Developing A Mechanism to Drive Innovative School for Basic Education in Thailand

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Abstract

The purpose of this study was to investigate factors and key components that affecting an innovative school framework thus developed a mechanism to drive innovative school administration in basic education, Thailand. The researchers employed an exploratory research design using qualitative approaches, namely document analysis, structured face-to-face interviews, and focus group discussions. This study was conducted in three phases in three prototype primary schools. The researchers investigated the key components that affect innovative school administration based on documents such as policy documents, strategic plans, educational reports, case studies, academic articles, and administrative guidelines. This was followed by structured interviews with 11 experts to validate the key components and seven driving factors found in the first phase to form an innovative school framework. In the final phase, a total of 21 practitioners participated in three series of focus group discussions to develop a mechanism to drive the innovative school framework. The results from the first phase revealed that components that affect the drive towards innovative school administration can be promoted in three levels, namely individual, organizational, and policy levels. Then, the researchers used the results of the first phase to develop a mechanism to drive school administration using the Supplier-Input-Process-Outputs-Customers Model after cross examined by 11 experts in the second phase. The ultimate results revealed that there are seven factors to drive the mechanism, namely challenging shared vision, innovative babits, innovative strategy, flexible culture and atmosphere, open communication, flexible organization structure, and innovator team.

Keywords: Innovative School Administration, Key Components, Mechanism, Supplier- Input-Process-Outputs-Customers Model

INTRODUCTION

Innovative school administration plays a crucial role in shaping the future of education particularly in adapting to the changing needs of students and society (Ariratana et al., 2019). According to Ariratana et al. (2019), an innovative leader not only needs to adapt to change but also responds to technological advances. Therefore, innovative administration is to ensure that schools keep pace with rapidly evolving technology, integrating digital tools and resources that enhance teaching and learning. Hence, innovative leaders can better cater to the diverse needs of students, encompassing those with different learning styles and abilities by embracing new and innovative approaches (Sitthisomjin, 2018). Thus, developing a mechanism to drive innovative primary schools under the jurisdiction of the Office of Basic Education Commission, Thailand is found necessity. There are several key components that can be structured to support innovation at various levels in the educational system, from policy to practice (Chaemchoi, 2012).

Besides innovative leaders need to adapt to change, they also need to improve student outcomes in terms of personalized learning and fostering critical skills. For example, innovative administration supports the implementation of personalized learning plans, which can lead to improved academic performance and student engagement (Theerasan et al. 2024a). On the other hand, schools led by innovative leaders are more likely to emphasize the development of the 21st century skills, namely critical thinking, creativity, collaboration, and communication which are vital for students' future success (Theerasan et al. 2024b). Another component of innovative administration is enhancing teaching practices through professional development and collaborative culture (Theerasan et al. 2024a). Innovative leaders prioritize continuous professional development for teachers, in order to ensure that teachers are equipped with the latest pedagogical strategies and tools. Moreover, innovative administration encourages teachers to share best practices and work together to solve challenges (Chaemchoi, 2012).

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According to Pietsch et al. (2023), innovative school leaders should create a positive school culture by encouraging experimentation and building community engagement. They emphasized that innovative school leaders should create an environment where teachers and students feel safe experimenting with new ideas and approaches leading to a more dynamic and engaging learning experience. On top of that, innovative leaders often involve the wider community in school activities, fostering a sense of ownership and partnership that enhances the overall school environment (Pietsch et al., 2023). The other important component of innovative school administration is sustainability and long-term success (Nicholls, 2018). Nicholls (2018) explained that effective innovative administration ensures that resources are used efficiently and sustainably, supporting long-term success and the ability to adapt to future challenges. Innovative school leaders should practice visionary leadership style, whereby they are forward-thinking, setting a clear vision for the future, and inspiring others to work towards common goals.

Additionally, schools with innovative administration often serve as models for other schools, demonstrating successful strategies that can be replicated and scaled. Subsequently, innovative leaders can influence broader educational reforms and contribute to systemic change for scaling and spreading innovation (Bigliardi et al., 2020). Furthermore, innovative administration is more likely to adopt inclusive practices that ensure all students, regardless of background or ability, have access to high-quality education. Therefore, innovative leaders can help to reduce barriers to learning, such as outdated policies or practices that may disadvantage certain student groups in supporting equity and inclusion (Bigliardi et al., 2020). Pedró (2019) highlighted the importance of improving school-community relationships to administer innovative school organizations. According to Pedró (2019), innovative leaders often prioritize transparent communication and strong relationships with parents and community building trust and support for the school's initiatives. In other words, innovative leaders can leverage additional resources and partnerships that benefit students and staff (Pedró, 2019).

In summary, innovative school administration is essential for creating educational environments that are responsive, inclusive, and forward-thinking. Following this line of reasoning, school leader plays a vital role in preparing students for the future, supporting teachers, and driving continuous improvement within the education system in Thailand. Based on the above literature review, the researchers aimed to investigate the following research objectives:

(i) To study the concept of innovative schools according to (a) key components and (b) factors that affect the drive towards innovative schools.

(ii) To develop a mechanism to drive towards innovative schools for basic educational organizations in Thailand

MATERIALS AND METHODS

Research Design

The researchers employed an exploratory research design using document analysis, structured face-to-face interviews, and focus group discussion for developing a mechanism to drive towards innovative school administration. In the first phase, the researchers chose relevant documents that are likely to contain information on innovative school administration. These were included policy documents, strategic plans, educational reports, case studies, academic articles, and administrative guidelines from three prototype schools known for their innovative practices. This was followed by establishing clear criteria for selecting documents. These could include publication date, relevance to the concept of innovation in education, the credibility of the source, and the geographical context, for example focusing on primary schools in Thailand.

In the second phase, a qualitative research design using structured interviews with 11 experts was employed to validate the key components of the seven driving factors found in the first phase for innovative school administration. This research design was to ensure that the driving factors for innovative school administration are thoroughly validated by experts, leading to a more robust and credible set of components that can guide innovative school administrative practices. In the final phase, the researchers designed a qualitative approach using focus group discussions with 21 practitioners to develop a mechanism to drive innovative administration in primary schools.

Participants of the Study

In the second phase, the researchers defined the criteria for selecting the 11 experts. They were three educational leaders, three policymakers, three academic researchers, and two practitioners with extensive experience in innovative school administration. Then, the researchers identified and recruited the 11 experts who met these criteria to make sure a diverse range of perspectives by including participants from different regions, roles, and types of schools, for example urban versus rural. In the final phase, the researchers selected the 21 participants after they defined clear criteria for selecting practitioners, such as teachers, school administrators, curriculum developers, and educational consultants with direct experience in implementing or supporting innovative practices in basic education. After that, the researchers identified and recruited 21 participants who met these criteria to make sure diversity in terms of roles, school types, regions, and innovation experiences to capture a broad range of perspectives. Finally, the researchers divided the 21 participants into three focus groups, each consisting of seven practitioners. This group size allows for manageable discussions where all participants could actively contribute.

Research Instruments

Field notes were used as an instrument in the first phase to collect and organize data during document analysis. Field notes served as an instrument to record observations, reflections, and insights while reviewing documents. Field notes helped to organize thoughts and tracked emerging patterns or themes that might not be immediately evident (Gay et al., 2009). The researchers developed a structured format for the field notes. This format included sections such as document information, summary of content, observations, key quotes, personal reflections, and emerging themes. Document information consisted of title, author, date, and type of document, for example, policy paper, report, and academic article. This was followed by briefly summarizing the key points or arguments presented in the document. The researchers could record specific observations, such as recurring themes unusual or noteworthy content and any biases or perspectives that were evident. Then the researchers noted down direct quotes that were particularly relevant to the research themes. Besides, the researchers included our thoughts, questions, and interpretations as the researchers analyzed the document. This could also cover how the document related to the researchers' overall research objective. Lastly, the researchers identified and listed any themes or patterns that began to emerge across multiple documents.

A structured interview guide was used in the second phase with the 11 experts. This structured interview guide was comprised of a set of predefined questions focused on validating the key components of driving factors. The researchers made sure the questions were clear, specific, and directly related to the factors the researchers have identified in the first phase. Some examples of structured interview questions: (i) Do you agree with the identified driving factors for innovative school administration? Why or why not? (ii) Which of these factors do you consider most critical for fostering innovation in schools? (iii) Are there any additional factors you believe should be included? (iv) How do these factors manifest in your experience or context?

In the final phase, a focus group guide with key questions and topics related to driving mechanisms for innovative schools. These open-ended questions were used to encourage in-depth discussion. These open-ended questions encompassed challenges and opportunities, key components of mechanism, role of leadership, community and stakeholder involvement, and sustainability. Some examples of focus group questions: (i) What are the key challenges and opportunities in driving innovation in basic education? (ii) What components do you believe are essential for a successful mechanism to drive innovation in schools? (iii) How does school leadership impact the success of innovative practices? (iv) What role should the broader community and stakeholders play in supporting innovative schools? (v) How can we ensure that innovation in schools is sustainable over time?

Data Collection and Data Analysis

In the first phase, the researchers collected a range of documents that met the researchers' selection criteria. This involved searching educational databases, government archives, and school institutional repositories. Then the researchers created a system for organizing the documents, such as by theme, type of innovation, or administrative level. The obtained document analysis data were analyzed starting from coding, thematic analysis, and constant comparison. The researchers began by reading through the documents to identify key themes and

concepts related to driving factors in innovative school administration. This was followed by developing a coding system to categorize these themes. After that, the researchers conducted a thematic analysis to identify patterns and relationships between different factors. For example, the researchers might find recurring themes related to leadership, resource allocation, teacher training, or community involvement. Lastly, the researchers analyzed more documents. This helps to ensure that the analysis remains grounded in the data.

In the second phase, the researchers conducted structured interviews with each of the 11 experts to make sure that interviews were recorded (with permission) and transcribed for accuracy. The researchers used the same set of questions for all participants to ensure consistency and comparability of responses. After transcribing the qualitative data obtained from experts' interviews, code the responses according to the key components of the driving factors. The researchers paid attention to areas of agreement, disagreement, and any new insights or factors suggested by the experts. This was followed by performing a thematic analysis to identify patterns and common themes across the 11 experts' responses. The researchers looked for consensus as well as divergent views on the key components. Then, the researchers evaluated the validity of each identified factor based on experts' feedback. This could involve refining or reordering factors according to the importance and relevance as perceived by the experts.

On top of that, the researchers did synthesis and interpretation through consensus building and refinement of components. The researchers identified areas of consensus among the experts regarding the driving factors and their components. The researchers also highlighted any new factors that emerged during the interviews. Based on the analysis, the researchers refined the list of driving factors and their components. This might involve merging, eliminating, or adding new components. In terms of trustworthiness and credibility, the researchers shared their preliminary results with the experts to ensure the researchers' interpretations accurately reflect their views. Moreover, the researchers considered having a peer review of the researchers' analysis process to enhance credibility.

The researchers conducted three series of focus group discussions, ensuring that each session is facilitated by a skilled moderator who could guide the conversation, kept participants focused on the topic and encouraged participation from all group members. The researchers recorded the discussion with participants' consent and transcribed it for detailed analysis. At the same time, the researchers taking notes during the sessions could also help to capture key points and nonverbal cues. The researchers employed a thematic analysis on the focus group transcripts. This was followed by identifying recurring themes, ideas, and suggestions related to the development of a mechanism to drive innovative schools. Then, the researchers did a comparative analysis. The researchers compared and contrasted the results across the different focus groups to identify commonalities and differences in perspectives. This would help to ensure that the final mechanism reflects a wide range of insights. Based on the thematic analysis, the researchers began drafting a proposed mechanism for driving innovative schools. This could include key components such as leadership structures, professional development, stakeholder engagement, resource allocation, monitoring, and evaluation processes.

The researchers did synthesis and refinement through iterative refinement and consensus building. The researchers refined the proposed mechanism through an iterative process. The researchers considered conducting follow-up discussions or using surveys with the same practitioners to gather feedback on the draft mechanism. The researchers aimed for consensus on the essential components and strategies that should be included in the mechanism. The researchers addressed any disagreements or concerns raised by participants during the refinement process. Finally, the researchers did their validation through expert review and member checking. The researchers considered having the proposed mechanism reviewed by educational experts and additional stakeholders who were not involved in the focus groups to ensure its feasibility and relevance. The researchers shared the refined mechanism with focus group participants to verify that it accurately reflects their contributions and to make any final adjustments.

RESULTS AND DISCUSSION

The results of this study are presented according to the research objectives indicated above. The initial results were the factors and their key components that affect the drive towards innovative school framework

conceptualized for basic education. Then, the researchers developed a mechanism to drive towards innovative schools for basic educational organizations in Thailand.

Identification of Innovative School Framework Factors and Key Components

The preliminary results of the need assessment for driving factors of innovative school framework for basic education indicated that innovative habit is the most essential factor of innovative school framework. The details of each driving factor of innovative school framework ranking in order from the most needed to the least are as follows: innovative habit (PNI_{modified} = 0.43); challenging shared vision (PNI_{modified} = 0.42); innovative strategy (PNI_{modified} = 0.41); flexible culture and atmosphere (PNI_{modified} = 0.40); open communication (PNI_{modified} = 0.39); flexible organizational structure (PNI_{modified} = 0.34), and innovator team (PNI_{modified} = 0.32).

Components of an Innovative School										
Challenging shared vision	Flexible organizationa l structure	Innovative team	Innovation strategy	Innovative habits	Flexible culture and atmosphere	open communication				
 Sharing a picture of success for personnel Support work in the same direction Use innovation for the organization to achieve success. 	 Department Department work group adapt to changes in society and environment Work as an independent team to create innovations. The department has personnel with knowledge and expertise in various fields. 	 Take smart risks. Always think of new ideas to develop the organization. Expert and successful in creating innovations Have interpersonal skills. Focus on results and strive for success. Can create self-motivation 	 Search for new methods or approaches to development. Have best practices in innovation Flexible in development Analyze the environment and formulate strategies for implementation. 	 Have freedom in thinking and expressing yourself creatively. Always seek opportunities for development. Take the initiative and pioneer in developing outside the box. Create success for the organization 	 Support creative work Freedom to create innovation There is an atmosphere of safety in participation. 	 Create a sense of shared ownership of the organization. There is freedom in exchanging opinions. Be inspired to innovate and forge powerful relationships. 				

Figure 1: Innovative School Framework

Key Components that Affect the Drive towards Innovative School Administration

The results from documental examination of previous studies theories, and concepts compiling with 11 experts' interviews revealed that key components that affect the drive towards innovative school administration is divided into three levels, namely individual, organizational, and policy levels. The details are presented as follows:

(a) Key components affecting the drive towards innovation school administration at the individual level are:

- Mindset and competency of personnel (mindset and competency)
- High performance team (Talent team)
- Executives' attention to innovative development (level of concentration)
- Innovative leadership

(b) Key components affecting the drive towards innovative school administration at the organizational level are:

- Organic structure on competency based.
- Less division of management layers (low hierarchies)
- Communication between personnel (communication)
- Ecology culture and learning
- (c) Key components affecting the drive towards innovative school administration at policy level
 - Decentralization and relaxation of regulations (Decentralization and flexibility of regulation)
 - Supporting and empowerment

Development of a Mechanism to Drive towards Innovative Schools for Basic Education

The researchers used field notes derived from the 21 practitioners' three series of focus group discussions to analyze the qualitative data for a more nuanced and reflective approach, helping the researchers to capture both the explicit and implicit content of the field notes. The results revealed that mechanism for driving towards innovative schools need to operate under three major concepts as follows:

- (a) Independence in managing responsibly according to the school's context.
- (b) Participate in creating value from intellectual treasures.
- (c) Spatial innovation networks at all levels.

Then, the researchers started to develop the mechanism to drive innovative schools for basic education based on the basis of principles, concepts, and prototypes. The researchers utilized the initial results of the identified components to develop the mechanism to drive innovative school administration in the form of the Supplier-Input-Process-Outputs-Customers Model (refer to Figure 2).

S-Supplier side refers to policy-level agencies that include the Ministry of Education, Office of the Basic Education Commission, and Educational Service Area Offices that have a role in determining the direction of innovative school development. These policy-level agencies are the ones who deliver policies, concepts, guidelines, and support for the successful implementation of innovative school administration according to the specified goals. Hence, these policy-level agencies have their responsibilities to supervise and follow-up in terms of their promotion public relations and strengthening the schools toward the shared vision and goals.

I-Input refers to curriculum, media, and resources for innovative development, learning ecosystem, and innovative atmosphere which are the main input for development of a mechanism to drive innovative schools. These inputs require management, organizing curricula, and using resources to create an intellectual ecosystem and an atmosphere for working and creative development collaboratively.

P-Process refers to learning management, organizing extra-curricular activities on the basis of innovation. These processes are important and must rely on those identified factors that affect to drive the creation of innovative schools. Therefore, these process operations are to create a model school for innovation or the emergence of innovation areas that will lead to further expansion of innovative school development. The management process is essential to organize learning activities in promoting the characteristics of innovators.

O-Output refers to the team of innovators to innovate school culture. It is a product obtained from innovative school development in creating students with innovative features. Teachers who have a team of innovators are able to drive their work and expand their innovative development to other teams in school until it becomes an innovative school culture whereby everyone has his or her ideas, beliefs, and shared values in creating new things for sustainable development.

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C-Customer refers to students who are the main service recipients to be innovators. The customers will benefit from the school to develop innovations in both dimensions, namely administrative use from teachers as innovators as well as applying innovation according to concepts and processes to develop and expand innovation among students who are the main service recipients.

- Autonomy	Suppliers	Inputs	Process	Outputs	Customers
according to the context of school in responsible management - Participation in creating value from intellectual treasures - Spatial innovation network at all levels	Policy level agencies such as the Ministry of education, Office of the basic education commission, education area	Curriculum, media, resources for innovation development learning ecosystem and innovative school climate	Management, learning management, extra- curriculum activities based on innovation	Innovator team, Innovative school, and innovative culture	Learners are innovators, educational institutions, agencies, society, and communities that receive school products to further their development

Figure 2: Development of a Mechanism to Drive towards Innovative Schools for Basic Education

Identified Factors to Drive the Mechanism towards Innovative Schools for Basic Education

The final phase focus group interview results from the 21 practitioners revealed that there are seven essential factors of innovative school administration to drive the mechanism of innovative school development. These seven factors are illustrated as below:

- (a) Challenging shared vision factor includes four key indicators:
 - Directors and teachers determine the school vision for future success collaboratively.
 - Teachers feel responsible and ready to achieve a challenging shared vision.
 - Teachers support their work in the same direction of the challenging shared vision
 - Directors encourage teachers to use innovations to achieve challenging shared vision.
- (b) Flexible organizational structure factor encompasses four key indicators:

• Directors organize school organizational structure with work teams to adapt to social environment.

- Directors empower teachers to plan and perform their work independently.
- The school empowers the team to create innovation in a teamwork process.
- Teachers are knowledgeable and skillful to develop innovations.
- (c) Innovative team factor covers six key indicators:
 - Directors encourage teachers' creative thinking to apply new ideas for promoting innovations.

• Teachers possess skills to think, connect ideas to work, and take smart risks for school change.

• Directors encourage teachers to focus on creating innovations and strive for school success.

- Teachers are motivated to work independently.
- Teachers act as problem solvers to face various obstacles without fear of the consequences.
- Teachers possess interpersonal skills to work in a team.
- (d) Innovative strategy consists of four key indicators:
 - School has best practices in terms of innovation that can be a good role model.

• School conduct organizational environment analysis to create strategies for facilitating innovations.

• The school practices innovation strategy by preparing an annual action plan collaboratively.

• School provides information on operating results based on annual action plan systematically.

(e) Innovative habits factor is comprised of four key indicators:

• Management provides opportunities for teachers to think and express their thoughts to create innovations creatively.

• Teachers can analyze opportunities and respond to improvements when facing any hostile situation.

- Teachers are change leaders who seek innovations to solve problems successfully.
- Teachers have the opportunity to seek and commit to work for organizational success.
- (f) Flexible culture and atmosphere factor includes three key indicators:

• Directors create a free atmosphere to express opinions, present ideas, and ask questions to create innovations.

- Directors provide opportunities for teachers in setting challenging goals.
- Teachers work in a safe working atmosphere without being criticized.
- (g) Open communication factor consists of five key indicators:
 - School operates a professional learning community for teachers to exchange opinions, needs and feelings of shared organizational ownership.
 - Directors transform teachers' attitudes and behavior to create innovations in practice.

• Directors provide freedom for teachers to exchange opinions, develop inspiration, and create innovations.

• Management cultivates teachers' good attitude to create innovations.

• Teachers understand and know how to adapt the change in organizational environment appropriately.

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CONCLUSION

The major contribution of this study is the development of a mechanism to drive innovative schools for basic education in Thailand as a significant step towards enhancing the quality of education and preparing students for the challenges of the 21st century. The results revealed that effective leadership that fosters a culture of creativity and collaboration is essential, along with continuous professional development for teachers to equip them with innovative teaching strategies. Following this line of reasoning, the Office of Basic Education Commission, Thailand can foster a more dynamic and responsive educational system that meets the needs of all students by addressing the identified driving factors and key components and through the implementation of the proposed innovative school framework. In conclusion, the researchers would like to recommend for policy adjustments that support innovative practices, such as flexible curriculum guidelines, incentives for schools that adopt innovative approaches, and mechanisms for sharing best practices across institution for the purpose of sustainable innovation.

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