DEVELOPMENT OF A DUAL-SYSTEM SCHOOL MANAGEMENT MODEL FOR THE KINGDOM OF CAMBODIA[*]

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Abstract: The objectives of this descriptive research study were 1) to study the current and desirable status of dual-system school management of the Kingdom of Cambodia; 2) to analyze the priority needs to rectify the dual-system school management for the Kingdom of Cambodia; and 3) to develop a management model for dual-system school for the Kingdom of Cambodia. This research study employed the research and development method (R&D). The data of the current and desirable status of dual-system school management were collected from 540 respondents from 3 dual system schools. The respondents were 11 school administrators, 165 teachers, 34 school committees and 330 students. To validate the draft of a dual system school management model, 42 experts and stakeholders were invited for individually validation and other 20 Cambodian experts and stakeholders were also invited to small group discussion. The collected data were analyzed using descriptive statistics, and the formula of PNI $_{modified}$ was also used to find the priority need index level. The findings revealed that 1) the mean of the current status of dual-system school management of the Kingdom of Cambodia was high where Formal Model ($\bar{x}$=2.95, S.D.=1.00), Cultural Model ($\bar{x}$=2.95, S.D.=1.00), and the desirable status of dual-system school management in high average score were Collegial Model ($\bar{x}$=3.71, S.D.=1.08), Cultural Model ($\bar{x}$=3.51, S.D.=1.08) and Formal Model ($\bar{x}$=3.41, S.D.=1.06). 2) The level order of priority need in adjusting a dual-system school management were considered Collegial Model as the first level (PNI=0.37), Formal Model as second level (PNI=0.19), and Political Model as the third level (PNI=0.18).

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3) the most appropriate dual-system school management model for the Kingdom of Cambodia was developed as an integrated Formal-Collegial and Cultural Model (IFCC).

Keywords: Management Model, Dual System School, Current and Desirable Status of Dual System School Management, Priority Need Index, and the Kingdom of Cambodia

Introduction

Since the early of year 2000, Royal Government of Cambodia (RGC) has launched an extremely reform of its education sector in various ways. The government's ultimate goal then was to support all Cambodian children and teenagers to have equal opportunity to access education, especially the education at compulsory level. Meanwhile, the Ministry of Education, Youth and Sport (MoEYS) has focused on improving educational quality as a prioritized agenda in order to produce skilled workforce to respond to the competitive regional labour market. (RGC, 2004)

In the early 2001, HRH Princess Maha Chakri Sirindhorn granted assistance to Cambodia by establishing a Royal sponsorship project aiming to improve the country's education quality as a part of helping to develop human resources of this war-torn Kingdom. The project has resulted in the establishment of Kampong Chheuteal High School, a secondary school known as the first dual-system school in Cambodia. The school operates its teaching and learning process in both general and vocational education. Simultaneously, extra-curriculum activities have been conducted. It is the princess' intention to make the school a knowledge-dissemination center as well as a vocational skills training center for poor students in rural areas of Cambodia. To those it is believed that most of poverty-ridden students are very potential. If they are equipped with well vocational training and quality education, they will be powerful human resources in the upcoming days that sometime they enable to help themselves, Cambodia society, and the world (Committee of the school under Royal project, 2005). The royal initial project for the first dual-system school establishment has been critically considered as the beginning of a concept of teaching and learning process in which both general and vocational educational system have been originally conducted in the Kingdom of Cambodia. Throughout the past years, this dual-system school has played its significant role in providing education to rural students from Kampong Thom and neibouring provinces. As a result of HRH Princess's sponsorship, some of the students who have successfully finished their studies from general and vocational education were able to pursue their higher degree locally and abroad. In addition, some of the students were able to get well-paid jobs while some others run their own business (Pech, 2009). All of these irrefutable results have positively responded to the country's development strategies that RGC pledged to use education as one of poverty reduction strategies (Vireak, November 2005:1)

Both the RGC and MoEYS have recognized that HRH Princess' project of dual-system school is a very important and beneficial project as it has notably contributed to the development of human resource and national economic development. Based on HRH Princess's initiative, the MoEYS has launched a powerful policy to construct more dual-system schools in other provinces across the country. The ministry aims

to establish at least one school for each province. Nonetheless, the dual-system school is partly considered as a new educational system in the form of new teaching and learning procedures that need to be run by a new appropriate management model with specific supporting rules and regulations. For the past academic years, the school has repeatedly run its operation with an adapted management model of general school that is obviously not responsive to the school's tasks. This matter has made the teaching and learning process inefficient and consequently has declined the school and student outcomes (Vocational Orientation Department, 2011).

In the early part of the 21st century, it is widespread believed that a management model that is not consistent with the organization's specific daily tasks does not only directly affects the efficiency of the organization operation but also makes its operational process complicated, sluggish, and unhandy. There is also increasing recognition that schools require effective leaders and management models if they are to provide the best possible education for their learners (Bush, 2003). The dual-system school is a large educational organization with numerous specific and duplicative tasks, and its educational goals are different from those of public general schools. It is very challenging, then, to accomplish its ultimately expected goals if the school runs its operational process with an inappropriate management model. Therefore, an appropriate and effective model is a must for principals to manage the school successfully. Moreover, it is convinced that such an effective model will play its significant role not only to solve problems arising from the use of the previous management model which does not comply with the school's tasks, but also to prevent other problems which may occur in school operational process. Based on academic reasons and problems as mentioned above, an active research study for developing an appropriate management model of dual-system school for the Kingdom of Cambodia is carried out. The valuable results may serve as a sample of management model for running the school to succeed its predetermined goals.

Research Objectives

There are three objectives:
1) To study the current and desirable status of dual-system school management of the Kingdom of Cambodia
2) To analyze the priority need to rectify the dual-system school management for the Kingdom of Cambodia
3) To develop a management model of dual-system school for the Kingdom of Cambodia.

Literature Review

Most literature sources reviewed for this research study emphasized on different theoretical perspectives and concepts in an effort to explain the public school operation and tasks, various kinds of school management models, overall information of dual-system school of Cambodia, and management model development approaches. Related pervious research papers and academic articles, from both national and international sources, were also reviewed to define the research conceptual framework.

School management process has been defined as both scientific and artistic processes used to lure and urge others to work under limited resources to succeed the expected goals, and public school management is the running process of every school task under resources allocated by the governments to get national goals (Bartol and Martin, 1998; Certo, 2000; Goodman, Fandt, and Lewis, 2002; and Shermerhorn, 2004). Koontz and Weihrich (1998) suggested a successful management process should divide into 5 functions: (1) Planning, (2) Organizing, (3) Staffing, (4) Directing, and (5) Controlling. Robins and Coulter (1996); Ivancevich and Matterson (2002) conformably divided the management procedure into 4 phases: (1) Planning, (2) Organizing, (3) Leading, and (4) Controlling. However, Newby, Stepich, Lehman, and Russell (2000) just briefly categorized management process into 3 steps known as PIE namely: (1) Planning, (2) Implementation, and (3) Evaluation. In conclusion, an effective management process should be divided into 6 steps such as (1) Planning, (2) Organizing, (3) Staffing, (4) Directing, (5) Controlling, and (6) Evaluating. Related to school tasks, Kimbrough and Nunnery (1988), Dhamatecho (1988), and Boonjitradul (2008) divided school tasks into 9 categories: (1) Academic affair, (2) Personnel affair, (3) Supervision affair, (4) Budget and accessory affair, (5) Student affair, (6) Community relation affair, (7) Building and surrounding affair, (8) School Structure affair, and (9) Evaluation affair. However, only 4 specific affairs were determined to use in Thailand public school featuring as (1) Academic affair, (2) Personnel affair, (3) Budget affair, and (4) General affair (OBEC, 2007).

Regarding the concept of management model, it is somewhat derived from the theory of management model of Bush (2011). Bush has clearly assumed and categorized management model into 6 management models namely: (1) Formal model, (2) Collegial model, (3) Political model, (4) Subjective model, (5) Ambiguous model, and (6) Cultural model. Each model is typically characterized by 8 elements of management featuring as: (1) Level at which goals are determined, (2) Process by which goals are determined, (3) Relationship between goal and decisions, (4) Nature of decisions process, (5) Nature of structure, (6) Links with environment, (7) Style of leadership, and (8) Related leadership model. And every model also has its own overall theoretical concepts to harmonize with both public and private schools for which has a different level, size, and tasks. Formal Model has its specific 8 elements of management such as (1) Level at which goals are determined is in institutional level, (2) Process by which goals are determined is set up by leaders, (3) Relationship between goal and decisions is based on institutional goals, (4) Nature of decisions making process is run in rational procedure, (5) Nature of structure is an subjective reality and hierarchical structure, (6) Links with external environment can be a closed or open connection based on leader's accountability, (7) Style of Leadership is determined that the leader need to be the one who seek to promote consensus, establish and initiate the institutional goals and policies, and (8) Related leadership model is involved to managerial leadership. The second model, Collegial Model, has its own 8 elements of management described as: (1) Level at which goals are determined is also in institutional level, (2) Process by which goals are determined is set up by staff's agreement, (3) Relationship between goal and decisions is based on agreed goals of the institution, (4) Nature of decisions making process is run in collegial procedure, (5) Nature of structure is an objective reality and lateral structure,

(6) Links with external environment is just an accountability blurred by shared decision making, (7) Style of Leadership is determined that the leader seek to promote consensus, and 8) Related leadership model is involved to transformational, participative, and distributive leadership. The third model, Political Model, assumed its own 8 elements of management like this: (1) Level at which goals are determined is in institution's subunit level, (2) Process by which goals are determined is expectedly set up by the conflicts, (3) Relationship between goal and decisions is based on goals of dominant coalitions, (4) Nature of decisions making process is run in political procedure, (5) Nature of structure is intentionally set for institution's subunits, (6) Links with external environment is connected with unstable external bodies portrayed as interest groups, (7) Style of Leadership is determined that the leader is both participant and mediator, and 8) Related leadership model is involved to transactional leadership. For the fourth model, Subjective Model, partly defined its main elements of management as: (1) Level at which goals are determined is in individual level, (2) Process by which goals are determined is problematic, or may be imposed by leaders, (3) Relationship between goal and decisions is based on goals of dominant coalitions, (4) Nature of decisions making process is run in individual behavior based on personal objectives, (5) Nature of structure is designedly set for personal objectives, (6) Links with external environment is a connection constructed through human interaction, (7) Style of Leadership is in problematic connection, or may be perceived as a form of control, and (8) Related leadership model is involved to postmodern and emotional leadership. Another fifth one is Ambiguity Model that particularly highlighted its main elements of management as: (1) Level at which goals are determined is unclear, (2) Process by which goals are determined is unpredictable, (3) Relationship between goal and decisions is unrelated to institution's goals, (4) Nature of decisions making process is considerably run as garbage can, (5) Nature of structure is problematic, (6) Links with external environment is considered as the source of uncertainty, (7) Style of Leadership is maybe a tactical or unobtrusive leader, and (8) Related leadership model is involved to contingent leadership. The last management model of Bush (2011) is Cultural Model that assume its main elements of management in overall view as: (1) Level at which goals are determined is in institutional or subunit level, (2) Process by which goals are determined is based on collective values, (3) Relationship between goal and decisions is based on goals of the organization or its subunits, (4) Nature of decisions making process is to be run in rational procedure within a framework of value, (5) Nature of structure is a physical manifestation of culture, (6) Links with external environment is considered as the source of values and beliefs, (7) Style of Leadership is a symbolic leader, and (8) Related leadership model is involved to moral leadership. So that, there are a variety of management model that an appropriate model or the integrated one of those should be taken out or developed for dual system schools of the Kingdom of Cambodia.

In term of overall information related to dual-system schools of Cambodia, school overview, rational and background to build the school, and the current organizational structure of the school was clearly described to understand more about how, what, when, and where the school running its obligations. According to Kampong Chheuteal High School Annual Report (2010), the reports made by Committee of the school under Royal project (2005), and the operational report of

Vocational Orientation Department (2011), the first Cambodia dual-system school was founded under the supports from HRH Princess Maha Chakri Sirindhorn in 2001 in Prasat Sambo district of Kampong Thom province. The school is located 3 kilometers from Sambo Preikuk ancient ruin temples. Currently, the MoEYS has built 2 more dual-system schools, in which one is in Kampong Chhnaing province and another is in Kandal province. The ministry will expand the establishment of the dual-system schools in some provinces across the kingdom. Dual-system schools offer dual teaching and learning tracks: general education in secondary level using the national main curriculum and regulations, and technical education with three-year post-ninth grade technical and vocational programs. The technical and vocational programs offer learners with various vocational majors. The schools also operated supplementary activities and other significant practices to promote educational quality, quality of students' lives, vocational practical skills, cultural and environment preservation, and community services or so. The schools are under the supervision of Provincial Department of Education, Youth and Sport and Vocational Orientation Department of MoEYS. The schools have adopted a general school management model in their management process in all aspects the hierarchical managing structure formatting and the distribution of school tasks

Another essential literature reviewed in this research are management model development approaches that many of these have been described in different ways and methods originally depend on whatever management model needed. In this research, however, Need Assessment Approach of Wongwanich (2007) was chosen to use as a crucial method to build up an appropriate model for dual system school of Cambodia. Need Assessment Approach or Priority Need Index (PNI) is one of the significant approaches using to find out the gaps between what is the current status of school management and what should the management status be in the future. The gaps outcome will be statistically analyzed using a Modified Priority Need Index formula (PNI $_{modified}$) of Wiratchai and Wongvanich (1999) to figure out the PNI level range of desirable status of school management and then set priority of each PNI level range from the highest level to the lowest one.

For the previous research topic most closely related to this earlier descriptive research is Panichkarn (2011)'s doctoral dissertation on Development of an appropriate management model for vocational education institutions.

Conceptual Framework
This research study aims to find out an appropriate management model for dual-system school for the Kingdom of Cambodia. The study applies theoretical concept of 6 management models and 8 elements of management of Bush (2011) as a research conceptual framework. For 8 elements of management were used as important dimensions to explain the main points of each model. Moreover, Need Assessment Approach or PNI method of Wongwanich (2007) and the Modified Priority Need Index formula (PNI $_{modified}$) of Wiratchai and Wongvanich (1999) was also conducted to find out an appropriate management model for dual-system school for the Kingdom of Cambodia. The detail of research conceptual framework is shown in Figure 1.
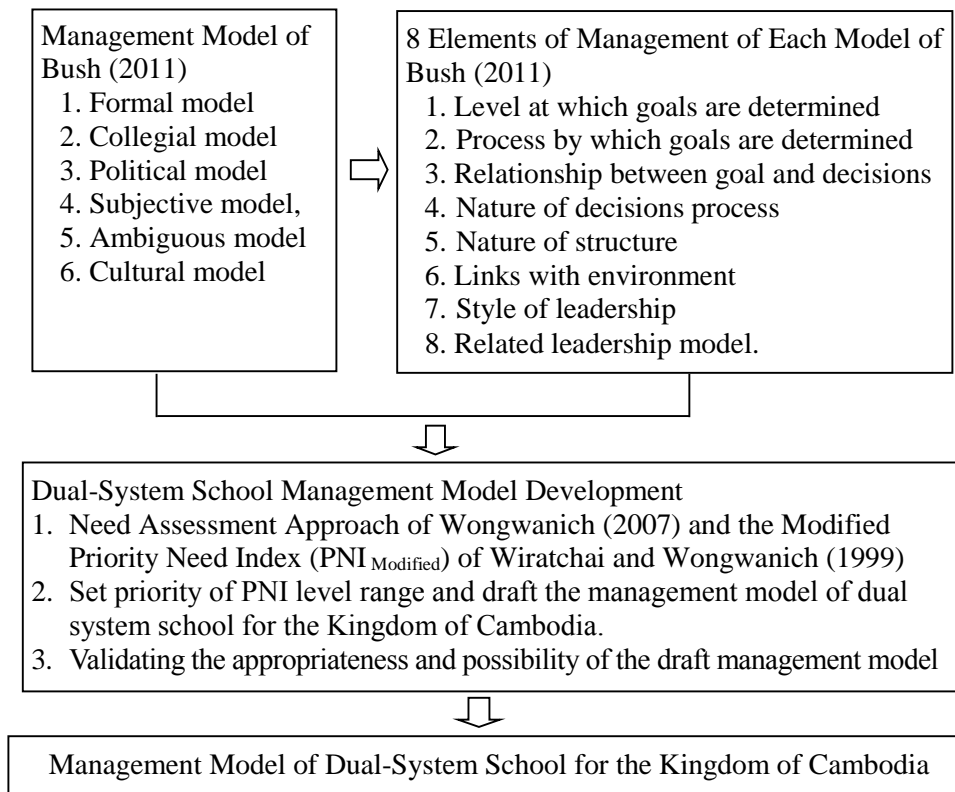
(See Figure 1 on the next page)

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┌─────────────────────────┐      ┌──────────────────────────────────────┐
│ Management Model of      │      │ 8 Elements of Management of Each Model │
│ Bush (2011)              │      │ of Bush (2011)                         │
│   1. Formal model        │  ⇨   │   1. Level at which goals are determined│
│   2. Collegial model     │      │   2. Process by which goals are determined│
│   3. Political model     │      │   3. Relationship between goal and decisions│
│   4. Subjective model,   │      │   4. Nature of decisions process        │
│   5. Ambiguous model     │      │   5. Nature of structure                │
│   6. Cultural model      │      │   6. Links with environment             │
│                          │      │   7. Style of leadership                │
│                          │      │   8. Related leadership model.          │
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Dual-System School Management Model Development
1. Need Assessment Approach of Wongwanich (2007) and the Modified Priority Need Index (PNI $_{Modified}$) of Wiratchai and Wongwanich (1999)
2. Set priority of PNI level range and draft the management model of dual system school for the Kingdom of Cambodia.
3. Validating the appropriateness and possibility of the draft management model

Management Model of Dual-System School for the Kingdom of Cambodia

Figure 1: Conceptual Framework of the Study

Research Procedure

This descriptive research employed research and development method (R&D) in which consisting of R_1D_1, R_2D_2 and R_3D_3 consecutively. The research procedure was divided into 5 phases as follow:

Phase 1: In the first phase, researcher reviewed, analyzed, and synthesized the documents on management model and dual-system school management to define the research conceptual framework. The framework was then validated by the experts in school management.

Phase 2: In the second phase, researcher aimed to study the current and desirable status of the management process of dual-system school of the Kingdom of Cambodia (R_1). To obtain the data, 2 research questionnaires in a form of dual-response format or in two-situation columns were distributed to 540 respondents from 3 dual-system schools namely 1) Kampong Chheuteal High School in Kampong Thom Province 2) General and Technical Education High School of Hun Sen-Rota Ksach Kandal in Kandal province, and 3) General and Technical Education High School of King Norodom Sihamoni in Kampong Chhnang province. The respondents were 11 school administrators, 165 teachers, 34 school support committee members and 330 students. Simple random sampling was used to select the students. The obtained data in phase 1 were analyzed using descriptive statistics to find out the frequency,

percentage, average mean and standard deviations of current and desirable status of dual system schools' management process.

Phase 3: After obtaining the data from phase 2**,** the researcher continuously figured out the PNI level rang for adjusting the management model of Cambodian dual-system school (R_1), and formed the first draft of management model of the school (D_1). To draft a management model, the average means of current and desirable status of dual-system school management were used to figure out the PNI level range using a formula PNI $_{modified}$ = (I-D)/D to define the gap outcomes between the current and desirable status of school management. After that, every gap outcome or PNI level range was set in priority order from the highest level to the lowest one in a form of 8 elements of management. Finally, the researcher concluded the PNI in overall level range of 6 management models of Bush (2011). Only the highest PNI levels of management model and the highest average mean scores of desirable status of the school management were considerably chosen to form the first draft of management model for Cambodian dual-system school.

Phase 4: In this phase, the individual validation procedure of the first draft of management model of Cambodian dual-system school was carried out to specify the appropriateness and the possibility (R_2). The validation result was then used to develop the school management model as a second draft (D_2). In individual validation, 42 experts and stakeholders from both Cambodian and Thailand were invited to validate the first draft management model. The results of the model validation were classified, and then taken to consult with research advisors to define the main issues for justifying the first draft of management model and to develop as a second draft.

Phase 5: For the final phase, another validation of the second draft of the school management model was conducted by a group of experts and stakeholders to confirm its appropriateness and possibility-(R_3), and then the result of the focus group was used to develop the second draft of the school management model to be an appropriate one (D_3). In this procedure 20 experts and stakeholders were officially invited to join a focus group discussion held at Faculty of Education of Chulalongkorn University to recheck and confirm the appropriateness and the possibility of the second draft model. Opinions and suggestions of experts and stakeholders obtained from the discussion were synthesized and categorized in several main points. Consequently, those valuable main ideas were taken to consult with thesis advisors to define some significant main points for adjusting the second draft of the school management model, and finally a completed management model of dual system school for the Kingdom of Cambodia was exclusively set up.

Findings and Conclusion
The research findings based on the main objectives revealed as follows:

Current and desirable status of Cambodian dual system school management
Data and information of current and desirable status of dual-system school management of the Kingdom of Cambodia which collected by questionnaires were analyzed and categorized in overall perspectives of 6 management models as shown in Table 1.

Table 1: Mean and Standard Deviation of Current and Desirable Status of Cambodian Dual-System School Management in Overall Perspectives

Management Model	Current Status			Desirable Status		
	$\bar{x}$	*S.D.*	Sequence	$\bar{x}$	*S.D.*	Sequence
1. Formal Model	2.95	1.00	1	3.41	1.06	3
2. Collegial Model	2.78	1.01	3	3.71	1.08	1
3. Political Model	2.74	0.93	4	3.26	1.09	4
4. Subjective Model	2.55	1.11	6	2.68	1.19	5
5. Ambiguous Model	2.56	0.99	5	2.67	1.21	6
6. Cultural Model	2.95	1.01	2	3.51	1.08	2

According to Table 1, the current and desirable status of dual-system school management of the Kingdom of Cambodia could be summarized as follows:

1) The current status of dual-system school management of the Kingdom of Cambodia is implementing the Formal Model as the first model ($\bar{x}$ =2.95, *S.D.*=1.00), Cultural Model as the second model ($\bar{x}$=2.95, *S.D.*=1.01), Collegial Model as the third model ($\bar{x}$=2.78, *S.D.*=1.01), Political Model as the fourth model ($\bar{x}$ =2.74, *S.D.*= 0.93), Ambiguous Model as the fifth model ($\bar{x}$=2.56, *S.D.*=0.99), and Subjective Model as the last model ($\bar{x}$=2.55, *S.D.*=1.11) consecutively. However, Formal Model and Cultural Model which in the highest mean score are theoretically considered as the current management model implementing in Cambodian dual-system school. For the 8 main elements of management of these management models are determined as follows:
   (1) Level at which goals are determined is in school or school's subunits level.
   (2) Process by which goals are determined is conducted by school leader bases on collective values of all school staff.
   (3) Relationship between goal and decisions is based on the goals of the school or its subunits.
   (4) Nature of decisions making process is run in reasonable process within the framework of the staff's shared values.
   (5) Nature of structure is a subjective reality and hierarchical structure in the vertical line of executive orders which focusing on physical manifestation of culture.
   (6) Links with external environment may occur in closed or open connections based on school head's accountability, or the connection is the source of values and beliefs of school staff.
   (7) Style of Leadership is determined that the school head needs to be the one who establish and initiate the school goals and policies, and also be a symbolic leader for the school staff.
   (8) Related leadership model is involved in managerial and moral leadership.
   2) The desirable status of dual system school management of the Kingdom of Cambodia should be the Collegial Model as the first model ($\bar{x}$=3.71, *S.D.*=1.08), Cultural Model as the second model ($\bar{x}$=3.51, *S.D.*=1.08), Formal model as the third model ($\bar{x}$=3.41, *S.D.*=1.06), Political Model as the fourth model ($\bar{x}$=3.26, *S.D.*=1.09),

Subjective Model as the fifth model ($\bar{x}$=2.68, *S.D.*=1.19), and Ambiguous Model as the last model ($\bar{x}$=2.67, *S.D.*=1.21). While comparing between the highest mean of the first three desirable models ($\bar{x}$=3.71 for Collegial Model, $\bar{x}$=3.51 for Cultural Model and $\bar{x}$=3.41 for Formal Model) found that those three models are nearly in the same score, which indicate that most of questionnaire respondents needed those three models should be operated in Cambodian dual-system school. Thus, the desirable management model, by which the respondents' requirement, of Cambodian dual-system school should be considered as Collegial Model, Cultural Model, and Formal Model consecutively. For the 8 main elements of management of these desirable models are determined as follows:

(1) Level at which goals are determined is in school or school subunits level.

(2) Process by which goals are determined is mutually set up by school leaders and staff bases on collective values of all school staff.

(3) Relationship between goal and decisions is based on all staff-agreed goals of the school or its subunits.

(4) Nature of decisions making process is constantly run in rational and collegial process in accordance with the staff's shared values framework.

(5) Nature of structure is an objective reality structure which closely focused on staff in lateral structure line and physical manifestation of culture.

(6) Links with external environment is not in a rigid accountability of connection due to it need to pass a shared decision making based on staff's shared values and beliefs, but the linking can be a closed or open connection based on school head's accountability.

(7) Style of Leadership is determined that the school head needs to be the one who seek to promote consensus, establish and initiate the school goals and policies, and also be a symbolic leader for the school staffs.

(8) Related leadership model is involved in transformational, participative, distributive, moral and managerial leadership.

The PNI level for adjusting Cambodian dual system school management
To find out the PNI level for adjusting Cambodian dual-system school management it needs to reckon the mean scores of current and desirable management of Cambodian dual-system school by using the formula of PNI $_{modified}$. The results of PNI in overall could be set priority in the level ranges of 6 management models as shown in Table 2.

Table 2: PNI Level of 6 Management Models in Overall

Management Model	PNI Level	Sequence
1. Formal Model	0.19	2
2. Collegial Model	0.37	1
3. Political Model	0.18	3
4. Subjective Model	0.11	5
5. Ambiguous Model	0.04	6
6. Cultural Model	0.14	4

According to the PNI level as shown in table 2, the priority need for adjusting Cambodian dual-system school management model could be assumed Collegial Model (PNI = 0.37) as the first priority need, Formal Model (PNI = 0.19) as the second priority need, Political Model (PNI = 0.18) as the third priority need, Cultural Model (PNI = 0.14) as the fourth priority need, Subjective Model (PNI = 0.11) as the fifth priority need, and Ambiguous Model (PNI = 0.04) as the last priority need respectively. However, the highest level of PNI for adjusting Cambodian dual-system school management model is Collegial Model (PNI = 0.37). Therefore, it indicated that the highest gap between the current and desirable status of Cambodian dual-system school management which need to adjust is Collegial Model. It also presented that Collegial Model has not been used as current school management model for the past years, but it is the most desirable management model for Cambodian dual-system school in the future.

An appropriate management model of dual system school for the Kingdom of Cambodia
According to mean of desirable status of Cambodian dual-system school management and the highest level of PNI for adjusting the school management model, the first draft of dual-system school management model for the Kingdom of Cambodia could be set up in a form of integration of three management model namely ICCF model or "Integrated Collegial-Cultural and Formal Model". After the first draft of Cambodian dual-system school management model was already formed, an individual validation process to specify the model's appropriateness and possibility has been carried out. The result of the individual validation found that all main points of the first draft model were in high score of the appropriateness and possibility. Thus, every main point of the first draft model could be totally remained in the same form. However, the experts and stakeholders still positively revealed comments and suggestions that the researcher should adjust some wordings written in the main points of the model to be more clear and suitable ones. After the second draft of management model of Cambodian dual-system school was formed by using the result of individual validation and thesis advisors' comments, another validation by a focus group of experts and stakeholders has been carried out to examine its appropriateness and possibility again. The results of this small group discussion found that most of experts and stakeholders formally approved with the appropriateness and the possibility of every main point of the second draft model. However, they repeatedly classified the formal model as the priority management model for Cambodian dual-system school in the current educational context which needed to run along with a strictly public rule and regulation and supervised in bureaucratic structure. Furthermore, the experts and stakeholders of focus group also made more comments and suggestions to add some important wordings in some main points of the second draft management model to be more formal and possible for implementing. According to the fact of Cambodian educational context, an appropriate management model of dual-system school for the Kingdom of Cambodia formed in ICCF model should be changed to a form of IFCC model. The detail of IFCC model was divided into 4 parts ranging from Part 1: The name of model to Part 4: Main elements of management as follows:

Part 1: The Name of Model
"The IFCC model or Integrated Formal-Collegial and Cultural model"

Part 2: Concepts, Principles and Objectives of Model

2.1 Concepts and Principles
1) An effective dual-system school should be a secondary school where teaching and learning process in both general and technical education have been conformably run in the purpose of providing students to learn about the principle of Career Education. The graduate students can optionally work as the employee in the need of labour market, freelance works, or do their own careers. In the future, the school can be expanded to higher education level providing various skills in accordance with the needs of community and labour market.

2) An appropriate management model of dual system school for the Kingdom of Cambodia should be an integrated model between Formal Model, Collegial Model, and Cultural Model. The Format Model is compatible with public schools with formal supervision, the Collegial Model is proper for large-sized schools where most of school staff are professional and skillful, and the Cultural Model is suitable for the school where the culture of conventional works have been continually observed.

2.2 Objectives of model
1) To strengthen teaching and learning process of the school which running in integrated curriculum between general and vocational education to achieve the defined goals.

2) To improve the management process of the public schools in large size where school staff are professionals, and conventional works are consistently practiced in the school.

Part 3: School Administrational Structure and Tasks

3.1 Administrational Structure
1) School administrational structure of this integrated model is conducive to support the combination of teaching and learning process between general and technical system. The structure also basically focused on the Career Education principle and the consumption of school resources in the aim of supporting the students of all grades and levels to succeed their career goal.

2) Administrational structure of the model is intentionally set up for making the school functions and tasks clear. It divided the school functions and tasks into 3 kinds of administrational structure as follow:

(1) Formal structure is used for defining and dividing school managerial functions and school responsibilities. It formed in hierarchical and systematic line which links to all formal positions. In this hierarchical structure, MoEYS is the top jurisdictional unit of the school which orders its command through Vocational Orientation Department (VoD) and Provincial Department of Education, Youth and Sport (PDoEYS). School council and school donors are set in the structure as the noteworthy advisors for giving advices and

supporting the school management process. School principal is officially appointed in the highest position within the school. Vice principals are assigned in managerial positions to responsible the school main tasks, and the head of subjects and subunits are also appointed to manage all school routine works. Moreover, the Committee of Disciplines, School Support Committee, and Committee of special works are also inserted in the administrational structure for giving assistance in the school operational process.

(2) Collegial structure is used for dividing school functions and tasks related to the power of decision making. This structure focused on how to share decision making power to the subunits and specific committees. Internal audit unit is also set up in this kind of structure for making the school management process transparently and accountably.

(3) Cultural structure is used for fostering a specific school function and tasks based on the norms of work commitment and the specific regulations. This structure also created a working system which is comply with individual shared value, working culture, school reality context, and the needs of the school. For the detailed structure is shown in Figure 2:

(See Figure 2 on the next page)

3.2 School Tasks: All main tasks of Cambodian dual-system school are divided into four divisions: 1) Administration affairs, 2) Academic affair of General Education, 3) Academic affair of Technical Education, and 4) Service affair. Each division consists of various routines as described in the proclamation of school functions and tasks. However, most of dual-system schools also have operated additional tasks which is harmonious with school reality context, the real needs, and the conventional works of each school.

Part 4: Main Elements of Management
4.1 Level at which goals are determined is set up at school and its subunits level by the school leaders and staffs which is basically based on the national education goal of MoEYS.

4.2 Process by which goals are determined is set up by school leaders, but it need to be totally agreed by all school staffs in accordance with their collective values. However, it should be run along with the strategic planning of MoEYS as well.

4.3 Relationship between goal and decisions is based on all staffs-agreed goals, the goals of the school and its subunits, and the guideline of MoEYS. However, the school needs to have sufficient resources to support its decisions to reach the goal.

4.4 Nature of decisions making process is constantly run in rational and collegial process based on the participation of all school staff in accordance with their shared values framework, the school regulations, and the proclamation of MoEYS.

4.5 Nature of structure is a hierarchical structure in which the school principal is in the highest position. However, the structure still emphasizes on the lower position in lateral line, and gives precedence to the work operation culture of the school. This kind of structure also focused on school functions and tasks which is divided into different positions. The staff with high competence and professional skill are assigned for those positions.
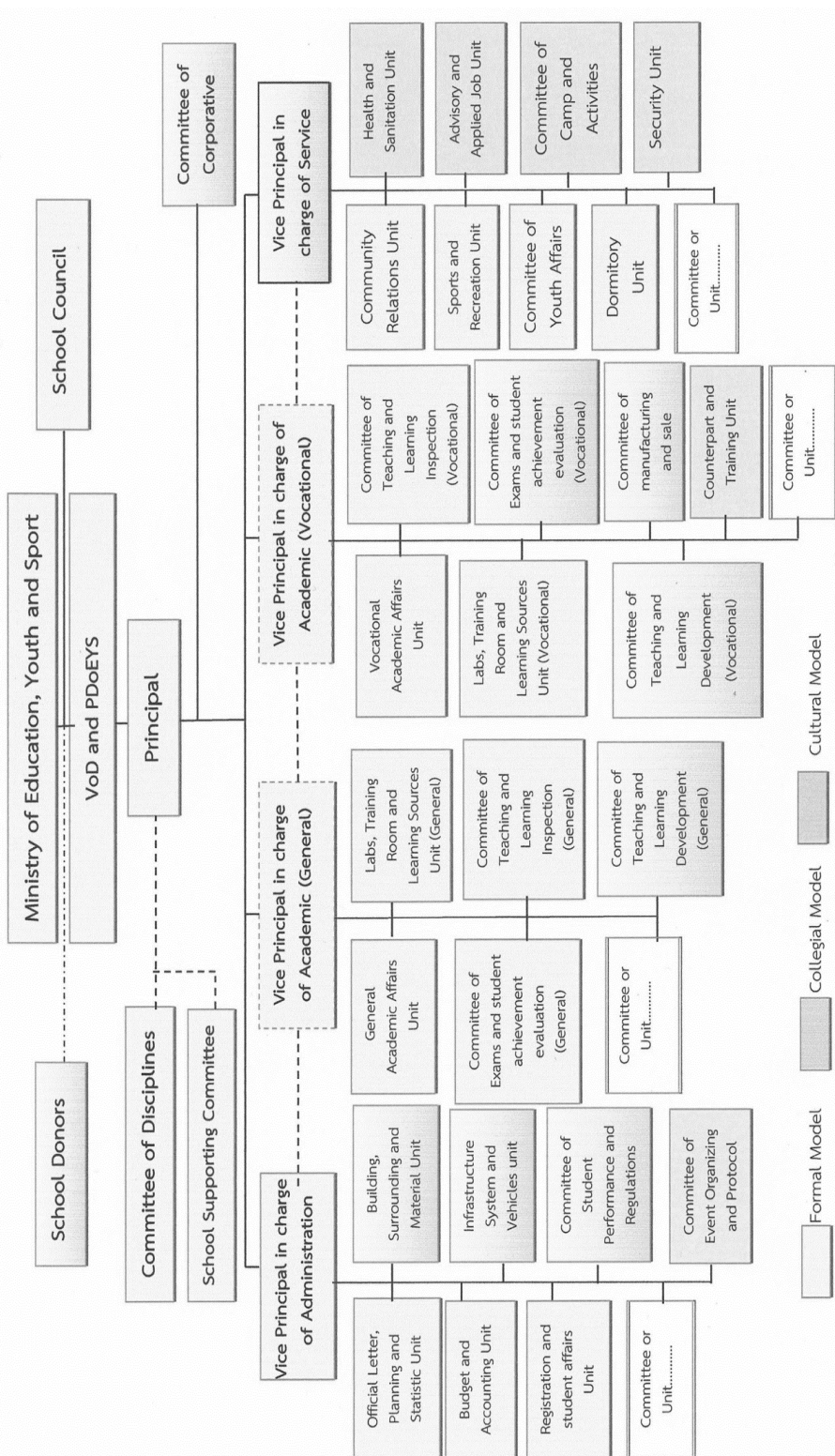
Figure 2: School Administrational Structure of Integrated Model

4.6 Links with external environment is not a rigid accountability of connection due to it needs to pass a shared decision making process based on staff's shared values and beliefs. The linking can be a closed or open connection based on school principal's accountability. However, participation of community members should be urged to join the process of how to proceed with the external environment.

4.7 Style of Leadership is determined that the school principal needs to be the one who seek to promote consensus, establish and initiate the school goals and policies, and also be a symbolic leader for the school staffs. Furthermore, the school principal should be the one with full of knowledge, school management experiences, and coordination skills. He should understand about the real context of the school he is directing.

4.8 Related leadership model is involved with transformational, participative, distributive, moral, and managerial leadership. To get succeed in school management, the principal needs to know how to combine all above leadership to be the integrated one.

Discussion and Recommendation

In conclusion, the findings of current and desirable status of dual-system school management and the PNI level for adjusting the school management positively responded to the concept of management model of Bush (2011). Formal and Cultural Model are suitable for public large sized school where conventional works have been maintained and continually conducted for the past academic years in which hierarchical structure of a Formal Model needed to be apparently set up in the school for running its daily tasks efficiently. For Cambodian dual-system school where most of the professional and skilled staff members needed to have more academic freedom and an open working system, Collegial Model is antecedently considered as the desirable management model to enable the school to reach its defined goals. To reconfirm to this reason, the highest PNI level is also presented Collegial Model as the priority model for Cambodian dual-system school. Only the collegial model alone; however, is not enough to manage the school efficiently and effectively because its concept of decentralized management is not totally compatible with public school management, and thus it is necessary to combine it with other potential models such as Cultural and Formal Model to obtain an effective integrated model for the school of Cambodian educational context. Furthermore, this integrated model should properly justify its main concepts and elements of management in accordance with the school context and the necessary needs in order to reach the ultimate defined goals.

Integrated Formal-Collegial and Cultural model or IFCC model is confirmed as an appropriate management model of dual system school for the Kingdom of Cambodia. This confirmation is probably due to the educational management system of Cambodia still used the centralized system in which MoEYS or related supervisory units needed to keep their bureaucratic power on the affiliated schools in the purpose of making schools go straight to defined goals as they defined. In other words, they also concerned about inadequate ability of school principals in leading the school without the external supervision. For those reasons, they do not allow the principals to freely run the public school with Collegial Model as well. As a formal word, public

school management should give priority to formal model for keeping regulations and hierarchical structure valid, and it needs to integrate with collegial and cultural model to reduce its bureaucracy and strict managerial procedure.

Based on the findings of the study, it is recommended that a specific rule and regulation should be formulated for properly supporting the use of the developed integrated model in Cambodian dual-system school. Another affective model of dual-system school influencing the process of Cambodian human resources development should be recommended to bring in for more discussion and should be considered as the future research topic.

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References

Bartol, M. K., & Martin, C. D. (1998). *Management.* (3rd ed.). New York: McGraw-Hill.

Boonjitradul, N. (2008). *Summary Note of Administration*. Chiang Mai: Orange Group Tactics Design.

Bush, T. (2003). *Theories of Educational Leadership and Management* (3rd ed.). London: SAGE.

Bush, T. (2011). *Theories of Educational Leadership and Management* (4th ed.). London: SAGE.

Certo, S. C. (2000). *Modern Management: Diversity, Quality, Ethics, and the Global Environment*. Upper Saddle River, N.J: Prentice Hall.

Committee of the School under Royal Sponsorship Project. (2005). *Kampong Chheuteal High School: The Thai-Cambodian Tie of Affection.* Bangkok: Printing House of Chulalongkorn University.

Dhamatecho, U. (1988). *Principles of Educational Administration*. Bangkok: Chaopraya Printing.

Goodman, S. H., Fandt, P. M., & Lewis, P. S. (2002). *Management: Challenges in the 21st Century*. Cincinati, Ohio: South-Western College.

Ivancevich, J. M., & Matterson, M. T. (2002). *Organization Behavior and Management* (6th ed.). New York: McGraw-Hill.

Kampong Chheuteal High School. (2010). *School Report Academic Years 2006 - 2010.* Kampong Thom.

Kimbrough, R. B., & Nunnery, M. Y. (1988). *Education Administration : An Introduction* (3rd ed.). New York: McMillan.

Koontz, H., & Weihrich, H. (1998). *Essentials of Management* (5th ed.). New York: McGraw-Hill.

Office of Basic Education Committee (OBEC). (2007). *Guideline of Education Operational Management of legislative Educational Institution under Office Education Area*. Bangkok: National Office of Budhism.

Pech, S. (2009). *Scenario of Kampong Chheuteal High School*. (Master Thesis), Graduat School, Surindra Rajabhat University.

Phanichakarn, K. (2011). *Development of an Appropriate Management Model for Vocational Education Institution*. (Doctoral Disserrtation), Educational Administration Program, Faculty of Education, Chulalongkorn University.

Newby, T. J., Stepich, D. A., Lehman, J. D., & Russell, J. D. (2000). *Educational Technology for Teaching and Learning* (2nd ed.). Upper Saddle River, NJ: Merrill/Prentice-Hall.

Robbins, S. P., & Coulter, M. (1996). *Management* (5th ed.). New Jersey: Prentice Hall.

Royal Government of Cambodia. (2004). *National Strategy: Education for All*. Phnom Penh: Secretariat of National Committee for Education for All.

Schermerhorn, J. (2004). *Organization Behavior*. New York: John Wiley & Sons.

Vireak, M. (2005). Opening Ceremony of Kampong Chheuteal High School and Give Supporting 5 Years more, *Reasmei Kampuchea,* p. 1.

Vocational Orientation Department. (2011). *Strategic Planning of Annual Operation*. Phnom Penh.

Wiratchai, N., and Wongvanich, S. (1999). *A Synthesis of research in Education Using Meta-Analysis and Content Analysis*. Bangkok: Office of National Committee of Education, Office of Prime Minister.

Wongvanich, S. (2007). *Research in Need Assessment* (2nd ed). Bangkok: Printing House of Chulalonglorn University.