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RESEARCH ARTICLE

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Abstract: The purpose of this two-phase study is to develop guidelines for the leadership of educational administration of the Ministry of Interior Thailand Local Administration Organization(TLAO), and to identify the confirmatory factors for a good governance education management of Ministry of Interior TLAO. In order to identify the guideline of good governance, the methodology consisted of two phases: 1. Document analysis, and 2. Interview data analysis and confirmatory factor analysis. The interview data were synthesized into four categories of good governance: general criteria qualification, specific criteria qualification, systematic administration, and outstanding performance; and these underpinned the development of the 128-item survey questionnaire. Confirmatory Factor Analysis and correlation of causal model variables were carried out using multi-stage sampling. The confirmatory factor analysis indicated four confirmatory factors: the environment, input, process, and productivity, each weighing at 0.05 significance level. This result was confirmed by $c2 = 162.61$, $c^2/df = 0.99$, df = 164, p value = 0.52, GFI = .96, AGFI = .94 and RMSEA = 0.000.

Keywords: Principles of good governance, education management, system theory, confirmatory factor analysis

Thailand, a developing country in Asia, is urgently seeking to be economically competitive with the rest of the world in order to improve its citizens' quality of life. To realize this goal, the government of Thailand believes it ought to improve its education management system. Thailand's Second National Education Act B.E. 2545 (2002) developed three forms of education management: (1) formal education, (2) non-formal education, and (3) informal education. The Ministry of Education took the responsibility to manage the

Thailand's formal education at two levels: (1) Basic Education constituting a 6-3-3 system in the total number of years for Primary, Junior high school, and high school, respectively; (2) Higher Education consisting of two categories: Lower-than-degree level and degree level.

Based on the Constitution of the Kingdom of Thailand 2540 (1997), Section 289, Clause two, the Thailand Local Administration Organization (TLAO), a department of the Ministry of Interior, was granted the responsibility to organize the vocational training courses to meet the local demand. The TLAO was also allowed to participate in organizing the country's provincial and municipal school education. According to Section 9 of Thailand's Second National Education Act B.E. 2545 (2002), TLAOs have the right to manage all levels of education according to the demands of the local community. Moreover, Section 4 called for the Ministry of Education to set the criteria and the assessment methods for evaluating the readiness of TLAO education management. Thailand's Ministry of Education has also called for the decentralization of the power to the Ministry of Interior TLAO and demanded learner-centered teaching practices (Sopchokchai, 2001).

As a result, TLAO and the private sectors were able to develop curricula and educational materials that would promote the people's quality of life in the interiors of Thailand (Office of the Education Council, 2011). This decentralization policy was upheld by Bamber, Bullivant, Glover, King, and McCann (2016), who stated that the sustainable development education should be provided for all people.

The TLAO consists of five levels: (1) the provincial administrative organizations, (2) municipalities, (3) sub-district administrative organizations, (4) Bangkok, and (5) Pattaya City (Office of the Education Council, 2011). The study at hand focuses only on the provincial administrative organizations in Thailand. These organizations were formed in order to decentralize the power of management and development from the central to the local. The government has specified rules and guidelines, and the local administrative organizations are expected to manage the operations themselves. The people in each province are encouraged to participate in any actions allowed by the law. The provincial administrative organizations (PAOs) must serve and take care of the people in the local area, which includes giving PAOs the right to conduct educational management (Booranakit, Tungkunanan, & Suntrayuth, 2017).

The responsibility of the Ministry of the Interior is to take care of the people and carry out good management policies (Department of Local Administration, 2013). The TLAO, through each Provincial Administration of the 52 provinces, manages 347 schools. Education, in each province, depending on size, is governed by one chief executive, two to four deputy chief executives, 24–48 members, one to five consultants and secretaries, one corporate secretary, one chief administrator, one to three deputy chief administrators, and one director of the Division of Education, Religion, and Culture. The management of educational personnel of the local administrative organization set strategies for education development in line with the directions of national development, the Ministry of Education's policies, and the Provincial Cluster Development Strategies. `

The various administrators and educational executives focus on effective leadership to develop strategies to prepare teachers and school leaders to deliver education reform, including implementing the revised curriculum and assessment. The TLAO's priority is to improve reform-based teaching, learning, and assessment in an increasingly decentralized system. To meet the 21st century needs, the provincial administrators are attempting to create a comprehensive information and communications technology system and strategy to improve the teachers' skills to make the best use of technology in the classroom. To best achieve this, rural internet access is being improved. The provincial authority expects to develop a holistic strategy to prepare the teachers and school leaders and build their capacity through professional development to deliver education reform. They also focus on tackling teaching shortages in the most deprived areas.

The Thai Department of Local Administration (2013) used the concept of "the administration of good governance" (p. 3) to solve the defects of education during the country's economic crisis. The Thai National Economic and Social Development Plan incorporated a policy to achieve the country's mission to sustain its inhabitants. The mission policy facilitates

responses to peoples' requests in a timely manner. More importantly, there were regular assessments of the country's performance in achieving its mission. These assessments upheld Nanda's (2006) notion, which stated that the economic and social reforms need to be framed by the principles of good governance in order to improve the development of mutual living. This idea of good governance is similar to the World Bank's mission for the development of the economic and social resource management administration of a country. The study at hand acknowledges the policy of decentralization to give the Ministry of the Interior TLAO the educational management, which means working closely with the people within each locality.

The principles of good governance, the open-type administration system of Katz and Kahn (1978), generally accepted for the educational management, was used in the current study. Aligning with Laguerre (2010), the study used the theory of Katz and Kahn to develop appropriate educational leadership. Thus, the study at hand adopted the following factors for the leadership in the context of each locality: environment, input, process, and productivity, which enable the sustainable development of the people through education. Through education, people will be able to compete with the national and global economies.

The research objectives of the study are as follows:

1. To develop guidelines for the leadership of educational management of the Ministry of Interior TLAO
2. To determine the confirmatory factors of a good governance educational management of Ministry of Interior TLAO

Theoretical Frameworks

The theoretical frameworks that guide this study are as follows: Principles of good governance, criteria of best education management of Ministry of Interior TLAO, and systems theory. These frames are discussed in turn.

Principles of Good Governance

The notion of "good governance" first appeared in the World Bank (1989) report, which was later used by several world organizations, namely, United Nations Educational, Scientific and Cultural Organization (UNESCO, 2009), The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP, 2009), and United Nations Development Programme (UNDP, 1997). The acceptance of good governance by various world organizations indicates that it is the key to bringing success to an organization.

Nineteen principles of good governance were gleaned from the reform documents of the educational management of the national and international organizations represented in Table 1: (1) The Bureaucracy Development Committee Office of Thailand, (2) King Prajadhipok's Institute in Thailand, (3) The United Nations Educational, Scientific and Cultural Organization (UNESCO, 2009), (4) UNDP (1997), and (5) The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP, 2009).

Based on the good governance data from the educational management documents of the aforementioned organizations represented in Table 1, eight principles that fell within the frequency range of 3–5 were selected for the TLAO: (1) The Rule of Law, (2) Morality/Ethics, (3) Transparency, (4) Participation, (5) Responsibility, (6) Effectiveness, (7) Efficiency, and (8) Equity.

Table 1

Nineteen Principles of Good Governance of the Educational Management

Principles of Good Governance	The Office of Public Sector Development (Thailand)	King Prajadhipok's Institute (Thailand)	UNESCO	UNDP	UNESCAP	Frequency
(1) The Rule of Law	●	●	●	●	●	5
(2) Morality/Ethics	●	●	●			3
(3) Transparency	●	●	●	●	●	5
(4) Participation	●	●	●	●	●	5
(5) Responsibility	●	●	●	●	●	5
(6) Cost-Effectiveness of Economy		●	●			2
(7) Effectiveness	●			●	●	3
(8) Efficiency	●			●	●	3
(9) Decentralization	●					1
(10) Equity	●		●	●	●	4
(11) Responsiveness	●					1
(12) Accountability					●	1
(13) Consensual			●	●		2
(14) Political Legitimacy				●		1
(15) Consensual					●	1
(16) Learning Organization		●				1
(17) Principles		●				1
(18) Human Resource Development		●				1
(19) Information and Communications Technology		●				1
Total	**10**	**11**	**8**	**9**	**8**	

Criteria of Best Education Management of the Ministry of Interior TLAO

The Ministry of Interior TLAO, together with the Foundation for Interior's Local Education of Thailand, set THE criteria for the selection of outstanding educational administrators (Department of Local Administration, 2013):

A.   The general qualification criteria consist of vision, creativity, leadership, competence, experience, ethics, and human relations.

B.   The specific qualification criteria are grouped into two types of abilities. The first type of ability is to generally administrate the local governance according to the six principles of good governance (Second National Education Act B.E. 2545, 2002): (1) Rule of law, (2) Moral principles, (3) Transparency, (4) Participation, (5) Responsibility, and (6) Worthiness. The second type of ability is to make a local three-year strategic development plan for educational management that contains the budget allocation for supporting life-long education by (1) formal education, (2) non-formal education, and (3) informal education.

C.   The outstanding performance was divided into two categories: general outstanding work and educational outstanding work.

Systems Theory

The systems theory advanced by Katz and Kahn (1978) is accepted by the governance researchers as a good open system model (see Figure 1), which has five characteristics: environment, input, process, productivity, and feedback. The elements of the *environment* are outside the system that has the potential to affect all or part of the system. The environmental elements influencing an educational management organization to be effective are politics, economy, and social. The local administration organization must interact with the outside environment. The *input* is the resources taken from the external environment. The input resources influencing an education management organization to be effective are personnel, information, data, and technology.   These input resources can be changed into output factors through the transformational process. The *process* is the transformation of input resources within a system. For example, a provincial educational administrator (input resource) through learning (process) can become a transformative leader (output). The *output* is the work of the system, exported back or released into the environment. The transformative leader is now a change agent who is ready to bring change in the school. *Feedback* is a continuing source of information provided to make necessary changes to develop a healthy relationship between the output and the external environment. Mentoring the leaders with valuable feedback is expected to bring system change.
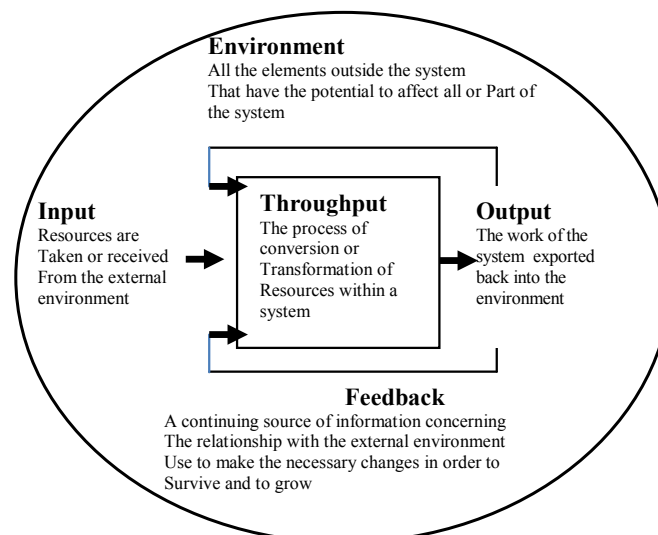

Environment
All the elements outside the system
That have the potential to affect all or Part of
the system

Input
Resources are
Taken or received
From the external
environment

Throughput
The process of
conversion or
Transformation of
Resources within a
system

Output
The work of the
system exported
back into the
environment

Feedback
A continuing source of information concerning
The relationship with the external environment
Use to make the necessary changes in order to
Survive and to grow

Figure 1. Open system model (Katz & Kahn, 1978).

An open educational system has a circulation of learning events, which give birth to a new cycle. Data transferring as input factors cause the investigation a continuous cycle. The system must have all of its parts interacting with one another. For the educational organization to remain stable, orderly, and interactive, more energy needs to be brought into the system to change the input factors into the output factors through a process of transformation. As well, to keep the system in balance, adaptation is needed in the small systems. The usefulness of the system theory is to see the interaction among all the small systems. Besides, there would be an indication of the adaptation of the organization with the environment. Additionally, the open system would plan the structure of the system through shared tasks and responsibilities, and commitment to their own obligation that would lead to the ultimate goal of the organization as a collective unit. Laguerre (2010) has brought the theory of Katz and Kahn into use in developing the leadership of the administrators. Similarly, Ramosaj and Berisha (2014) perceived it as a leadership model for administrators. Bastedo (2004) translated the open-system to characterize the educational management in the context of each locality. Based on the positive empirical evidence, Marginson and McAulay (2008) agreed with the systems theory. Such an open system of the TLAO requires a survey that identifies the factors that would facilitate or constrain the well-being of its educational organization.

Methods

The two-phase study was conducted from November 18, 2015, to January 20, 2017. The successive phases are as follows: (1) document analysis, development of interview questions, and interview; and (2) interview data analysis, developing and administering the questionnaire, and confirmatory factor analysis.

Phase One: Document Analysis, Development of Interview Questions, and Interview

Analysis of national and international education administration documents was conducted from November 18 to 30, 2015. The documents are as follows: (1) Thailand and International education

documents from five organizations; (2) the Department of Local Administration Promotion (2010) criteria; and, (3) the system theory of Katz and Kahn (1978). The principles of good governance appropriate to the education administration identified from the foregoing documents were as follows: general qualification criteria, specific qualification criteria, systematic administration, and outstanding performance.

The questions for a semi-structured interview were constructed from January 07 to February 28, 2016. Based on the principles of good governance identified in phase one, 27 questions were developed:

1. General Qualification Criteria

    1.1.   What is your "Vision"?
    1.2.   What are your guidelines, activities, and projects or "Initiatives"?
    1.3.   How do you lead your organization?
    1.4.   What knowledge do you bring to the success of your organization?
    1.5.   What skills do you apply for the organization's success?
    1.6.   What experience is useful for successful management?
    1.7.   What "Moral Ethics" do you follow for the successful management?
    1.8.   How do you apply the interpersonal skills for development?

2. Specific Qualification Criteria

    2.1.   What "Rule of Law" do you use to protect the corruption?
    2.2.   What "Moral Principle" do you use to conduct the peace process?
    2.3.   What "Principles of Social Responsibility" do you demonstrate?
    2.4.   How do you use the "Transparency Principles" to show the public and the society, the financial management, and the budget?
    2.5.   How do you use the "Participatory Principles" and methods to get people involved?
    2.6.   What effective techniques do you use to achieve a strategic vision?

2.7. How do you efficiently use the Performance Principle?

2.8. What measures do you take to ensure equity?

2.9. How do you follow the Ministry of Interior guidelines in the development of local plan?

2.10. How do you implement the three-year strategic development plan?

2.11. How do you successfully manage the formal and non-formal education for "Lifelong Learning"?

3. Systematic Administration

3.1. How do you manage the education system?

3.2. Which aspects of the environment do you consider successful?

3.3. How do you proactively manage the budget for your personnel, materials, and equipment (input) to ensure that your management is successful?

3.4. Whose development process do you apply to ensure success?

3.5. What are your satisfactory works (output)?

3.6. How do you provide feedback to solve problems?

4. Outstanding Performance

4.1. What awards did you receive for your outstanding performance?

4.2. What successful techniques did you use to be awarded?

By purposive sampling (Palys & Atchison, 2008), nine administrators were selected according to the criteria established by the Ministry of Interior TLAO, the provincial Administration Organization, and the Municipal Administration Organization. Each individual interview was conducted face-to-face one or two per day for three hours. Administrators' responses to the 27 interview questions were then used to develop the survey items. Five examples of the match between the interview responses and the survey items are provided as evidence:

1. Interview Response: Focus on honesty in the practice of personnel. Focus on transparency in performance.

Survey Item: Encourage teachers and staff to be honest. Accountability and compliance with institutional regulations and professional ethics of teachers.

2. Interview Response: Ensure quality of education through the involvement of parents and community. Share responsibility for the care and support of students in accordance with their full potential. With the values, awareness creates a learning society.

Survey Item: Create values for people to share responsibility for society.

3. Interview Response: Open the channel to receive 24-hour problem information. Send a letter request, Line website, and Facebook Messenger call to receive timely information to resolve the trouble.

Survey Item: Provide a variety of information publicity.

4. Interview Response: Provide service to everyone, including the disabled.

Survey Item: Education for the underprivileged or disabled is in accordance with the rights and duties defined in the Constitution of the Kingdom of Thailand (1997).

5. Interview Response: The output of educational management is student achievement. And parental acceptance of their children's achievement must be according to the standards.

Survey Item: Student achievement is in accordance with national standards.

The interview data from the nine administrators resulted in guidelines for the educational management. The administrators' responses were similar because they were all awarded for good governance in education management. The criteria for the award were: working as part of the educational system for at least four years as administrators, and education not lower than Bachelor's degree.

Phase Two: Interview Data Analysis, Developing and Administering Questionnaire, and Conducting Confirmatory Factor Analysis

The interview data were analyzed using the four principles of good governance as a priori codes obtained from the synthesis of educational management documents from phase one. They are as follows: general qualification criteria, specific qualification criteria, systematic administration, and outstanding performance. This process of using a *priori* codes is referred to as the "template analysis" (King, 2004). In this type of thematic analysis, textual data are coded using a template we designed.

Concerning the general qualification criteria, all nine interviewees had the vision of education that will improve people's quality of life, the creativity to study new things, and advance in education that would enable them to build the community for a better living. In the specific qualification criteria, all nine interviewees applied all the eight good governance principles. For example, the interviewees provided useful data with respect to participation in educational administration by responding to the community, sharing their views, developing referendum to determine regulations, and developing the quality of education in their locality. With respect to the systematic administration, the nine interviewees had organized it beginning from the making of the organization; developing the organizational plan; applying data based on the environment to the location context; and the administrating of the management administration, personnel, money, and material/equipment in order to launch the process for productivity. With respect to outstanding performance, the TLAO was awarded for many administration projects because the administrators had a partnership with and cooperation from the respective community. Moreover, the community was proud to award the administrators.

The survey items from the interview data were subjected to CFA from April 1 to September 30, 2016. The CFA generated all four components of the Khan and Katz' systems theory: (1) environment, (2) input factor, (3) process, and (4) productivity. Section one of the questionnaire consisted of five questions concerning the respondents' characteristics and general information. Section two of the survey consisted of a five-level scale aimed at verifying the TLAO educational management components: (1) environment with 19 questions; (2) input with 23 questions; (3) process with 60 questions; and (4) productivity with 26 questions.

Content validity of the 128 items in the survey questionnaire was conducted by five experts holding a Ph.D. degree in business management, who worked in the Ministry of Interior TLAO. The index of Item-Objective Congruence (IOC) developed by Rovinelli and Hambleton (1979) was used to justify using the index of Item-Objective Congruence (IOC). The IOC was also carried out to verify the content of the survey questionnaire based on the data from the document analysis and interviews. The IOC was also conducted to check the content validity provided by the five experts. More specifically, the IOC was used to evaluate and rate the items in the questionnaire survey. Thus, the IOC was used as a tool to increase accuracy and confidence in the answers provided. Every question evaluated by a group of expert in the field had IOC value not less than 0.5, and IOC value for the whole questionnaire was 0.86.

The reliability of the questionnaire content was determined by 30 provincial educational administrators and school directors assigned to TLAO schools, who were not included in the research sample group. Based on the size and reliability test, using the internal validity coefficient of the alpha, the correlation coefficient was found to be 0.993. Akron-coefficient of Akron BAC (Cronbach) is highly reliable. The reliable survey was then administered to the research sample. Survey data were analyzed to find the Confirmation of Elements. To determine the chi square and the Df values, a factor analysis was conducted using LISREL.

The total population of the Provincial Administrators Organization (PAO) and the municipal school directors under the mandate of PAO was 3,057. Of this total population, the administrators of the PAO are as follows: the president of the PAO, the members of the PAO, Corporate secretary, and the director of the division of education, religion, and culture, who worked on the PAO education that year. Of this total population, the provincial educational administrators numbered at 2,710 and the municipal school directors 347 (The Department of the Interior, 2015). Of this total population, the sample group in this research consisted of 282 provincial administrators and 108 community

school directors. There were altogether 390 persons. The sample group was determined using the criteria of Hair, Blak, Barbin, Anderson, and Tatham (2010), the statistical analysis of the confirmatory factors with the initial agreement to consider only the factor loading value higher than 0.30. The sample group should be more than 350 persons and it was done by multi-stage sampling.

Data were collected by sending the valid and reliable questionnaire to 390 provincial educational administrators and community school directors under the mandate of the TLAO in the four zones—north, central, north-east, and south—through the national post system, and the percentage of return was 97.75%.

The survey data were analyzed using frequency value and percentage. The data based on the components of good governance of TLAO were analyzed using the Confirmatory Factor Analysis (CFA) (Jöreskog & Moustaki, 2001) to determine the confirmatory factors consistent with Albright (2008).

Results

Based on the guidelines for the leadership of educational administration of the Ministry of Interior TLAO, the provincial administrators and community school directors must demonstrate good principles of governance: general qualification criteria—vision, creativity, leadership, competence and experience with moral/ethics, and human relations; specific qualification criteria—(1) rule of law, (2) morality/ethics, (3) transparency, (4) participation, (5) responsibility, (6) effectiveness, (7) efficiency, and (8) equity. Systematic administration involves the environment factor consisting of four elements: (1) community or social; (2) economy; (3) law, regulation, and rule; and (4) technology. The input factor consists of the qualities of an effective leader: (1) vision, (2) creative thinking, (3) competence and experience in administration, and (4) leadership. The process factor involves 11 criteria: (1) planning; (2) rule of law; (3) morals and ethics; (4) responsibility; (5) transparency; (6) participation; (7) effectiveness; (8) efficiency; (9) equity; (10) supervision, feedback, and assessment; and (11) improvement. The productivity factor involves the: (1) learner, (2) school, (3) TLAO, and (4) community. Outstanding performance involves general outstanding work and educational outstanding work.

The results of Good Governance of Educational Management for Thai Local Administration Organizations were gotten from 382 (97.75 %) out of 390 questionnaires that were returned by the respondents from TLAOs and from educational executives in provincial education positions. CFA analysis was conducted with LISREL 9.10, which was used to analyze the latent variables using a structural equation model of the relating factors. From the total sample of 382 individuals, the majority were men (269) representing 70.40% and women (113) representing 29.6%. Most were between the age of 40 and 50 years old (154) representing 40.3% of the total. This was followed by individuals who were 50 years or older, which represented 36.4%. Only 14 individuals were 30 years old or younger, which was 3.9%. Most administrators (259; 67.8%) had obtained a Master's Degree in Education. Regional diversity indicated 119 of the individuals (50.3 %) who participated in the survey were from the Northeast, 102 individuals (31.4 %) from the Central Region around Bangkok, 90 individuals (23.6 %) from the Northern Region, and 71 individuals (18.6 %) from the Southern Region.

The secondary Confirmatory Factors of the Good Governance in Education for the TLAO are described in this section. The symbols used are as follows:

G   = Good governance; A = Environment; A1= Community;

A2 = law; A3 = Economy; A4 = Technology;

B   = Input; B1 = Leader vision; B2 = Leader creativity;

B3 = Knowledge skills and experience in Management, leadership; B4 = Leadership skills

C   = Process; C1 = Planning; C2 = Rule of law;

C3 = Morality and Ethics; C4 = Accountability; C5 = Transparency;

C6 = Participation / consensus oriented; C7 = Performance; C8 = Effectiveness,

C9 = Equality; C10 = Monitoring/evaluation supervision; C11 = Improving operations

D   = Productivity; D1= The Students; D2= The Institution;

D3 = The Provincial Administrative Organizations; D4 = Community / Society
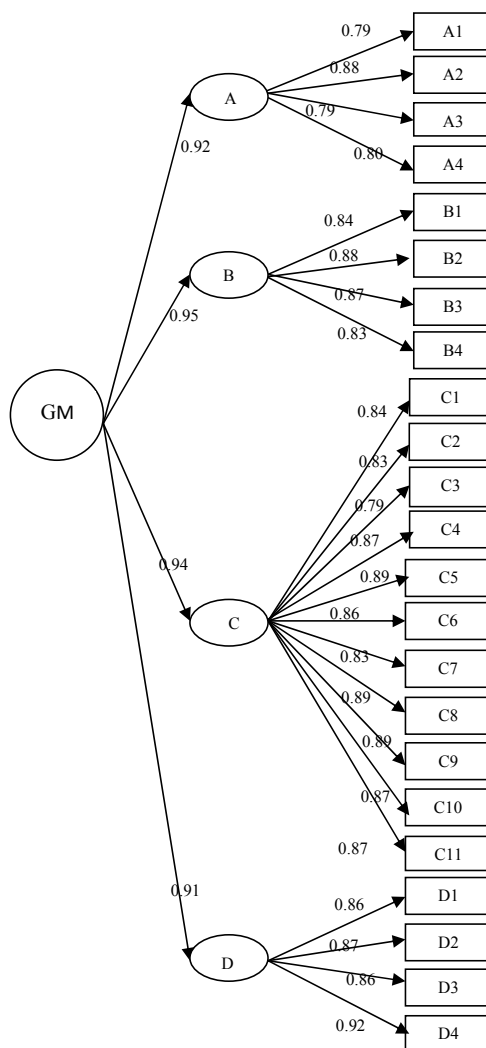
Figure 2. The CFA of the causal relationships of the good
governance in education for the TLAO.

Investigation of the goodness-of-fit of the causal model of the variables affecting administrators and educational executives in TLAO corroborates with the empirical data. This is confirmed by; $\chi^2 = 162.61$, $\chi^2/df = 0.99$, df = 164, p value = 0.52, GFI = .96, AGFI = .94 and RMSEA = 0.000, which are based on the specified criteria (see Table 2).

Figure 2 shows the CFA of the four observed variables for TLAO provincial administrators and community school directors are A) environment = 0.92;

B) Input = 0.95; C) process = 0.94; and, D) productivity = 0.91. The composition by weight of each variable had a statistical significance levelat 0.05 as shown in Figure 2.

The confirmatory factor analysis of the environment factor consist of the standard component values: community = 0.79, law = 0.88, economy = 0.79, and technology = 0.80. The standard component weight value of each variable had the statistical significance at the level of 0.05.

Table 2
The Goodness-of-Fit Index and Predictive Correlation of Causal Model of Variables Affecting Thai Provincial Administration Administrator and Educational Executive Management Decisions

Goodness-of-fit index (GFI)	Criteria	Statistics	Out come	Reference
Chi-square: χ^2		162.61		
*p*value	< 0.05	0.52	Passed	Hair et al. (2010); Bollen (1989)
Df		164	Passed	
Relative Chi-square: χ^2/df	≥2.00	0.99	Passed	Hair et al. (2010)
GFI	≥ 0.90	0.96	Passed	Byrne (1994)
Adjusted Goodness of Fit Index: AGFI	≥ 0.90	0.94	Passed	Schumacker and Lomax, (2004)
Root Mean Square Error of Approximation: RMSEA	<0.08	0.000	Passed	Hair et al. (2010); Browne and Cudeck (1993); and Bentler (1999)

The confirmatory factor analysis of the input factor about the qualities of a leader consist of the standard component values: vision = 0.84, creativity = 0.88, competence = 0.87, and leadership skills = 0.83. The standard component weight value of each variable had the statistical significance at the level of 0.05.

The confirmatory factor analysis of the process factor consist of the standard component values: planning = 0.84, and the implementation using rule of law = 0.83, moral and ethics = 0.79, accountability = 0.87, transparency = 0.89, participation = 0.86, performance = 0.83, effectiveness = 0.89, equity = 0.89, monitoring/ evaluation by supervision = 0.87, and improving operations = 0.87. The standard component weight value of every variable had the statistical significance at the level of 0.05.

The result of the confirmatory factor analysis of the productivity factor consist of the standard component values: The Students = 0.86, The Institution = 0.87, The Provincial Administrative Organizations (PAO) = 0.86, and the community= 0.92. The standard component weight value of every variable had the statistical significance at the level of 0.05 as represented in TLAO.

Discussion

Office of the Education Council in Thailand (2011) accorded the TLAO the power to participate in the management of education and to respond to the demands of the people so that they could have a better quality of life based on the principles of good governance. As the result, the TLAOs have the responsibility to work closely with the people and represent the province for providing the public service to the local people in their area (Department of Local Administration, 2013). The criteria of decentralization of power to the TLAOs were congruent to the concept of the good governance that was synthesized from the conceptual frameworks of the five organizations mentioned above.

The findings of the current study, based on the relationship between the empirical data and secondary confirmatory analysis, revealed the four factors of good governance: (1) environment, (2) input, (3) process, and (4) productivity, which are consistent with the Katz and Kahn's open-system of education administration. This study is also in line with Marginson and McAulay (2008)'s empirical study that revealed the successful

application of the systems theory by Katz and Kahn. According to the foregoing authors and the findings of the study at hand, the open system advocated by Katz and Kahn can be adopted and consistently applied for the acceptable performance of good governance.

The findings of the current study show that the input factor had the most weight value of the standard components. This is because the qualification of the TLAO leadership in this study showed **vision, creativity, competence and experience, and efficiency** as the elements of the input factor, which corresponded with the principles of good governance identified by document and the interview analyses.

Input Factor

The TLAO leadership applied the input factor as an observed variable, which is an essential component of good governance in education. Input factor was also found to be the number one confirmatory factor based on phases one and two.

Vision is an essential element of input factor in this study that corroborated with Abraham, Crawford, and Fisher (1999), who observed that the vision of an administrator effects changes in a management system in order to improve the quality of an organization. Gibson (2015) noted that not only the vision of the administrators but also the people's vision and action have a great role to play in the success of an educational management of an institution.

According to the current study, the creativity of a leader as an input factor is important to proactively raise the learning proficiency. For example, the creation of innovations for sustainable development and living developed in the current study correspond with the creativity theory of Guilford (1959) that states that creativity is a capacity of the brain to think broadly with different aspects, different points of view, and differently from other's thinking. Similar to this current study, McLean (2004) studied the effect of creativity on an individual identity and this relationship, the author stated, can develop and have a positive input. Like this study at hand.

The current study noted that the provincial education administrators and municipal school leaders, who were awarded for good governance, had knowledge not less than the graduate level. Moreover,

the administrators had also studied the management of education by traveling locally and abroad. The exchange of knowledge during the travels based on educational news provided an opportunity to update their understandings of administration. On these visits, the leaders also had the opportunity to develop their abilities to see a broader picture of the unfolding events in education. Thus, this study has found competence and experience as important elements of the input factor. Consistent with the research of Rassameekaew (2008), this study found that the ability and experience of the executives was a component of quality leadership in school management.

In order to achieve efficiency, leaders must have a broad vision and a rich educational management background to develop the quality of life of the people. The implementation of good governance should be supervised and evaluated to enhance efficiency. Pengchan (2009) found that effective public administration factors are important to manage district offices. These factors include serving stakeholders, managing human resources, planning on positive effects of government on the recipients, improving academic quality, enhancing personnel development, developing organizational characteristics, changing support systems in a positive manner, and characterizing performance as indicators of quality development.

With evidence from this study and corroborating with previous studies on good governance, the input factor is the number one factor that affects the quality of educational management, including the TLAO. Thus, the guidelines generated using confirmatory analysis adopting the elements of the systems theory or the open-system can be justifiably used to improve the quality of provincial education in Thailand.

Process Factor

The research finding on the process factor revealed that it had the second most weight among the standard component. The study confirmed that a plausible process of good governance is based on proper planning, implementing the plan, and following the improved development. This confirmation from the current study corresponds with Davies (2006), who

stated that process of good governance is important to strategic development and implementation.

Based on the weighing of the confirmatory factors, the current study found the implementation of the eight principles of good governance: (1) rule of law, (2) morality/ethics, (3) transparency, (4) participation, (5) responsibility, (6) effectiveness, (7) efficiency, and (8) equity.

This research's findings, through the interviews of the TLAO administrators and leaders, indicated that an effective supervision is the key to every organization, either governmental or private, but we believe the only professional organization and skillful people who are ready for the change must be in charge. The foregoing statement aligns with the concept of good governance of the UNDP (1997) and UNESCAP (2009), who defined good governance is a process of making decisions to implement the strategic plans and practices under the supervision of personnel at the national and the local administration levels similar to the advocacy by the Office of the National Economics and Social Development Board (2017). The foregoing body has stated the importance of the good governance in developing Thailand and stressed the need for the working unit to arrange the Educational Development Plan for each locality. This study's results and the statements made by some of the important world organizations corroborate with de Graaf and Paanakker (2015), who found that an effective supervision entails legitimacy; transparency of the process; and the attainment of efficiency, effectiveness, and equity. The foregoing statement also parallels with Hopson, Hotep, Schneider, and Thamar (2010), who stressed that being a leader is to grant education for all people equally with justice. Therefore, the good governance that an education leader must consider is to render justice and equity to all learners.

Besides, the importance of using the participation principle in the implementation of morality is essential to conducting the strategic plan. This is partly a policy issue that has contributed to good governance in educational management. It focuses on the process of a country's progress than leaning towards a political priority. This commitment helps to raise the educational level of a country to its national standards and to manage the quality of education (Rayner, 2017). The implementation of good governance in the political and economic sectors at all levels in a country consists of the process or the mechanism of the different institutions, which the people could show off for the benefit and protection of their right according to the law. Valuing different views uphold the participation principle, transparency, responsiveness, and promotion using the rule of law, which manages the social resources, including the voice of the poor and the disadvantaged in the development of a country. These main elements are necessary in the millennium for the good governance by societies that demonstrate and experience highly creative and efficient forms of governance (Toksöz, 2008).

Environment Factor

The environment factor had the third most weight of the standard component, which consisted of four observed variables: 1) community; 2) economy; 3) law and regulation, and rule; and 4) technology. This finding was because each TLAO in all four regions of 77 provinces had a different environment. The environment factor corresponded with the interview answers of the administrators and the directors of TLAO. These leaders brought in the conditions of the environment that involve the advantages and the disadvantages that affect the education quality development. This finding of an educational environment corresponds with the concept of Kok, Mobach, and Omta (2015) that stated that the environment has the potential to affect the internal system of an institution. However, these authors applied the analysis of the physical conditions of the environment, such as forests, the landscape, in order to create good town plan, transportation, and proper public utility systems, which have the physical and social components affecting the people concerned. The same principle about the environment can be translated to the education governance confirmed by the current research finding. In consistent with this claim, Green (2017) found that the schools belong to the community, the community belongs to the schools, and school reform is involved with community improvement. Thus, the environment as part of good governance cannot be ignored.

Productivity Factor

The productivity factor was found to have the fourth weight value of the standard components. It consisted of (1) the learner, (2) the institute, (3) the TLAO, and (4) the community. The proficiency of learners, a quality advocated by the TLAO's administration, is a policy mandated by the country targeting the productivity of good governance. The learner is the productivity based on the investment of worthiness according to the community policy on the principle of efficiency and the effectiveness to manage the local educational affairs. Concerning the TLAO's productivity of learner proficiency, Grisay and Mahlek (1991) pointed to three correlative dimensions: resource quality for teaching; the quality of the teacher and the education personnel; and, the learning process and the quality of productivity. These characteristics of the learner proficiency are consistent with Morton (2011) who stated that schools expect educational productivity based on the effective operation of educational management of the provincial administrative organizations in order to meet the desires of the people in the local community.

Additionally, educational productivity as a guiding principle corresponds with the Secretariat Office of the Teachers' Council of Thailand (2011), which studied the educational management of the Provincial Administration Organization. The evaluation conducted by the Secretariat Office of the Teachers' Council of Thailandon the decentralization of TLAO to manage the education has yielded positive results. The schools were qualified. The parents and the community were satisfied with the quality development. Positive results were because of the government's policy that the TLAO be responsible for the educational management in a community in order to improve the educational quality of the people in a particular province and municipality.

Conclusion

The guidelines for good governance in the educational management, according to the results obtained from the confirmatory factor analysis, are as follows:

1. The general qualification criteria consist of the vision, creativity, leadership, competence and experience, moral and ethics, and human relations.
2. The specific qualification criteria consist of the eight principles of good governance; the ability to manage the educational affairs; and make and implement a feasible education development plan.
3. The open administration system consists of the local environment, the input (personnel, money, material, and equipment) necessary for the process of education, resulting in productivity that includes capable leaders and teachers, who are able to increase student achievement.
4. The outstanding performance involves the satisfaction of the learner's quality; proficiency; morality and ethics; and the confidence of the community on the education management of TLAO.

The foregoing principles of good governance were corroborated with the educational management criteria specified by The Department of the Local Administration (2010). The administrators in the nine representative TLAOs, interviewed in this study, were awarded for good governance because their educational management reflected the aforementioned principles. The same principles may be used by the other TLAOs in Thailand. The principles of good governance based on the CFA may also apply to the countries that are affiliated with the world organizations such as UNESCO, UNDP, and UNESCAP because their educational management documents were integral to this study.

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