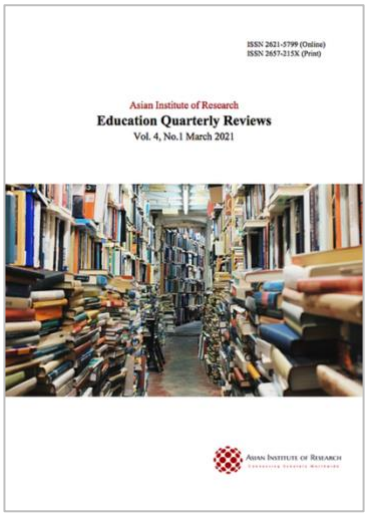

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The Structural Model of Indicators of Educational Leadership for Primary School Principals

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Abstract
This research aimed at creating a structural model of the indicators of Educational Leadership for Primary School Principals in Thailand, which is considered to be a theoretical model that has been used to test for coherence with the empirical data collected from a sample group of 580 participants, who were selected from 30,719 Primary School Principals from across the country. To create this theoretical structural model, a study of the suitability of the indicators was carried out so that it could be further used in the selection within the model, as well as in the model's coherence test with the empirical data and in the investigation of the factor loading. The results of the research were as follows: Firstly, all indicators, which had been applied in the research were selected and were then placed into the theoretical structural model because the average and distribution coefficient values were as set in the criteria. Secondly, the theoretical model is coherent with the empirical data as the values of relative Chi-square, Root Mean Square Error of Approximation, Goodness-of-Fit Index, Adjusted Goodness-of-Fit Index, Comparative Fit Index, and Normed Fit Index were as set in the criteria. Finally, the factor loadings of the key elements, sub-elements, and the indicators were as set in the criteria. This showed that the theoretical model from this research can be beneficial for the research population with construct validity.

Keywords: Indicators, Educational Leadership, Primary School Principals

Background

Humanity has progressed from an industrial society in 19th and 20th centuries to a knowledge-based society in 21st century in which changes happen quickly because of the usage of technology to globally connect with data. The driving force of digital technology is causing rapid changes. These changes are, in fact, so rapid that the academics see this as only the beginning. In the future, the speed will increase dramatically (Sanrattana, 2018), and such changes will inevitably influence changes in education as well. Schools, therefore, need to be active and ready to prepare students with the essential skills to survive in today's world (Driscoll, 2020). School Principals are the key mechanism in the process of high-quality and efficient educational management in schools as a result of their quality administration. Hence, the School Principals in 21st century are required to have educational leadership, theoretical knowledge, skills, responsibilities, and experiences in the aspects of educational administration in this era) Dowd, 2018; Behbahani, 2011). Lathan (2021) stated that if school principals lack educational leadership, they will not be able to solve the school's problems and will fail to get ready for the competition in this new era.

There are discussions about Educational Leadership Models from many figures, such as University of Western Sydney (2007); Elias (2011); Morrison (2013); Brooke (2013); Keenan (2013); Richardson (2014); Meador (2015); Kitendo (2016); Driscoll (2016); Wagner (2016); Money-Zine Website (2016); Concordia University (2017); New Zealand Ministry of Education (2017); and Sutcliffe (2017), etc. These are also the important references, which have been used in this research as the theories to establish the key elements and sub-elements of each key element, as well as the indicators of each sub-element. From these sources, they have then been proposed as "The Structural Relationship Model of Indicators of Educational Leadership for Primary School Principals," which has been employed in this research.

This model is considered as a theoretical model or hypothetical model, which was tested with the empirical data in order to determine its fit in accordance with the criterion or with the lack thereof. If the result was positive, the model could be used in the educational administration of the research population with construct validity. According to Wiratchai (2002), a model after the test will have the quality in data reduction in a form that is easily used resulting in a reduction of the complicity of the data, which is the inference of data management. This will also be used to follow, review, and make decisions at the departmental, organizational, or national level.

Objectives

This research aimed at creating a theoretical model, which shows the structural relationship between the key elements of Educational Leadership with the sub-elements of each key element and the indicators of each sub-element. There was also an investigation of the indicators, which were developed with respect to their suitability to be selected and to be put in the model before testing the model with the empirical data. In addition, there was an investigation of the factor loading of the key elements, sub-elements, and the indicators in accordance to the criteria.

Research Hypothesis

To create this theoretical model, the researcher studied theories from various sources to determine the key elements, sub-elements, and the indicators to be used in the research. Therefore, the following would be the predicted answers:1) the indicators used in the research are suitable with the theoretical model as set in the criterion, 2) the theoretical model fits with the empirical data as set in the criterion, and3) the factor loading of the key elements, sub-elements, and indicators are as set in the criteria.

Research Methodology

Wiratchai (2002 (has discussed the three ways in which to develop educational indicators:**1) Pragmatic definition** is the way in which the researcher applies his/her own experiences when selecting the variables to present in a model.**2) Theoretical definition** is a way in which a researcher applies theories and other model creation research to present a model for ready-to-use purposes, or the experts investigates the model before using it. **3) Empirical definition** is the way in which a researcher applies theories about model creation and then tests the model with empirical data. If there is a coherence from the Confirmative Factor Analysis, the model can be used in managing and developing human resources and the organization. This research applied the empirical definition in the development of the indicators, which Sanrattana (2018) sees as a more logical way than other ways because of the use of the empirical data, which is collected from the sample group and which consists of choosing randomly selected participants to determine the construct validity without involving the personal feelings and experiences of the researcher or the experts. The details of the research methodology are as follows:

Population and Sample Group

The population of the research was 30,719 Primary School Principals under the Office of the Basic Education Commission in Thailand. The determination of the sample size was based upon the ratio rule between the sample

unit and the parameter of 20:1 in accordance with Gold (1980). Free parameter was used to determine the value of the parameters because the model of this research is a confirmatory factor analysis model among variables with an influence line. The parameters were comprised of five latent variables, 13 observed variables, and 17 influence lines, which made 35 parameters in total and which then resulted in having 700 participants in the sample group.

Research Tools

The research tool was a questionnaire, which was divided into two parts. The aim of the first part was to investigate the status of the informants consisting of information about gender, age, school size, educational background, and work experiences. The second part had 60 questions consisting of the indicators of Educational Leadership, which had been categorized in accordance with the key elements and sub-elements in the form of a 5-rating scale: The Most, Much, Medium, A Little, and The Least.

The Creation and Quality Investigation of the Tools

Because the researcher chose to apply the Empirical definition, which represents a way in which a researcher can apply model creation theories, the creation of the research tool originated from the study of theories, which were utilized to synthesize and determine the key elements, the sub-elements of each key element, and the operational definitions, which were connected to the indicators, which determined each of the sub-elements, and which further led to creation of the questions from the indicators.

The 60 questions in the questionnaire were tested for Index Of Congruence: IOC with the indicators and operational definitions by three experts in Educational Administration and two experts in Evaluation & Assessment. The result was that the value of IOC was more than 0.50 for every question, which indicated that the questions were coherent with the indicators and the operational definitions.

The completed version of the questionnaire was used as a 'try-out' with 30 primary school principals, who were not a part of the sample group. The collected data was analyzed for alpha coefficient of reliability using Cronbach's approach. It was found that the questionnaire had 0.976 as alpha coefficient of reliability. In the following key elements, the values were as follows: "Having Vision" (0.933); "Communication Skills" (0.936); "Inspiration" (0.946), and "Commitment" (0.938). This showed that the questionnaire had a higher alpha coefficient of reliability than the set criterion which was 0.70)See the questionnaire in the Appendix.(.

Data Collection

Multi–stage random sampling was used to select 700 participants from 30,719 Primary School Principals. The questionnaire was sent to the participants by mail; 580 copies were returned (82.85%). This was enough to be used in Confirmatory Factor Analysis because Kaiser-Mayer-Olkin Measurers of Sampling Adequacy of each model's key element assessment were between 0.933 - 0.976, which was higher than the criterion (0.80)) Cerny & Kaiser, 1977).

Data Analysis and Coding Criterion

Computers were used to manage the data by analyzing for statistical values as follows: 1) averages, standard deviations, and distribution coefficients were used to test the first research hypothesis, and 2) Confirmatory Factor Analysis was used to test the second research hypothesis with the following statistical values:) a(Factor Loading Matrix consisting of factor loading and standard errors: SE and t values; (b) Regression Coefficient: R2; (c) Factor Score Coefficient: FS; (e) error: e; (f) correlation coefficient among variables;)g) Relative Chi-Square: CMIN/DF; (h) Root Mean Square Error of Approximation: RMSEA; (i) Goodness-of-Fit Index: GFI; (j) Adjusted Goodness-of-Fit Index: AGFI; (k) Comparative Fit Index: CFI; and (l) Normed Fit Index: NFI.

The Criterion for Coherence between the Theoretical Model and the Empirical Data Test

The coherence test between the theoretical model and the empirical data applied the criterion, which was suggested by Holmes-Smith (2006 (and Hair, Black, Babin & Anderson (2010): Relative Chi-Square: CMIN/DF between 1 -3 or less, 2) Root Mean Square Error of Approximation: RMSEA lower than 0.05, 3) Goodness-of-Fit Index: GFI between 0.90 – 1.00, 4) Adjusted Goodness- of-Fit Index: AGFI between 0.90 – 1.00, 5) Comparative Fit Index: CFI between 0.90 – 1.00, and 6) Normed Fit Index: NFI between 0.90 – 1.00.

The Result of the Theoretical Model Creation

As a result of the study of University of Western Sydney (2007); Elias (2011); Morrison (2013); Brooke (2013); Keenan (2013); Richardson (2014); Meador (2015); Kitendo (2016); Driscoll (2016); Wagner (2016); Money-Zine Website (2016); Concordia University (2017); New Zealand Ministry of Education (2017); and Sutcliffe (2 0 1 7) , the four key elements of Educational Leadership: LED were:) 1 (“Having Vision”: VIS,)2 (“Communication Skills”: CMC,)3 (“Inspiration”: MVT, and)4 (“Commitment”: COM. Each element consisted of sub-elements, which were relative as a measurement model as shown in Table 1:

Table 1: The Key Elements of Educational Leadership: LED, the Sub-Elements of Each Key Element, and the Abbreviations

The Key Elements of Educational Leadership: LED and the Sub-Elements of Each Key Element	Abbreviations
1. Key Element: Having Vision	VIS
1.1 Sub-Element1 : Being optimistic	VIS1
1.2 Sub-Element2 : Communicating Effectively	VIS2
1.3 Sub-Element3 : Taking Risks	VIS3
1.4 Sub-Element 4: Leading towards Excellence	VIS4
2. Key Element: Communication Skills	CMC
2.1 Sub-Element1 : Being a Good Listener	CMC1
2.2 Sub-Element2 : Communicating clearly	CMC2
2.3 Sub-Element3 : Motivating Others	CMC3
3. Key Element: Inspiration	MVT
3.1 Sub-Element 1: Being a Visionary	MVT1
3.2 Sub-Element 2: Being Reliable	MVT2
3.3 Sub-Element 3: Empowering Others	MVT3
4. Key Element: Commitment	COM
4. 1Sub-Element1 : Focusing on the Goal	COM1
4. 2Sub-Element2 : Being Loyal	COM2
4. 3Sub-Element3 : Having a Positive Attitude	COM3

The key elements of Educational Leadership and the sub-elements of each key element mentioned previously are shown as The Structural Relationship Model of Indicators of Educational Leadership for Primary School Principals. These are considered to be the theoretical model used in the research as shown in Figure1 :

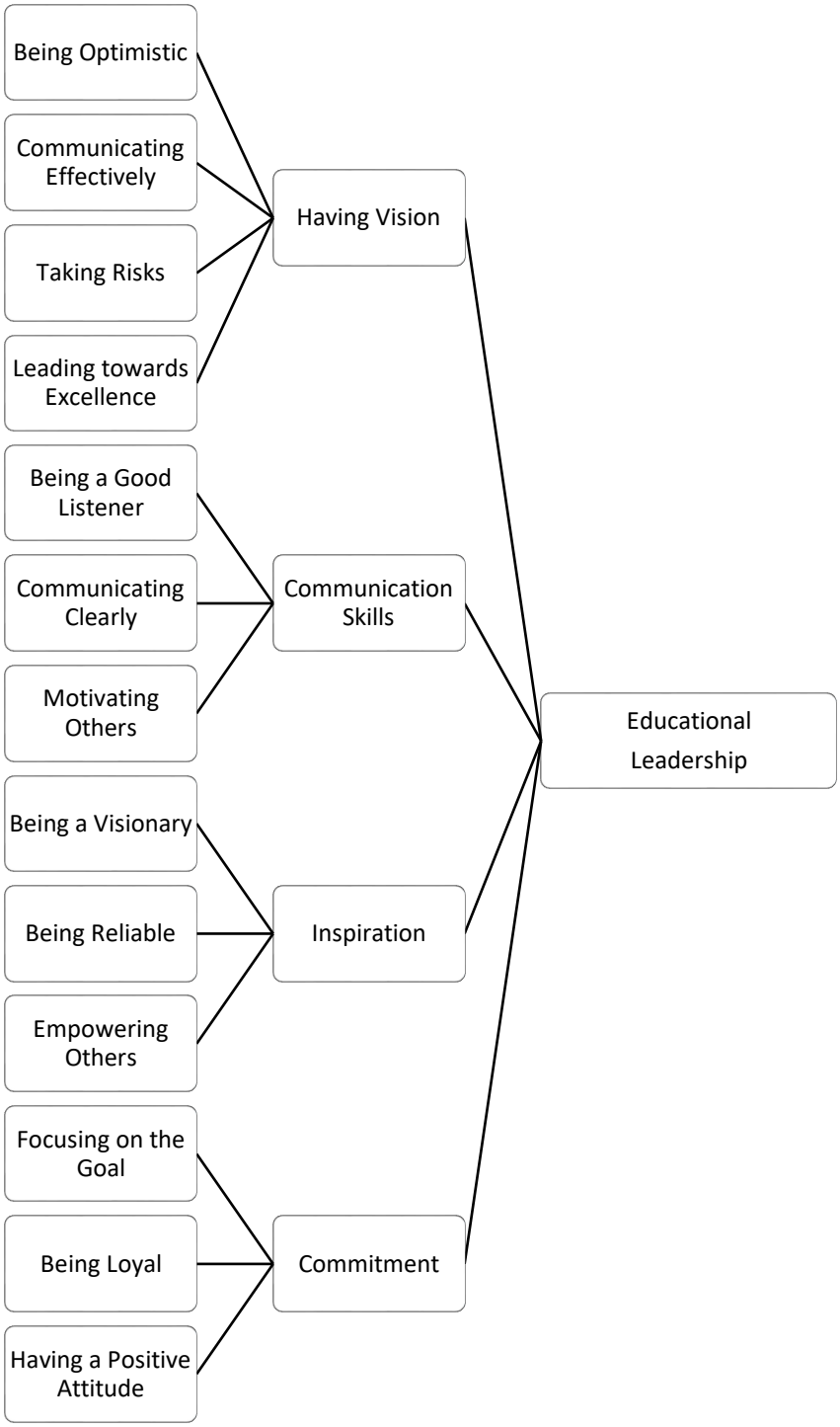

Figure 1: The Structural Relationship Model of the Indicators of Educational Leadership for Primary School Principals: The Theoretical Model Used in the Research

Moreover, the sub-elements of each key element consisted of the indicators, which are shown in Table 2:

Table 2 : The indicators of the Sub-Elements for Each Key Element

Key Element and Sub-Elements	Indicators
Having Vision	
Being Optimistic	1) having positive ways of thinking when encountering problems 2) believing in one's own abilities 3) possessing a positive attitude 4) being hopeful
Communicating Effectively	1) participating in the process of transmitting or communicating between individuals 2) using one's own abilities to communicate with others 3) expressing one's needs, desires, and feelings 4) aiming to invite the message receiver to respond 5) understanding the meaning as intended
Taking Risks	1) being brave when having to make decisions 2) being creative 3) being brave when encountering problems 4) having self-confidence 5) being brave and trying new things
Leading towards Excellence	1) aiming for the best quality when carrying out tasks 2) constantly having higher goals 3) building a sustainable future 4) always improving the organization's potential 5) continuing to perform in an outstanding manner
Communication Skills	
Being a Good Listener	1) listening with a purpose 2) listening with manners 3) knowing how to examine the content of a message 4) understanding the main ideas and the sub-ideas
Communicating Clearly	1) delivering messages that are easy to understand 2) delivering clear messages 3) creating co-perceptions 4) establishing a suitable communicative context
Motivating Others	1) being an internal driving force 2) demonstrating behaviors without persuasion 3) achieving goals
Inspiration	
Being a Visionary	1) having a vision for the future 2) having future goals 3) having plans for the future 4) understanding the direction of the missions 5) having a thoughtful approach and reflecting 6) being determined until success is reached
Being Reliable	1) being reliable at work 2) being responsible for work 3) completing the hard work 4) behaving appropriately in all situations 5) exhibiting good personal behaviors
Empowering others	1) engaging in the process of increasing the potential of individuals 2) supporting/encouraging 3) allowing others to freely make decisions 4) managing an appropriate work environment 5) encouraging the improvement of the work potential of an individual 6) solving both one's own problems, as well as the organization's problems
Commitment	
Focusing on the Goal	1) having future desires 2) having plans to achieve goals at work 3) being able to achieve through management processes

Being Loyal	1) respecting the organization 2) being willing to work 3) dedicating one's self to the organization 4) supporting and protecting the organization 5) having the intention to work
Having a Positive Attitude	1) finding different positive perspectives from the normal ones 2) being useful in life 3) being useful in the lives of others 4) eliminating negative attitudes 5) having good feelings that lead to success

Results of Data Analysis

1. **Research Objective 1:** To study the suitability of 60 indicators to be selected and put in the model by considering the average measurement of 3.00 or more, as well as by considering the distribution coefficient of 20% or lower. The results of the analysis were as follows:
   1.1) The measurement model in the aspect of "Having Vision" was comprised of four elements: "Being Optimistic," "Communicating Effectively," "Taking Risks," and "Leading towards Excellence." There were 19 indicators with average figures between 4.24 -4.59 and with distribution coefficient figures between 11.54-15.80.
   1.2) The measurement model in the aspect of Communication Skills was comprised of three elements: "Being a Good Listener," "Communicating Clearly," and "Motivating Others." There were eleven indicators with average figures between 4.07-4.41 and with distribution coefficient figures between 13.60-17.80.
   1.3) The measurement model in the aspect of Inspiration was comprised of three elements: "Being a Visionary," "Being Reliable," and "Empowering Others." There were seventeen indicators with average figures between 4.02-4.39 and with distribution coefficient figures between 12.70-18.40.
   1.4) The measurement model in the aspect of Commitment was comprised of three elements: "Focusing on the Goal," "Being Loyal." and "Having a Positive Attitude." There were thirteen indicators with average figures between 4.39-4.57 and with distribution coefficient figures between 10.98-13.43.

From the results, the average values of all 60 indicators were between 4.02 - 4.59 and between 10.98 – 18.40 for the distribution coefficient. This meant that the indicators, which had been used in this research, could be selected and put in the model because the average and distribution coefficient values were as set in the measurement.

2. **Research Objective 2:** To test the theoretical model's fit with the empirical data in accordance with the criterion. The results of the analyses were as follows:
   2.1) Pearson's Correlation Coefficient was utilized to consider the levels and directions of the correlation. It was found that the indicators in all measurement models had a positive relation with a statistical significance of 0.01 ($p< 0.01$). In addition, the measurement model in the aspects were as follows: 1) "Having Vision" showed correlation coefficient figures between 0.228 – 0.802; 2) "Communication Skills" showed 0.389 – 0.729; 3) "Inspiration" showed 0.316 – 0.758; and 4) "Commitment" showed 0.374 – 0.664.
   2.2) The statistical figures of Bartlett considered the correlation of the elements. It was found that among the variables, the Matrix of Correlation Coefficient had differed from the identity variables with a statistical significance of 0.01. Moreover, the Bartlett test of Sphericity was 4643.850, 7102.625, 11534.670, and 11385.315, respectively, which had a value of 0.01 ($p< 0.01$) of possibility.
   2.3) The Kaiser-Mayer-Olkin Measurers of Sampling Adequacy (KMO) were used to measure the sufficiency of the sample group. It was found that the KMO of the measurement model in the aspects of "Having Vision," "Communication Skills," and "Commitment" had ranged between 0.922 - 0.963, which meant that the size of the sample group used in the research had been sufficient for the Confirmatory Factor Analysis.

2.4) First Order Confirmatory Factor Analysis of the four measurement models, which were "Having Vision," "communication Skills." "Inspiration," and "Commitment", was utilized to find the statistical numbers to investigate the fitness of the models with the empirical data from the set criteria as follows: 1) the Relative Chi-Square: CMIN/DF was between 1 -3 or less, 2) the Root Mean Square Error of Approximation: RMSEA was lower than 0.05, 3) the Goodness-of-Fit Index: GFI was between 0.90 – 1.00, 4) the Adjusted Goodness-of-Fit Index: AGFI was between 0.90 – 1.00, 5) the Comparative Fit Index: CFI was between 0.90 – 1.00, and 6) the Normed Fit Index: NFI was between 0.90 – 1.00 as shown in Table2 :

Table 2: The Results of the First Order Confirmatory Factor Analysis of the four Measurement Models

Measurement Models	CMIN	RMSA	GFI	AGFI	CFI	NFI
Having Vision	2.400	0.049	0.963	0.926	0.979	0.965
Communication Skills	1.148	0.016	0.995	0.977	1.000	0.996
Inspiration	2.359	0.048	0.967	0.929	0.989	0.979
Commitment	1.471	0.029	0.989	0.964	0.997	0.992

Table 2shows all four models. These were developed from the theories, which were coherent to the empirical data and were important elements ("Having Vision," "Communication Skills," "Inspiration," and "Commitment") of the structural correlation model of the indicators of Educational Leadership for Primary School Principals. The results of the analysis were used to create 13 equations of elements scales as follows:

VIS1 = (VI1+VI2+VI3+VI4) = (0.12+ 0.11+ 0.17+0.17) = 0.4
VIS2 = (VI5+ (VI6 + VI7+VI8+VI9) = (0.13+ 0.01 +0.09+0.12+0.06) = 0.29
VIS3 = (VI10+ VI11 + VI12+VI13+VI14) = (0.08+0.06+0.08+0.04+0.04) = 0.3
VIS4 = (VI15+ VI16 + VI17+VI18+VI19) = (0.20+0.12+0.13+0.10+0.10) = 0.65
CMC1 = (CM20+CM21+CM22+CM23) = (0.09+ 0.13+ 0.17+0.22) = 0.61
CMC2 = (CM24+ CM25 + CM26+CM27) = (0.16+ 0.21 +0.12+0.14) = 0.63
CMC3 = (CM28+ CM29 + CM30) = (0.22+0.39+0.15) = 0.76
MVT1 = (VT31+VT32+VT33+VT34+VT35+VT36) = (0.12+ 0.09+ 0.07+0.21+0.07+ 0.06) = 0.55
MVT2 = (VT37+ VT38 + VT39+VT40+VT41) = (0.27+ 0.02 +0.09+0.17+0.31) = 0.86
MVT3 = (VT42+ VT43 + VT44+VT45+VT46+VT47) = (0.09+0.23+0.11+0.01+ 0.02+0.12) = 0.58
COM1 = (CO48+CO49+CO50) = (0.15+ 0.17+ 0.18) = 0.5
COM2 = (CO51+ CO52 + CO53+CO54+CO55) = (0.19+ 0.05 +0.16+0.05+0.18) = 0.63
COM3 = (CO56+ CO57 + CO58+CO59+CO60) = (0.10+0.12+0.20+0.11+0.09) = 0.62

2.5 Second Order Confirmatory Factor Analysis was utilized to find statistical numbers as a model investigation criterion from the created sub-element scale. The four measurement models were the "Having Vision" measurement model with four sub-elements, the "Communication Skills" measurement model with three sub-elements, the "Inspiration" measurement model with three sub-elements, and the "Commitment" measurement model with three sub-elements. The results of the data analysis were as follows:

The results of the fitness investigation of the sub-elements of each model were that every sub-element had shown suitable statistical numbers for the second order confirmatory factor analysis:) 1 (Pearson's Correlation Coefficient – the 13 sub-elements had shown a positive correlation that was statistically significant at 0.01 (p< 0.01) with the correlation coefficient between 0.918 -0.963;) 2 (the Correlation matrix between variables was different from the identity matrix with a statistical significance of 0.01 with 6690.213 of Bartlett Test of Sphericity, which had a 0.01 (p< 0.01) possibility; and) 3 (Kaiser-Mayer-Olkin Measurers of Sampling Adequacy: KMO was 0.932.

The results of the data analysis to test the fitness of the models were that the models fit with the Empirical data given that the relative Chi-square: CMIN/DF) =2.408, the Root Mean Square Error of Approximation: RMSEA =0.049, the Goodness-of-Fit Index: GFI) =0.986, the Adjusted Goodness-of-fit index: AGFI =0.944, the

Comparative Fit Index: CFI =0 .995, and the Normed Fit Index: NFI =0 .992. These were all as set in the criteria. Additionally, from the investigation, it was found that the factor loading of the four key elements had been positive (between 0.60– 1.29) and had shown a statistical significance of 0 .01. When used to create element scale, the equation was LED = 1.46 (MVT) + 1.44 (VIS) + 1.00 (COM) + 0.89 (CMC).

3. Research Objective 3: To investigate the factor loading of the key elements, sub-elements, and the indicators in accordance with the following criteria: 1) the factor loading of the key elements = 0.7 or higher and 2) the factor loading of the sub-elements and the indicators = 0.30 or higher. The results of the data analysis were as follows:

3.1 All four key elements of Educational Leadership had shown positive factor loadings of between 0.60 – 1.29 and had also had a statistical significance of 0.01. The factor loading from highest to lowest had been "Inspiration," "Commitment," "Having Vision," and "Communication Skills" at 1.46, 1.00, 0.89, and 0.89, respectively.

3.2 All sub-elements of the Key Element of 'Having Vision' had shown positive factor loadings of between 0.60 – 1.00 with a statistical significance of 0.01. The factor loadings from highest to lowest had been "Leading towards Excellence." "Communicating Effectively," "Taking Risks," and "Being Optimistic" at 1.00, 0.79, 0.78, and0 .60, respectively.

3.3 The three sub-elements of the Key Element of 'Communication Skills' had had positive factor loadings of between 1.00 – 1.29 with a statistical significance of 0.01. The factor loadings from highest to lowest had been "Being a Good Listener," "Communicating Clearly," and "Motivating Others" at 1.29, 1.26, and 1.00, respectively.

3.4 The three sub-elements of the Key Element of 'Inspiration' had positive factor loadings of between 0.98 – 1.08 with a statistical significance of 0.01. The factor loadings from highest to lowest had been "Being a Visionary," "Empowering Others," and "Being Reliable" at1 .08, 1.00, and 0.98, respectively.

3.5 The three sub-elements of the Key Element of 'Commitment' had positive factor loadings of between 0.61- 1.00 with a statistical significance of 0.01. The factor loadings from highest to lowest had been "Having a Positive Attitude," "Being Loyal," and "Focusing on Goals" at 1.00, 1.00, and 0.61, respectively.

Furthermore, the factor loading of 60 indicators was positive between 0.68 – 1.34 with a statistical significance at 0.01. The indicator with highest factor loading had been "Building a Sustainable Future" (1.34), whereas the indicator with the lowest factor loading had been "Listening with a Purpose" (0.68).

To summarize, the factor loading of the key elements, sub-elements, and the indicators had been positive and had been in accordance with the criteria of a statistical significance at 0 .01. This indicated that the theoretical correlative models of the Educational Leadership indicators for Primary School Principals, which were used in this research, had been comprised of four key elements, 13 sub-elements, and 60 indicators and could be used as measurement for Educational Leadership for Primary School Principals with construct validity. From the previously mentioned data analysis, the adjusted model is shown in Figure2 :

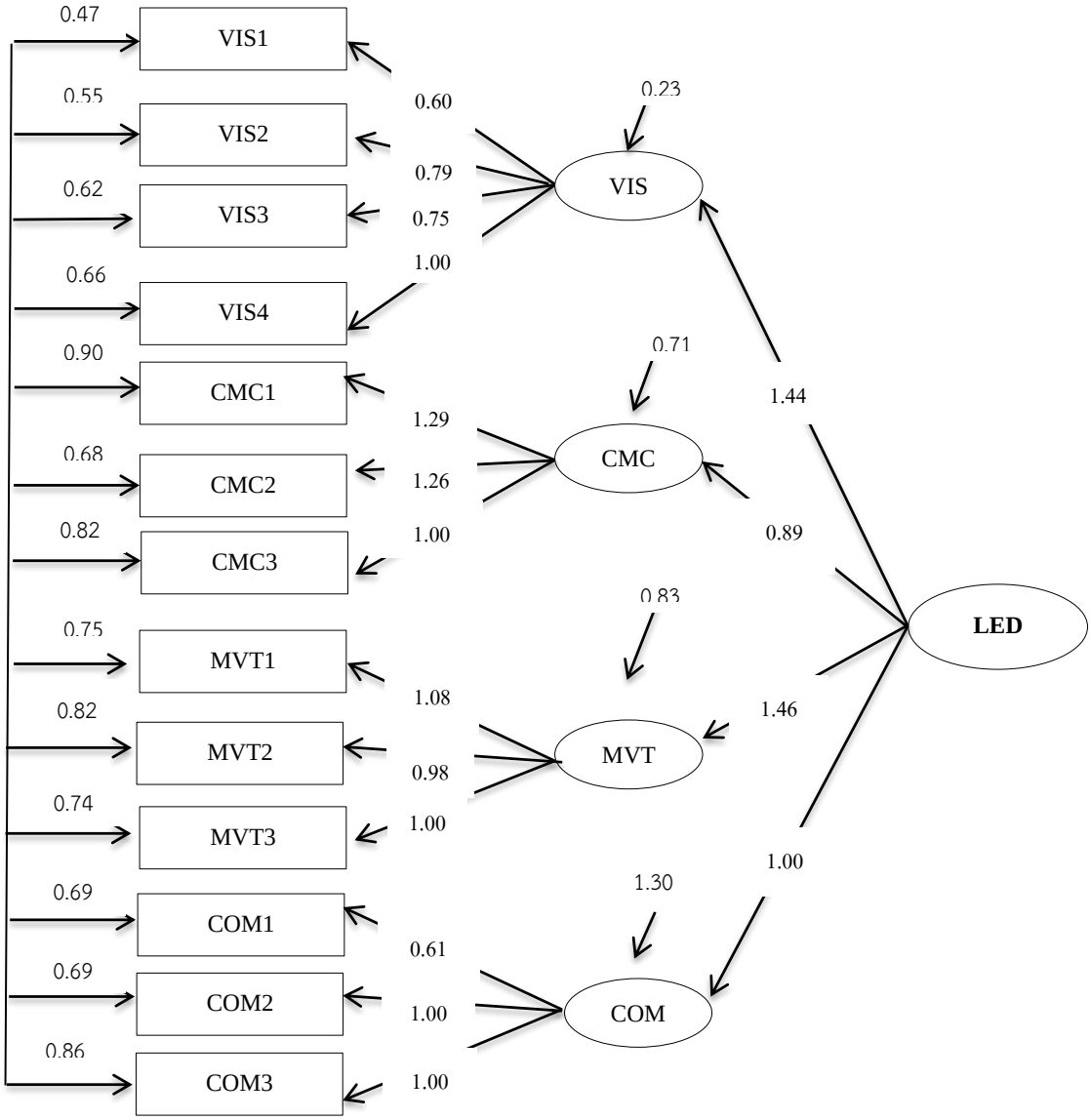

Figure 2 : The Adjusted Structural Correlative Model of the Educational Leadership Indicators for Primary School Principals

Discussion and Suggestions

From the results of the data analysis, it was shown that the structural models had created the indicators of Educational Leadership for Primary School Principals, which were comprised of 4 key elements, 13 sub-elements, and 60 indicators. These had been developed from theories, which were determined to be coherent with the empirical data as stated in the research hypothesis. However, given that there is the dissemination of the theories arising from globalization, the original sources of the theories could have originated from the theoretical definitions, which were used to create the models and which were coherent with the expressive behaviors of the sample research group. Giddens (1990) stated that globalization is a social correlative process with no obstacle of distance or borders. Moreover, it could be due to the concept of dissemination of innovations by Rogers (1995), who stated that the changes in a society are caused by the application of an innovation from another society. Another reason could stem from the fact that the rapid changes of digital technology in 21st century may have resulted in a global knowledge and information society, which has caused the dissemination of knowledge or information from one corner of the world to another very quickly and widely (Ceulemans, 2012; Rawat, 2020; Adhiarso, Prahastiwi & Hastjarjo, 2019).

The reasons, which have been discussed, are in alignment with the reasons used in the discussion of the research results, which tested the models of the indicators of leadership in Thailand, as well as the results of other research studies, such as Indicators of Resourceful Leadership for Secondary School Principals: Developing and Testing The Structural Relationship Model)Marwiang, Sanrattana & Suwannoi, 2018), Indicators of Innovative Leadership for Secondary School Principals: Developing and Testing the Structural Relationship Model (Somsueb, Sutheejariyawatana & Suwannoi, 2019), The Structural Relationship Model of Indicators of Mindful Leadership for Primary School Principals in Thailand (Wongkom, Sanrattana & Chusorn, 2019), and The Indicators of Authentic Leadership for Teachers in the General Education Session of Buddhist Scripture Schools)Moonsarn, Sanrattana & Suwannoi, 2019).

From the research results of both the test of fitness of the theoretical models and the empirical data & the factor loading of the elements, it was found that the structural model of the indicators of Educational Leadership for Primary School Principals, which was comprised of 4 key elements, 13 sub-elements, and 60 indicators, can be used with reliability in construct validity and is, therefore, suitable for Thai society. The suggestions are as follows:

1) The application of the models from this research should be encouraged and used as guidelines in the development of Educational Leadership for the population of this research, which were Primary School Principals under the Office of the Basic Educational Commission in Thailand. In addition, what should be kept in mind is the importance of the key elements, sub-elements, and the indicators from the highest factor loading to the lowest:

- Ranked from the highest to the lowest, the four key elements of the Educational Leadership had been: 'Inspiration,' 'Commitment,' 'Having Vision,' and 'Communication Skills.'
- The sub-elements of the key element of 'Having Vision' ranked from the highest to the lowest had been "Leading towards Excellence," "Communicating Effectively," "Taking Risks," and "Being Optimistic."
- The sub-elements of the key element of 'Communication Skills' ranked from the highest to the lowest had been "Being a Good Listener," "Communicating Clearly," and "Motivating Others."
- Ranked from the highest to the lowest, the three sub-elements of the key element of 'Inspiration' had been "Being a Visionary," "Empowering Others," and Being Reliable."
- The three sub-elements of the key element of 'Commitment' ranked from the highest to the lowest had been "Having a Positive Attitude," "Being Loyal," and "Focusing on the Goal."
- From an examination of the 60 indicators, the one with the highest factor loading was found to be "Building a Sustainable Future," while the lowest one was "Listening with a Purpose."

2) Regarding the cases that are worth studying for future academic benefits, the suggestions are as follows:

a .Using qualitative research methodology, a study of the key elements, sub-elements, and the indicators should be conducted in the context of Thai society. Grounded theory should be utilized in order to create a model from the qualitative research results, and these should be compared with the ones from the results of this quantitative research.

b .This research has studied the definitions of the academics or departments and has found that there are more key elements of Educational Leadership. However, because there was a limitation to the determination of the elements, high frequency was used as a criterion of the selection, which resulted in those theoretical elements not being used in this research. Therefore, in the future, other logic should be applied when making selections instead of using the high frequency approach. In this way, the elements with lower frequency could be used in the research, which may be important and may lead to new discoveries. The following are examples of those elements: Being Reliable; Having Integrity; Being Aware; Learning all the time; Being Innovative; Building relationships with the community; Improving the learning outcomes for all students; Having Management Skills, Emotional Intelligence, and The Power of Positive; Understanding Human Nature; Developing and maintaining schools as learning organizations; Developing individuals in and out of the classroom; Having Courage; Showing Respect; Having the Ability to Move & Change Initiatives; Supporting the Team;

Leading by Example; Taking Responsibility; Being Self-Confident; Being Flexible; Having Curiosity; Being enthusiastic; Creating with technology; Creating course strategies; Work is learning; Surrounding yourself with Good People; Having ambitions; Having Organizational Knowledge; Using Instructional Leadership; and Participating in Leadership Development, etc.

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Appendix

The Questionnaire used in the research

Instruction Check ✓ in the column that match with your behaviors by considering the scales:5 = The Most, 4 = Much, 3 = Medium, 2 = A Little, 1 = The Least

No.	Behaviors	Level of Expressiveness (Highest → Lowest)				
		5	4	3	2	1
Key Element1 : Having Vision						
Sub-Element1 : Being Optimistic						
1	You perceive the coming problems positively.					
2	You believe that you can do it.					
3	You always have a positive attitude.					
4	You have hope for the future.					
Sub-Element2 : Communicating Effectively						
5	You have ways to communicate or send messages among individuals.					
6	You are able to use your abilities to communicate your messages and to make people understand.					
7	You communicate to express your needs, desires, and feelings.					
8	You persuasively communicate with the receivers and receive responses.					
9	You are able to communicate with others and they understand the messages as you intended to send them.					
Sub-Element3 : Taking Risks						
10	You have courage to make a decision to do something.					
11	You are creative, determined to develop, and seek knowledge.					
12	You are brave when facing problems.					
13	You believe in yourself.					
14	You are brave to try new things which can lead to success.					
Sub-Element 4: Leading towards Excellence						
15	You do everything giving your best for the best quality.					
16	You improve your goals all the time.					
17	You build a sustainable future.					
18	You always improve the organization's potential.					
19	You keep doing outstanding work.					
Key Element2 : Communication Skills						
Sub-Element1 : Being a Good Listener						
20	You listen with a purpose.					
21	You are a good listener.					
22	You think about what you are listening to.					
23	You know the main and sub-ideas.					
Sub-Element2 : Communicating Clearly						
24	You communicate messages that are easy to understand.					
25	You communicate clear messages.					
26	You communicate for co-perception.					
27	You communicate in an appropriate context.					
Sub-Element: Motivating others						
28	You motivate with internal driving force.					

No.	Behaviors	Level of Expressiveness ◄ Highest Lowest ►				
		5	4	3	2	1
29	You motivate individuals to express their unique identity without persuasion.					
30	You motivate to foster achievements.					
Key Element3 : Inspiration						
Sub-Element1 : Being a Visionary						
31	You work with a vision of the future.					
32	You work with future goals.					
33	You plan for the future.					
34	You have directions for your tasks.					
35	You reflect in pro-active ideas.					
36	You are determined to succeed.					
Sub-Element 2: Being Reliable						
37	You are expected to be able to complete your tasks.					
38	You have a working process that is reliable, and success is guaranteed.					
39	You work hard and succeed; people trust you.					
40	You behave appropriately in situations.					
41	You have good personal behaviors and are fair and unbiased.					
Sub-Element3 : Empowering others						
42	You have ways to increase an individual's potential.					
43	You support your team.					
44	You give freedom to your team when making decisions.					
45	You manage an environment that is appropriate for work.					
46	You encourage the work abilities of individuals.					
47	You support individuals to solve problems on their own, which leads to the organization's success.					
Key Element 4: Commitment						
Sub-Element 1: Focusing on the Goal						
48	You determine what you want in the future.					
49	You plan for work achievements.					
50	You have a management process for work achievements.					
Sub-Element 2: Being Loyal						
51	You have good feelings toward your organization.					
52	You are willing to work.					
53	You dedicate yourself to your organization.					
54	You have bonds, love, and support; you protect your organization.					
55	You intend to achieve the organization's goals.					
Sub-Element 3: Having a Positive Attitude						
56	You look for different positive aspects from the usual aspects.					
57	You have positive ways of looking at things in order to do useful things in your life.					
58	You have positive ways of looking at things in order to do useful things in the lives of others.					
59	You have ways to eliminate negative attitudes.					
60	You eliminate negative attitudes for better feelings, which can lead to making achievements.					