



Path Analysis of Factors Influencing Educational Management Effectiveness of Private Higher Education Institutions in Thailand

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Abstract

Background and Aim: The purposes of this research were 1) to study the indicators of factors influencing the educational effectiveness of private higher education institutions in Thailand, 2) to confirm the path model of factors influencing the educational effectiveness of private higher education institutions. in Thailand

Materials and Methods: The sample group used in this research includes instructors and support staff who work in private higher education institutions. By multi-stage random sampling of 600 people. Tools used in this research. as a questionnaire Statistics used for analysis, namely Confirmatory factor analysis (CFA) and Path analysis (PA).

Results: The results of the research were as follows: 1) the components of transformational leadership Sorted by factor loading from highest to lowest, including intellectual stimulation. Individual considerations inspiring and ideological influence 2) elements of organizational culture Sorted by factor loading from the highest to the lowest, namely the mission aspect, the value aspect, and the adaptation aspect. 3) Information technology component. They were sorted by factor loading from high to low, including finance, development, media equipment, teaching and learning, and information services. Administrative and Personnel 4) Educational Management Effectiveness Components Sorted by factor loading from the highest to the lowest, including academic services. Arts and culture and Thainess Management student outcomes Research and Innovation 5. Leadership Change and information technology, Which is a variable in the path model of factors influencing educational management effectiveness of private higher education institutions in Thailand, together predicted 56 percent ($R^2 = .56$) in terms of transformational leadership and information technology. It directly affects the effectiveness of education management of private higher education institutions in Thailand. When considering the influence size of the path of factors influencing the educational management effectiveness of private higher education institutions in Thailand. The effect size coefficients were classified by variables as follows: Educational management effectiveness of private higher education institutions in Thailand Received the strongest total influence from Leadership for Change (LEA) (1.30), followed by Information Technology (TEC) (0.32) and Organizational Culture (CUL) (0.28).

Conclusion: 1) the components of transformational leadership are Sorted by factor loading from highest, including intellectual stimulation. 2) elements of organizational culture are Sorted by factor loading from the highest to the lowest, namely the mission aspect, the value aspect, and the adaptation aspect. 3) Information technology component. They were sorted by factor loading from high to low, including finance, development, media equipment, teaching and learning, and information services. Administrative and Personnel 4) Educational Management Effectiveness Components Sorted by factor loading from the highest to the lowest, including academic services. Arts and culture and Thai ness Management student outcomes Research and Innovation 5. Leadership Change and information technology, Which is a variable in the path model of factors influencing educational management effectiveness of private higher education institutions in Thailand, together predicted 56 percent ($R^2 = .56$).

Keywords: Path Analysis; Influencing Factors; Effectiveness of Education Management





Introduction

Private Higher Education Institution Act 2003, Amendment (2nd edition), 2007 Section 5 The management of higher education must be done to achieve the following objectives: (1) Develop human resources to have expertise in their respective academic or professional fields, capable of meeting the country's needs and creating competitive capabilities at the global level. (2) Develop individuals to become well-rounded human beings physically, mentally, intellectually, and with the necessary knowledge and skills. Be good people with discipline, pride in their country, understanding of society and culture in living their lives, capable of adapting to the changing global society in the future. Take responsibility for family, community, society, and the nation; collaborate in solving social problems; and live happily together with others. (3) Respond to national strategies, national master plans, economic and social development plans, national education plans, and science and technology development plans, and link them to education at lower levels to prepare the country's human resources for admission to higher education including promote vocational training to enhance individuals' occupational skills and lifelong education. Article 8 specifies that private higher education institutions serve as educational and research institutions, aiming to promote academic and professional excellence, provide teaching and research services to society, and preserve and promote arts and culture. Furthermore, Article 43 stipulates that the management and administration of private education should be independent, with monitoring and quality assessment following the state's criteria, similar to public educational institutions. (Royal Thai Government Gazette, 2011:5)

The Ministerial Regulation on the Administration of the Ministry of Education, Science, Research, and Innovation, B.E. 2562, Article 11, stipulates that the Ministry of Education, Science, Research, and Innovation (MESRI) shall develop an educational plan to produce and develop human resources with sufficient quantity and quality. This includes the dimensions of competencies derived from knowledge and expertise in various disciplines, as well as moral and ethical dimensions, which are crucial issues emphasized by government policies and strategies at all levels. It is necessary to accelerate development to serve as a foundation for driving national development, achieving the goals of human resource production and development within both the formal education system (Aged Group) and non-formal education system (Non-Aged Group), in line with and responsive to the objectives of development outlined in strategies and policies at all levels. The development should be based on appropriateness for each group and age range, promoting continuous lifelong learning of high quality. The educational management approach, such as the Sandbox concept, should be employed to lead educational development by shaping a new form of human resources development, creating opportunities for job creation, generating new knowledge, and enhancing strength. Institutions should carry out their missions following the characteristics of each institution group, driving the university to a global level (World University Ranking), which will have an impact on the country's development in both economic and social dimensions, particularly in terms of enhancing the country's competitive capabilities and overall economic growth. It will also contribute to reducing inequality and improving the quality of life for the population at large (Office of the Education Commission, 2015).

Academics have proposed the idea of the effectiveness of the Education Area Office as the state of operations and the performance of administrators and personnel in collaborating to manage and achieve the organization's objectives appropriately. It can adapt to continuous changes. There is an integration of working systems that are interrelated. There is a well-maintained cultural plan and excellent service to create satisfaction for the service recipients (Hoy & Miskel, 1999). Similarly, Anannavi, P. (2008: 8) (2008: 8) stated that the term "effectiveness" is the goal of every organization, especially in the current era filled with competition. Effectiveness is a tool or indicator to decide whether the management of any unit or organization can operate to the extent that the set goals or objectives are achieved. It is related to the results received and the success of the work. It is important and necessary for managing work in private higher education institutions in the present era. Researchers (add citation), therefore, recognize the importance of studying causal factors that influence the effectiveness of management at the level of private higher education institutions in the northeastern region. They aim to study the factors of leadership qualities of administrators, organizational capacity, organizational

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climate, organizational culture, and the effective power of teachers that affect the effectiveness of management at the level of private higher education institutions. The study's results will provide knowledge and management innovation for administrators of private higher education institutions to manage the education system at the level of private higher education institutions in the northeastern region more effectively. It will also serve as a guideline for planning the development of the education management system at private higher education institutions and developing personnel management in private higher education institutions, which is a valuable resource for the organization. Additionally, it aims to encourage the personnel of private higher education institutions to have loyalty towards the organization, leading to self-development, improving the quality of education, and ultimately affecting the efficiency and effectiveness of education management at the level of private higher education institutions in the future. The important factors that lead to the success of the effectiveness of management at the level of private higher education institutions are change leaders (Bass and Avolio (1994), Tichy and Devanna (1986); Manning & Haddock (1992); Dessler (1998); Hoy & Miskel (2001), organizational culture (Schein (1992); Harison (1993); Alvesson (2000)), and information technology factors; Khianchanat, T.,(2016); Sirivisitkul, S., (2016))." Check the writing style of the journal format.

The problem of developing the quality of Thai higher education has been continuously addressed. However, it is currently evident that the quality of higher education is still not at the desired level, and weaknesses are identified in various areas. These include issues with government policies and some higher education institutions lacking certainty and experiencing operational overlaps, a lack of community participation, private organizations and entrepreneurs in developing the quality of higher education, outdated and non-internationalized curriculum, and teaching methods without integration, a lack of curriculum adaptation to global changes, a shortage of quality professors due to the crisis in the teaching profession, which hinders the recruitment of motivated individuals as professors, and the government's investment in research to generate new knowledge is considered significantly low. The government needs to invest more in research and development genuinely for higher education institutions (Office of the Education Council Secretariat, 2017).

Based on the situation and problems mentioned above, as well as theoretical perspectives, researchers are interested in studying the analysis of factors that influence the effectiveness of educational management in private higher education institutions in Thailand. The study aims to investigate factors related to leadership qualities, organizational culture, and information technology that have an impact on the effectiveness of educational management in private higher education institutions in Thailand. The findings of this research will contribute new knowledge that can be applied to the development of private higher education institutions in Thailand with greater effectiveness. Managers can use these findings as guidelines for planning and implementing administrative improvements and developments in private higher education institutions, aiming to achieve efficiency and effectiveness in line with the objectives.

Research Objectives:

1. To confirm the indicators of the effectiveness of educational management in private higher education institutions in Thailand.
2. To investigate the path of factors influencing the effectiveness of educational management in private higher education institutions in Thailand.





Literature Review

Definition of Transformational Leadership

Bass (1985) said that transformational leaders (Leadership) means one who motivates them to do more than expected has the confidence to act to achieve the desired outcome and make an effort to elevate the needs of the follower to the higher hierarchy of needs in Maslow's hierarchy of needs.

Dessler (1998) stated that transformational leadership (Transformational Leadership) refers to the process of influencing significant changes in attitudes and to the assumptions of members of the organization and significant changes in the attitudes and assumptions of members of the organization and to engagement for the mission objectives and strategy of the organization.

Yukl (1994) stated that transformational leadership is defined as followers gaining trust, faith, loyalty, and respect and that the leader can motivate the follower to perform more than he expected, which describes the type of incentive attributes required to succeed in key management positions in organizations with large bureaucratic chains of command. Managerial motivation was measured using a projective test called the Miner Sentence Completion Scale. Miner's Absolute Completion The test gives the total score of all managerial motivations.

Definition of organizational culture

Minberg (Mintzberg., 1979) defined organizational culture. (Organizational Culture) means customs and beliefs of personnel in the organization that will cause the symbol of the organization. Which is different from other organizations and causes the conduct of personnel

Denison (1990:1) defines organizational culture as the basic values, beliefs, and principles that serve as the foundation of the organizational management system and A group of management practices and behaviors that extend and reinforce the underlying principles. Those principles and practices exist because they are meaningful to members. Organizations represent strategies for the survival of well-executed organizations. In the past and members of the organization believe that it will continue to do well in the future.

Sine (Schein (1992)) defined organizational culture. (Organizational Culture) refers to the basic concepts created, discovered, or developed by a group of people. To be used to solve problems in adapting to the external environment or internal coordination. And it can be used well until it is accepted as the right thing; thus, it has been assigned to a new member to guide the perception of thinking and feeling the problems.

Ouchi (Ouchi 1991) defines organizational culture. (Organizational Culture) is a symbol (Symbol), ceremonies (Ceremonies), and the history of the organization (Myths), which communicates the values and beliefs of the organization to personnel.

Definition of Information Technology

Kongchuay, R. (2011) defined the meaning of information technology (Information Technology). Application of technology that composes computer technology and telecommunication technology. This is a technology that is necessary for the process of information operations, from seeking, analyzing, processing, managing, storing, retrieving, exchanging, and disseminating information electronically, which may be in the form of images, sounds, characters, or animations. It is accurate, accurate, and fast.

Khianchanat, T. (2016) defined the meaning of information technology as the way the university has applied scientific knowledge to benefit. It is the introduction of information technology systems used in the administration of private universities. To contact, coordinate and cooperate in the operation to complete the work well.





Conceptual Framework

1. Transformational Leadership, The researcher, used the approaches of Tichy and Devanna (1986), Manning & Haddock (1992), Dessler (1998), Hoy & Miskel (2001), Bass and Avolio (1994), Kongchuay, R. (2011), Thongpanchang, P., (2011), Rottanit, S.,(2015), Sirivisitkul, S., (2016), the important components are 1) Ideological Influence 2) Motivation 3) intellectual stimulation 4) individuality considerations

2. Organizational culture The researcher used Denison (1990), Schein, E. H. (1992), Harison (1993), Alvesson (2000), Noijanchong, N. (2007), Kosiyanan, P. (2011), Mahasinphaisan, T., & Sansawang, S.,(2010), Kongchuay, R., (2011), Boonchaluy, P., (2013). The important elements are 1) Adaptation, 2) Mission, 3) Value

3. Information technology factors The researcher used the approach of the Ministry of Education (2001), Kongchuay, R. (2011), Khianchanat, T. (2016), and Sirivisitkul, S. (2016). The important components are: 1) teaching and learning management, 2) management, 3) Information Services, 4) Media-Equipment Development, 5) Finance, 6) Human Resources

4. The Conceptual Framework for the Effectiveness of Private Higher Education Institutions The researcher used a standardized approach to Higher education institutions in the implementation of the missions of higher education institutions in 5 areas, namely 1) Graduate Production, 2) Research, 3) Academic Service, 4) Arts and Culture Preservation, 5) Management

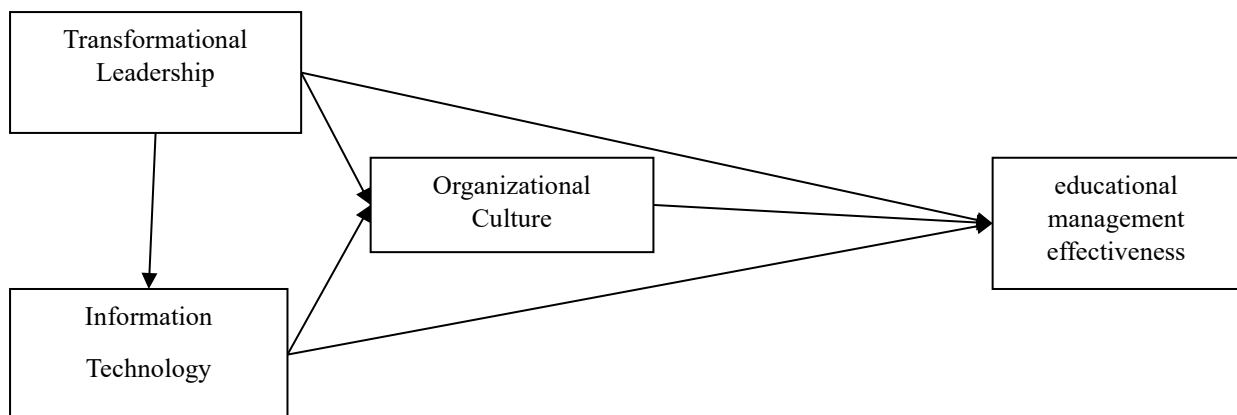


Figure 1 Conceptual Framework for Research

The author should explain how to develop the model from theory and concept.

Research Methodology:

This research employs a quantitative research methodology.

Population and sampling

The population for this study consisted of individuals working in private higher education institutions affiliated with the Office of the Higher Education Commission, Ministry of Education. The total number of institutions is 64, comprising 40 universities, 18 colleges, and six institutes, with a total population of 3,964 individuals. (Office of the Permanent Secretary, Ministry of Education. 2021)

The sample group for this research included teachers and support staff working in private higher education institutions affiliated with the Office of the Permanent Secretary, Ministry of Education, Science, Research, and Innovation. The sample size was determined based on the principles of data analysis using LISREL (Linear Structural Relationship) software. If the author has the copyright to this program, the copyright details should be provided to prevent legal disputes and amount to 600 individuals (add citation). The sample size was determined proportionally according to the types of higher education institutions, using the principles of stratified sampling and a multi-stage sampling



approach. The sampling methods used include quota sampling and simple random sampling (SRS). (Wanichbuncha, K., 2018: 28)

Research Tools

The questionnaire was used as a research instrument to collect data for research purposes. This instrument was developed by researchers based on theoretical frameworks derived from literature reviews, theories, journals, textbooks, and relevant research in Chapter 2. They were formulated as specific terminology definitions and transformed into questions used in the survey. To ensure that this research adhered to the prescribed research methodology and aligned with the research objectives, the researcher designed the following research procedures. The questionnaire had been designed to be consistent with the research and was divided into five sections as follows:

Section 1: General Information Questionnaire

Section 2: Transformational Leadership Questionnaire, consisting of four dimensions: 1) Idealized Influence, 2) Inspiration Motivation, 3) Intellectual Stimulation, 4) (Individualized Consideration. These dimensions indicated causal factors that influenced the effectiveness of educational management in private higher education institutions in Thailand.

Section 3: Organizational Culture Questionnaire, consisting of three dimensions: 1) Adaptation 2) Mission 3) Values

Section 4: Information Technology Questionnaire, consisting of six dimensions: 1) Learning and Teaching Management 2) Administrative Management 3) Data Services 4) Media and Equipment Development 5) Financial Aspect 6) Personnel Aspect

Section 5: Effectiveness of Educational Management in Private Higher Education Institutions Questionnaire, designed to measure the effectiveness of educational management in private higher education institutions. The results indicate the effectiveness of these institutions and classify the content according to five observed variables: 1) Learner Outcomes, 2) Research and Innovation, 3) Academic Services, 4) Arts, Culture, and Thai Identity 5) Management. The nature of these research instruments was a Likert-type scale questionnaire based on the Likert Scale (Likert, 1932: 5-55) that measures approximate values. Present the details of measures' approximate values, such as 5 = strongly disagree.

Methods for Assessing Tool Quality

1. Providing the created questionnaires to the thesis advisor for verification of accuracy and context coverage.
2. Present the questionnaires to experts to assess content validity and calculate the Item-Objective Congruence (IOC) value, which should range from 0.60 to 1.00.
3. Conduct a try-out of the questionnaire with 30 teachers who are not part of the sample group and calculate the Content Validity Coefficient (CVC).
4. Revise and modify the questionnaire based on the results from step 3, and determine the reliability using Cronbach's Alpha Coefficient (α) = 0.957
5. Take the complete questionnaire and use it to collect data for the following data collection process.

Data Collection: Collect data from a sample group by administering the questionnaire to professors and supporting staff members working in private higher education institutions under the supervision of the Office of the Permanent Secretary, Ministry of Higher Education, Science, Research, and Innovation. The sample group consisted of 600 individuals. Gather the questionnaires obtained from the survey respondents for further data analysis. The statistical analysis technique used for the analysis is Structural Equation Modeling: SEM.

Data Analysis: Descriptive Analysis such as Mean, S.D. Skewness and Kurtosis to test the normal distribution. The Correlation Coefficient to test the multicollinearity of all variables. CFA for confirming the indicators of the effectiveness of educational management in private higher education institutions in Thailand. SEM for investigating the path of factors influencing the effectiveness of educational management in private higher education institutions in Thailand.

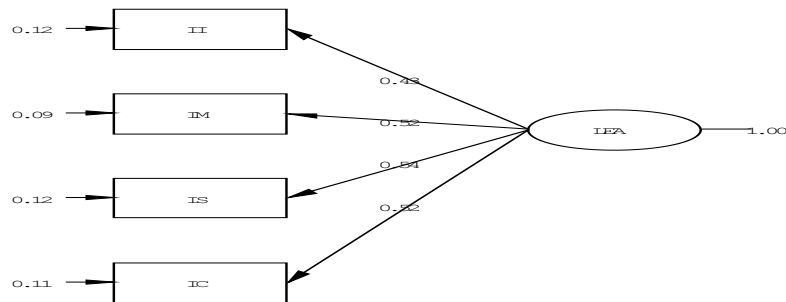




Results:

1. To confirm the indicators of the effectiveness of educational management in private higher education institutions in Thailand.

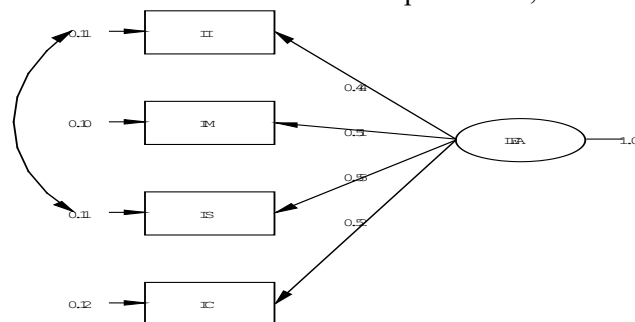
1.1 The indicator of Transformational Leadership in private higher education institutions in Thailand.



$\chi^2=6.16$, $df=2$, $P\text{-value}=0.04586$, $RMSEA=0.059$

Figure 2: Confirmatory components of Transformational Leadership before the restructuring.

From Figure 2, it was found that the results of the initial analysis showed a lack of fit between the model and the empirical data. The researcher made adjustments to the model based on modification indices and relevant theoretical concepts. The adjustments resulted in a better fit between the model and the empirical data, as indicated by the following statistical values: $\chi^2 = 0.65$, $df = 1$, $\chi^2/df = 0.65$, $P\text{-value} = 1.00000$, $RMSEA = 0.000$, $AGFI = 0.99$, $RMR = 0.0034$. The χ^2/df value was less than 2, and the $RMSEA$ value was lower than 0.05, which were acceptable criteria. The analysis conducted using LISREL 8.54 software confirmed that the model fits well with the empirical data, as illustrated in Figure 3.

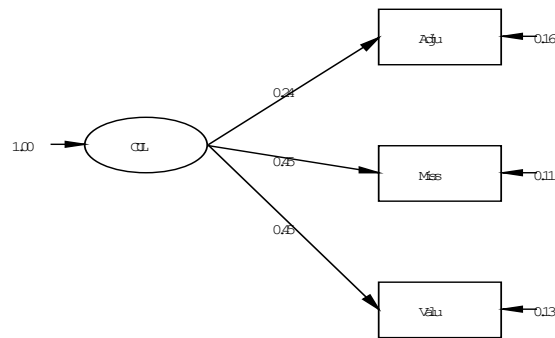


$\chi^2=0.65$, $df=1$, $P\text{-value}=0.41832$, $RMSEA=0.000$

Figure 3: The confirmatory analysis model of the observed variables was evident after the model adjustment.

From Figure 3, the overall analysis results indicated that the components of Transformational Leadership could be reliably measured using the specified observed variables. The four variables were listed in order of their factor loadings, from highest to lowest: intellectual stimulation (IS), individual consideration (IC), inspirational motivation (IM), and idealized influence (II). The respective factor loadings were 0.55, 0.52, 0.51, and 0.44. The model demonstrates a good fit with the empirical data, meeting the acceptance criteria.

1.2 The indicator of organizational culture (CUL) components in private higher education institutions in Thailand.

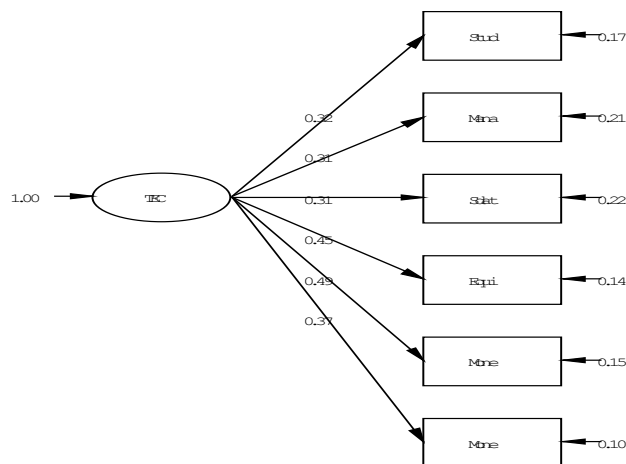


Chi-Square=0.00, df=0, P-value=1.0000, RMSEA=0.000

Figure 4: The confirmatory analysis model of the observed variables was evident after the model adjustment.

From Illustration 4, the results of the initial analysis showed a good fit between the model and the empirical data, as indicated by the following statistical values: $\chi^2 = 0.00$, $df = 0$, $\chi^2/df = 0.00$, $P\text{-value} = 1.000$, $RMSEA = 0.000$, $AGFI = 1.000$, $RMR = 0.0037$. The χ^2/df value was less than 2, and the $RMSEA$ value was lower than 0.05, meeting the acceptance criteria. The analysis conducted using LISREL 8.54 software confirmed that the model fits well with the empirical data, as illustrated in Figure 4. Overall, the analysis results indicated that the components of organizational culture could be reliably measured using the specified observed variables. The three variables were listed in order of their factor loadings, from highest to lowest: mission, values, and adjustment. The respective factor loadings were 0.45, 0.45, and 0.24. The model demonstrates a good fit with the empirical data, meeting the acceptance criteria.

1.3 The indicator of information technology components (TEC) in private higher education institutions in the country.

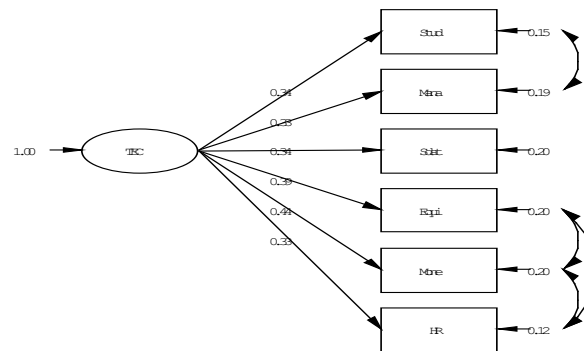


Chi-Square=32.93, df=9, P-value=0.00014, RMSEA=0.067

Figure 5: The confirmatory analysis model of the information technology components (TEC) before model adjustment.



From Illustration 5, it was found that in the initial analysis, the model's fit with the empirical data was not satisfactory. The researchers made adjustments to the model based on modification indices and relevant theoretical concepts. The adjusted model resulted in a better fit with the empirical data, as evidenced by the statistical values used to assess the model's goodness of fit. These values include $\chi^2 = 0.71$, $df = 5$, $\chi^2/df = 0.142$, $P\text{-value} = 0.983$, $RMSEA = 0.000$, $AGFI = 1.000$, $RMR = 0.0037$. The χ^2/df value was below 2, and the RMSEA value was below 0.05, indicating an acceptable fit. The analysis conducted using LISREL 8.54 software confirmed that the model was a good fit with the empirical data, as illustrated in Figure 6.

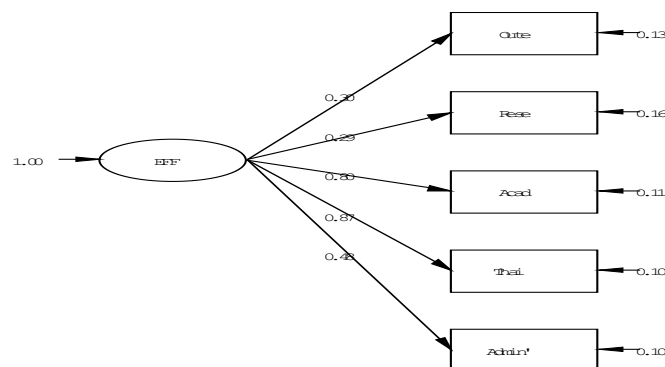


$\chi^2 = 0.71$, $df = 5$, $P\text{-value} = 0.983$, $RMSEA = 0.000$

Figure 6: depicts the six confirmed factor analysis models after adjustments.

From Figure 6, the results of the analysis could be summarized as follows: The components of Information Technology (IT) could be effectively measured using the specified variables. These variables were arranged in descending order of their factor loadings, namely Financial aspect (Mone), development of media and equipment (Equi), management of teaching and learning (Stud), Data Services (Sdat), management and administration (Mana), and Human resources (HR). The respective weights assigned to these components are 0.44, 0.39, 0.34, and 0.33. Furthermore, the pattern exhibited a good fit with the observational data, indicating a strong correlation.

1.4 Performance Indicators of Educational Management Efficiency (EFF) for Private Higher Education Institutions in Thailand.



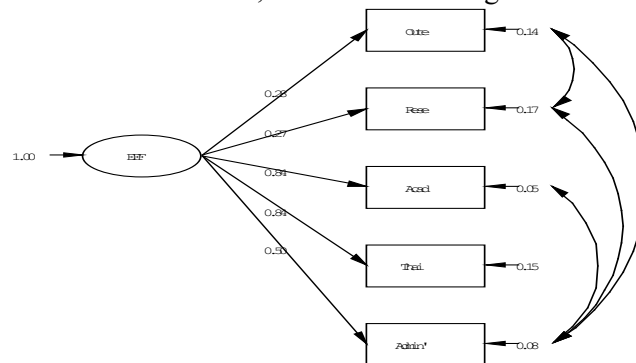
$\chi^2 = 268.77$, $df = 5$, $P\text{-value} = 0.00000$, $RMSEA = 0.297$

Figure 7: Confirmatory Components of Educational Management Efficiency (EFF) Before the Format Adjustment.





From Figure 7, it was found that during the initial analysis, the conformity of the model with the observational data was not observed. The researchers made adjustments to the model based on the modification index and relevant theoretical concepts. The adjusted model showed a better fit with the observational data, as indicated by the statistical values used to assess the model's goodness of fit. These values include $\chi^2 = 0.16$, $df = 1$, $\chi^2/df = 0.16$, $P\text{-value} = 0.687$, $RMSEA = 0.000$, $AGFI = 1.000$, and $RMR = 0.0096$. The χ^2/df value was less than 2, and the RMSEA value was below 0.05, which is within an acceptable range. The analysis conducted using LISREL 8.54 software indicated that the model exhibited a good fit with the observational data, as illustrated in Figure 8.



$\chi^2=0.16$, $df=1$, $P\text{-value}=0.68701$, $RMSEA=0.000$

Figure 8: The Confirmatory Analysis Model of the Observed Variables After the Format Adjustment.

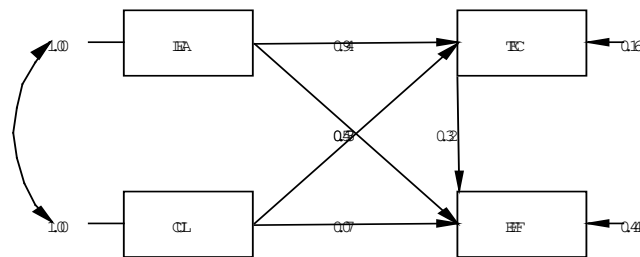
From the accompanying Figure 6, the overall results of the analysis indicated that the components of Educational Management Efficiency (EFF) could be effectively measured using the specified variables. There were five variables as specified. These variables, listed in descending order of their factor loadings, were Academic Service (Acad), Cultural and Thai Identity (Thai), Administrative Management (Admin), Student Outcomes (Oute), and Research and Innovation (Rese). The respective weights assigned to these components were 0.84, 0.84, 0.50, 0.28, and 0.27. Additionally, the pattern exhibits a good fit with the observational data, indicating a strong correlation.

2. To investigate the path of factors influencing the effectiveness of educational management in private higher education institutions in Thailand.

The results of the causal relationship model analysis of the pathway analysis regarding the impact of leadership characteristics (LEA), Information Technology (TEC), and Organizational Culture (CUL) on the educational management efficiency of private higher education institutions in Thailand were as follows:

From the path analysis, the researchers made adjustments to the model based on the modification index and relevant theoretical concepts. These adjustments resulted in a model that was consistent with the empirical data. The statistical values used to assess the model fit were as follows: chi-square $\chi^2 = 0.00$, $df = 0$, $\chi^2/df = 0.000$, $P\text{-value} = 1.00000$, $RMSEA = 0.000$, and χ^2/df value was less than 2, and the RMSEA value was lower than 0.05, indicating an acceptable fit. Analyzing the data using LISREL 8.54 software, it could be concluded that the model fitted well with the empirical data. Therefore, the results of this analysis support the main hypothesis that the pathways of factors influencing the educational management efficiency of private higher education institutions in Thailand were following the empirical data. The theory was consistent with the empirical data, and the model had a good fit. Additionally, the variables of leadership characteristics (LEA), information technology (TEC), and organizational culture (CUL), which were variables in the causal pathway model influencing the educational management efficiency of private higher education institutions in Thailand, account for 56% (56% ($R^2 = .56$)) of the variance, as depicted in Figure 7.





Chi-Square=0.00, df=1, P=1.0000, RMSEA=0.00

Figure 7: the pathway model of factors influencing the educational management efficiency of private higher education institutions in Thailand.

According to Figure 7, it was found that the factor of Transformational Leadership (LEA) had a direct impact on the educational management efficiency of private higher education institutions in Thailand, with a value of.43. The factor of Information Technology (TEC) also had a direct impact on the educational management efficiency, with a value of.32. On the other hand, the factor of Organizational Culture (CUL) had a negligible direct impact on the educational management efficiency, with a value of.03.

Table 1. Influence size of path analysis of factors influencing educational management effectiveness of private higher education institutions in Thailand.

Factor Variable	Transformational Leadership (LEA)			Cultural Organization (CUL)			Information Technology (TEC)		
	DE	IE	TE	DE	IE	TE	DE	IE	TE
Cultural Organization (CUL)	-	-	-	-	-	-	-	-	-
Information Technology (TEC)	0.94*	-	0.94*	0.57*	-	0.57*	-	-	-
Financial Management (EFF)	0.43*	0.87*	1.30*	0.07*	0.21*	0.28*	0.32*	-	0.32*

From Table 1, it was observed that when considering the magnitude of influence of the paths of factors affecting the educational management efficiency of private higher education institutions in Thailand, based on Figure 7, the standardized path coefficients for the variables were as follows: The strongest overall influence was from the Transformational Leadership (LEA) factor (1.30), followed by the Information Technology (TEC)(0.32), and the Organizational Culture (CUL) (0.28), respectively.

The direct effect sizes influencing the educational management efficiency of private higher education institutions in Thailand were found to be significant at the.05 level. The details were as follows: 1) Transformational Leadership (LEA) had a direct positive influence on the educational management efficiency of private higher education institutions in Thailand, with a standardized path coefficient of 0.43. 2) Organizational Culture (CUL) had a direct positive influence on the educational management efficiency of private higher education institutions in Thailand, with a standardized path coefficient of 0.07. 3) Information Technology (TEC) had a direct positive influence on the educational





management efficiency of private higher education institutions in Thailand, with a standardized path coefficient of 0.32.

For indirect effects, it was found that the Transformational Leadership (LEA) factor has indirect effects on the educational management efficiency of private higher education institutions in Thailand through the Information Technology (TEC) variable. The standardized path coefficient for this indirect effect is calculated as $(0.94 \times 0.32) + 0.57 = 0.87$

For indirect effects, it was found that the Organizational Culture (CUL) factor had indirect effects on the educational management efficiency of private higher education institutions in Thailand through the Information Technology (TEC) variable. The standardized path coefficient for this indirect effect was calculated as $(0.43 \times 0.32) + 0.07 = 0.21$

Discussion

1. To study the indicators that influenced the effectiveness of educational management in private higher education institutions in Thailand.

1.1 Transformational Leadership (LEA) could be effectively measured using four specified variables, ranked in order of factor loading from highest to lowest: Intellectual stimulation (IS), Individual consideration (IC), Inspirational motivation (IM), and Idealized influence (II), with corresponding factor loadings of 0.55, 0.52, 0.51, and 0.44. The model was consistent with empirical data and aligned with the research work of Thongpanchang, P. (2011), who studied the structural relationship patterns of Transformational Leadership among university presidents affecting institutional effectiveness at Rajabhat Universities. It was also in line with the research by Rottanit, S. (2015), who examined the analysis of Transformational Leadership components among university administrators affecting university performance. Additionally, it corresponds with the research conducted by Cheepprasert, V. (2012), who studied causal factors influencing the effectiveness of private higher education institutions' leadership. Lastly, it aligned with the research by Khianchanat, T. (2016), who investigated causal factors affecting the effectiveness of private higher education institutions.

1.2 The organizational culture could be effectively measured using three specified variables, ranked in order of factor loading from highest to lowest: Mission (Miss), Values (Valu), and Adjustment (Adju), with corresponding factor loadings of 0.45, 0.45, and 0.24, respectively. The model was consistent with empirical data and aligned with the research work of Noijanchong, N. (2007), who studied the relationship between organizational culture and managerial effectiveness in higher education. It was also in line with the research by Khianchanat, T. (2016), who investigated causal factors influencing the effectiveness of private higher education institutions.

1.3 The components of Information Technology (IT) could be effectively measured using six specified variables, ranked in order of factor loading from highest to lowest: Finance (Mone), Development of Media and Equipment (Equi), Management of Teaching and Learning (Stud), Data Services (Sdat), Management and Administration (Mana), and Human Resources (HR), with corresponding factor loadings of 0.44, 0.39, 0.34, and 0.33, respectively. The model was consistent with empirical data and aligned with the research work of Khianchanat, T. (2016), who studied the causal factors influencing the effectiveness of private higher education institutions. It was also in line with the research by Sing, E. (1999), who investigated decision-making in the use of information systems in colleges, and the research. Additionally, it aligned with the research by Holt and Thompson (2004), who studied the management of information technology in open systems and distance education at the Massachusetts Institute of Technology (MIT) in 1990. The findings indicated that in higher education, there was a need for adequate budgetary components, up-to-date technology, well-trained personnel, and consideration of competitive factors to enhance the efficiency of technology-supported learning and teaching processes.

2. To confirm the pathway model of factors influencing the effectiveness of educational management in private higher education institutions in Thailand, a Path Analysis was conducted.





From the analysis of the pathway factors (Path analysis), the researchers made adjustments to the model based on the fit indices and relevant theoretical concepts. The results of the model adjustments indicated that the model was consistent with the empirical data, as assessed by the statistical values used to test the model's goodness-of-fit. The values obtained were as follows: $\chi^2 = 0.00$, $df = 0$, $\chi^2/df = 0.000$, $P\text{-value} = 1.00000$, $RMSEA = 0.000$, the χ^2/df value was less than 2, and the RMSEA index value was lower than 0.05, which was within an acceptable range. Therefore, the analyzed model using LISREL 8.54 software was considered to be a good fit with the empirical data. Thus, the results of this analysis accepted the main hypothesis that the pathway of factors influencing the effectiveness of educational management in private higher education institutions in Thailand, according to the theory, was consistent with the empirical data or had a good fit. Additionally, the variables of Leadership for Change (LEA), Information Technology (TEC), and Organizational Culture (CUL), which were variables in the model, together predict 56% of the pathway's influence on the effectiveness of educational management in private higher education institutions in Thailand ($R^2 = .56$). This finding aligned with the research work of Kongchuay, R., (2011), who studied causal factors influencing the effectiveness of educational management at the university level in the Rajamangala University of Technology Phra Nakhon, and with the research by Siriwichai, C., (2012), who studied causal factors influencing the effectiveness of leadership qualities of school administrators that affect the effectiveness of private nursery schools under the supervision of the Private Education Commission. Furthermore, the finding was in line with the research by Pannirand, B. (2007), who studied the influence of organizational characteristics, management policies and practices, working environment, work motivation, job satisfaction, and organizational commitment on the effectiveness of Suan Sunandha Rajabhat University. It also aligned with the research work of Plaikaew, S. (2014), who studied the organizational culture and its influence on the work performance of personnel in the Royal Thai Air Force, and with the research by Thirathanachaiyakul, K. (2015), who studied causal factors influencing the work performance of faculty members in private universities in Thailand. Additionally, it corresponded with the research conducted by Thongphaeng, T. (2006), who studied factors influencing the effectiveness of Burapha University.

Suggestions:

Suggestions for applying the research results

1. The management should establish policies for the private higher education institution to promote effective performance in all five areas and contribute to the overall development of society and the nation in various aspects.
2. The private higher education institution should implement a policy that considers promotion to higher positions, requiring individuals to undergo training courses related to management development and operational practices in private higher education institutions to enhance efficiency and achieve objectives.
3. The management should establish policies to improve and develop management practices in the private higher education institution, aiming for efficiency and effectiveness in achieving objectives.
4. Private universities can utilize research findings on factors that influence the effectiveness of operations in private higher education institutions to guide future management practices in the sector.

Suggestions for future research:

Investigate causal factors that influence the effectiveness of management in private higher education institutions in Thailand.

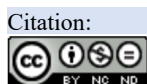




Reference

- Alvesson, M., & Kärreman, D., (2000). Taking the Linguistic Turn in Organizational Research: Challenges, Responses, Consequences. *The Journal of Applied Behavioral Science*. 36 (2), <https://doi.org/10.1177/0021886300362002>
- Anannavi, P., (2008). *Factors influencing the effectiveness of affiliated primary schools under the Office of the National Basic Education Commission*. Doctoral dissertation, Doctor of Philosophy Program in Educational Administration, Graduate School, Burapha University.
- Bass, B.M., & B.J. Avolio. (1994). *Transformational Leadership Development*. Pola Alto, California: Consulting Psychologists Press.
- Bass, B. M. (1985). *Leadership and Performance Beyond Expectations*. Free Press; Collier Macmillan.
- Boonchaluy, P., (2013). *Organizational Culture Learning Organization and the Organizational Effectiveness of the Court of Justice: A Model Equation Structure*. Thesis Doctor of Philosophy, National Institute of Development Administration, Bangkok.
- Cheepprasert, V., (2012). *Leadership Causal Factors Affecting Private Higher Education Institutes Effectiveness*. Doctoral Dissertation, Graduate School: Rajabhat Valaialongkorn University under Royal Patronage. 169 -182.
- Denison, D. R. (1990). *Corporate culture and organizational effectiveness*. New York: Wiley.
- Dessler, G. (1998). *Management: Leading people and organizations in the 21st edition*. Century. New Jersey: Prentice-Hall International.
- Harrison, R. (1993). *Diagnosing Organizational Culture: Trainer's Manual*. Amsterdam: Pfeiffer & Company.
- Hoy, W.K., & Miskel, C.G. (1999). *Educational administration: theory, research and practice*. 6th edition, New York: McGraw-Hill.
- Hoy, W.K., & Miskel, C.G. (2001). *Educational administration: Theory-research-practice*. 6th edition. Singapore: McGraw-Hill.
- Khianchanat, T., (2016). Causal factors influencing the effectiveness of private higher education institutions. *Journal of MCU Social Sciences and Humanities*, 6(2), 227-240.
- Kongchuay, R., (2011). *Linear structural relationship model of causal factors influencing the effectiveness of management in higher education institutions of Rajamangala University of Technology in the southern region*. Doctoral dissertation, Doctor of Philosophy Program in Educational Administration, Graduate School, Songkhla Rajabhat University.
- Kosiyanan, P., (2011). *The Development of an Effective Management Model for Nursing Colleges under the Ministry of Public Health*. Thesis Doctor of Philosophy Education Administration Sripatum University
- Likert, R., (1932). A Technique for Measurement of Attitude. *Achieves of Psychology*. 140,1-55.
- Mahasinphaisan, T., & Sansawang, S., (2010). *The causal relationship between corporate leadership culture Knowledge Management and Performance of Private Higher Education Institutions*. Bangkok: Kasetsart University.
- Manning, M., & Haddock, P., (1992). *Leadership Skills for Women*. London: Kogan Page.
- Ministry of Education (2001). *English Curriculum Standards for Compulsory Education*. Beijing Normal University Publishing Group, Beijing.
- Mintzberg, H., (1979). *The structuring of organizations*. Englewood Cliffs, N.J.: Prentice Hall.
- Noijanachong, N., (2007). *Organizational Culture and Higher Education Administration Effectiveness*. Doctoral Dissertation, Graduate School: Silpakorn University.
- Office of the Education Council Secretariat. (2017). *National Education Plan 2017-2036*. Prikwarn Graphic
- Office of the Higher Education Commission. (2006). *Higher Education Standards and Related Standards*. Bangkok: Office of the Higher Education Commission.
- Office of the Higher Education Commission. (2015). *Higher Education Internal Quality Assurance Manual 2014*. Bangkok: Office of the Higher Education Commission.

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- Office of the Permanent Secretary, Ministry of Education. (2021). *The total number of personnel Classified by institution name, institution type, and the highest level of education*. Retrieved at https://data.go.th/tr/dataset/univ_stf_12_021.
- Ouchi, W.G.(1991).*Theory Z: How American business can meet the Japanese challenge*. 9th edition Reading, MA. Addison-Wesley.
- Pannirand, B., (2007). *Influence of Organizational Characteristics, Operational and Administration Policy, Working Environment in Organizations, Working Motif, Working Satisfaction, Organizational Obligation towards Effectiveness of Rajabhat Suansunanta University*. Doctoral Dissertation, Graduate School: Srinakarinvirote University
- Plaikaew, S., (2014). Organizational culture, organizational commitment that affects the Performance effectiveness of personnel in the Royal Thai Air Force. 2014 *National Academic Conference (National Research Conference 2014) April 3, 2014* at Rangsit University:418 - 425.
- Rottanit, S., (2015). Studied the analysis of transformational leadership of administrators at Rajabhat University. Affecting the effectiveness of university administration. *Veridian E-Journal, Silpakorn University*. 8(1), 650-663.
- Royal Thai Government Gazette. (2011). *Volume 128, Special Issue 152*, December 14, 2011.
- Schein, E. H. (1992). *Organizational culture and leadership*. 2nd edition. San Francisco: Jossey-Bass.
- Sing, E. (1999). *Implementation and Management of The Information of Chicago*. Abstracts Internation: University of Louisville.
- Sirivisitkul, S., (2016). *A Causal Factor Model Influencing the Effectiveness of Research Administration in Private Higher Education Institutions in Thailand*. Bangkok: Graduate School North Bangkok University.
- Siriwichai, C., (2012). *Causal Factors Relating to Administrator Leadership Effectiveness Affecting Kindergarten Effectiveness under the Private Education Commission*. Doctoral Dissertation, Graduate School: Rajabhat Valayaalongkorn under royal patronage.
- Thirathanachaiyakul, K.,(2015). Casual Factor Study Influenced to Organizational Commitment of Generation of Y Personnel Working in Energy Business and Public Utility in Thailand. *Journal of Business Review*. 12(2), 16-22.
- Thongpanchang, P., (2011) studied the causal relationship model, leadership, and change of the rector that affects the effectiveness of Rajabhat University. *Journal of Educational Administration. Burapha University*. 5(1), 76-88.
- Thongphaeng, T., (2006). *Factors influencing the effectiveness of Burapha University*. Chonburi: Burapha University.
- Tichy, N.M. & Devanna, M.A., (1986). *The Transformational Leader*. New York: John Wiley & Sons.
- Wanichbuncha, K., (2018). *Using SPSS for Windows to analyze data*. Bangkok: Center Chulalongkorn University books.
- Yukl, G. (1994). *Leadership in Organizations*. 3rd Edition, Prentice Hall. Upper Saddle River.



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