



ISSN: 2617-6548

URL: [www.ijirss.com](http://www.ijirss.com)



## Cross cultural adaptation on cooperative performance measurement

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### Abstract

This research aims to develop a cooperative performance measurement for cross-cultural adaptation in Indonesian organization. It consists of adapted measurement, initial translation, translation synthesis, back-to-back translation, expert reviews, and pilot test. Organizational performance measurement was adapted in the current research. This research used three cooperative experts (academicians, cooperative boards, and government authorities) who duly reviewed the adaptation. A total of 35 cooperative boards participated in the pilot test to ensure measurement reliability. In the current research, the cooperative performance measurement consists of financial and non-financial performance. Financial performance focused on measuring performance in the sales context, return on sales, return on equity, and venture capital. While non-financial performance includes new product introductions, product quality, the total number of cooperative members, the efficiency of product or service marketing strategies, increased company value, and technical advancements. The finding indicates all items of this research were reliable and valid to measure performance of cooperative organization. A cooperative organization is pivotal for the social welfare of its members because it is the cornerstone of national economic progress. Therefore, financial and non-financial performance were appropriately assessed to evaluate cooperative organization performance. Moreover, practitioners and researchers are able to improve the performance of cooperative organization as a whole through financial and non-financial performance.

**Keywords:** Cooperative performance, Cross-cultural adaptation, Financial performance, Non-financial performance, Organizational performance, Pilot test, Reliability and validity test.

**DOI:** 10.53894/ijirss.v6i2.1501

**Funding:** This study received no specific financial support.

**History: Received:** 28 September 2022/**Revised:** 13 January 2023/**Accepted:** 5 April 2023/**Published:** 7 April 2023

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**Authors' Contributions:** All authors contributed equally to the conception and design of the study.

**Competing Interests:** The authors declare that they have no competing interests.

**Transparency:** The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained.

**Ethical Statement:** This study followed all ethical practices during writing.

**Publisher:** Innovative Research Publishing

## 1. Introduction

Cooperative organization significantly impacts the global economy [1]. The International Cooperative Alliance (Ica) [2] reported the participation of over one billion people in cooperative movements worldwide, which created over 100 million jobs and economic wealth worth USD (United States Dollar) 2.1 trillion. This organization to raise the social standards of

its low- and middle-income participants. [3, 4]. Other researchers described cooperative organization as phenomenal compared to other organizational types [5, 6] following its emphasis on ordinary and non-profit organizations [7].

In other context, cooperative organizations have rapidly developed in Indonesia [3]. Following [Ernita, et al. \[8\]](#) state-level cooperative organizations are among the biggest civil society organizations and social enterprises with significant potential for rural development and employment generation in Indonesia. Such organizations, which also contribute to national gross domestic products [9, 10] are the foundation underpinning the Indonesian economy [11, 12]. In line with [Wahyudi and Aini \[13\]](#) the Indonesian economy could be catalyzed through cooperative system implementations despite its emphasis on cooperative members rather than profitability [6, 14].

Furthermore, the local government also strived to enhance and develop cooperative performance because, it is essential to improve the local economy. Cooperative performance, which serves and influences other members, characterizes cooperative organizational goals and functions [15-17]. In this vein, cooperative organizations performance may surpass profit-making to attain collective wealth [14, 16]. Cooperative organizations optimally enhance their members' economic income [18] and social welfare [12, 13, 19]. Following past literature, cooperative performance, which facilitates the smooth operation of cooperative functions and objective fulfilment [20] should be optimized and assessed for high GDP (Gross domestic product) contribution [12, 13, 19].

Performance is regarded as crucial for cooperative groups, specifically non-profit entities that emphasis social welfare [18, 21]. By measuring performance, cooperative managers are able to evaluate the effectiveness and efficiency of revenue cost, asset use, an operational process of the cooperatives management organization [12]. In addition, measuring performance is a foundation for the cooperative managements with aim to assess the level of success and become a benchmark for providing rewards [22].

Performance measurement creates an expectation for the organisation to improve performance and accomplish the cooperatives' objectives [12]. However, the measurements used to define cooperative performance potentially vary from their ordinary business counterparts and the public sector [7]. Following [Hendriani \[23\]](#) cooperative performance measurement is more complex given its dual assessment of both social and economic factors and ambiguous and inconsistent measurement items [Singh, et al. \[24\]](#).

[Yunani and Rustidja \[25\]](#) pointed out that social perspective must be involved in order to measure the cooperative performance rather than economic and organization aspects. In line with [Siregar \[26\]](#), measuring the success of cooperatives is not only seen in terms of the ability of cooperatives in remaining results of the business, but the main thing that must be implemented cooperatives are to promote member economies.

In addition, by assessing financial performance only is unable to provide a solution for both short and long term decision making [22]. Indeed, other scholars highlighted the inability of the indicator to holistically describe cooperative organizational performance [13]. Therefore, cooperative performance must be evaluated by financial and non-financial perspective in order to measure achievement of organization.

In literature, cooperative performance measurement demonstrates inconsistent outcomes. Some scholars identified cooperative performance through financial performance [4, 10] with an emphasis on financial stability [16, 22, 27]. While, others used balance scorecard [Estiasih \[22\]](#); [Jaya \[21\]](#); [Krisnawati \[28\]](#). [Darmawan, et al. \[29\]](#) demonstrates that there are variations in how organisational performance is evaluated and achieved, which causes people to be perplexed when evaluating organizational performance. The differences lead to the further endeavor to develop cooperative performance measurement with financial ratios and non-financial indicators as an instrument to determine optimal measures serving its goals and mitigate the research paucity [16].

Based on above discussion, it can be refereed that the measurement of cooperative has shown inconsistently in literature. The current research intends to develop measurement of cooperative performance by financial and non-financial performance.

This research is interested to study in depth regarding this area. It is due to cooperative-based research remains lacking compared to studies on small and medium enterprises (SMEs) [5]. Thus, this study aims to bridge the gap on cooperative performance measurement in Indonesia and structure a relevant tool with the cross-cultural adaptation procedure.

## 2. Literature

### 2.1. Organizational Performance

Organizational performance continues to garner scholarly attention despite being a well-established concept in management studies [30, 31]. Empirically, organizational performance is a multidimensional and complex notion [32-34] that has been conceptualized by several scholars from the 50s' to date [35-37].

Organizational effectiveness is the first concept underlying organizational performance: a social system that provides resources without incapacitating its means and sources for members' financial sustenance [35]. Relevant researchers began proposing the organizational performance concept in the 60s, 70s, and 80s. Notably, organizational performance implied the organization system in the 60s.

[Seashore and Yuchtman \[36\]](#) defined organizational performance as the ability to manipulate the surrounding environment and access limited resources. In this context, the organization requires valuable and limited resources to be used as a social system and operationalizes the process exchange.

Following [Taouab and Issor \[38\]](#) research, that monitoring efforts related to work performance and achieving organisational goals results in what is known as organisational performance. In the 80s, the organizational performance concept implied a simple outcome based on financial and non-financial indicators to evaluate organizational objectives (organizational effectiveness) [37].

Fareed, et al. [39] considered performance as the implementation and realization of strategic goals that can boost employees' performance with the purpose of getting most out of organizational performance. Notably, 20<sup>th</sup>-century scholars proposed various organizational performance notions based on professional contexts. Khan, et al. [4] defined the organizational performance of cooperatives as organizational success, which is measured by several metrics: profit, sales, return on assets, and return on equity.

Meanwhile, organizational performance denotes organizational standard achievement over a specified period [40]. A business-oriented study defined organizational performance as the extent to which an organization accomplishes its objectives [41]. Likewise, Yadav, et al. [42] denoted organizational performance as the level of organizational objective accomplishment.

Parallel to Wahyuni and Sara [43], Performance indicators for management operations and strategies over a given time period are referred to as organizational performance indicators. Darmawan, et al. [29] further demonstrated that organizational performance is a description of an organization's work to achieve its goals, that are naturally influenced by the organization's resources.

The aforementioned elaborations highlighted performance as a subjective phenomenon that could be interpreted differently in terms of setting and objective. Organizational performance-related connotations entail how individuals define their organizational performance [44]. Also, organizational performance concepts and measurements are associated with organizational identity and the nature in which it operates [7].

Following past research, the following elements must be incorporated to define organizational performance: (1) result or achievement, (2) measurement or indicators, and (3) period [40, 42]. While, the organizational performance in this study depicts the organizational outcomes measured by financial and non-financial performance [37].

## 2.2. Cooperative Organization

Cooperative organization is one of an economic entities in Indonesia, other than private-owned enterprises and state-owned enterprise [21, 45, 46]. A cooperative constitutes an organization with member-owned and controlled governance arrangements that benefit them [47, 48]. In Sitepu and Hasyim [49] a cooperative organization is an association established to conduct businesses and economic activities that benefit its members and fulfil their common needs. Lavenia [50] defines cooperative organization as a legal entity constituting several members based on kinship and economic democracy. Cooperative organization is a pioneer enterprises that participate and assist the government in the welfare of the community in the field of employment Adnyani [45].

Jaya [21] pointed out that measurement of cooperative performance is one of the important factors in cooperatives. It has been controlled and managed annually by the government. Meanwhile, previous scholars performed evaluations with various indicators involving organizational, operational, managerial, and productivity aspects such as a research conducted by Kurniawan and Saifi [20].

In other research, Martini, et al. [12] evaluated cooperative organization performance with four indicators: (1) increase of excellent cooperatives, (2) increase in cooperative growth, (3) increase of financing facilities for cooperatives, and (4) increase in product marketing and partnership of cooperatives. Meanwhile, Triyono, et al. [51] utilized the following six indicators: active cooperative, performance, member participation, service-oriented, people-oriented, and how it contributed to district development.

Andriani and Tamami [19] indicated financial performance, member and customer performance, business process, and cooperative development as the indicators that measure cooperative performance in Indonesia. Several scholars determine performance of cooperative through balance scorecard [21, 22, 28]. For instance, in the research conducted by Estiasih [22] states financial perspective, customer perspective, internal business process perspective and learning and growth perspective used to evaluate the performance of cooperative in Civil Service Cooperative of the Republic of Indonesia "Koperis" Region VII in Surabaya. In line with Krisnawati [28] cooperative in Tangerang city was measured by financial perspective, internal business perspective, learning and growth perspective and customer perspective.

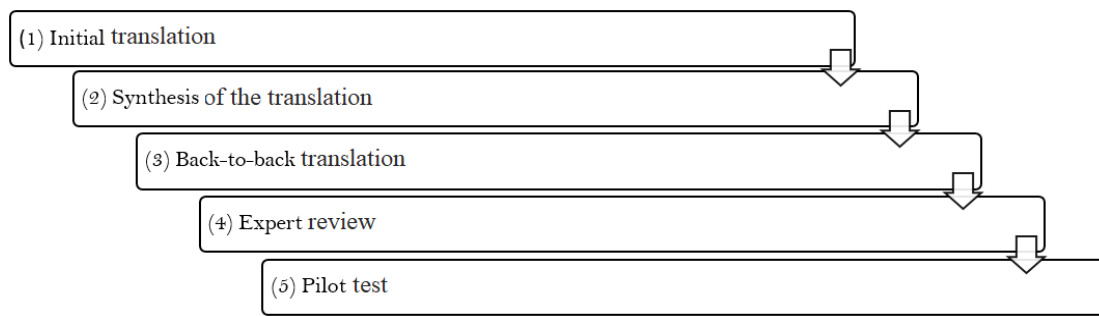
Furthermore, the Indonesian law (number 9, year 2018) stated the utilization of specific items to measure cooperative performance: financial report, effectiveness of annual meeting, effectiveness of member participation, and effectiveness of cooperative management.

Cooperative management must emphasize several criteria for cooperative performance. Inferentially, cooperative performance proves inadequate when only evaluated on a financial basis due to its service-oriented nature [14, 17]. Financial and non-financial performance function as indicators to measure cooperative performance and ensure the organizational focus on progress for members' benefit.

## 3. Method

The current research aims to develop cooperative performance measurement for Indonesia. This study used two steps for the creation of collaborative performance measurement: adapting measuring and cross-cultural adaptation. The first phase constitutes adapting measurement from past scholars while the second counterpart entails the cross-cultural adaptation procedure involving (1) initial translation, (2) synthesis of the translation, (3) back-to-back translation, (4) expert review, and (5) pilot test [52-56].

Figure 1 illustrates cross cultural adaptation procedure.



**Figure 1.**  
 Illustrates cross cultural adaptation procedure.  
**Source:** Cross-cultural adaptation process proposed by [Guillemin, et al. \[54\]](#).

### 3.1. Adapting Measurement

[Venkatraman and Ramanujam \[37\]](#) organizational performance measurement (a subset of organizational effectiveness) was adapted in this study [37, 44, 57]. Nine items were utilized to measure organizational performance in this study, which entails financial and non-financial performance. According to reports, every item demonstrated dependability, with Cronbach's alpha and composite reliability (CR) results exceeding 0.70. [58, 59].

In this context, researchers determine performance of cooperative in the past two years. If a cooperative organisation is unable to produce an annual report within two years, the government intends to close the organization. Cooperative organization should conduct an annual meeting and submit the annual report to the government to ensure that organization is actively and working.

### 3.2. Cross-Cultural Adaptation

Existing instruments across other cultural, linguistic, or geographical settings were utilized in the second phase through cross-cultural adaptation [60]. The five-stage approach established by international recommendations [52, 53, 56] was used in this study's cross-cultural adaptation: (1) initial translation, (2) translation synthesis, (3) back-to-back translation, (4) expert review, and (5) pilot test. The following section will cover each procedure.

#### 3.2.1. Initial Translation

The first step is an initial translation [55, 61]. The aim of this process is to translate the original language to Indonesian version. In initial translation, two professionals translated the original version of the questionnaire into the Indonesian language. [Beaton, et al. \[52\]](#) highlighted the necessity for translators to possess different profiles. Two translators were employed to generate two translations [53]. Academicians and bilingual translators were involved in the first stage. An academician-cum-translator, who teaches and acts as a cooperative consultant, is aware of the questionnaire objective with a sound understanding of cooperative organization. On the other hand, qualified multilingual translators who had no prior understanding of cooperative measuring did translations from the original version into Indonesian. Both translators present written reports for each initial translation result at the process' conclusion.

#### 3.2.2. Synthesis of the Translation

The second stage, synthesis of the translation were involved in order to get verification and consensus by a non-academician (Indonesian language study programmed certificate) [52, 56, 61]. The aim of this process is to ensure that the original translation results have been translated accurately and to examine the accuracy of the grammar. Further, following [Klinsophon, et al. \[61\]](#), the outcome of synthesis of translations produced first consensus version of the questionnaire that can be used for further stage.

#### 3.2.3. Back-to-Back Translation

Both translators received the synthesis results to translate back into English. This phase intended to guarantee that the translation synthesis outcome had goals similar to the original version. At this point, a translator without any formal training in cooperative organizations translated the results of a synthesis of the translations.

#### 3.2.4. Expert Review

Five individuals served as the research's expert reviewers: (1) two academicians, (2) two cooperative boards, and (3) one employee in the department of cooperative and SME. According to [Cipriano \[62\]](#), colleagues, industry experts, and target respondents were involved in questionnaires review in order to finalized the questionnaire. [Guillemin \[53\]](#) suggested that skilled reviewers might change formats or instructions, improve or reject items, create new items, and guarantee a thorough translation.

In this stage, all translations of previous stages were reviewed by five experts. Academicians and cooperative boards received the final back-to-back translation results to evaluate the content validity of the questionnaire. The academicians recommended changing one question on financial success for another and adding two questions about non-financial performance after being given a week to evaluate and comment on the questionnaire's content.

The cooperative board, cooperative, and SME department officers were given access to the amended questionnaire to

assess its validity in terms of its content. The attained consensus ensured that the questionnaire could assess cooperative performance according to governmental standards. All the tests ensured that the pre-distribution of questionnaires to the pilot test and actual respondent groups was reliable. This stage's final measurement can be applied to the following stage.

**3.2.5. Pre-Final (Pilot) Test**

The pilot test was conducted among 35 cooperative boards in Ekambar city, Indonesia to determine face and content validity. Internal consistency and test reliability instruments were used in this test to assess item performance or evaluate and revise an instrument albeit with a small sample [63]. In Beaton, et al. [52] 30 to 40 individuals are sufficient to examine the pre-final version of the instrument. Validity and reliability tests were conducted in this study. In Kimberlin and Winterstein [64] the questionnaire quality is checked by validity and reliability tests. The result of this test is presented in following section;

**3.3. Reliability Test**

The current research conducted reliability test on the final cooperative performance measurement. It is used to ensure that all items were reliable and measure an internal consistency of the instrument [10, 65]. Following Zikmund, et al. [65] When Cronbach alpha was larger than 0.70, a reliability test was accepted and was found good. The reliability test results (see Table 1) demonstrated all items (ranging from 0.80 to 0.9) to be reliable with a Cronbach's alpha exceeding 0.70 following past research. Therefore, all items of this study can be used for another analysis.

**Table 1.**  
Pilot test result.

Item	Number of items	Cronbach's alpha
Financial performance	4	0.954
Non-financial performance	7	0.897

**3.4. Validity Test**

The current research examined validity test to ensure the accuracy of the measurement and score truthfully represent a concept [65]. Regarding the validity test, this study employed a 5% significance level and 35 individuals as study respondents. Table 2 presents the validity test outcomes. All the present study items proved valid with an r count value exceeding 0.33. Thus, all item of this study were valid and reliable for the actual sample.

**Table 2.**  
Validity analysis result.

Variable	Item	r count value	r table value	Remark
Financial performance	FP1	0.857	0.33	Valid
	FP2	0.821	0.33	Valid
	FP3	0.810	0.33	Valid
	FP4	0.926	0.33	Valid
Non-financial performance	NFP1	0.886	0.33	Valid
	NFP2	0.899	0.33	Valid
	NFP3	0.835	0.33	Valid
	NFP4	0.568	0.33	Valid
	NFP5	0.550	0.33	Valid
	NFP6	0.650	0.33	Valid
	NFP7	0.581	0.33	Valid

**4. Discussion**

In the early discussion, this study aims to develop a novel cooperative performance measurement for Indonesian cooperatives. Due to the cooperative's crucial position in Indonesian economic life, where the law guarantees the existence of cooperatives, [12]. One method of assessing an organization's success within a specific time period is through performance measurement, which will help the firm develop a precise future strategy. [66]. Following Ishak, et al. [7], cooperative organization reflects distinctive attributes that vary from other organizational types as it gives focus on social organization and organizational members rather than profitability [13, 14].

A cooperative primarily functions to improve members' social welfare [6, 14, 18]. While, Minister of Cooperatives and Small and Medium Enterprises of Indonesia has developed a regulation number 22/PER/MKUKM/I/2007 (22/Peraturan/Menteri Negara Koperasi dan Usaha Kecil dan Menengah/Indonesia/2007) in order to evaluate the performance of cooperative and It consists of few categories; (1) Have an active business unit, 2) Better organizational performance, 3) Member cohesion and involvement, 4) Discretion for members who have a purpose, 5) Wisdom for society, and 6) Contribute to local government [29]. Thus, financial and non-financial performance should be evaluated in measuring cooperative performance.

Further, this research objective is to fulfill the gap in measuring cooperative performance for Indonesian purpose. Since, there is inconsistency measurement of cooperative performance in literature. The final measurement of the study was



developed based on Venkatraman and Ramanujam [37] evaluation of organizational effectiveness. This research established a measurement based on the cooperative criteria through the cross-cultural adaptation process (translating, deleting, and adding items) to ensure item applicability to measure cooperative performance. Resultantly, financial and non-financial performance appropriately measured that of cooperative organization. All the current study items were analyzed with validity and reliability tests to ensure all item viability and measure the level of organizational achievement.

The result indicated all items were reliable with Cronbach alpha because its values were greater than 0.7 and valid. The research can provide useful insights into cooperative performance measurement for relevant scholars, practitioners, and government authorities. The final 11-item instrument entailed financial and non-financial indicators.

The financial performance indicator includes (1) sales growth, (2) return on sale, and (3) increased number of residual business results associated with (4) high capital. Meanwhile, non-financial performance potentially prioritizes the member by (1) introducing new products, (2) increasing product or service quality, (3) increasing the number of cooperative members, (4) improving member service, (5) adapting to technological changes, (6) improving marketing practice effectiveness, and (7) increasing added value to the product or service.

Based on above result, all items of this research were fulfilling the requirements of Indonesian regulation for measuring performance. It covers all institutional aspects, business aspect, financial aspect, benefit for member, and benefit for society [25]. Therefore, cooperative performance measurement of this research is able to evaluate the performance of cooperative organization.

## 5. Conclusion

Summarily, this study proved financial and non-financial performance to be an appropriate cooperative performance measurement tool. Cooperative organizations must be evaluated with both the aforementioned indicators. It is because cooperative organizations placed a higher priority on member welfare than on profit. The final measurement of cooperative performance of this study was distributed to the cooperative's expert in order to ensure all items were relevant. Thus, performance of cooperative is must be measured in financial and non-financial indicator. The study result expands the current body of literature and facilitates relevant scholars, practitioners, and government officials to evaluate cooperative organization performance.

Nevertheless, several limitations were encountered. The current study's questionnaire was structured for Indonesian cooperatives so that potential researchers might look at various work environments in industrialized and developing nations. The length of the study and the quantity of samples used are two further limitations. Future studies might seek out a broader response group given the short duration and small sample indicated in this study in order to produce meaningful results. Without a doubt, the current study recommends that future research use this parameter to pinpoint cooperative performance.

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**Appendix**

Appendix 1 final instrument for Indonesian and English version.

**Appendix 1.**  
Attachment.

<b>Variable</b>	<b>Indonesian version</b>	<b>English version</b>
Financial performance	Di dalam dua tahun terakhir, organisasi saya telah meningkatkan pada .....	In the last two years, my organization has increased in...
	1) Penjualan	1) Sales
	2) Pengembalian pada penjualan	2) Return on sales
	3) Sisa hasil usaha	3) Residual result of business
	4) modal usaha	4) Venture capital
Non-financial performance	Di dalam dua tahun terakhir organisasi saya telah .....	In the last two years, my organization has.....
	1) Memperkenalkan produk baru	1) Introduced new product
	2) Meningkatkan kualitas produk / jasa	2) Increased quality of product or service
	3) Meningkatkan efektifitas pada praktik pemasaran produk / jasa	3) Increased effectiveness of marketing product or service practices
	4) Meningkatkan nilai tambah pada usaha	4) Increase in added the value of a business
	5) Beradaptasi pada perubahan teknologi dalam pelayanan	5) Adaptation to technological changes in the service
	6) Peningkatan pada pelayanan anggota koperasi	6) Increased cooperative member service
	7) Meningkatkan rasio pada jumlah anggota	7) Increased ratio of the total number of members