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LEADERSHIP SCALE OF BARANGAY LEGISLATORS IN DAVAO CITY: AN APPLICATION OF STRUCTURAL EQUATION MODEL

Cherry Beth T. Padilla and Rec E. Eguia

For additional Information, please contact:

Author’s Name : Cherry Beth T. Padilla
Designation : Graduate, Bachelor of Science in Public Administration
Affiliation : University of Southeastern Philippines
Address : Davao City, Philippines
E-mail : chemajorian_bh.name@university.com

Co-Author’s name : Rec E. Eguia
Designation : Faculty
Affiliation : University of Southeastern Philippines
Address : Davao City, Philippines
Tel. no. : (06382) 293-0390
E-mail : usepmintal_eguia@yahoo.com
LEADERSHIP SCALE OF BARANGAY LEGISLATORS IN DAVAO CITY: AN APPLICATION OF STRUCTURAL EQUATION MODEL

Mildred J. Padilla and Rec E. Eguia

ABSTRACT

This is a study on the development of leadership scale of barangay legislators in Davao City. Survey research was employed, and structured questionnaire was the main research instrument used to gather data from 589 respondents representing various sectors from the three congressional districts and chosen through stratified random sampling. This study, conducted from July 2009 to February 2010, causal research design was used in estimating the Structural Equation Model, primarily to estimate the causal relationships of the variables using a combination of statistical data and qualitative causal assumptions. The following are the findings of the study: The leadership qualities of barangay officials are: takes personal equality among self and others; elicits trust and respect from people; listens to others attentively; is optimistic about achieving goals whenever difficult circumstances arise; knows his/her own strengths and weaknesses; is committed to the duties and responsibilities of his/her position; acts as public model to people; communicates the shared vision to others; understands and knows well his/her duties and responsibilities; and has a deep sense of vocation for public service. The Exploratory Factor Analysis shows that there are only 4 components extracted from the study. These factors are setting directions qualities, personal qualities, broad scanner and primary values. These factors were named in relation to its respective indicators. The Confirmatory Factor Analysis suggests that Model 3 is the best model among the three confirmatory factor models of leadership based on the findings from the model fit indice.

Keywords: Structural Equation Model, leadership, local governance, confirmatory factor analysis

I. Introduction

Leaders are the backbone of every organization. They create the organizations’ vision, support every strategic planning and serve as catalysts of change and development. In today’s rapidly changing world, leaders are necessary to manage different groups of individuals in order to solve chaos and maintain peace and order. Leaders do not only handle difficult circumstances, they also serve as models in every organization that make developmental changes for the benefit of the organization. Leaders are not all alike, but they do tend to share many common characteristics. Research has shown that leaders differ from their followers, and effective leaders differ from ineffective leaders, on various personality traits, cognitive abilities, skills and values (Hughes, Ginnett, Curphy 2006).

The 2007 Leadership Survey results indicate the percentages changed from 17% to 19% of people of color in industry staff positions and 20% to 24% in board positions from the 2004 Leadership Survey shows noticeable increase in the number of
organizations that had in place criteria by which to qualify individuals for board service, perhaps indicating that organizations had become clearer about what they were looking for in board members. The major obstacles to increasing board and staff diversity in 2007 continued to relate to recruitment. Respondents indicated that they did not have sufficient connections with communities of color and that sponsors could help them with recruitment. An impressive number of organizations maintained written commitments to hiring a multicultural workforce and had multiple strategies in place to support diverse staff. Top among support strategies were training, mentoring, and engaging in authentic conversations (Hall, and Gray 2005).

A study conducted on 150 American and Canadian executives shows that 74% consider their overall performance as a leader to be better than that of other executives in their industry; 89% say they are doing better than others when it comes to "willingness to collaborate with others on their team; 79% say they are doing better than others when it comes to demonstrating awareness of the issues and challenges facing their employees; and 64% consider their "commitment to their own leadership development" to be better than other executives (Steeves 2008).

The study is conducted because of the alarming issue that leaders are competing with their teams and are not aware and knows how to effectively perform their duties and responsibilities together with their peers which affects the organization’s effectiveness, efficiency and performance. Leadership is more than just the kind of person the leader is or the things the leader does. Leadership is the process of influencing others towards the achievement of group goals; it is not just a person or a position (Hughes, Ginnet, Curphy 2006).

Leaders in any organization whether private or public sector make deliberate choices about how to tackle different situations and people. A National Health Service in England confirmed that the range of situations leaders face demands the use of a wide range of qualities, in particular combinations.

The emergence of creativity and innovations at the different local level is said to be due to many factors. Some of these factors include the people’s participation and support, multisectoral cooperation, media and information dissemination, support from external international institutions, and leadership. Perhaps, if we were to prioritize according to the level of importance of these various factors, the role of leadership would play a key role in successful local governance. (Brillantes Jr., 2003).

“A barangay is the smallest political subdivision or unit of the government which serves as the primary planning and implementing arm of the government programs, projects and activities. It also serves as the place where the collective views of the people in the community are discussed and considered” (Florez and Abletez, 1990). Barangays are homegrown form of local government. So, it is only rightful that every barangay should be manned effectively because a barangay, as the only indigenous local government unit, is the people’s contribution to the science of government.

Through the 1991 Local Government Code, local government units, especially barangays are said to achieve a certain level of good governance not only because of the decentralized power, authority and resources but also because of the roles and attributes of every barangay official.

Because of devolution, not only with the devolution of power but also with the authority and resources, it opened up great opportunities for local government units to innovate and design programs for the improvement of the welfare of their people. By showing that local leaders are effective leaders, their actions can bring them to national government toward greater adherence to the principle of subsidiarity and will produce a meaningful effect on the local autonomy.
Leadership in local government is unique because the local authority is the only organization with a democratic mandate to serve its locality. Local government officers serve all elected members, not only those in power and unlike the private sector, local government serve everyone in the locality, not just the customers it seeks. Also, leadership ability of barangay officials provide asset to their own community.

The task of local government is more than to deliver good services, vital though that is. It is to provide leadership of locality, engaging many other organizations and people with the aim of making it a better place for everyone to live.

Finding and developing the potentials of leaders remain a great challenge for organizations today. Leaders vary from different characterizations which leaves people blank-minded on what the true qualities of a leader are.

Thus, a study was conducted to bring out the different characteristics of leadership that barangay leaders should possess in order for them to support the needs of their local people.

II. Objective
Leadership is an important element of planned change and development. It is also the source of crisis and underdevelopment of the organization or community if the people are not politically matured in choosing a leader. Thus, this study is aimed at developing a leadership scale of barangay legislators in Davao City.

Specially, it sought answers to the following objectives:
1. To determine the structural factors of leadership qualities of barangay officials; and
2. To determine the appropriate leadership scale that could be developed and adopted for barangay officials in Davao City.

III. Analytical Framework
This study is anchored on Bernard M. Bass (1998) transformational leadership theory. Transformational leadership theory defines leadership as creating valuable and positive change in the followers. A transformational leader focuses on "transforming" others to help each other, to look out for each other, to be encouraging and harmonious, and to look out for the organization as a whole. In this leadership, the leader enhances the motivation, morale and performance of his follower group. The extent to which leader is transformational, is measured first, in terms of his influence on the followers. The followers of such leader feel trust, admiration, loyalty and respect to the leader and they will do more than they expected in the beginning. The leader transforms and motivates followers by charisma, intellectual arousal and individual consideration. In addition, this leader seeks for new working ways, while he tries to identify new opportunities versus threats and tries to get out of the status quo and alter the environment.

The full range of leadership introduces four elements of a transformational leader:
1. Individualized consideration- the degree to which the leader attends to each follower's needs, acts as a mentor or coach to the follower and listens to the follower's concerns and needs. The leader gives empathy and support, keeps communication open and places challenges before the followers. This also encompasses the need for respect and celebrates the individual contribution that each follower can make to the team. The followers have a will and aspirations for self development and have intrinsic motivation for their tasks.
2. Intellectual stimulation-the degree to which the leader challenges assumptions, takes risks and solicits followers' ideas. Leaders with this trait stimulate and encourage creativity in their followers. They nurture and develop people who think independently.
For such a leader, learning is a value and unexpected situations are seen as opportunities to learn. The followers ask questions, think deeply about things and figure out better ways to execute their tasks.

3. Inspirational motivation - the degree to which the leader articulates a vision that is appealing and inspiring to followers. Leaders with inspirational motivation challenge followers with high standards, communicate optimism about future goals, and provide meaning for the task at hand. Followers need to have a strong sense of purpose if they are to be motivated to act. Purpose and meaning provide the energy that drives a group forward.

   The visionary aspect of leadership is supported by communication skills that make it precise and powerful. The followers are willing to invest more effort in their tasks, they are encouraged and optimistic about the future and believe in their abilities.

4. Idealized Influence - Provides vision and sense of mission, instills pride, gains respect and trust.

IV. Conceptual Framework

   Figure 1 shows the relationship between the different variables which describe the qualities of good leaders that are necessary for the barangay officials in the three Districts of Davao City. The framework shows the different characteristics of barangay leaders – setting direction qualities, personal qualities, broad scanner and primary values. All these variables and factors are conceptualized to be good leadership qualities and become the basis of coming up with a leadership model for barangay officials in Davao City.

Figure 1: The Conceptual Framework Showing the Variables That Determines Good Leaders.

V. Research Design

   The study make used of causal research design using the Structural Equation Model specifically Confirmatory Factor Analysis. Causal research explores the effect of one thing on another or the effect of one variable on another. Their research design was
used in the study to test factorial structure and model the direction of relationships among a set of variables.

In the context of this study, the Exploratory Factor Analysis was used to reduce and identify underlying factor structure of a set of variables which are the leadership qualities.

VI. Sources of Data

The main sources of data were the residents of the selected barangays of the three districts in Davao City who were selected as respondents and who responded to the questionnaire which was used as interview guide.

A questionnaire was used to elicit information on the variables under study. The said research instrument was purely written in English. It is divided into two parts. The first part is on the socio-demographic characteristics of the respondents and the second part is on the leadership qualities of the barangay officials in Davao City. Respondents were interpreted using the following scale:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>strongly agree</td>
</tr>
<tr>
<td>4</td>
<td>fairly agree</td>
</tr>
<tr>
<td>3</td>
<td>agree</td>
</tr>
<tr>
<td>2</td>
<td>disagree</td>
</tr>
<tr>
<td>1</td>
<td>strongly disagree</td>
</tr>
</tbody>
</table>

VII. Sampling Technique

Stratified random sampling was used where respondents were divided into groups that are similar in some ways. There are 589 respondents from the different sectors which include farmers, youth, women, businessmen, government and non-government employees from the barangay in the three congressional districts under study.

VIII. Data Analysis

Exploratory factor analysis (EFA) was used to explore the possible underlying factor structure of a set of observed variables which in this study are the leadership qualities. The Kaiser-Meyer-Olkin measure of sampling adequacy tests whether the partial correlations among the qualities are small. Bartlett's test of sphericity tests whether the correlation matrix is an identity matrix, which would indicate that the factor model is inappropriate. The Scree plot is a graphical method for determining the number of factors. The eigenvalues are plotted in the sequence of the principal factors. The number of factors is chosen where the plot levels off to a linear decreasing pattern.

Confirmatory factor analysis is a theory-testing model as opposed to a theory-generating method like exploratory factor analysis. In confirmatory factor analysis, the researcher begins with a hypothesis prior to the analysis. This model, or hypothesis, specifies which variables will be correlated with which factors and which factors are correlated. The hypothesis is based on a strong theoretical and/or empirical foundation. The fit statistics test how well the competing models fit the data. A goodness-of-fit test evaluates the model in terms of the fixed parameters used to specify the model, and acceptance or rejection of the model in terms of the over identifying conditions in the model. Examples of these statistics include the chi square/degrees of freedom ratio, the Bentler comparative fit index (CFI) (Bentler, 1990), the parsimony ratio, and the Goodness-of-Fit Index (GFI) (Joreskog & Sorbom, 1989), Bentler-Bonett Normed Fix Index, Bentler-Bonett Non-Normed Fix Index, Bollen’s Fit Index, Root Mean-Square Residual (Rmr), Standardized Rmr, Root Mean-Square Error of Approximation (Rmsea),
90% Confidence Interval of Rmsea, Chi square Value, Probability Value and Root Mean-Square Error of Approximation Value (Stapleton 1997). A "good fit" is not the same as strength of relationship: one could have perfect fit when all variables in the model were totally uncorrelated to constrain the variances. In fact, the lower the correlations stipulated in the model, the easier it is to find "good fit." The stronger the correlations, the more power SEM has to detect an incorrect model. When correlations are low, the researcher may lack the power to reject the model at hand. Also, all measures overestimate goodness of fit for small samples (<200), though RMSEA and CFI are less sensitive to sample size than others. Root Mean – Square Residual or RMR is the mean absolute value of the covariance residuals. Its lower bound is zero but there is no upper bound, which depends on the scale of the measured variables. The closer RMR is to 0, the better the model fit. One sees in the literature such rules of thumb as that RMR should be < .10, or .08, or .06, or .05, or even .04 for a well-fitting model. These rules of thumb are not unreasonable, but since RMR has no upper bound, an unstandardized RMR above such thresholds does not necessarily indicate a poorly fitting model. As RMR is difficult to interpret, SRMR is recommended instead. Unstandardized RMR is the coefficient which results from taking the square root of the mean of the squared residuals, which are the amounts by which the sample variances and covariances differ from the corresponding estimated variances and covariances, estimated on the assumption that your model is correct (Garzon 2009).

AIC is the Akaike Information Criterion. AIC is a goodness-of-fit measure which adjusts model chi-square to penalize for model complexity (that is, for lack of parsimony and overparameterization). Thus AIC reflects the discrepancy between model-implied and observed covariance matrices. AIC may be used to compare models with different numbers of latent variables, not just tested models with the same latents but fewer arrows. That is, unlike model chi-square, AIC may be used to compare non-hierarchical as well as hierarchical (nested) models based on the same dataset, whereas model chi-square difference is used only for the latter. The absolute value of AIC has no intuitive value, except by comparison with another AIC, in which case the lower AIC reflects the better-fitting model. AIC close to zero reflects good fit. It is possible to obtain AIC values < 0. In model development, the researcher stops modifying when AIC starts rising (Garzon 2009).

Confirmatory factor analysis (CFA) was used to test how well the measured variables represent the number of constructs. Confirmatory analysis (CFA) can specify the number of factors required in the data and which measured variable is related to which latent variable. Confirmatory factor analysis (CFA) is a tool that is used to confirm or reject the measurement theory (Suhr 2006).

There are two softwares used in this study in order to analyze the given problem. Problem 1 was analyzed using SPSS version 16. Problem 2 was computed using the Structural Equation Modeling with the use of the software EQS version 6.1 for Windows.

IX. Results and Discussion

Structural Factor Model of Leadership

This section shows the relationship of the different variables in order to arrive at a concentrated model that will serve as theory. Factor Analysis makes use of KMO and Bartlett’s Test, Total Variance Explained, Scree Plot and the Rotated Component Matrix.

KMO and Bartlett’s Test. The Kaiser-Meyer-Olkin measure of sampling adequacy tests whether the partial correlations among items are small. Bartlett's test of sphericity tests whether the correlation matrix is an identity matrix, which would indicate that the factor model is inappropriate. The KMO result is .957 and is more than the
constant acceptance value which is .6. This implies that the sampling size of this study is highly acceptable. If the significant level is less than \(<\) .05, the relationship is significant. Therefore, reject the null hypothesis. If the significant level is greater than \(\geq\) .05, the study is not significant. In this case, the significant level is .000 which means that the indicators of leadership are highly inter-correlated.

**Total Variance Explained.** Total variance explained is used to determine the number of factors of leadership scale. Component 1 has a total initial value of 12.394, % of variance is 44.264 and cumulative % of 44.264; component 2 has a total of 1.617, % of variance is 5.775 and the cumulative % is 50.039; component 3 has a total of 1.355, % of variance is 4.840 and cumulative % of 54.879 and component 4 has a total of 1.093, % of variance of 3.903 and cumulative % of 58.182. Four factors have been extracted from the original size of 28 components with the use of the initial Eigenvalues which was set to its standardized value of 1.

**Scree Plot.** The scree plot is the graphical explanation of the total variance explained. The scree plot shows the gradual trailing of the eigenvalues and shows the relative fit of each principal component. It does this by plotting the proportion of the variance of the data that is fit by each component versus the number of components. The plot shows the relative importance of each component in fitting the data. The components are always sorted according to their relative importance, so initial components will always explain more variance than those in subsequent positions. Figure 1 shows the scree plot of the different Eigenvalues obtained for each factor. Component 1 is plotted at 12.394; component 2 at 1.617; component 3 at 1.355; component 4 at 1.093; component 5 at .914; component 6 at .842; component 7 at .742; component 8 at .699; component 9 at .622; component 10 at .646; component 11 at .595; component 12 at .567; component 13 at .512; component 14 at .487; component 15 at .470; component 16 at .456; component 17 at .452; component 18 at .398; component 19 at .378; component 20 at .369; component 21 at .349; component 22 at .341; component 23 at .320; component 24 at .292; component 25 at .281; component 26 at .279; component 27 at .251; component 28 at .239.

**Rotated Component Matrix.** Table 1 shows the result of the rotated component matrix. There are four components or factors taken from the result of the total variance explained. These factors are setting directions qualities, personal qualities, broad scanner and primary values. These factors were named in relation with its respective indicators.

The table below shows the four identified factors with their respective items to the main concept which is leadership. The first factor is setting directions qualities. It has yielded the following patterns of items: high level of initiative; problem identification; duties and responsibilities’ awareness; always defend the dignity of others; deep sense of public service; participative in decision-making and improving the quality of life of many people. Most patterns of items would range from the highest value which is .721 down to the lowest value which is .557.

The second factor is the personal qualities. It has yielded the following items: determined; works beyond the call of duty and responsibility; optimistic; aware on his/her personal impact to people; aware of his/her strengths and weaknesses; confident; copes with increasingly complex environment and understands the nature of people. It has a pattern of coefficient ranging from highest value which is .724 down to lowest value which is .510.

The third factor is broad scanner. It has yielded the following items: always gives a go; manages time efficiently; duties and responsibilities committed; public model; integrated officer; consider most important the building of a greater community; communicates the shared vision and is prepared to undertake the incoming
transformational changes. Most patterns of items would range from the highest value which is .760 down to the lowest value which is .502. The last factor is primary values. It has yielded the following pattern of items: personal equality; elicits trust and respect from people; listens to others attentively and considers trust as very essential. Most patterns of coefficients have generated the following items ranging from the highest value which is .767 down to the lowest value which is .511.

Table 1. Rotated Component Matrix

<table>
<thead>
<tr>
<th>Components</th>
<th>Setting Directions Qualities</th>
<th>Personal Qualities</th>
<th>Broad Scanner</th>
<th>Primary Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>L21</td>
<td>.677</td>
<td>L5</td>
<td>.510</td>
<td>L7</td>
</tr>
<tr>
<td>L22</td>
<td>.719</td>
<td>L6</td>
<td>.512</td>
<td>L14</td>
</tr>
<tr>
<td>L23</td>
<td>.721</td>
<td>L8</td>
<td>.540</td>
<td>L15</td>
</tr>
<tr>
<td>L25</td>
<td>.682</td>
<td>L10</td>
<td>.666</td>
<td>L17</td>
</tr>
<tr>
<td>L27</td>
<td>.557</td>
<td>L12</td>
<td>.634</td>
<td>L19</td>
</tr>
<tr>
<td>L28</td>
<td>.612</td>
<td>L13</td>
<td>.537</td>
<td>L20</td>
</tr>
<tr>
<td>Total</td>
<td>5.31</td>
<td>Total</td>
<td>4.812</td>
<td>Total</td>
</tr>
</tbody>
</table>

Confirmatory Factor Analysis

Model 1: Two-Factor Model

This first model shows the relationship of the variables using the two-factor model. This model is a combination of the first and the second factors that make up the new first factor while the second the third factors were combined to make a better factor. The diagram used the model fit indices, reliability coefficients and the path analysis as basis for the said model.

Model Fit Indices. Table 2 shows the model fit indices of the two-factor diagram using the Bentler-Bonett Normed Fit Index that has a value of .789. The value is between .90 to .95 which implies that the model is acceptable.

Bentler-Bonett Non-Normed Fit Index is .815; Comparative Fit Index (CFI) is .829; Bollen's (IFI) Fit Index is .829; Root Mean-Square Residual (Rmr) is .053. This is the mean absolute value of the covariance residuals. The value of Rmr shows that the model has a good fit because it is closer to 0. The closer RMR is to 0, the better the model fit. This implies that it is a well-fitting model.

Standardized Rmr is .058 which is lower than .08 which shows that the model adequately fits. This only means that standardized Rmr shows goodness of fit. Root Mean-Square Error of Approximation (Rmsea) is .087 and 90% Confidence Interval Of Rmsea has a value of (.083, .090). The Model AIC value for the first model is 1187.686.

Table 2. Two-Factor Summary Of Model Fit Indices

<p>| Bentler-Bonett Normed Fit Index | .798 |
| Bentler-Bonett Non-Normed Fit Index | .815 |
| Comparative Fit Index (CFI) | .829 |</p>
<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bollen's Fit Index</td>
<td>.829</td>
</tr>
<tr>
<td>Root Mean-Square Residual (RMR)</td>
<td>.053</td>
</tr>
<tr>
<td>Standardized Rmr</td>
<td>.058</td>
</tr>
<tr>
<td>Root Mean-Square Error Of Approximation (RMSEA)</td>
<td>.087</td>
</tr>
<tr>
<td>90% Confidence Interval Of RMSEA</td>
<td>(.083,.090)</td>
</tr>
<tr>
<td>Chi Square Value</td>
<td>1885.70</td>
</tr>
<tr>
<td>Probability Value</td>
<td>0.83</td>
</tr>
<tr>
<td>Root Mean-Square Error of Approximation Value</td>
<td>.955</td>
</tr>
</tbody>
</table>

**Reliability Coefficients.** The reliability coefficient shows the Cronbach’s Alpha which is .953 and the Reliability Coefficient Rho with the value of .955 which show that they are both higher than the standard value of .8. This suggests that the instrument used in the study is reliable.

**Structured Correlation Coefficients.** Figure 2 shows the path diagram of the two-factor model. The framework shows the relationship of the different variables using a two-factor diagram with their corresponding values in parameter estimates. The devariance of the first factor which is a combination of the setting directions qualities and personal qualities would range from minimum value of 0.96 and a maximum value of 1.16. The sample items for setting directions qualities and personal qualities are: high level of initiative; problem identification; duties and responsibilities’ awareness; defend the dignity of others; deep sense of public service; participative in decision-making improving the quality of life of many people, determined; works beyond the call of duty and responsibility; optimistic; aware on his/her personal impact to people; aware of his/her strengths and weaknesses; confident; copes with increasingly complex environment; and understands the nature of people.

The second factor is the combined factors of broad scanner and primary values. The devariance of the second factor would range from the lowest value which is 1.35 and the highest value obtained which is 2.27. The sample items that belong to broad scanner and primary values are: always gives a go; manages time efficiently; duties and responsibilities committed; public model; integrated officer; consider most important the building of a greater community; communicates the shared vision; is prepared to undertake the incoming transformational changes; personal equality; elicits trust and respect from people; listens to others attentively and considers trust as very essential.
Figure X: EQS 6 data 2 factors (para.esti). Chisq=1885.70  P=0.99  CFI=0.83  RMSEA=0.09

Figure 2: Structured Correlation Coefficients of Two-Factor Model

Model 2: Three-Factor Model
This model shows the three-factor diagram which was taken from its original model which was the two-factor diagram. It was reduced into three-factor model by
combining factor 4 to the remaining three factors. Model 2 has presented the model fit indices, reliability coefficients and the path analysis as basis for this model.

**Model Fit Indices.** Table 3 shows the model fit indices of the three factor diagram with its corresponding values in Bentler-Bonett Normed Fit Index that has a value of .839. The value is of .90 to .95 which implies that the model is acceptable.

Bentler-Bonett Non-Normed Fit Index is .859; Comparative Fit Index (CFI) is .871; Bollen's (Ifi) Fit Index is .871; Root Mean-Square Residual (Rmr) is .048. This has a smaller value compared to the first model. The value of Rmr shows that the model is a good fit because it is closer to 0. The closer RMR is to 0, the better the model fit. It only implies that it is a well-fitting model.

Standardized Rmr is .053 which is lower than .08 which shows that the model adequately fits. This only means that standardized Rmr shows goodness of fit. It has the same Rmr value with the first model. Root Mean-Square Error of Approximation (RMSEA) is .075 and 90% Confidence Interval Of RMsea has a value of (.071,.079). The Model Akaike Information Criterion or AIC value for model two is 811.220.

**Table 3. Three-Factor Summary of Model Fit Indices**

<table>
<thead>
<tr>
<th>Model Fit Indices</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bentler-Bonett Normed Fit Index</td>
<td>.839</td>
</tr>
<tr>
<td>Bentler-Bonett Non-Normed Fit Index</td>
<td>.859</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>.871</td>
</tr>
<tr>
<td>Bollen's Fit Index</td>
<td>.871</td>
</tr>
<tr>
<td>Root Mean-Square Residual (RMR)</td>
<td>.048</td>
</tr>
<tr>
<td>Standardized Rmr</td>
<td>.053</td>
</tr>
<tr>
<td>Root Mean-Square Error Of Approximation (RMSEA)</td>
<td>.075</td>
</tr>
<tr>
<td>90% Confidence Interval Of RMSEA</td>
<td>(.071,.079)</td>
</tr>
<tr>
<td>Chi Square value</td>
<td>1505.20</td>
</tr>
<tr>
<td>Probability Value</td>
<td>0.10</td>
</tr>
<tr>
<td>Comparative Fit Index value</td>
<td>0.87</td>
</tr>
<tr>
<td>Root Mean-Square Error of Approximation value</td>
<td>0.08</td>
</tr>
</tbody>
</table>

**Reliability Coefficients.** The reliability coefficient shows the Cronbach’s Alpha which is .953 and the Reliability Coefficient Rho with a value of .957 which shows that they are both higher than the standard value of .8. This suggests that the instrument used in this study is reliable.

**Structured Correlation Coefficient.** Figure 3 shows the path diagram of the three-factor model. The framework illustrates the relationship of the three factors with their corresponding parameter estimates values. The first factor is a combination of setting-directions qualities and primary values. It yielded the lowest devariance which is 2.35 and the highest value of devariance is 2.71. The items that belong to setting directions qualities and personal qualities are personal equality; high level of initiative; problem identification; duties and responsibilities' awareness; defend the dignity of others; deep sense of public service; participative in decision-making; and improving the quality of life of many people.

The second factor is a result of the combined factors of personal qualities and primary values. The factor had the devariance value that range from minimum of 1.42 and a maximum devariance value of 1.67. The sample items of the personal qualities and primary values are elicits trust and respect from people; determined; works beyond the call of duty and responsibility; optimistic; aware on his/her personal impact to people; aware of his/her strengths and weaknesses; confident; copes with increasingly complex environment; and understands the nature of people.
The third factor was taken from the factors of combined broad scanner and primary values. It yielded the lowest devariance value which is 1.18 and the highest devariance value of 1.63. The sample items of broad scanner and primary values are listens to others attentively; considers trust as very essential; always gives a go; manages time efficiently; duties and responsibilities committed; public model; integrated officer; consider most important the building of a greater community; communicates the shared vision; and is prepared to undertake the incoming transformational changes.

Figure X: EQS 6 data 3 factors (para.esti).eds Chi Sq.=1505.20 P=0.10 CFI=0.87 RMSEA=0.08

Figure 4: Structured Correlation Coefficients of Three-Factor Model
Model 3: Four-Factor Model

This model shows the four factor diagram based on the findings and result using the EQS. The model is presented with the model fit indices, reliability coefficients and the path analysis.

**Model Fit Indices.** Table 4 shows the model fit indices of the four-factor diagram with corresponding values which include the Bentler-Bonett Normed Fit Index which has a value of .861. The value is between .90 to .95 which implies that the model is acceptable. Bentler-Bonett Non-Normed Fit Index is .883; Comparative Fit Index (CFI) is .894; Bollen's (IFI) Fit Index is .894; Root Mean-Square Residual (Rmr) is .043. This has a smaller value compared to the first and second model which means that Model one is more acceptable in terms of Rmr value because it is closer to 0. The value of Rmr shows that the model fits because it is closer to 0. The closer RMR is to 0, the better the model fit. This implies that Model 3 is a well-fitting model. Standardized Rmr is .047 lower than the .08 shows that the model adequately fits. This means that standardized Rmr shows that there is a goodness of fit. It has the same Rmr value with the first model. Root Mean-Square Error of Approximation (RMSEA) is .067 and 90% Confidence Interval of RMSEA has a value of (.065, .073). The AIC value for this model is 609.562.

<table>
<thead>
<tr>
<th>Bentler-Bonett Normed Fit Index</th>
<th>.861</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bentler-Bonett Non-Normed Fit Index</td>
<td>.883</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>.894</td>
</tr>
<tr>
<td>Bollen's Fit Index</td>
<td>.894</td>
</tr>
<tr>
<td>Root Mean-Square Residual (RMR)</td>
<td>.043</td>
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<tr>
<td>Standardized Rmr</td>
<td>.047</td>
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<tr>
<td>Root Mean-Square Error Of Approximation (RMSEA)</td>
<td>.069</td>
</tr>
<tr>
<td>90% Confidence Interval Of RMSEA</td>
<td>(.065, .073)</td>
</tr>
<tr>
<td>Chi Square Value</td>
<td>1297.60</td>
</tr>
<tr>
<td>Probability Value</td>
<td>0.14</td>
</tr>
<tr>
<td>Comparative Fit Index Value</td>
<td>0.89</td>
</tr>
<tr>
<td>Root Mean-Square Error of Approximation Value</td>
<td>0.07</td>
</tr>
</tbody>
</table>

**Reliability Coefficients.** The reliability coefficient shows the Cronbach’s Alpha which is .953 and the Reliability Coefficient Rho with value of .959 which shows that they are both higher than the standard value of .8. This suggests that the instrument used in this study is reliable.

**Structured Correlation Coefficient.** Figure 4 shows the path diagram of the four-factor model. It shows the relationship of the four factors and their corresponding indicators indicated by parameter estimates values. The first factor is the setting directions qualities. It yielded the lowest devariance value of 0.98 and the highest devariance value of 1.13. The items that belong to the setting directions include high level of initiative; problem identification; duties and responsibilities’ awareness; defend the dignity of others; deep sense of public service; participative in decision-making; and improving the quality of life of many people.

The second factor is the personal values. The devariance of the second factor would range from the minimum of 1.01 and the maximum devariance value of 1.18. The components of personal values are: works beyond the call of duty and responsibility; optimistic; aware on his/her personal impact to people; aware of his/her strengths and
weaknesses; confident; copes with increasingly complex environment; and understands
the nature of people.

The third factor is the broad scanner factor. It has a lowest devariance value of
1.00 and a highest devariance value of 1.38. The items that belong to broad scanner are
the following: always gives a go; manages time efficiently; duties and responsibilities
committed; public model; integrated officer; consider most important the building of a
greater community; communicates the shared vision; and is prepared to undertake the
incoming transformational changes.

The last factor is the primary values factor. It has only four items. The devariance
value of primary values factor range from 1.24 and the maximum devariance value is
1.38. The constructs that belong to primary values are personal equality; elicits trust and
respect from people; listens to others attentively; and considers trust as very essential.

Figure X: EQS 6 data 4 factors (para.esti).eds Chi Sq.=1297.60 P=0.14 CFI=0.89 RMSEA=0.07
Figure 5: Structured Correlation Coefficients of Four-Factor Model
X. Conclusions and Policy Implications

1. There are four leadership aspects which serve as the structural factors of leadership and are important for one to become a good leader. These are the setting directions qualities, personal qualities, broad scanner and primary values.

2. Model 3 which is the four-factor model confirms that the most important leadership qualities a leaders must have are setting directions qualities, personal qualities, broad scanner and primary values.

3. The local government should take concrete actions to develop and establish continuing professional leadership education program for barangay councils in order for them to cope up with increasingly complex demand of the environment and other constraints within their barangays.

4. LGUs should establish a strong system of coordination and cooperation among citizenry, local executives and departments to ensure effective and efficient delivery of the professional leadership education program for barangay officials.

5. Good leadership, which means possession of such qualities as setting directions qualities, personal qualities, broad scanner and primary values should be impressed upon the constituents to raise their level of awareness about what good leaders, especially barangay leaders, should be.

6. Barangay leaders must be guided accordingly through barangay monitoring by the local government in order to ensure that proper leadership skills are being impost and exercised within the barangay.

References


NHS Institute for Innovation and Improvement. 2006. NHS Leadership Qualities Framework. www.NHSLeadershipQualities.nhs.uk


