

Determination of PhilHealth's Leadership Index Using an In-House Developed Competency Assessment Tool Covering its Formal and Informal Leaders as of February 2016

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TECHNICAL ABSTRACT

ALAMIN ANG KAKAYAHAN, PAGBUTIHIN AT PANATILIHIN (AKaPP) and LEADERSHIP COMPETENCY ASSESSMENT (LCA) TOOLS

Construct Validity and Reliability tests for the Alamin ang Kakayahan, Pagbutihin at Panatilihin (AKaPP) and Leadership Competency Assessment (LCA) tools

This section presents the manner on how validity and reliability was established and determined.

Sample size

For the LCA, 60 (following standard sampling) respondents' data were considered as the sample size of this analysis. The 60 respondents were comprised of 13 self-rated, 21 subordinates, 13 supervisor and 13 peers to provide diverse source of respondents.

For the AKaPP, 100 respondents' data were considered as the sample size of this analysis. From the 100 respondents, 20 self-ratings, 40 subordinate ratings, 20 supervisor rating and 20 peers rating were used to provide diverse source of respondents.

1. Reliability

The reliability of the instrument was determined using Cronbach's alpha. The following table shows the range of Cronbach's alpha and its corresponding strength of association.

Table 2. Cronbach's alpha coefficient range

Cronbach's alpha coefficient range	Strength of association
< 0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
> 0.9	Excellent

Source: <http://www.scielo.org.za/img/revistas/sajie/v26n3/14t4.jpg>
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The LCA and AKaPP tool met the reliability test by scoring excellent rating of .973 and .986, respectively using Cronbach's alpha reliability test. See Table 3.

Table 3. Cronbach's alpha reliability result

Tool	Cronbach's alpha	Number of items	Interpretation
LCA	.973	60	Excellent
AKaPP	.986	149	Excellent

2. Construct Validity

The LCA and AKaPP data gathered by PhilHealth were subjected to analysis using SPSS version 2.0. In determining convergent validity, Spearman rho was used since the data is ordinal. To determine the discriminant validity, Pearson r was used.

To estimate the degree to which any two measures are related to each other we typically use the correlation coefficient. That is, we look at the patterns of inter-correlations among our measures. Correlations between theoretically similar measures should be "high" while correlations between theoretically dissimilar measures should be "low" (Trochim, 2006).

The following table shows the correlation scale as a basis of construct validity.

Table 1. Correlation Scale

Value of r	Interpretation
0.81 to 0.99	Very high correlation
0.61 to 0.80	High correlation
0.41 to 0.60	Moderately high correlation
0.21 to 0.40	Low correlation
0.01 to 0.20	Negligible correlation

Source: Ocampo, J.M. and Marquez, W.G. (2016). *Conceptual math and beyond: Statistics and probability*, Brilliant Creations Publishing, Inc, Manila

LCA Convergent Validity

LCA has eleven constructs covering accountability, integrity, commitment, flexibility and resilience, conflict and crisis management, communication, critical and systemic thinking, creative thinking and innovation, judgment, environmental acumen and leadership.

In Accountability, the inter-item correlation ranges from moderately high-to-high correlation. Majority of the construct on Integrity has moderately high correlation among items with one pair having a very high correlation. A low correlation was found out in the Commitment construct, however, most of the inter-item correlations are moderately high. Flexibility and resilience together with Conflict and Crisis management have two high correlations and one moderately correlation inter-items. In Communication, moderately high correlations dominate the results with some high correlation entries. A high correlation of the majority of inter-items in Critical and Systemic thinking is revealed in the results with one very high correlation. A very high correlation results on the majority of inter-items in the construct creative thinking and innovation. In the construct Judgment, majority of the inter-item correlation is moderately high. Environmental acumen has all high correlation results and in Leadership construct, the results yielded a range from moderately high correlation to very high correlation.

The high correlation coefficient and a strong significant correlation value in the inter-item entries attest that the LCA instrument has an evidence of convergent validity, that is constructs that are expected to be related are, in fact, related. However, in the construct on Commitment, there is one inter-item correlation that is low. This indicates that the items are not related under the same construct.

AKaPP Convergent Validity

There are selected constructs from AKaPP tool that are of similar themes with LCA. Hence, the same eleven constructs from LCA were used to align with the constructs from AKaPP in the context of Leadership index. In terms of Accountability, the inter-item correlation ranges from moderately high-to-high correlation. Integrity has moderately high, high, and high correlation results. A combination of moderately high and high correlation is found in the constructs Commitment and Flexibility and Resilience. A very high correlation is revealed in the Conflict Crisis and Management. A range of moderately high-to-high correlation is attained in Communication. Results in the Critical and Systemic Thinking, Creative Thinking and Innovation, Environmental Acumen yielded all high correlation. In the construct Judgment, results showed a range from high to very high correlation. Lastly, on Leadership, results yielded a range from moderately high to very high correlation.

Consistent with the LCA convergent validity results, as evident in the inter-item correlation, it shows that measures that should be related are in reality related. This is further supported by the range of moderately to very high correlation between the items in the 11 constructs. Furthermore, a p-value of .000 denotes that the correlation is significant at 0.01 signifying that the strength of association between the items in the same construct is strong.

3. Discriminant validity

This type of validity must show that measures that should not be related are in reality not related. For both LCA and AKaPP tools, this type of construct validity was not attained. Based on the results, it revealed a range of moderately high to very high correlation and p-value equal to .000 indicating that dissimilar constructs have a high and significant correlation between them, hence discriminant validity is weak.

Results of validity and reliability test for LCA and AKaPP Tools

Both tools are found to be reliable but partially valid. Both tools did not pass the divergent validity test.

- Method of administering the AKaPP tools

PhilHealth took charge of administering the AKaPP tools through on-line survey completion. PhilHealth randomly identified 2 peers and 1 subordinate and assigned them to rate a particular leader.

Since the AKaPP tool was designed for every personnel, PhilHealth filtered the data so that only leaders on Salary Grades 18 and up were included in the data to be analyzed.

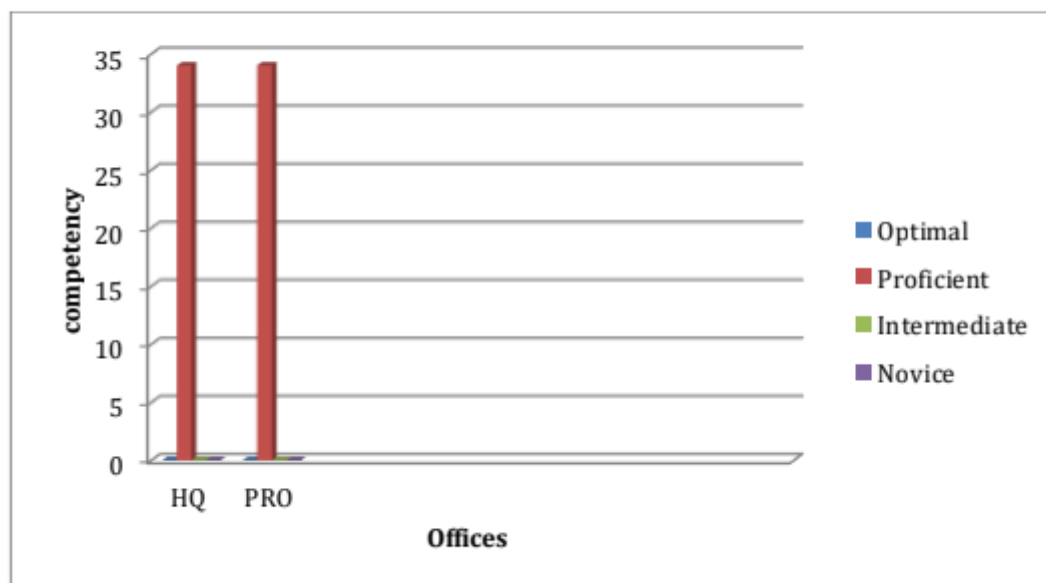
- **Results of the AKaPP tool administration to determine Leadership Index**

As mentioned earlier, Leadership Index is the collective score for the leaders' competency inventory; it shows how well leaders are performing according to a set of competency standards. The goal was for all 483 identified leaders of PhilHealth to have complete AKaPP tool ratings, that is, that each of these leaders have self-ratings, would have been rated by their supervisors, their peers and their subordinates.

In the end, only 94 leaders (SG 18 and up) have complete AKaPP tool ratings.

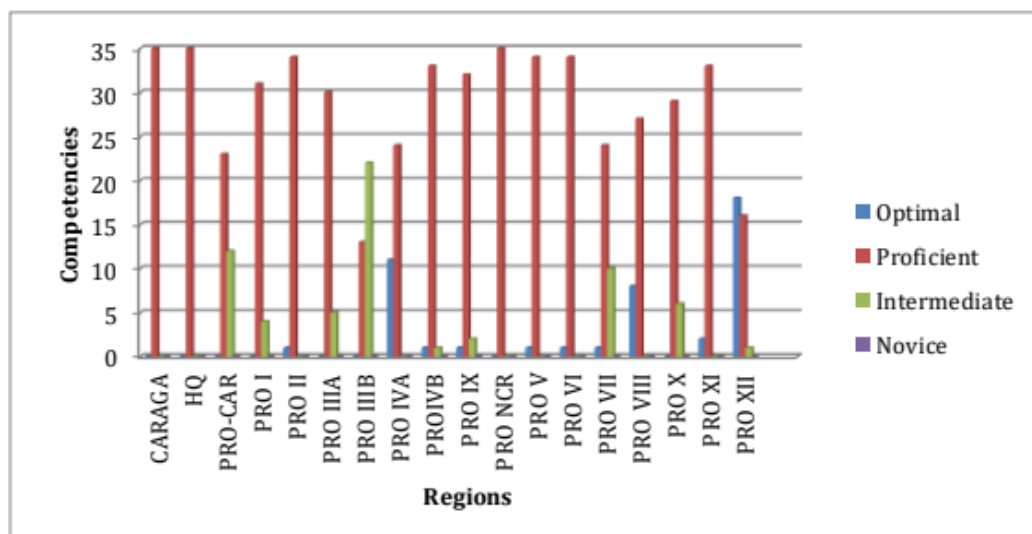
1. In general, the over-all competency level is at proficiency level using mean averages. Even when data is disaggregated into HeadQuarters and Regions, the competency level remains at proficiency level.

Table 6. Leadership Index for Competency by Head Office and Regional Offices



2. However, when we disaggregate the data by region and by salary grades, more nuances are revealed. All regions are represented except ARMM.

Table 5. Competency Level by Regional Offices and Headquarters



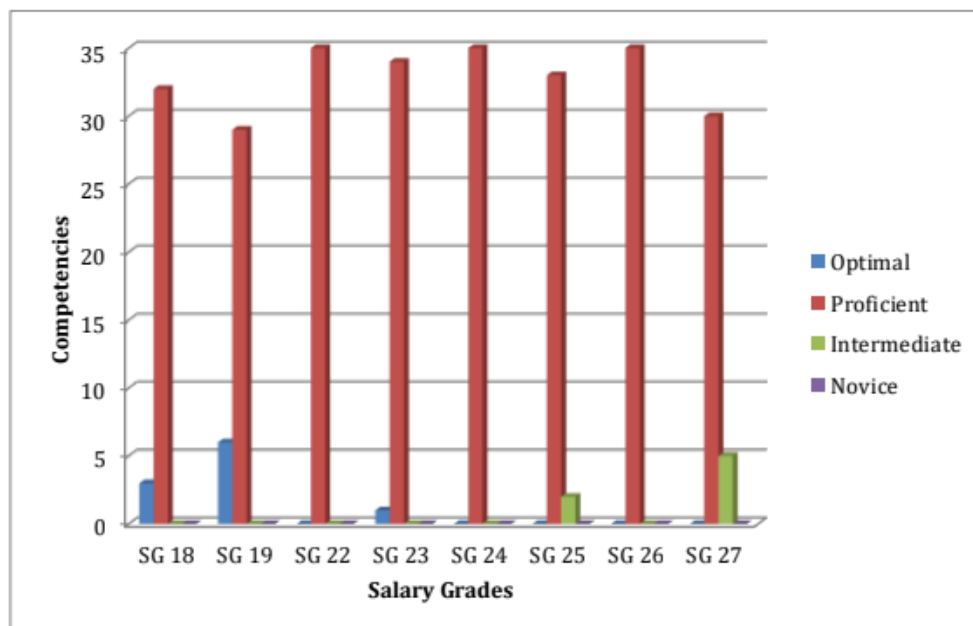
Leadership Index by regions shows that

- There are NO novice levels (novice: difficulty in demonstrating competence)
- Eight (8) regions have intermediate levels on some competency/ constructs
- Four (4) regions: CARAGA, HQ, II, NCR are 100% Proficient Level of Competency. This means they are performing uniformly well according to acceptable standards as a group. Although these regions still have room for improvement.
- Seven (7) regions: PRO II, PRO IV-A, PRO IV-B, PRO V, PRO VI, PRO VIII, and PRO XI have a combination of proficient and optimal competency levels. This means that the group is progressing towards optimal level of competency. PRO XII has the highest number of optimal rating for the highest number of competency, followed by PRO VIII and then by PRO IV-A
- Five (5) regions have a combination of proficient and intermediate levels. Of the 5 regions with a combination of proficient and intermediate levels, PRO III-B has the highest number of intermediate rating for the most number of competency, followed by PRO CAR and PRO VII and the rest.
- Four (4) regions have a combination of proficient, optimal and intermediate levels.

3. Leadership Index by Salary Grades shows that

- SG 18, 19 and 23 has a combination of both proficient and optimal proficiency levels with SG 19 having the highest optimal rating for the most number of competency. These groups are progressing towards optimal level of competency
- SG 25 and 27 showed a combination of proficient and intermediate levels with SG 27 having the highest intermediate rating for the most number of competency. These groups have to improve their performance on organizational communication, analytical/conceptual thinking, knowledge of regulations and regulatory requirements, creative thinking, knowledge of standards, policies and procedures, conflict management and management
- SG 22, 24 and 26 have 100% proficiency level. While performing according to standards on all key behaviors, these groups need to improve on all key behaviors if they wish to reach optimal level of competency.

Table 6. Leadership Index by Salary Grades



As a supplement to the AKaPP tool, the standardized leadership test called Leadership Q-Sort Test was administered. Leadership Value is added to the dimension of Leadership Competence to make up PhilHealth's Leadership Index.

LEADERSHIP Q-SORT TEST

The Leadership Q-Sort Test

The leadership Q-sort test (LQT) was developed by Russel N. Cassel (1958) and is used to assess an individual's values with respect to the leadership role. The 60 items that are contained in the test have been identified by well-qualified leaders as being important to the leadership function. Multiple groups of outstanding leaders have provided ratings on these items that are used as the test norms. By comparing an individual's ratings on the test items with the appropriate test norms a meaningful evaluation is obtained of his/her leadership values and notions.

Reliability

Pearson r was computed between the total scores when compared on the basis of odd and even items respectively. These r 's when corrected by the Spearman-Brown computed correction formula were 0.843 and 0.835.

Validity

This test is presumed to have high face validity. The test for construct validity illustrates relationship for certain other test scores and data. There is significant relationship with peer and instructor ratings relative to leadership competency, social insight, personality tension and needs, class standing, other leadership test scores and the like. There is little or no relationship with academic grades, chronological age, ego strength and the like (Cassel, 1958). Numerous cross validation and prediction studies of an empirical type, and involving varying groups of individuals, have been accomplished by use of the total score on the LQT. The findings have been fairly consistent when individuals with similar levels of leadership experience and competency were involved. An inverse factorial analysis was accomplished for five separate groups of individuals by use of total score from the LQT which extracted five factors based on the five groups.

Scoring

A total score is calculated on LQT, in terms of a fisher Z score is 0.400 or above, the individual has values in the area of leadership which are in significant agreement with similar values by demonstrated effective leaders. Conversely, when the individual's total score is below 0.400, the agreement is not consistent with the values of demonstrated effective leaders. This value is the critical point where optimum discerning is accomplished between the effective and ineffective leaders. Total score is an assessment of the leadership values of an individual in comparison to the test norm group but it does not tell why the subject is in or out of agreement with that norm group. And for this purpose, leadership profile analysis is done. Part scores are also computed and have significant deviation from the norm group when they are above or below the 60 or 40 T-score respectively. The implication of a high score is that the individual maintains excessive values in this area, relative to leadership and these values are in agreement with corresponding values of demonstrated leaders or the test norm group. Low scores mean that the individual taking the test considers the particular item of less importance to effective leadership than do the persons in the norm group.

Sample Data

There were 384 Philhealth leaders from Salary Grade 18 and up who responded to the LQT Test.

Data Analysis

Mean of the scores given by the leaders on each item are calculated which depicts an inclination of PhilHealth leaders towards a pattern. Moreover, profile analysis was done (on the basis of mean scores and mode or frequency count computed) to get an estimate of the employees leadership values. Line graph was used for comparing the six leadership values and general attitude towards leadership values.

LQT RESULTS OF PHILHEALTH

Priority Value: Decision Making (DM)

The highest percentage of PhilHealth leaders (38%) believes that they as leaders are good at making timely and correct decisions and are open minded to suggestions. 38% of PhilHealth leaders think that they should make good and timely decisions and that good decision-making is vital for effective leadership. They believe a leader should possess good foresight ability and plans for the future and should be able to identify critical elements essential for the success of the organization. Only 5% of those surveyed believe that decision-making value is their lowest priority as a value.

Least Priority Value: Mental Health (MH)

Mental Health is another important value in leadership. But it is difficult to achieve because a person has to be well adjusted in personal life in order to serve as an effective leader. He should possess good sense of humor and adjust readily to progressive change. There were only eight percent (8%) of the PhilHealth leaders who said that mental health is their most important value. Twenty three percent (23%) of the group rated mental health as their least priority value. This implies that subordinates may have difficulty believing their leader is not jealous of their accomplishments, get along with other employees and accepts constructive criticism willingly.

2nd Priority Value: Technical Information (TI)

Technical Information represents the value in which a leader develops a sense of responsibility in others and motivates them to have confidence in themselves and perform. A high percentage of PhilHealth leaders (26%) perceive that they believe in this important value. They believe that it is essential for them to broaden their outlook and to learn organizing and managing groups successfully. They feel they have the ability to instruct their subordinates on various issues and explain to them what is expected of them in such situations.

3rd Priority Value and 2nd Least Priority Value: Consideration for Others (C)

Equal percentage of leaders believe Consideration for others is their least priority and for the other half, their 3rd priority value. There were nineteen percent (19%) of leaders who perceived consideration for others as their most priority value which clearly depicts that this group believe in working together and give prime importance to the building of relations of trust and mutual understanding. There were also nineteen percent (19%) of leaders who perceived consideration for others as their least priority value.

Consideration for others is the extent to which a leader exhibits concern for the welfare of the members of the group. This value is oriented towards interpersonal relationship, mutual trust and friendship. It is people-oriented. Lack of consideration behavior from the leader may leave employees feeling unsupported, unrecognized, or confused as they try to navigate conflicts and issues in their roles without any sense of feedback about how they are doing.

Value: Personal Integrity (PI)

Personal Integrity is one of the positive traits for an effective and good leader. It represents an honest, reliable and trustworthy person. Leaders prove this by the actions they take and the decisions they make. When the organizational leadership is based on integrity, employees feel secure. Twelve

percent (12%) of the 384 Philhealth leaders perceived personal integrity as the most important value. There were sixteen percent (16%) PhilHealth leaders who perceived this value to be the least important value.

Value: Teaching and Communication (TC)

Teaching and Communication are essential components of effective leadership. Effective leaders motivate and inspire people by means of clear communication and by teaching them the pros and cons of every situation. Their values are clear and what they say promote their values. The lowest number (7%) of Philhealth leaders believes that the value of communication is a priority. They think leaders should express themselves well but they are not willing to know whether employees feel the same or not.

