** Final CFA Result of SLQ

Index	Criteria	Before Modification	After Modification
Chi-Square	<i>p-value</i> > 0,05	< 0,001	0,003
TLI	> 0,90	0,974	0,989
IFI	> 0,90	0,946	0,988
GFI	> 0,90	0,966	0,991
NFI	> 0,90	0,923	0,941
RMSEA	< 0,08	0,052	0,034
SRMR	< 0,08	0,094	0,078

Figure 1 below shows the overall CFA SLQ model plot after item modification. From the model plot below, each item has

factor loading to know each indicator in Self-leadership can contribute significantly to measuring other variables.



**Figure 1.** Modified Measurement Model

Table 4 is the result of the reliability calculation of the final 33 items; based on the results obtained, all items on the SLQ measuring instrument have a Cronbach's Alpha reliability coefficient of 0.933 and are included in the very high-reliability category because they are in the range of 0.80 to 1.00 (Guilford, 1956).

Although not significantly different from the previous results, the SLQ measuring instrument with 33 final items has very high reliability overall, so it is reliable to use in this study.

**Table 4.** Final Reliability Self-Leadership Questionnaire Frequentist Scale Reliability Statistics

		<b>n</b>	<b>Cronbach's Alpha</b>
All	Self-Leadership	33	0.933
Dimensions	Visualization	12	0.856
	Motivation	5	0.743
	Behavior	16	0.864

Furthermore, the reliability test was conducted on each strategy contained in the SLQ. Table 4 shows a Cronbach's Alpha reliability coefficient increase in the visualization and behavioral strategies. The visualization strategy has a Cronbach's Alpha reliability coefficient of 0.856 and a behavioral strategy of 0.864. This value ranges from 0.80 to 1.00, included in the very high-reliability category (Guilford, 1956). Next, because there were no items on the motivation strategy that were eliminated, the Cronbach Alpha reliability coefficient on the motivation strategy remained the same as before, which was 0.743 and included a high-reliability category because it was in the range of 0.600 to 0.800 (Guilford, 1956). Based on these results, all final items in each strategy are highly reliable, so the SLQ measuring instrument is reliable and valid in this study.

The findings of this study reflect the influence of Indonesian cultural values on self-leadership behaviors, as discussed in the theoretical framework. Indonesia's collectivist culture, which prioritizes group harmony, respect for authority, and interdependence, can shape how individuals exercise self-leadership. For instance, the strong emphasis on maintaining group cohesion may lead individuals to adopt self-leadership strategies that align with group

norms rather than assert individual autonomy.

This is evident in the preference for collaborative approaches to problem-solving and the tendency to avoid behaviors that could be perceived as self-promoting. These findings highlight that self-leadership in Indonesia is likely to be enacted in ways that are consistent with cultural expectations of humility, cooperation, and deference to group interests. Therefore, the Indonesian version of the Self-Leadership Questionnaire needs to consider these cultural dynamics to ensure it accurately captures self-leadership behaviors as they manifest within this cultural context.

The reliability of the SLQ is measured by the internal consistency of the questionnaire and tested with Cronbach's Alpha. In general, the reliability analysis shows very high and high results, so it can be concluded that the SLQ with the Indonesian version is reliable and can provide stable results.

The results were extended with confirmatory factor analysis (CFA), which allows to confirm or refute the underlying factor structure or dimensions taken from previous studies. CFA measures the data's "fit" with a specified model or theory (M. Tavakol & A. Wetzel, 2020). Correlation between items and factors is measured by factor loading. According to the factor

analysis method, factors that extract considerable variance from a variable have factor loadings of 0.3 or higher (M. Tavakol & A. Wetzel, 2020). Despite removing items P6 and P13 ( $\lambda < 0,3$ ), all aspects exhibit strong structural validity and model fit. The researcher will exclude these two items from the final SLQ items so that there are 33 total items after further consideration of these two items.

The results of this study are similar to the SLQ analysis of US students (Houghton & Neck, 2002), which shows that the measuring instrument is valid and reliable. The difference is shown through factor loading analysis that does not meet the criteria on two items of the Indonesian version of the SLQ on participants, namely Indonesian employees. Both items are included in the behavioral dimension, namely, one on the self-reward aspect and one on the self-punishment aspect. This difference is expected due to differences in the culture of Indonesian society and the dominance of the age of employees in Indonesia.

According to Kluckhohn in (Handoyo et al., 2007), Indonesians view life as a series of events that must be carried out steadfastly and resignedly. People accept their circumstances as fate but still try to improve them. When people produce good or less good performance, they tend to consider it as something that must be accepted without certain rewards or punishments from themselves. Employees in Indonesia are dominated by individuals aged 45-49 years, which means that the majority of employees in Indonesia are married and focus on family, not self. This is one of the reasons the two items relating to self-reward and self-punishment cannot meet the criteria (Barus, 2022).

Self-Leadership Questionnaire to find out how a leader has leadership internally can facilitate individuals in achieving the organizational goals they want to achieve. Research in Indonesia on the influence of self-leadership conducted by Gabrie (Situmorang et al., 2014) on 316 students from 18 different courses showed that self-leadership positively influences GPA (achievement index). For someone who can become a leader, the achievement will be easier to achieve (Garger & Jacques, 2007). Good achievement will then increase adolescents' self-confidence, which is increasingly positive; that is, self-confidence becomes higher because of adolescents (Barus, 2022). This phenomenon exhibits similarities to studies conducted in the realm of professional environments, wherein the examination of managers' self-leadership concerning their subordinates and work objectives is necessary.

According to Surya Dharma in (Rachmawati et al., 2018), the performance indicators of employees exhibit characteristics of consistency, precision, challenge, measurability, achievability, agreement, temporal linkage, and orientation towards collaborative efforts (Nguyen et al., 2020). The argument posits that performance is a measure of job accomplishment in terms of both quality and quantity, attained by an individual in fulfilling their responsibilities. This achievement is influenced by various individual characteristics, including personal effort, abilities, and perception of one's role and tasks.

Based on the aforementioned description, employee performance refers to the level of quality and quantity of work accomplished by an individual while fulfilling their responsibilities. This is measured by indicators characterized by

consistency, precision, achievability, and a focus on collaborative efforts. The results of (Basri et al., 2021) research on the Effect of Transformational Leadership Style and Work Environment on Employee Performance of the Bima Class 1B District Court also show that leadership significantly influences employee performance. This is specific to internal leadership because, in her research, the work environment has no significant effect partially on employee performance, and leadership style and work environment simultaneously significantly affect employee performance.

The study examined the impact of work motivation and organizational commitment on employee performance shows that work motivation significantly affects employee performance (Abrivianto et al., 2014). The impact of organizational commitment on employee performance is substantial, as is the influence of job motivation on employee performance. Additionally, organizational commitment has a noteworthy effect on employee performance (Rachmawati et al., 2018). This shows that analyzing leadership from the internal side will be useful in achieving the goals of employees carrying out their duties as leaders. Thus, analysis using a questionnaire to examine a person's self-leadership will describe his internal leadership, making it easier to direct his behavior in achieving organizational goals and overcoming problems.

## 5. Conclusion and Suggestion

Established phases and procedures have successfully adapted the Self-Leadership Questionnaire to the Indonesian version. The findings from the empirical assessment of the validity and reliability of the Self-Leadership Questionnaire in its Indonesian form demonstrate that the results align with the established criteria. The Self-Leadership Questionnaire demonstrates adequate psychometric qualities and is suitable for utilization within the Indonesian community. This scale can be compared to other international studies and applied in diverse investigations undertaken inside organizational contexts.

The data collection for this study was carried out during the COVID-19 pandemic, which presented difficulties in immediately gathering data and ascertaining the participants' circumstances while they completed the questionnaire. It is anticipated that subsequent research endeavors following the COVID-19 epidemic will aim to gather data directly to more accurately determine the state of the subjects when completing the offered questionnaire.

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