



The effect of strategic leadership factors of administrators on school effectiveness under the Office of Maha Sarakham Primary Educational Service Area 3



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ABSTRACT

The main aim of this paper was to examine the effect of strategic leadership factors of administrators on school effectiveness under the Office of Maha Sarakham Primary Educational Service Area 3. The designed research survey was utilized to investigate the strategic leadership behavior of administrators and school effectiveness, followed by comparing both key variables in terms of school size. Further exploration was carried out to validate the goodness-of-fit of a structural equation model of the strategic leadership factors of administrators affecting school effectiveness. Finally, the direct, indirect, and total effect of strategic leadership factors affecting school effectiveness were identified. In total, 510 samples comprised of administrators and teachers were selected as respondents. The research instrument was a 5-point rating scale questionnaire. Data were analyzed using both descriptive and inferential statistics. The results revealed that administrators showed a high level of strategic leadership behavior in their administration but the overall school effectiveness was at the moderate level. In addition, the findings also indicated that all the comparisons of either the strategic leadership of administrators or school effectiveness were significantly different according to school size, respectively. Furthermore, a structural equation model of strategic leadership factors affecting school effectiveness was fitted. Finally, the direct effect, indirect effect, and overall effect of the administrators' strategic leadership had no significant impact on school effectiveness at the .05 level.

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Introduction

Amidst globalization which consists of complexity and diversity from the revolution of information technology, education is a great cause of rapid change in society (Deeboonmee & Ariratana, 2014). Human and social capital is a source of sustainable competitive advantage for organizations and, therefore, should be carefully nurtured and

developed (Mahdi & Almasfir, 2014). Thus, manpower development is an important factor in educational administration because manpower is the most valuable resource of the nation. Nevertheless the quality of human resources is very much dependent upon educational effectiveness (Deeboonmee & Ariratana, 2014).

According to Section 6 of the Thai National Education Act 1999, the objective and principle of educational management is to ensure Thai people become perfect human beings in terms of their physical, mental, intellectual aspects, knowledge, ethics, morality, and culture so that they can live with others happily (Ministry of Education, 2007).

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Consequently strategic leaders are able to provide the vision and direction for organizational growth and success. To successfully deal with change, administrators need the skills and tools for both strategy formulation and implementation. Managing change and ambiguity requires strategic leaders who are able to provide a sense of direction thus building ownership and alignment within to implement change.

School effectiveness research has highlighted the administrator's role in the turnaround of ineffective or failing schools (Louis, Leithwood, Wahlstrom, & Anderson, 2010; Schmidt-Davis & Bottoms, 2011; Wallace Foundation, 2011). Sammons and Bakkum (2011) highlighted strong claims about school leadership according to a major review for the National College of School Leadership such as: (1) school leadership is second only to classroom teaching as an impact on student learning; (2) almost all successful leaders draw on the same repertoire of elementary leadership practices, and (3) the ways in which leaders apply these elementary leadership practices—not the practices themselves—demonstrate responsiveness to, rather than dictation by, the contexts in which they work.

A recent study showed the importance of a model of leadership practice that promotes an orderly and constructive behavioral climate, positive learner motivation, and a learning culture that predicts positive changes in student behavior and attendances as intermediate outcomes that themselves promote improvement in attainment (Sammons, Gu, Say, & Ko, 2011, p. 97). Specifically, that the leader's strategic leadership style would lead to the organizational effectiveness is an argument that cannot be denied. Therefore to be goal-oriented administrators, they had to re-evaluate the goal as well as the values of the school organization to be successfully implemented, and empower the teachers as practitioners to apply creative thinking to their work as well (Prasertsri, 2008). This has been supported by Sanrattana (2005) who stated that strategic leadership was the process for determining the direction, constructing the alternatives, and putting into practice. This strategic leadership theory underlines the findings from the follow up of the changing situation of both external and internal environmental factors of the organization, anticipation for the long term future, and strategic development motivated by a desirable future but not based on one's luck.

Statement of Problem

The problems faced with schools under the jurisdiction of the Office of Maha Sarakham Primary Educational Services Area 3, were low level O-NET scores in the 2012 academic year. The average score of Pratomsuksa 6 was lower than the National Average Score in seven Learning Substances except in Health Education and Physical Education. The average value for Matayomsuksa 3 was lower than the national score in every Learning Substance. Furthermore, from the third round of external quality assessment in the 2012 budget year, of the 37 schools assessed, only 29 schools or 78.38 percent were certified as meeting the Educational Standard and eight schools or 21.62 percent were not certified. In addition, the results of competition in National

Student Art and Craft failed to accomplish any goal (Office of Maha Sarakham Primary Educational Service Area 3, 2012).

Consequently, the Office of Maha Sarakham Primary Educational Service Area 3 has implemented various strategies to promote quality and effectiveness of the school administrators. These strategies aimed to encourage the administrators to develop themselves and change their administrative management so it would adapt to the change in educational reform. Administrators have to be conscious that they are the ones who implement policy. The important issue for the current administrators is that they have to change their management strategy as well as their leadership style (Jooste & Fourie, 2009). With all of these characteristics, administrators should be able to move their organizations toward the specified goals effectively and efficiently (Department of Academic, 2003).

With these situations and problems, researchers are interested to explore the administrators' strategic leadership and how it is impacting school effectiveness. The findings of this study would serve as key information for the improvement of strategic leadership that in turn will provide skills development to administrators under the Office of Maha Sarakham Primary Educational Service Area 3, Thailand.

Literature Review

The strategic leadership process is viewed as the set of decisions and actions that result in the formulation, implementation, and control of plans designed to achieve an organization's vision, mission, strategy, and strategic objectives within the administrative environment in which it operates (Pearce & Robinson, 2007, p. 3). Strategic leadership is defined as the leader's ability to anticipate, envision, and maintain flexibility and to empower others to create strategic change as necessary (Hitt, Ireland, & Hoskisson, 2007, p. 375).

Strategic leadership is multifunctional, involving managing through teachers, and helps schools cope with change that seems to be increasing exponentially in today's globalized educational environment (Huey, 1994, pp. 42–50). Strategic leaders mainly need to identify the best, easy way to approach problems when they occur (Cole, 2004). Factors that affect strategic leadership may vary according to the profession and activities which have to be followed by administrators who need to foster the development of personal competencies throughout a school (Switzer, 2008). The good strategy and interpersonal skills needed by top management are equally necessary across the school to provide a stimulating and rewarding work environment, and to develop the flexibility needed to cope with changing circumstances (Willcoxson, 2000).

According to Jooste and Fourie (2009), several identifiable actions characterize strategic leadership that positively contributes to effective strategy execution, namely: determining strategic direction, establishing balanced organizational controls, effectively managing the organization's resource portfolio, sustaining an effective organizational culture, and emphasizing ethical practices. Belias and Koustelios (2014) studied the impact of leadership and change management strategy on organizational

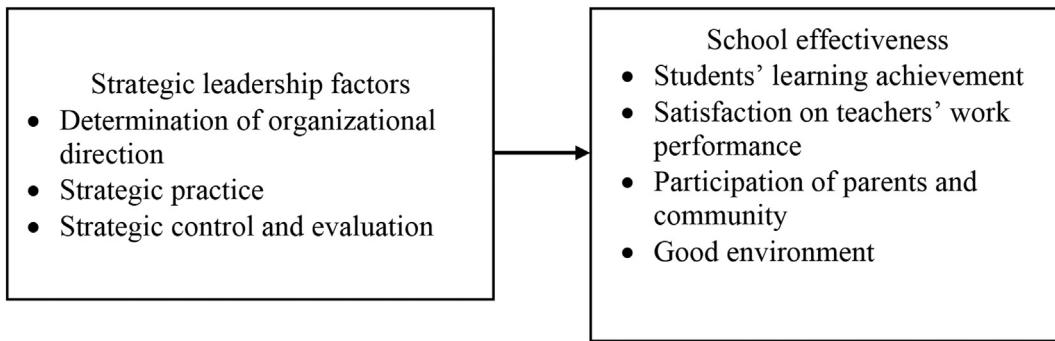


Figure 1 Conceptual framework

culture. They favor the view that strategic leadership needs to be transformational if it is to serve the organization. The study by [Mahdi and Almasfir \(2014\)](#) indicated that strategic leadership capabilities are needed in the new competitive landscape expected for the 21st century. Their target population was all Malaysian private universities. Their findings found that there is a significant positive impact of strategic leadership capabilities on sustainable competitive advantage. [Rhodes and Brundrett \(2009\)](#) reviewed and extended some of the key tenets surrounding present understanding and prompted further consideration of the advance of both the theoretical and empirical agenda for leadership development and school effectiveness in the future. Their collection offers insights into a variety of contemporary issues including: access, equity and entitlement, the linkage of work-based and formal leadership learning, the distribution of learning opportunities, the development of inclusive leadership to serve the diverse communities that schools accommodate, and the transition to headship and central government policy directives that drive leadership development and school effectiveness.

Objectives

The specific objectives of the study were:

- (1) to study the administrators' strategic leadership and school effectiveness level.
- (2) to compare the administrators' strategic leadership and school effectiveness according to school size.
- (3) to investigate the congruence of the structural model of strategic leadership factors affecting school effectiveness.
- (4) to study the direct effect, indirect effect, and overall effect of strategic leadership factors affecting school effectiveness.

Conceptual Framework

The variables in this study are elucidated in [Figure 1](#). The independent variables were strategic leadership factors consisting of the determination of organizational direction,

strategic practice, and strategic control and evaluation. On the other hand, there are four components of school effectiveness—students' learning achievement, satisfaction with teachers' work performance, participation of parents and community, and good environment—that acted as the dependent variables. This framework predicts that strategic leadership of administrators promotes school effectiveness. This view is associated with studies conducted by past researchers, namely [Canavan \(2013\)](#), [Chen \(2008\)](#), and [Jooste and Fourie \(2009\)](#).

The study by [Jooste and Fourie \(2009\)](#) indicated that the ability to execute a strategy is viewed as considerably more important than strategy formulation. As a result, strategy execution is the key to superior organizational performance. Jooste and Fourie further justified that a lack of strategic leadership has been identified as one of the major barriers to effective strategy execution. In turn, strategic leadership is viewed as a key driver to effective strategy implementation.

In addition, a case study of a secondary school in Taiwan was used to illustrate how leadership efforts can move schools forward to achieve a balanced transformation ([Chen, 2008](#)). Chen's findings revealed four themes of strategic leadership in coping with the conflicts accompanying school reform in Taiwan, namely: educational values, timeframe for change, capacity building, and community involvement.

Finally, [Canavan \(2013\)](#) studied building strategic leadership and management capacity to improve school effectiveness of Catholic schools in Sydney, NSW, Australia. Canavan's case study provided evidence of a culture of high level managerial leadership that utilized recent developments in Europe to give validity to 'the Sydney cycle'. In conclusion, the building of strategic leadership with a focus on teaching and learning effectiveness was a defining characteristic.

Methodology

The researchers employed a survey design which benefited this study in terms of obtaining data more efficiently as time, energy and costs could be minimized ([Sekaran, 2006](#)) and provided an excellent means of measuring attitudes and orientations in a large population

Table 1
Population and sample size

School size	Population			Sample		
	Principal	Teacher	Total	Principal	Teacher	Total
Small	86	472	558	32	176	208
Medium	45	538	583	17	201	218
Large	15	210	225	6	78	84
Overall	146	1220	1366	55	435	510

which can be generalized to a larger population (Babbie, 2002).

Population and Samples

From the total population of 1,366 administrators and teachers in the schools under the jurisdiction of the Office of Maha Sarakham Primary Educational Service Area 3, the required sample size was 510 samples comprising 55 administrators and 455 teachers. The stratified sampling method was utilized according to the different sizes of the schools (Table 1).

Instruments

There were two sets of research instruments utilized in this study. Set 1 was a checklist used for collecting the O-NET score of students from Matayomsuksa 6 School and Matayomsuksa 3 School in the 2013 academic year in eight Learning Substances: Thai Language, Mathematics, Science, Social Studies, Religion and Culture, Health Education and Physical Education, Art, Working, Occupation, and Technology, and Foreign Language (English Language). The data were collected from the Office of Maha Sarakham Primary Educational Service Area 3.

Set 2 was a questionnaire consisting of three sections. Section A was intended to gather information pertaining to respondents' personal background such as gender, official duration, academic educational level, school size, and position. Section B was specifically designed by the researchers to gauge the respondents' perceptions of their administrators' behavior indicating their influence, power, art, stimulating and motivating them into desirable direction, awareness of their responsibility, and shared power for improvement of school development in the three factors stated above. Section C was used to measure the level of success the schools accomplished objective goals in four identified components namely students' learning achievement, satisfaction on teachers' work performance, participation of parents and community, and good environment. Sections B and C were scored using a five-point Likert scale.

Variables

This study employed a linear structural model to explain the structural causal model between the causal and effect variables. The causal variables were the three factors of strategic leadership and the effect variables were the four components of school effectiveness. The variables could be organized in four groups: the external latent variable

group, the observable variable group, the internal latent variable group, and the internal observable variable group. The external latent variable was the determination of organizational direction. The observable variables were the vision determination and the input factor into practice. The internal latent variables were the strategies into practice, the strategic control and evaluation, and the school effectiveness. The internal observable variables were planning, organizational management, practice, performance checking, following up of situations and conditions, comparison between performance and the specified standard, students' learning achievement, satisfaction with teachers' work performance, and good environment.

Data Analysis

Frequency and percentage were used for analyzing respondents' demographic data. The mean score (\bar{x}), standard deviation (SD), skewness (SKEW), and kurtosis (KUR) were used to analyze the administrators' strategic leadership behavior and school effectiveness. In addition, one-way ANOVA was administered for analyzing the differences between the strategic leadership behavior and school effectiveness as classified by school size.

Confirmatory analysis was performed to investigate whether the strategic leadership factor model affecting school effectiveness would be congruent with the empirical data. Furthermore, path analysis was performed to study the causal relationship of the strategic leadership factor model and school effectiveness using the Lisrel 8.80 software package.

Results

Administrators' Strategic Leadership and School Effectiveness Level

The results of the study revealed that administrators had a high influence on determining school direction, executing strategic practice, and high awareness of strategic control and evaluation. Ranking in order from high to low was: strategic practice, determination of organizational direction, and strategic control and evaluation, respectively (Table 2). Although the overall school effectiveness variable was found to be at the moderate level, three components of school effectiveness were found to be at the high level, the exception being students' learning achievement. Ranking the components in order from high to low they were: satisfaction with teachers' work

Table 2
Strategic leadership

Strategic leadership factors	\bar{x}	SD	SKEW	KUR	Level
Determination of organizational direction (DIR)	3.74	0.59	-0.24	-0.29	High
Strategic practice (STR)	3.77	0.61	-0.32	-0.25	High
Strategic control and evaluation (CON)	3.59	0.64	-0.25	-0.16	High
Overall	3.70	0.57	-0.21	-0.29	High

Table 3
School effectiveness level

School effectiveness components	\bar{x}	SD	SKEW	KUR	Level
Students' learning achievement (ONET)	2.01	0.51	0.80	0.40	Low
Satisfaction with teachers' work performance (SAT)	4.01	0.54	-0.43	0.15	High
Participation of parents and community (GUA)	3.83	0.69	-0.41	-0.41	High
Good environment (ENV)	3.90	0.60	-0.33	-0.37	High
Overall	3.44	0.43	-0.28	-0.29	Moderate

performance, good environment, participation of parents and community, and students' learning achievement (Table 3).

Comparative Findings Between Strategic Leadership and School Effectiveness According to School Size

The one-way ANOVA analysis showed that all three different sizes of schools were significantly different in strategic leadership factors (Table 4) and school effectiveness except for between small-sized schools and medium-sized schools (Table 5).

Table 4
Comparative findings between strategic leadership and school size

Strategic leadership factors	Source of variability	df	SS	MS	F	p
Determination of organizational direction (DIR)	Between group	2	4.00	2.00	5.91**	.001
	Within group	489	165.27	0.34		
	Total	491	169.27			
Strategic practice (STR)	Between group	2	2.36	1.18	3.25*	.040
	Within group	489	177.68	0.36		
	Total	491	180.04			
Strategic control and evaluation (CON)	Between group	2	2.99	1.49	3.72*	.030
	Within group	489	196.44	0.40		
	Total	491	199.42			
Total	Between group	2	3.06	1.53	4.79**	.001
	Within group	489	156.25	0.32		
	Total	491	159.31			

* $p < .05$; ** $p < .01$

Table 5
Comparative findings between school effectiveness and school size

Strategic leadership factors	Source of variability	df	SS	MS	F	p
Students' learning achievement (ONET)	Between group	2	5.49	2.74	11.09**	.001
	Within group	489	120.99	0.25		
	Total	491	126.48			
Satisfaction on teachers' work performance (SAT)	Between group	2	3.14	1.57	5.40**	.001
	Within group	489	142.24	0.29		
	Total	491	145.38			
Participation of parents and community (GUA)	Between group	2	3.42	1.71	3.66*	.030
	Within group	489	228.10	0.47		
	Total	491	231.51			
Good environment (ENV)	Between group	2	0.89	0.45	1.22	.300
	Within group	489	178.02	0.36		
	Total	491	178.91			
Total	Between group	2	2.17	1.09	5.97**	.001
	Within group	489	88.96	0.18		
	Total	491	91.13			

* $p < .05$; ** $p < .01$

Congruence of Structural Model of Strategic Leadership Factors Affecting School Effectiveness Level

The findings of the investigation of the strategic leadership factor model affecting school effectiveness indicated that there was congruence with the empirical data at the 'Good' level ($\chi^2 = 42.45$, df = 33, $p = .13$, RMSEA = 0.02, SRMR = 0.02, GFI = 0.99, AGFI = 0.97, $\chi^2/\text{df} = 1.29$) as shown in Table 6 and Figure 2.

Direct Effect, Indirect Effect, and Overall Effect of the Strategic Leadership Factors Affecting School Effectiveness

The findings regarding the direct effect, indirect effect, and the overall effect of the strategic leadership factors affecting school effectiveness indicated there was no effect at the significance level of .05 as shown in Table 7.

Discussion

The findings indicated that there were significant differences in strategic leadership according to the three school sizes. This might have been due to the small-sized schools having a small number of teachers, so those teachers would have more responsibility to provide

Table 6

Congruence investigation of structural model of the strategic leadership factors affecting the school effectiveness

Variables	Factor loading				
	B	SE	T	R ²	fs
Determination of organizational direction (DIR)					
Vision determination (VIS)	0.52	0.02	23.34**	0.91	1.15
Input factor determining the strategy (INP)	0.60	0.02	27.60**		
Strategic practice (STR)					
Planning (PLA)	0.56	—	—	0.78	0.57
Organizational management (MIN)	0.54	0.02	24.68**	0.72	0.31
Strategic control and evaluation (CON)					
Checking (CHE)	0.64	—	—	0.87	0.54
Following up the situations and conditions (FOL)	0.64	0.02	33.08**	0.88	0.61
Comparison between performance and standard (TEST)	0.59	0.02	30.54**	0.77	0.16
School effectiveness (ONET)					
Students' learning achievement	0.03	—	—	0.00	0.01
Satisfaction on teachers' work performance (SAT)	0.46	0.35	1.30	0.71	0.62
Participation of parents and community (GUA)	0.60	0.46	1.30	0.76	0.39
Good environment (ENV)	0.48	0.37	1.30	0.63	0.40

$\chi^2 = 42.45$, df = 33, $p = .13$, RMSEA = 0.02, SRMR = 0.02, GFI = 0.99, AGFI = 0.97, $\chi^2/\text{df} = 1.29$

instructional activities and would spent most of their time together with their own students. Consequently, administrators would have to organize comprehensive planning to ensure the implementation of school development was moving smoothly, including monitoring and following up, as well as working independently. On the contrary, there were many more teachers in large-sized schools. As a result, administrators would have to administer and manage by decentralizing or empowering their teachers to work in teams. In order to ensure that the teachers were able to work independently, administrators would have to adopt a strategic planning approach. This finding was congruent with [Supatong \(2007\)](#) who indicated that the administrators in schools under the Office of Nakhon

Phanom Educational Service Area 2 worked using different teaching styles when dealing with different sizes of schools.

In addition, the findings showed that there were significant differences in school effectiveness between different school sizes except between small-sized schools and medium-sized schools, perhaps because the small-sized and the medium-sized schools had smaller numbers of teachers than the large-sized schools. Each teacher has to teach many Learning Substances and in the large-sized schools there were many teachers. As a result, the instructional activities as well as projects could be performed better than in the small-sized schools and the medium-sized schools. Learning achievement as well as

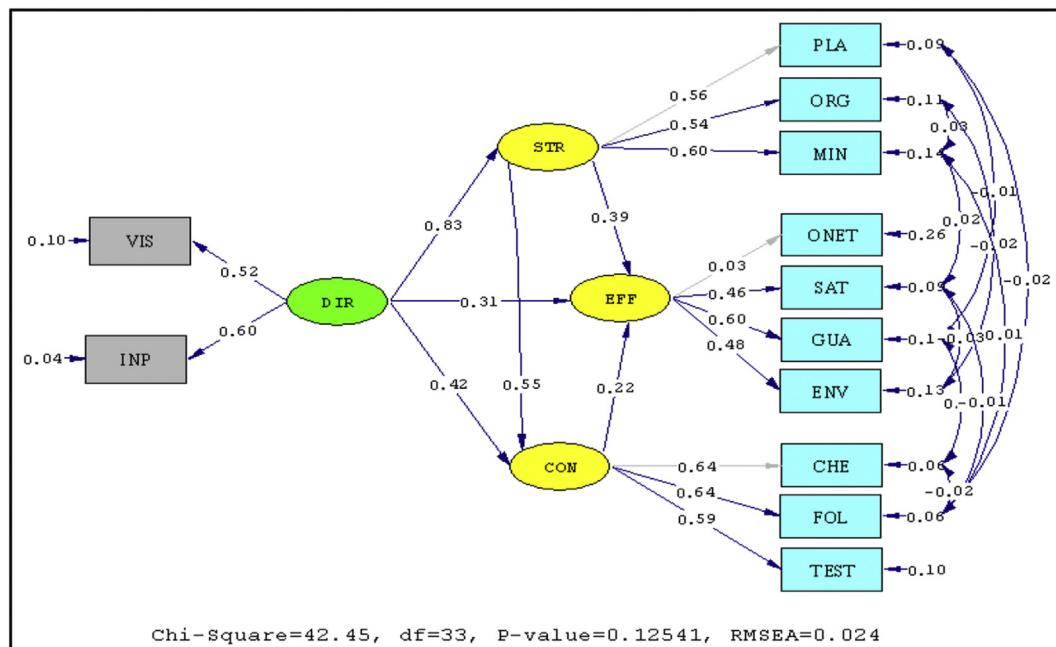


Figure 2 Structural model of strategic leadership factors affecting school effectiveness

Table 7

Direct effect, indirect effect, and overall effect of strategic leadership factors affecting school effectiveness

Causal factor	DIR			STR			CON		
	DE	IE	TE	DE	IE	TE	DE	IE	TE
STR	0.83**	—	0.83**	—	—	—	—	—	—
CON	0.42**	0.46**	0.88**	0.55**	—	0.55**	—	—	—
EFF	0.31**	0.51	0.82	0.39	0.12	0.51	0.22	—	0.22

** $p < .01$

cooperation by parents and community would be less than in the large-sized schools. Furthermore, teachers in small-sized schools were more friendly and provided support for each other. Consequently, those teachers in small-sized schools were more satisfied with their work compared to teachers in large-sized schools.

Because of the large number of teachers working in large-sized schools, administrators normally would implement decentralization through the formation of work groups or teamwork. By doing so, administrators would have to implement, monitor, and follow up their strategic administration by group. As a result, a teacher as an individual may have different levels of work satisfaction. This situation also occurred in medium-sized schools but decentralization was not implemented thoroughly. Administrators also decentralized some issues in their administration to work groups, thus controlling, monitoring, and following up on their teachers' work in almost the same way as the strategic administrative implementation in large-sized schools. However, administrators only had to control, monitor, and follow up on some issues in medium-sized schools individually, just the same as in small-sized schools. Consequently, teachers working in medium-sized schools were less satisfied compared to small-sized schools and large-sized schools. These results were supported by the findings of Banglengrom (2007) who found that administrators from different sizes of schools under the Office of Udonrani Educational Service Area viewed school effectiveness differently at a significance level of .05.

The results of the structural equation model for strategic leadership factors affecting school effectiveness revealed that there was congruence with the empirical data at the 'Good' level ($\chi^2 = 42.45$, $df = 33$, $p = .13$, $RMSEA = 0.02$, $SRMR = 0.02$, $GFI = 0.99$, $AGFI = 0.97$, $\chi^2/df = 1.29$). This result reinforced the importance of strategic leadership towards school effectiveness because administrators are the key persons who diagnose, order or make decisions to solve different types of problems which in turn would upgrade their school effectiveness level automatically, thus accomplishing their school goals or vision. This finding was found to be in line with Prasertsri (2008) who stated that leadership has played a major role in developing organizations for success. Specifically, strategic leadership as a leader's style led to organizational growth or development.

Finally, the findings showed that there was no significant direct, indirect, or overall effect of strategic leadership factors on school effectiveness at the .05 level. However, there might be other factors affecting school effectiveness besides strategic leadership factors; for example,

organizational competency, academic leadership, and transformational leadership.

Conclusion and Recommendations

The researchers recommend that work units related to educational management should identify proper techniques to improve the students' ONET learning achievement. The Office of Maha Sarakham Primary Educational Service Area 3 should provide training to develop the strategic leadership of administrators in all sizes of schools. In addition, work units related to educational management should create comprehensive and substantial guidelines for the purpose of strategic leadership skills development specifically to improve school effectiveness.

This study was limited to the scope of those schools under the jurisdiction of the Office of Maha Sarakham Primary Educational Service Area 3. More studies should be conducted in other urban schools, districts, or provinces of Thailand. Another possible avenue for future research is to conduct a longitudinal investigation of administrators' strategic leadership skills development. The findings will provide greater understanding of how and what strategic leadership skills administrators acquire in a school management setting. Furthermore, administrator's knowledge and capability can be fully explored. Such studies would enable researchers to identify any other factors that impact on school effectiveness.

Conflict of Interest

There is no conflict of interest.

References

- Babbie, E. (2002). *The basics of social research* (2nd ed.). Belmont, CA: Thomson Learning, Inc.
- Banglengrom, C. (2007). *The relationship between the school administrators' empowerment, and effectiveness of schools under the Office of Udon Thani Educational Service Area* (Unpublished master's thesis). Udon Thani Rajabhat University, Udon Thani. [in Thai]
- Beliaš, D., & Koustelios, A. (2014). The impact of leadership and change management strategy on organizational culture. *European Scientific Journal*, 10(7), 451–470.
- Canavan, K. (2013). Building strategic leadership and management capacity to improve school effectiveness. *Catholic Education: A Journal of Inquiry and Practice*, 7(2), 150–164.
- Chen, P. (2008). Strategic leadership and school reform in Taiwan. *School Effectiveness and School Improvement*, 19(3), 293–318.
- Cole, G. A. (2004). *Management theory and practice* (6th ed.). Padstow Cornwall, London, UK: T1 International.
- Deeboonmee, W., & Ariratana, W. (2014). Relationship between strategic leadership and school effectiveness. *Procedia – Social and Behavioral Sciences*, 112, 982–985.
- Department of Academic. (2003). *National education act 1999, and revised issue (the second issue) 2002, and the compulsory education act 2002*. Bangkok, Thailand: Akson Thai. [in Thai]
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2007). *Strategic management: Competitiveness and globalization* (7th ed.). Mason, OH: Thomson/South Western.
- Huey, J. (1994). The new post-heroic leadership. *Fortune*, 21(February), 42–50.
- Jooste, C., & Fourie, B. (2009). The role of strategic leadership in effective strategy implementation: Perceptions of South African strategic leaders. *Southern African Business Review*, 13(3), 51–68.
- Louis, K. S., Leithwood, K., Wahlstrom, K., & Anderson, S. (2010). *Investigating the links to improved student learning: Final report of research findings*. Retrieved from www.wallacefoundation.org/knowledge-center/school-leadership/key-research/Documents/Investigating-the-Links-to-Improved-Student-Learning.pdf.

Mahdi, O., & Almasfir, M. (2014). The role of strategic leadership in building sustainable competitive advantage in the academic environment. *Procedia – Social and Behavioral Sciences*, 129(5), 289–296.

Ministry of Education. (2007). *Guidelines for education reform of ministry of education*. Bangkok, Thailand: Author.

Office of Maha Sarakham Primary Educational Service Area 3. (2012). *A report of educational management in the Office of Maha Sarakham Primary educational Service Area 3, 2012 academic year*. Bangkok, Thailand: The Office of Secretariat in Educational Council. [in Thai]

Pearce, J. A., & Robinson, R. B. (2007). *Formulation, implementation and control of competitive strategy* (9th ed.). Boston, MA: McGraw-Hill Irwin.

Prasertsri, R. (2008). Strategic leadership. *New Age Management Journal*, 6(2), 1–10. [in Thai]

Rhodes, C., & Brundrett, M. (2009). Leadership development and school improvement. *Educational Review*, 61(4), 361–374.

Sammons, P., & Bakkum, L. (2011). *Effective schools, equity and teacher effectiveness: A review to the literature*. Retrieved from <http://www.ugr.es/local/rectpro/rev153ART2en.pdf>.

Sammons, P., Gu, Q., Say, C., & Ko, J. (2011). Exploring the impact of school leadership on pupil outcomes: Results from a study of academically improved and effective schools in England. *International Journal of Educational Management*, 25(1), 83–101.

Sanrattana, W. (2005). *School: Management for learning organization* (5th ed.). Bangkok, Thailand: Tipwisoot. [in Thai]

Schmidt-Davis, J., & Bottoms, G. (2011). *Who's next? Let's stop gambling on school performance and plan for principal succession*. Retrieved from http://publications.sreb.org/2011/11V19_Principal_Succession_Planning.pdf.

Sekaran, U. (2006). *Research methods for business: A skill building approach* (4th ed.). Danvers, MA: John Wiley & Sons Inc.

Supatong, N. (2007). *The administrators' strategic leadership affecting school effectiveness under the Office of Nakhon Phanom Educational Service Area 2* (Unpublished master's thesis). Sakon Nakhon Rajabhat University, Sakon Nakhon.

Switzer, M. (2008). Strategic thinking in fast growing organization. *Journal of Strategic Leadership*, 1(1), 39–47.

Wallace Foundation. (2011). *The school principal as leader: Guiding schools to better teaching and learning*. Retrieved from <http://www.wallacefoundation.org/knowledge-center/school-leadership/effective-principal-leadership/Documents/The-School-Principal-as-Leader-Guiding-Schools-to-Better-Teaching-and-Learning.pdf>.

Willcoxson, L. (2000). Leading strategically. *International Journal of Organizational Behavior*, 2(2), 30–36.