

Development of a Participatory Strategic Management Model for Collaborative Educational Provision Schools

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Small schools in remote areas throughout Thailand need to utilize effective management approaches to enable them to tackle problems that result in low educational quality. This study aimed to develop a participatory strategic management (PSM) model for small school groups, known as Collaborative Educational Provision (CEP) schools that are under the Office of the Basic Education Commission of the Ministry of Education. The methodology used was research and development (R&D) with quantitative and qualitative mixed methods. The PSM model developed was tested utilizing purposive sampling of a group of 4 CEP schools in a district of Chiang Mai and including 4 administrators, 22 teachers, 10 school committee members, 20 parents, and 10 community leaders. The PSM model developed consisted of 4 components with 65 indicators. The four components were participatory in character, and consisted of strategic analysis, strategic planning, strategic implementation, and strategic control and evaluation. After implementation of this PSM model, findings showed that all five of the CEP personnel sampled agreed to a higher level of work practice. They also expressed strong satisfaction with the implementation of the trial model. In particular, this model, focusing on a participatory approach, was able to solve many problems related to small schools, especially teacher shortages.

Keywords: small schools, strategic management, participatory strategic management (PSM), collaborative educational provision (CEP) schools

The school-age population in Thailand has decreased continuously over the past few decades as the result of a declining birth rate. In addition, during the past 20 years, a greater number of rural Thais have been moving their children to larger urban schools that possess higher educational standards and that are also less expensive to operate (Fernquest, 2010). Following promulgation of the 1999 National Education Act, the government provides twelve years of free basic education to all people nationwide, but greater effort is needed to raise quality, particularly in the smaller rural schools (Office of the Education Council, 2004). These two reasons have resulted in the decrease in student enrolment in rural schools across the country. Schools with fewer than 120 students are classified as small-size schools, most of which are rural primary schools. The number of these small schools has risen dramatically since 1993, from 10,741 to 14,636 in 2011 (Delaney, 2015). According to the Ministry of Education, the budget provided to schools is based on the number of students. While the average student-teacher ratio nationwide is set at 20:1, in small schools the ratio is only 12:1, which results in small schools receiving inadequate resources from the Education Ministry, with each small school receiving an annual subsidy of only Baht 20,000 to Baht 40,000 (Saengpassa, 2013). The Office of the Basic Education Commission, the main agency providing oversight of education throughout Thailand, reported in 2011 that small schools are faced with several problems, particularly limitations of budget, resources, educational materials, and personnel, especially teachers. 7,280 small schools, or nearly 50% of the total

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number of basic schools, must deal with a shortage of teachers, requiring those teachers on duty to carry additional classes. The inadequate number of teachers in small schools has contributed to the low educational quality. In addition, an evaluation by OBEC showed that small schools face four types of problems in common: administration, teaching and learning, availability of resources, and school participation (Office of the Basic Education Commission, 2009c). As a result, small rural schools are at a significant disadvantage when compared to urban schools, and the learning achievement of their students is far below target.

The records of the Office for National Education Standards and Quality Assessment (ONESQA), the public organization in charge of external evaluation of all educational institutions in Thailand show that in 2008, 4,566 schools (22.41%) of 20,373 schools under the Office of the Basic Education Commission [OBEC] failed to pass recognized standards in the second phase external quality assessment (2006-2008). Most of these were small schools located in remote rural areas (Office of the Basic Education Commission, 2008).

To find solutions for small schools, OBEC made great efforts to implement its 2008-2010 Strategic Plan for Small Schools, which sought to close and merge small schools in line with the policy outlined in 'Moving Forward the Second Decade of Education Reform Plan: 2009-2018' (Office of the Education Council, 2008). This policy focuses on: merging small schools in the same area into a single school in order to increase cost effectiveness; allocating a larger budget to each combined school; providing compensation to parents for the cost of student travel to combined schools; and encouraging every sector to participate in educational management.

While implementation of this policy would raise teaching standards, it has faced strong resistance nationwide because it would lead to the closure of a number of small schools. In rural areas, the school is considered an integral part of the community and each community wants its own school to be the one to remain open for the benefit of children in that local area. School principals, teachers, parents, students, and members of the community, as well as civil society across the country, rallied to protest against the policy, urging the Ministry to suspend it; resistance to small school closure and consolidation remains strong (Buaraphan, 2013).

As an alternative to the closure of small schools, OBEC (2009b) later announced new projects to consider other strategies to tackle the problem of poor educational quality:

- 1) Provision of Mobile Units. Buses or minibuses provided by OBEC bring computers to small schools in remote areas to enable students to access knowledge and information. Each vehicle is equipped with 14 computers travelling from school to school to serve students 6 days per week;

- 2) Rotating smart teachers from urban schools to teach students at schools in remote areas;

- 3) Developing an effective administration plan to raise educational standards in small schools. In this project, 30 groups of these so-called 'Collaborative Educational Provision Schools', or CEP schools, were set up across the country. A school group consisting of one to four neighboring schools merged their teaching and learning activities. All schools in the group remain open but their personnel and other resources are co-utilized and work closely with their educational service area and community. OBEC suggested that strategic management would be an appropriate approach for use in CEP schools to reach their goal of higher teaching standards.

During the past few decades, a number of organizations around the world, starting with the business sector, have successfully applied strategic management techniques to reach their goals. Management theory provides a simple conceptual framework for organizing knowledge and for providing a blueprint for action to help guide organizations toward their objectives. Strategic management is the process and approach of specifying an organization's objectives, developing policies and plans to achieve and attain these objectives, and allocating resources so as to implement the policies (Raduan, Jegak, Haslinda, & Alimin, 2009). Since the beginning of the 21st century, several public and private sector organizations as well as non-governmental organizations in Thailand have adopted a strategic management approach (Polprasert, 2008). Strategic management is considered a key to improve the quality of education which is focused on the future. Some of its characterizing features and key components are: addressing pedagogical issues, focusing capacity of all of the organization's personnel to work effectively with external teams, teamwork or collaboration among all personnel, openness to learning and innovation, advice and guidance, and organizational culture bound together by a clear vision for the future and using strategic planning to combine processes of design, development and monitoring of an action or set of actions (Latorre-Medina & Blanco-Ecomienda, 2013). Planning and the work process are essential for strategic management. Utilizing the process of analyzing problems of the organization based on pertinent questions such as 'What should we do?', 'For whom are we going to do it?', 'What goals are to be accomplished?', and 'How can we accomplish them?' This approach articulates a clear and successful administrative method for any organization. According to OBEC, strategic management can be applied effectively in schools (Inpongphan, 2011).

Section 39 of the 1999 National Education Act states that the Ministry of Education is to devolve authority directly to educational institutions for administration and management relating to academic matters, budget, personnel and general affairs administration (Office of the Education Council, 2004). Following enactment of the Act, small schools under the supervision of OBEC are able to seek an appropriate strategic management model independently to develop themselves. Since the establishment of CEP schools, some CEP school groups have tried new administrative management models, such as the 'Kangjan' model of a CEP school group in Loei Province in northern Thailand. This model is a small-school networking project supported by a budget allocation from the Thailand Development Research Institute (TDRI) and the World Bank (Thailand Development Research Institute, 2014).

As a teacher of the Ban Tung Seaw (Nawarat) School, the center of a CEP school group in Sanpatong District of Chiang Mai Province in northern Thailand, this researcher became interested in conducting research to develop an effective strategic management model for a group of schools working closely together, and thought that a participatory approach might be beneficial. This study therefore sought to develop a participatory strategic management (PSM) model to be implemented in CEP schools to serve as a proper approach to help solve problems related to small schools.

Research Objectives

This study has four objectives: to investigate the models and components of strategic management suitable for Collaborative Educational Provision (CEP) schools; to explore the actual situation and desirable conditions for the utilization of strategic management in CEP

schools; to develop and trial a participatory strategic management (PSM) model for CEP schools; and to study the results of implementing the PSM model developed.

Literature Review

The concept of strategic management was established during World War II in the military area. In the post-war era, it was developed in a business curriculum at Harvard Business School (Mele & Guillen, 2006). Then known as 'business policy', it was later considered a successful management approach and adopted by several organizations, especially in the business sector. In the 21st century, it has been widely implemented in the public and private sectors, as well as non-governmental organizations (Rao, Rao, & Sivaramakrishna, 2008).

Strategic management is both an art and a science. It has three basic components, comprising strategic formulation, strategic implementation, and strategic evaluation (David, 1997). Goodstein, Noaln, and Pfeiffer (1993) stated that this approach would be involved in planning, monitoring, analysis, and assessment to meet the goals and objectives of an organization.

Wongkiatrat (2005) found that strategic management is a continuous process consisting of four steps:

- 1) Internal and External Environment Analysis, including analysis of the organization structure, systems and procedures, atmosphere, and managerial resources;
- 2) Strategic Planning, consisting of a vision statement, a mission statement, setting of objectives, strategic development, and policy formulation;
- 3) Strategic Implementation, comprising projects, budgets, and implementation procedure;
- 4) Strategic Control, including establishment of standards, measurement of performance, comparison of performance with standards, and taking corrective action.

In this study, four main models of strategic management were examined: a basic strategic management model; a results-based strategic management model; a scenario strategic management model; and an alignment strategic management model. These models are briefly described.

The Office of the Basic Education Commission (2009c) proposed a model called Basic Strategic Management, focusing on internal and external environment analysis to determine strengths, weaknesses, opportunities, and threats (SWOT analysis) in small schools. In this model basic questions in three processes of strategic management are considered. The questions for strategic planning are, for example: 'Where are we now?', 'Where do we want to go?', 'How do we get there?' The question for strategic implementation should be 'What do we have to do?' In addition, the question for strategic control and evaluation may be, 'How do we measure our progress and know we've gotten there?'

Chatakan (2004) stated that a 'result-based strategic management model' focuses on operating results and measurement of an organization's achievement in the areas of input, process, output, and outcome. Key performance indicators (KPIs) need to be established that

specify targets and objectives in advance, and that demonstrate levels of participation among the organization's administrators, members, and stakeholders.

Noon-Kliang (2013) explained that a 'scenario strategic management model' is derived by analyzing the possibility of a situation that might occur in the future by answering the question 'What Could Be?', or that will likely happen in the future with the question, 'What Should Be?' This has six steps: studying the driving forces for success; determining patterns of interaction; creating a scenario agenda; analyzing implications; conducting continuous evaluation of the scenario; and developing monitoring indicators.

Sriwijitchok (2012) described the 'alignment strategic management model' as focusing on strategic alignment, covering the alignment of projects, budgets, the structure of the working process, personnel competencies, information systems, and evaluation systems, as well as motivation and reward systems.

The four models of strategic management described above, i.e., basic, results-based, scenario, and alignment, were analyzed to develop the participatory strategic management (PSM) model used in this study.

Methodology

The methodology employed in this study was Research and Development (R&D), utilizing both quantitative and qualitative designs to examine four research objectives as described in the following four phases.

Phase I: Documentary Research

Investigation of the concepts and theories related to models and components of strategic management was undertaken from books, websites, report papers and research studies of organizations and by several academics (Brown & Moberg, 1980; Certo & Peter, 1991; Chatakan, 2004; David, 1997; Decharin, 2010; Doungsamran, 2009; Fayol, 1949; Goodstein, Noaln, & Pfeiffer, 1993; Inda, 2009; Inpongphan, 2011; Latorre-Medina & Blanco-Encomienda, 2013; Lor-Suwannarat, 2012; Meksawan, 2000; Mele & Guillen, 2006; Nawasith & Inthusamit, 2011; Noon-Kliang, 2013; O-Phitakchiwin, 2003; Polprasert, 2008; Raduan et al, 2009; Rao et al., 2008; Serirat, 2009; Sirisamphan, 2000; Siritharangsi, 2003; Sriwijitchok, 2012; Suphachaikij, 2010; Thadatamrongvej, 2007; Wongkiatrat, 2005; Yaisilp, 2006). The researcher also studied a strategic management model (the 'Kangjan' model) of a CEP school group in Loei Province in northern Thailand. In addition, in-depth interviews were carried out with six experts in school administration and strategic management, three of whom were administrators of Chiang Mai Primary Education Service Area Offices 4, 5, and 6, and three of whom were school directors (of the Sanpatong Suwanraj Wittayakarn School, the Wat Ku Kam School, and Wat Weruwan School). The instruments used were a content analysis form, an interview form, and a tape recorder. Content validity of the interview form was evaluated by five other experts, after which the item-objective congruence (IOC) index was calculated. Questions having an IOC from 0.8-1.00 were included in the interview form. The analysis and conclusion on components and models of strategic management of this phase were used to develop a questionnaire for the survey in Phase 2.

Phase II: Exploration of the Actual Situation and Desirable Conditions for Strategic Management

A study of the actual situation and desirable conditions for strategic management was undertaken in all CEP school groups nation-wide, comprising 30 main or center schools and 48 networking schools, through examination of related reports and documents and through distribution of a questionnaire. The questionnaire asked for general background information of respondents, posed questions based on the results from Phase 1 about the actual situation and desirable conditions for strategic management, and provided open-ended questions inviting comments and suggestions. A strategic management model was then developed, based on the results in Phase 1, that contained 4 components, 11 sub-components and 75 indicators. Following the procedure used in Phase 1, content validity in the questionnaire was evaluated by five experts and the index of item-objective congruence (IOC) was calculated. The questions in the questionnaire have an IOC from 0.8-1.00. The instrument used was a 5-point rating scale where 5 = highest, 4 = high, 3 = moderate, 2 = low, and 1 = lowest. The questionnaires were distributed to personnel of CEP schools, including administrators and head teachers of the school task groups for academics, personnel, policy and planning, and student activities. 150 of the 190 questionnaires distributed (78.94%) were returned.

Phase III: Analysis of Data and Information and Development of a Participatory Strategic Management Model

Data and information collected from the document study in Phase 1 and the survey in Phase 2 were analyzed to develop a specific model of participatory strategic management (PSM) for trial implementation in a sample group of CEP schools in Phase 4. The difference between the standard model of strategic management and the model developed here is that the PSM model included a participatory approach in every process. 10 of the 75 indicators presented in the questionnaire were deleted in the final PSM model developed. This model was verified by 9 selected experts who were specialized and experienced in school administration and strategic management using the five-point rating scale. Statistics used for the data analysis included mean (\bar{x}) and standard deviation (SD). Then, based on their suggestions and recommendations the model was revised and further improved and a manual produced in order to improve the chances of successful implementation in Phase 4.

The difference between this PSM model and other models of strategic management is that it focuses on the participation of all personnel and components, while others focus on networking. Following this PSM model, all administrators, teachers, and students of the CEP networking schools joined in the work and the teaching and learning activities at the main school (Ban Tung Seaw Nawarat school). The administrators made decisions and used the budget collaboratively. Students of this CEP school group learned together in each class. Every class had a teacher teaching in every subject.

Phase IV: Trial Implementation of the PSM Model

The model developed in Phase 3 was implemented during one semester in a sample group. The sample, derived from purposive sampling, was a group of four CEP schools located in Sanpatong District of Chiang Mai Province and included the center school for the area, Ban Tung Seaw (Nawarat) School, and the three CEP schools in the network: Wat Tung Lug School, Wat Sawang Arom School, and Wat Ban Ton Han Loung-Don Chai Wittayakarn

School. Personnel involved were 4 administrators, 22 teachers, 10 school committee members, 20 parents and guardians, and 10 community leaders. The instruments of this phase consisted of two questionnaires, one used for evaluation of the results of pre- and post-implementation of the model, while the other evaluated satisfaction with the PSM model. The same five experts evaluated the content validity in the questionnaire. The IOC of the first questionnaire was between 0.80 and 1.00 and that of the second questionnaire was 1.00. Statistics used in the data analysis included percentage, mean (\bar{x}), standard deviation (*SD*), and a priority needs index (*PNI*).

Results

Findings from this study can be summed up with reference to the research objectives, as follows:

Phase 1: Findings from the Investigation of Models and Components of Strategic Management:

The documentary research and in-depth interviews identified four interesting models for strategic management: a basic strategic management model, a results-based strategic management model, a scenario strategic management model, and an alignment strategic management model. Analysis of these four models yielded a strategic management model suitable for CEP schools comprising 4 components, 11 sub-components and 75 indicators.

Phase 2: Findings from the Exploration of the Actual Situation and Desirable Conditions for the Use of Strategic Management in CEP Schools:

Study of the current situation and desirable conditions for strategic management among 30 groups of CEP schools, involving 30 administrators and 120 teachers holding various positions as heads of academics, personnel, policy and planning, and student activities, offered these findings:

2.1 A moderate level of practice of strategic management was found in each component, averaging from low to high in strategic control and evaluation ($\bar{x} = 2.74$), strategic analysis ($\bar{x} = 2.86$), strategic planning ($\bar{x} = 2.89$), and strategic implementation ($\bar{x} = 2.93$);

2.2 The need to develop desirable conditions was found to be at a high level, averaging high to low in strategic control and evaluation ($\bar{x} = 4.50$), strategic implementation ($\bar{x} = 4.44$), strategic planning ($\bar{x} = 4.44$), and strategic analysis ($\bar{x} = 4.41$).

2.3 Overall management of all components was in mid-range, but the need for improvement in desirable conditions was high, with the highest level of need evident in the following components: strategic control and evaluation (*Priority Needs Index* or *PNI Modified* = 0.64), strategic planning (*PNI Modified* = 0.53), strategic implementation (*PNI Modified* = 0.52), and strategic analysis (*PNI Modified* = 0.40).

Phase 3: Findings on the Development of a Participatory Strategic Management (PSM) Model for CEP Schools:

The analysis of data and information from Phase 1 and Phase 2 yielded a

participatory strategic management (PSM) model that could be used in CEP schools. The PSM model developed consists of the 4 components as specified in the research findings in item 1, but it adds a participatory approach to every component. It also includes 11 sub-components, but the number of indicators was reduced from 75 to 65 because the level of practice was found to be high, while the perception of desirable conditions was found to be at a low level. The results are shown in Table 1.

From Table 1, consensus of the nine experts regarding the participatory strategic management (PSM) model for Collaborative Educational Provision (CEP) schools showed: suitability at the highest level (at $\bar{x} = 4.91$); practicality at the highest level (at $\bar{x} = 4.88$); accuracy at the highest level (at $\bar{x} = 4.90$); and utility at the highest level (at $\bar{x} = 4.89$).

Phase 4: Findings on Implementation of the PSM Model for Collaborative Educational Provision (CEP) Schools:

4.1 Comparison of the process prior to and after implementation of the model showed that in all school groups, the administrators, teachers, school committee members, parents, and community leaders agreed to a higher level of work practice after implementation of the model.

4.2 A high level of satisfaction with the implementation of the model concerning both the management and results was found among the administrators, teachers and school committee members, as well as the parents and community leaders.

4.3 The researcher noted some interesting issues, apart from the comparative results described above. First of all, the CEP schools were able to work together to solve the problems concerning insufficient number of teachers for each class or subject, so that every class had subject teachers. Moreover, the learning achievements at all levels of education increased, with the ratio of students per teacher in each class in center schools (35-40:1), and in networking schools participating in the model (27:1), with each teacher being responsible for 2-3 classes. Lastly, all schools were able to co-manage the budgets, which were sufficient for the activities in educational management.

Table 1

The Participatory Strategic Management (PSM) Model

Main Components	Sub-Components
1. Participatory Strategic Analysis (8 indicators)	1.1 Strategic needs analysis concerning relevant policies, strategies, missions, and present and future situations 1.2 Strategic positioning needs, analysis of strategy standpoint development, significance to mission, impact on problems, practicability, relevance to policies and development plans of the country 1.3 Evaluation of potential through SWOT: assessment of Strengths and Weaknesses of the organization, external Opportunities that the organization could take advantage of, and present and future external Threats (obstacles) to the organization

Table 1

The Participatory Strategic Management (PSM) Model (Cond.)

Main Components	Sub-Components
2. Participatory Strategic Planning (24 indicators)	2.1 Setting directions through development of the organization's vision and mission. 2.2 Communication and translation of the strategy for Personnel.
3. Participatory Strategic Implementation (13 indicators)	3.1 Clear specification of the indicators in terms of quantity, quality, time, location and coverage. 3.2 Strategic alignment. 3.3 Strategic planning, task planning (projects, activities) 3.3.1. Set definite responsibilities and appoint working groups. 3.3.2. Set the working calendar clearly specifying the relevant time frame. 3.3.3 Create understanding among those taking part in strategic planning about their roles and responsibilities. 3.4 Execution of the activities or follow-through in the school strategies.
4. Participatory Strategic Control and Evaluation (20 indicators)	4.1 Monitoring to gather all the information concerning the work processes specified in the work plan. 4.2 Evaluation to verify the progress, to determine the achievement of the plans or projects.

Conclusions and Discussion

This study used the research and development method with both quantitative and qualitative design. The research process was divided into four phrases: documentary research for investigation of models and components of strategic management suitable for CEP schools; exploration of the actual situation and desirable conditions for the use of strategic management in CEP schools; development of a PSM model for CEP schools; and implementation in a CEP school group of the PSM model developed. From the results of this study it can be concluded that the PSM model is suitable for implementation in CEP schools throughout the country. This conclusion is consistent with the findings in many other studies; some of which are shared further.

The data analysis from documentary research indicated that the four components of strategic management (strategic analysis, strategic planning, strategic implementation, and strategic control and evaluation) were suitable for implementation in CEP schools. This result was consistent with the findings of several studies such as Meksawan (2000), the Office of the Basic Education Commission (2009c), O-Pitakchiwin (2003), Sirisamphan (2000), and Thadatamrongvej (2007). All of these studies concluded that the components mentioned above are suitable for strategic management in schools. Moreover, each main component also

has sub-components and indicators in order to provide guidelines to be implemented by school personnel.

The survey of 30 CEP school groups revealed that practices in each component of strategic management was at a moderate level, while the need for developing desirable conditions was found to be at a high level. An important point made was that strategic management should include networking and participatory strategies. This concurs with the research study of Siritharangsi (2003), which showed that strategic management should include networks and participation of the schools concerned.

In addition, this study also found that the PSM model can help solve problems related to inadequate resources as well as teacher shortages in small schools, which is similar to the results of the study on 'A Development of Educational Quality through the Kangjan Model in CEP Schools' of the Thailand Development Research Institute (2014) which found that the teacher-student ratio improved, with a teacher teaching students in every class and subject, and that the teaching and learning was effective.

The participatory or collaborative approach is very important for working in groups of small schools.

Suggestions and Recommendations

1. Suggestions for implementation of the research results for small schools in Thailand:

1.1 Other small schools and the CEP school groups should conduct a trial implementation of the PSM model in order to solve problems relating to inadequate resources, especially teachers, as well as low educational standards.

1.2 Other small schools in the same areas of each district of the country should join together to work in groups in every process of educational administration and management.

1.3 To assure the efficiency of the PSM model, every sector involved needs to study and understand the management procedures, and consensus should be reached prior to the implementation of the model.

2. Suggestions for further research:

2.1 The CEP schools in which the PSM model was implemented should follow-up continuously and try to develop it further in the context and environment of their schools.

2.2 The Office of the Basic Education Commission and other educational agencies should support small schools to conduct further research in order to find other useful models relating to effective management.

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