

Psychometric Property Analysis Of The Indonesian Version Of The Moral Character Scale

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Abstract. This research evaluates the psychometric properties of the Indonesian version of the Moral Character Questionnaire (MCQ), initially developed by Furr et al. in 2022. The MCQ assesses seven dimensions of moral character: Global Morality, Honesty, Compassion, Fairness, Loyalty, Purity, and Respect. The sample comprised 161 Indonesian participants aged 18–40, selected using purposive sampling. Data collection utilized a Google Forms questionnaire, with analysis including Cronbach's alpha reliability testing, Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA). The findings showed high reliability (Cronbach's alpha = 0.868). EFA identified three distinct factors with eigenvalues >3 , differing from the original seven-factor structure. One item was excluded due to low factor loading. CFA indicated good model fit indices (RMSEA = 0.061, GFI = 0.978, SRMR = 0.071). This study concludes that the Indonesian MCQ is valid and reliable, providing insights for future research and applications in education, mental health, and human resource development.

Keywords: Moral Character Questionnaire, Exploratory Factor Analysis, Confirmatory Factor Analysis

1 Introduction

Moral character is one of the essential aspects of individual development, significantly influencing social behavior, ethical decision-making, and interpersonal relationships. Moral character is a disposition that shapes how individuals think, feel, and act ethically [1]. Character refers to a person's ability to think, feel, and behave ethically based on agreed social rules. It is also often considered to reflect good qualities that contribute to individual well-being and respect for human values [2]. Fleeson et al. research supports the concept that character impacts ethical behavior by providing the strength and resources necessary to face ethical dilemmas and resist situational pressures [3]. This reinforces the notion that a well-developed moral character can lead to consistent and predictable ethical behavior, which, in turn, positively contributes to social interactions and decision-making processes.

Recently, concerns about the decline of moral values among younger generations have become significant in various countries, including Indonesia. Research from Yogyakarta State University (UNY) reveals a decline in applying Pancasila values among students, particularly

regarding religiosity, humanity, and unity [4]. Meanwhile, Sebelas Maret University (UNS) research found that social media negatively impacts younger generations' moral and ethical values [5]. Cases such as the rise in bullying behavior in schools, corruption among government officials, and unethical behavior on social media underscore the importance of fostering strong moral character from an early age [6].

Moral character is a central and essential aspect of an individual's personality. It is considered a fundamental part of one's identity and is associated with various significant behaviors. Individuals with strong moral character are often well-liked, respected, and positively valued [7]. A deep understanding of moral character is crucial in Indonesia, a country rich in cultural, religious, and social diversity. Moral character reflects individual values and significantly impacts interpersonal relationships and social cohesion [8]. Consequently, accurate and valid measurement of moral character has become an urgent necessity across various fields, including education, mental health, and human resource development.

The measurement of moral character in Indonesia has been a primary focus of psychological research, with various tools developed to assess aspects of morality and character within the Indonesian cultural context. Key instruments include the Indonesian Character Strengths Inventory (ICSI), which evaluates character strengths such as wisdom and courage [9], the Indonesian Moral Reasoning Inventory (IMRI), which assesses moral reasoning based on Kohlberg's theory [10]; the Moral Character Development Scale (MCDS), designed to evaluate moral character development in children and adolescents [11], and the Moral Integrity Scale, which measures moral integrity among university students [12]. These instruments have undergone rigorous validation to ensure their reliability and validity within Indonesia's cultural context.

In addition to these, the Moral Character Questionnaire (MCQ), developed by Furr, Prentice, Hawkins Parham, and Jayawickreme in 2022, offers a tool for assessing seven dimensions of moral character: Global Morality, Honesty, Compassion, Fairness, Loyalty, Purity, and Respect [7]. While the MCQ has demonstrated strong psychometric properties in Western cultural contexts, its applicability to Indonesia's unique cultural and social setting requires further investigation. A thorough analysis of the MCQ's psychometric properties within the Indonesian population is essential to ensure its validity and reliability in assessing moral character among Indonesians.

The Moral Character Questionnaire (MCQ) offers several advantages over other moral character assessment tools mentioned earlier. Designed to measure various aspects of morality and character comprehensively, the MCQ includes honesty, empathy, and fairness, providing a more holistic view of an individual's morality than tools focusing on specific dimensions [7]. Based on the latest moral psychology research, the MCQ remains relevant to current theoretical and practical advancements. Its rigorous development and validation process demonstrate high levels of reliability and validity, ensuring the MCQ's applicability across diverse populations.

The MCQ is also designed for practical application in fields such as education, the workplace, and personal development, making it more versatile than some tools that are primarily academic or theoretical [7]. With ongoing research, the MCQ can be periodically updated and refined, ensuring it stays aligned with the latest findings in moral psychology. These advantages make

the MCQ a more comprehensive, valid, and flexible tool for assessing moral character compared to other measures.

Recent research underscores the importance of this study and highlights the urgency of understanding moral character within Indonesia's cultural context. Moral character is vital in shaping self-identity, ethnic values, and national identity among Indonesian adolescents [13]. Additionally, moral character is positively correlated with prosocial behavior and psychological well-being, particularly emotional health [14], [15]. These findings suggest that moral character is a highly relevant construct that warrants further investigation in the Indonesian cultural context.

However, previous studies on moral character in Indonesia have limitations, particularly the frequent use of measurement instruments that have not been specifically validated for the Indonesian population. Therefore, this study aims to analyze the psychometric properties of the Moral Character Questionnaire (MCQ) within the Indonesian population aged 18–40 years.

This analysis will include validating the Indonesian version of the MCQ using methods such as Confirmatory Factor Analysis (CFA) and Exploratory Factor Analysis (EFA), with the instrument tested across a representative Indonesian sample. By analyzing the psychometric properties of the MCQ in the Indonesian context, this study is expected to significantly contribute to understanding moral character and its measurement within Indonesian society.

The results of this study can serve as a foundation for future research on moral character in various fields, such as education, mental health, and human resource development. Additionally, the findings can provide valuable insights for practitioners and policymakers in designing interventions and programs to foster moral character among the Indonesian population.

2 Method

This research uses a quantitative approach to examine the psychometric properties of the Indonesian version of the Moral Character Questionnaire (MCQ). The research sample comprises 161 Indonesian citizens aged 18 to 40, selected through purposive sampling. Data were collected using a questionnaire hosted on Google Forms.

The research process began with adapting the instrument, following the steps below: First, the original questionnaire was translated into Indonesian by a licensed translator and another translator with a background in psychology. Second, the translations were synthesized by combining the results from both translators. Third, backward translation was conducted with a native speaker of the original language who was proficient in Indonesian. Fourth, the final translation underwent evaluation through expert judgment. The content validity of the instrument was subsequently assessed using Aiken's test. Data collection involved asking respondents to complete the online questionnaire [16].

The collected data were analyzed using JASP software version 0.18.3. Reliability testing was performed using Cronbach's Alpha, while the factor structure was identified through Exploratory Factor Analysis (EFA). Finally, Confirmatory Factor Analysis (CFA) was employed to determine whether the model fit the data.

3 Result and Discussion

Table 1. Respondent Demographic Data

BASED ON GENDER		
Gender	Amount	Presentation
Man	105	65,22%
Women	56	34,78%
BASED ON AGE		
Age Range	Amount	Presentation
<20 years	18	11, 18%
20-25 years	114	70,81%
>25 years	29	18,01%

Based on the table above, it can be seen that of the 161 subjects, there were 105 male subjects and 56 female subjects. Based on age, there were 18 subjects aged <20 years, 114 subjects aged 20-25 years, and 29 subjects aged >25 years.

Table 2. The Results Of The Discrimination

Item	Cronbach's α	Item-rest correlation	mean	sd
item 1	0.865	0.390	4.081	1.156
item 2	0.866	0.333	3.727	0.806
item 3	0.863	0.444	4.149	0.709
item 4	0.863	0.464	3.870	0.734
item 5	0.868	0.251	4.155	0.811
item 6	0.864	0.398	4.168	1.020
item 7	0.867	0.259	4.093	0.781
item 8	0.864	0.403	3.770	1.026
item 9	0.864	0.407	4.118	0.794
item 10	0.863	0.463	4.267	0.714
item 11	0.862	0.511	4.081	0.741
item 12	0.864	0.407	3.863	0.754
item 13	0.862	0.495	4.087	0.719
item 14	0.864	0.395	4.180	0.749
item 15	0.865	0.361	4.031	0.720
item 16	0.865	0.344	4.404	0.702
item 17	0.864	0.423	4.292	0.677
item 18	0.866	0.326	3.919	0.915
item 19	0.863	0.452	4.217	0.704
item 20	0.862	0.466	4.130	1.025
item 21	0.863	0.441	4.112	0.766
item 22	0.863	0.451	4.068	0.943
item 23	0.867	0.296	4.161	0.843
item 24	0.864	0.427	4.311	0.700

item 25	0.864	0.403	4.124	0.640
item 26	0.863	0.438	4.012	0.790
item 27	0.862	0.495	4.323	0.747
item 28	0.864	0.381	4.255	0.752
item 29	0.862	0.495	4.298	0.669
item 30	0.869	0.292	3.522	1.146

The results of the discrimination test show the level of correlation between each item and the total score (item-rest correlation), which reflects the item's ability to differentiate respondents based on their total score. Based on the theory put forward by Guilford, item correlation values that are worth retaining for further analysis are usually above 0.3 [17]. In this data, most of the items correlate 0.3, such as items 11, 13, 27, and 29, which shows good distinguishing power and is worthy of continuing to the next stage of analysis.

Meanwhile, several items with correlations below 0.3, such as items 5, 7, 18, 23, and 30, have lower distinguishing power. However, in accordance with the views of Ebel and Frisbie, these items can still be considered for further analysis if they have theoretical relevance or provide an important contribution to the aspect being measured [18]. In addition, the stability of Cronbach's α value for the items shows that the instrument has good internal consistency, thus supporting the suitability of this instrument for use in future research.

The results of the Aiken test, used to assess the content validity of each item, indicated a high to very high validity category. For data analysis using the Cronbach's alpha test, the reliability coefficient was found to be 0.868. Further analysis was conducted to determine the factors/dimensions forming Moral Character using Exploratory Factor Analysis (EFA), preceded by assumption testing with the KMO and Bartlett's test. The assumption test results showed a KMO value of 0.796 (>0.05) and Bartlett's Test value of 435.000 ($p < 0.001$), indicating that the assumptions were met, allowing the analysis to proceed to factor analysis.

The Exploratory Factor Analysis (EFA) results revealed three factors with eigenvalues greater than 3. The loading factor results from the EFA are presented in the following table.

Table 3. Loading Factor Results With 3 Factors

Item	Component.		
	Factor 1	Factor 2	Factor 3
Item 1	-	0,823	-
Item 2	0,421	-	-
Item 3	-	-	0,387
Item 4	0,500	-	-
Item 5	-	-	0,347
Item 6	-	0,792	-
Item 7	-	-	0,321
Item 8	-	0,635	-
Item 9	0,513	-	-
Item 10	0,428	-	-
Item 11	0,480	-	-
Item 12	0,580	-	-

Item 13	0,619	-	-
Item14	-	-	0,514
Item 15	0,439	-	-
Item 16	-	-	0,580
Item 17	-	-	0,612
Item18	-	0,501	-
Item 19	-	-	0,552
Item 20	-	0,721	-
Item 21	0,482	-	-
Item 22	-	0,687	-
Item 23	-	-	-
Item 24	-	-	0,375
Item 25	0,427	-	-
Item 26	0,609	-	-
Item 27	-	-	0,469
Item 28	-	-	0,432
Item 29	-	-	0,347
Item 30	0,448	-	-

Based on the table, it is found that this Indonesian version of the MCQ measurement tool forms three factors, consisting of Factor 1 with item numbers 2, 4, 9, 10, 11, 12, 13, 15, 21, 25, 26, 30; Factor 2 with item numbers 1, 6, 8, 18, 20, 22; and Factor 3 with item numbers 3, 5, 7, 14, 16, 17, 19, 24, 27, 28, 29. This result differs from the theory proposed by Furr, Prentice, Hawkins Parham, and Jayawickreme in 2022, which includes seven factors for these 30 items.

One item, item 23, does not meet the factor loading because it is unrelated to the three factors and thus is not included in the CFA analysis.

Confirmatory Factor Analysis (CFA) was conducted to assess this scale's model's fit further. The CFA results for the three factors are shown in the following figure:

Table 4. Results of Additional Fit Measures

Fit Parameter	Output	Criteria	Description
Chi-square p-value	< 0,01	> 0,05	Not Fit
RMSEA	0,061	< 0,08	Fit
GFI	0,978	> 0,9	Fit
SRMR	0,071	< 0,08	Fit

Hu and Bentler stated that the model fit can be assessed through several parameters, including the chi-square p-value ($p > 0.05$), Goodness of Fit ($GFI > 0.9$), Root Mean Square Error of Approximation ($RMSEA < 0.8$), and Standardized Root Mean Square Residual ($SRMR < 0.08$) [19]. The results of the CFA for the Indonesian version of the Moral Character Questionnaire, as shown in the table, indicate that the measurement model generally meets the fit criteria for all the established parameters. This study also shows that the reliability value of the Indonesian version of the Moral Character Questionnaire is $0.867 > 0.05$, indicating that the 30 items are reliable.

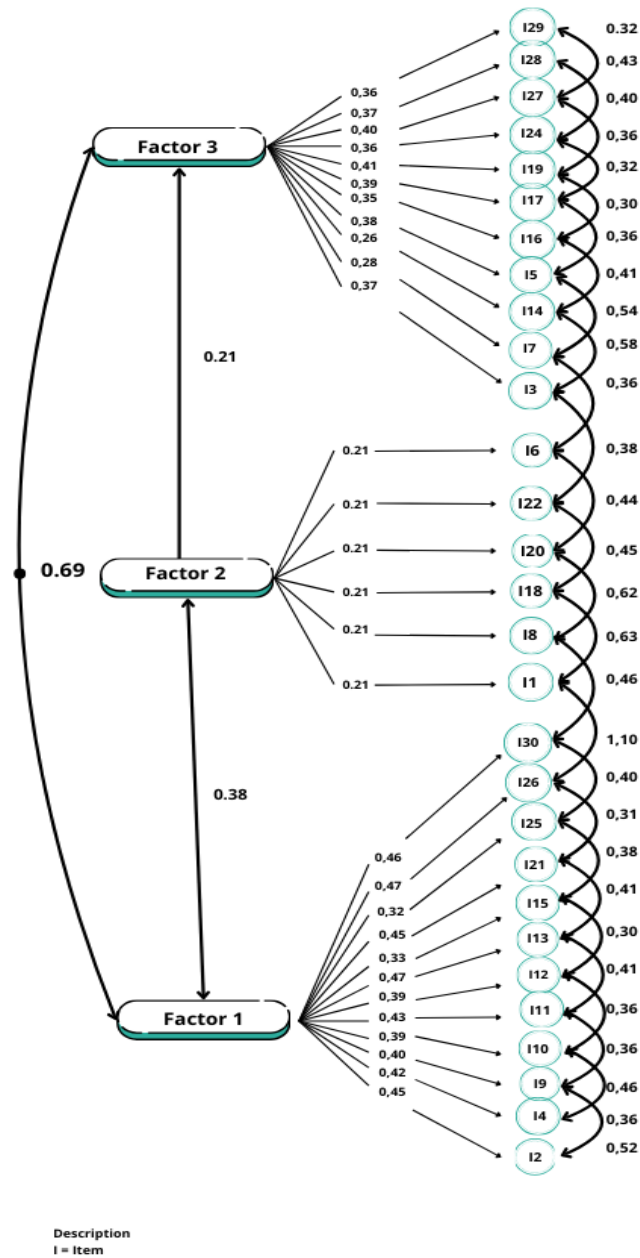


Figure 1. Model Plot of CFA Results for the Indonesian Version of the MSQ Scale

Based on the results of the CFA analysis, the best model for representing the Indonesian version of the Moral Character Questionnaire is the 3-factor model. All its items correspond to the factors that form it, with one item removed.

The first factor emphasizes honesty, integrity, justice, and consistent good behavior. This aligns with the core concepts of moral character as outlined in psychological literature, which includes personal integrity and actions reflecting honesty and justice [7]. The second factor includes items that reflect negative attitudes toward moral values such as honesty, empathy, and loyalty. This is consistent with previous findings identifying negative moral aspects or a lack of morality as an essential dimension in moral character assessment [20]. The third factor focuses on empathy, loyalty, and respect for others. This reflects the interpersonal dimension of moral character, involving caring and respectful relationships with others and a commitment to loyalty [21].

Thus, while the factor results differ from the theoretical reference proposed by Furr, Prentice, Hawkins Parham, and Jayawickreme in 2022, these findings align with the literature on moral character. Their research also identifies honesty, integrity, justice, respect, loyalty, and empathy as essential components of moral character. Additionally, the concept of a lack of morality reflected in the second factor is supported by previous research that differentiates between positive and negative moral character [20].

Several factors may contribute to the differences in the results. First, cultural differences play a significant role. Indonesian culture may have a different view of morality and character than the culture in which the MCQ was developed. For example, honesty, empathy, and justice may be defined and applied differently in Indonesia [22]. Furthermore, Indonesian respondents may interpret items on the adapted scale differently than respondents from the original culture, which could affect the emerging factor structure [23].

Additionally, the translation process. The loss of nuance in meaning is often a challenge in the translation process, where, despite back-translation, some items may still experience significant changes in meaning [24]. Additionally, suboptimal language adaptation may occur when direct translation is insufficient, and further adaptation is needed to ensure the items are relevant and understood in the same way as in the original version [25].

Another critical factor is the population differences in Indonesia. The Indonesian population has different demographic characteristics, such as age, education level, and socio-economic background, which can influence how they respond to items on the scale [26]. Furthermore, differing life experiences and perspectives may cause Indonesian respondents to group items differently from respondents in the original culture [27].

Finally, research methodology can impact the analysis's results. Differences in data collection methods, such as administering surveys online versus on paper, can affect the results of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) [28]. Additionally, the way Indonesian respondents use the Likert scale may differ, such as choosing answers in the middle or at the extremes of the scale, which could also impact measurement results [29].

4 Conclusions

Based on the research results, it was found that the Moral Character measurement tool has a reliability coefficient of $0.868 > 0.5$, indicating that all items are reliable. The results of the EFA show that the Indonesian version of the Moral Character Questionnaire consists of 3 factors, with one item not meeting the factor loading and, therefore, not included in the CFA. In the CFA, all items are valid because the one item that did not meet the factor loading in the EFA is

not present. Thus, it can be concluded that the Indonesian version of the Moral Character Questionnaire is valid for measuring Moral Character.

The factor analysis results of the Indonesian-adapted Moral Character Questionnaire (MCQ) show factors that differ from the original scale. However, these findings align with the literature on moral character in the main scale. Their research also identified honesty, integrity, justice, respect, loyalty, and empathy as essential components of moral character [7].

This difference may be due to cultural variations, the translation process, demographic characteristics, and research methodology. Indonesian culture may influence the perception and application of moral values and how respondents interpret the items on the scale [22], [23]. The translation process could result in losing nuance from the original meaning [24], [25]. Furthermore, demographic differences and data collection methods [26], [28], such as using the Likert scale [29], also contribute to the differences in the results of the EFA and CFA.

Future researchers should test this measurement tool further on a larger sample and modify the language used in each item to be better understood and more appropriately used by the Indonesian population. Additionally, future researchers are expected to revise the items that did not meet the EFA results for retesting.

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