

INNOVATIVE FINANCIAL MANAGEMENT MODEL FOR PRIVATE HIGHER EDUCATION INSTITUTIONS ACCORDING TO THE LONG-TERM 20-YEAR HIGHER EDUCATION PLAN

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Abstract

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The purpose of this study is to 1) analyse innovative management elements for private higher education institutions within the context of the *Long-Term 20-Year Higher Education Plan (2018-2037)* (Office of the Higher Education Commission [OHEC], 2017) and 2) suggest new financial management models for private higher education institutions. The findings indicated that the management of private higher education institutions entailed five critical components: 1) general management, 2) academic management, 3) research management, 4) financial government, and 5) human resource management. Financial management, on the other hand, is at the core of administration. According to systemic management theory, the financial management model called the “7FM model” was designed. It is divided into four major components based on system theory and seven sub-components: input (FM1 — modern management and FM2 — revenue generation and customer management); process (FM3 — working capital management, FM4 — budget management, and FM5 — financial management and control); outcome (FM6 — a focus on results and creating value in finance, budgeting, and markets); and feedback (FM7 — report on the results of the development of innovative treasury management systems). The study argues that private higher education institutions should construct a financial organisational structure and strategy, reform and improve their financial system and revenue models, increase their competitiveness, and expand financial management research and training.

Keywords: Innovative Financial Management Model, Long-Term 20-Year Higher Education Plan

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1. INTRODUCTION

According to the *Long-Term 20-Year Higher Education Plan (2018-2037)* (Office of the Higher Education Commission [OHEC], 2017), higher education institutions need to adjust their educational and management models to keep up with the changing trends in order to move towards University 4.0. Therefore, the establishment of the principal goals of the Long-Term 20-Year Higher Education Plan (2018-2037) (OHEC, 2017) reflects the intention to make the higher education system an important mechanism for development through professional management, good governance, and cost management. Research and innovation drive management, good governance, and financial security in the higher education system. In particular, the issue of changes in financial stability in the higher education system is an important factor. Twenty years from now, the higher education system, which has been continuously expanding, will experience a drop in student numbers due to demographic changes that directly affect the income and workload of higher education institutions. This causes private higher education institutions to try to adapt to various fields. The source of income of a higher education institution, especially a private institution of higher education, does not depend solely on the tuition fees charged to the students, as it is not allocated to the subsidy budget. The financial stability of a higher education system involves four key factors: allocation of funds, participation in student costs, diversity of income sources, and efficiency in education. In this regard, the Long-Term 20-Year Higher Education Plan (2018-2037) sets out a transformation strategy to create financial stability in the higher education system by reforming the financial system for higher education, improving the budget allocation system for higher education, and promoting the diversity of income sources of higher education institutions (OHEC, 2017).

Regarding the dimensions of educational organisation management, the creation of management innovations is imperative so that all types of educational institutions apply to enhance the organisation's capacity and efficiency, thereby reducing risks and costs. However, financial management is important to the financial stability of private higher education institutions (Mosh, 2018). The importance of financial management for higher education institutions: finance and budget are among the most important aspects of higher education institutions, whether the source of funds for higher education institutions is from the state budget (for public higher education institutions) or the institution's income, such as credits, fees, various student tuition fees, research income, and academic administration property rent (OHEC, 2011). The administrators of higher education institutions must have a money utilisation plan that effectively reflects the need for money for the implementation of the institution's annual strategic and operational plans (Bilkisu, 2018). Higher education institutions must have a system to procure and allocate funds effectively. There must be a strategic financial plan, which is a plan for financing from various funding sources that can allow the execution of the institution's strategic plan. This is consistent with the findings of Rakmai's (2019) study, which

indicated that effective financial management is a critical factor in ensuring the financial stability of private higher education institutions, as the liquidation or revocation of private higher education institutions' licences has occurred in all previous eras due to financial problems caused by management inefficiency.

In the past few years, some private higher education institutions have closed, and some have sold their businesses to foreigners. Kachintorn (2019) stated that universities are in crisis with fewer children being born. This was the main factor in the decline in student numbers at 10-15% of public universities and private universities. Large private universities saw a 20-30% drop in student numbers, and a small group of private universities saw a drop of as much as 50-70%. It is worrying how universities will survive. It is time for higher education institutions to be alert to these changing trends as well as new trends in the 21st-century world. Most importantly, it is undeniable that the COVID-19 outbreak has affected human and social activities in many countries around the world, whether it is running a small business, employment in the economy, people's livelihoods in society, or providing education to the point that the government announced the temporary closure of schools throughout Thailand. The closure covered public and private higher education institutions, tutoring institutions, and international schools to control the spread of the COVID-19 virus (Chatmarathong, 2020). It has caused higher education institutions both abroad and in Thailand to be affected; the impact on financial stability especially aggravated private higher education institutions. Therefore, private institutions of higher education must adapt to be able to carry out their missions in the COVID-19 pandemic situation (Hanover Research, 2020). All types of private higher education institutions must develop innovative forms of educational administration to be able to adapt to the inevitable impacts and trends of change.

Since the COVID-19 crisis impacted many industries globally, including education, many private universities and education institutes have encountered several financial issues, as these institutions lack government funding and must generate income in order to continue operating. As a result, an innovative finance model should be developed to lead such schools toward resolving such issues. The purpose of this research is to 1) analyse innovative management elements for private higher education institutions in the context of the Long-Term 20-Year Higher Education Plan (2018-2037) (OHEC, 2017) and 2) develop innovative financial management models for private higher education institutions.

The remainder of this paper is structured as follows. Section 2 is a review of the relevant studies. Section 3 discusses the methodology of the study, which includes sample selection, study tools, data gathering, and data analysis. Section 4 summarizes the major results. Section 5 discusses and interprets the findings. Section 6 is the conclusion, which includes a review of the major findings, their implications, the limitations of research, and perspectives for future research.

2. LITERATURE REVIEW

The researcher has studied documents, concepts, theories, and related research. This model points out the crucial role of a higher education institution as a “change agent” or social change-driven organisation that must carry out the roles and responsibilities of being a higher education institution in order to lead the country towards a more prosperous society according to the main mission of higher education institutions. As a result, higher education institutions have a wide range of activities involving a large number of personnel and budgets. Higher education work is unique, diverse, and based on the context and history of each higher education institution. The administration of higher education institutions is different from general corporate administration or educational establishments managed at other levels, even though institutions of higher education are diversified in accordance with the objectives of establishment and development or roles and duties in response to the development of the country’s manpower. But the administration of higher education institutions will have important characteristics such as general management, academic administration, research administration, financial management, and human resource management.

The Long-Term 20-Year Higher Education Plan 2018-2037 (OHEC, 2017) has set the overall direction for higher education institutions. The administration will use it as a common principle in planning for higher education to meet the needs of the country’s development in order for higher education institutions to be “future changers” as the key players in preparing Thai people for the 21st century. The plan can be a mechanism driving structural reforms into a value-oriented economy and is an important cog in the transition to an innovation-based country. The focus of the Long-Term 20-Year Higher Education Plan 2018-2037 (OHEC, 2017) is to define the mission of higher education that is unique and a distinctive point of expertise for each higher education institution, both public and private, as a driving force for the country’s development. It is to focus on productivity and the quality and efficiency of higher education outcomes according to internationally recognised standards, as well as reforming higher education in a complete and balanced manner to maximise the effectiveness of policy mechanisms, support, oversight, and impact assessment of the higher education system (return on investment). The Long-Term 20-Year Higher Education Plan 2018-2037 (OHEC, 2017) outlines the blueprint for changes framework, which is the reorganisation of the new higher education system from the blueprint for changes. The Long-Term 20-Year Higher Education Plan 2018-2037 (OHEC, 2017) has identified issues that are the outcomes of the higher education system and the issues in the higher education system.

The results of the higher education system in three areas:

- 1) accessibility and equity;
- 2) graduate competencies;
- 3) research innovation and technology transfer.

The issues of the higher education-drive system in five areas:

- 1) the concentration of talents;
- 2) management and good governances;
- 3) financial security;
- 4) public-private community partnership;
- 5) digital higher education.

Part of the transformation strategy must aim to create change leaders and develop innovations in the administration and management of higher education institutions in accordance with the management of the digital era. It should improve the management system to be efficient and effective and to have a governance system that is responsible for all aspects of the university’s performance, as well as risk management and financial strengthening with transparency of the management system and effective monitoring and evaluation systems.

Robbins, Bergman, Stagg, and Coulter (2006) point out that system components, based on systematic education management theory from 1970 to the present, have components that are related to each other. The components are a combination of mechanisms to achieve a defined goal:

1. *Input* refers to management resources in all aspects, including man, money, materials, management, and motivations that are the beginning and engine in the operation of the organisation.

2. *Process* refers to the introduction of all types of factors or administrative resources to work together in a systematic way because in the process there will be many subsystems integrated into the system. It encompasses administration, management, supervision, measurement and evaluation, and monitoring. All factors go into the process effectively.

3. *Product* or *output* refers to the result of the process of implementing factors to achieve a defined goal.

4. *Outcome* or *impact* refers to the aftermath of an outcome. It might be expected or unexpected.

5. *Feedback* refers to how to bring about results. It is called taking productivity or evaluation into account and improving the system to be more efficient.

3. RESEARCH METHODOLOGY

A focus group discussion, a qualitative approach, is a tool used in this study. The following steps were followed to achieve the study’s aims.

Section 1: The analysis of the components of innovative educational management for private higher education institutions according to the Long-Term 20-Year Higher Education Plan (2018-2037) (OHEC, 2017).

First, the study framework of this section was constructed based on various studies (National Innovation Agency, 2006; Harkema, 2003; Schilling, 2008; Shyu, Chi, Chiu, & Cheng, 2006; Euaajirapongpun, 2009; Phuangsomchit, 2019). Following an analysis of relevant studies, the following five major components of private higher education institution management were identified: 1) general management, 2) academic management, 3) research management, 4) financial government, and 5) human resource management. Then these components were assessed by five experts in higher education management using a focus group discussion which was conducted via Zoom Video Communications. These experts

were selected by purposive sampling based on their knowledge, experience, and job position, and they can be categorised into three groups as follows:

Group 1: Three executives from three famous private universities in Bangkok, Thailand.

Group 2: One academic who currently teaches in educational administration innovation science.

Group 3: One policymaker from the Ministry of Higher Education, Science, Research and Innovation.

After the discussion, only the most significant element was chosen to develop a management model for private higher education institutions, which has to be in accordance with the Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017).

Three executives were chosen from three well-known private universities in Bangkok, Thailand, because these institutions have a complex administrative and management ecosystem with a variety of problems and can thus serve as representatives for other educational institutions throughout the country. However, for smaller educational institutions located in rural areas, such concerns may differ from those of larger universities located in metropolitan areas, which may be one of the study's limitations. An academic who teaches educational administration innovation science at the moment can ensure current perspectives on educational administration and management because he or she is required to update knowledge for teaching. However, this expert may have biased attitudes, which cannot be balanced or eliminated because this sample group contains only one expert. As a result, additional samples must be picked to provide more precise findings. A policymaker from the Ministry of Higher Education, Science, Research, and Innovation may give a broad perspective on higher educational institution administration and management, as this expert is a member of the national policymaking process. However, an expert may not have a lot of specific experience because he or she focuses on the whole educational system instead of just one thing.

Section 2: The development of innovative financial management models for private higher education institutions according to the Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017). The findings of Section 1 guided the examination of Section 2, which demonstrated that financial management is a critical component of innovative educational management in higher education. As a result, pertinent literature and research were analysed in order to develop an innovative financial management model for private higher education institutions. After document analysis and interpretation, the model was constructed by integrating financial management sub-components with system theory. Following that, the quality of this model draught was confirmed by seven qualified financial professionals through Zoom Video Communications in a focus group discussion. Purposive sampling was used to choose these experts based on their financial expertise,

experience, and employment position. The experts who took part in the debate and provided feedback on the draught of the innovative financial management model for private higher education institutions fall into three categories:

Group 1: Four executives who are responsible for the financial administration of famous private higher education institutions in Bangkok, Thailand.

Group 2: Two eligible individuals from commercial or state enterprises who have held the role of CFO or are responsible for the organization's financial management.

Group 3: One competent individual with expertise and understanding in the auditing and financial management of private higher education institutions.

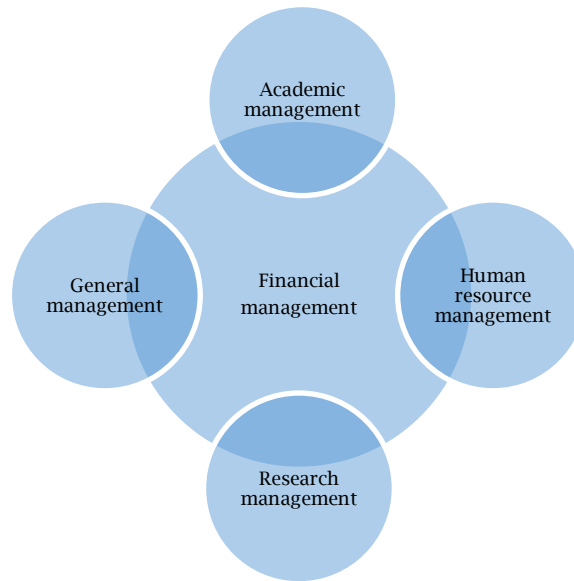
Following the discussion, a model draught was developed to achieve the objectives of this research.

4. RESULTS

4.1. The analysis of the components of innovative educational management for private higher education institutions

According to five experts' perspectives on the importance of each element of innovative educational management for higher education, five components (general management, academic administration, research management, financial management, and human resource management) are all critical and are inextricably linked through the Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017). However, financial management is central to the administration of private higher education institutions, as money is the key motivator in all aspects of the university and higher education institution administration. All experts agreed that finance is a critical factor in determining the survival of private higher education institutions, as dissolution or revocation of licenses for private higher education institutions has historically been a result of financial difficulties caused by inefficient management, particularly in today's highly competitive environment, the impact of COVID-19, and future crises. Financial management is therefore critical and concerning, as it affects the management of numerous aspects. Private schools of higher education must rely on themselves and be able to manage their budgets in order to thrive. Financial difficulties also have an impact on the quality of many academic activities, such as hiring and developing instructors, as well as on the overall quality of education. As a result, a model was built to explain the connection or interlocking mechanism that unites all five elements, as seen in Figure 1. These five elements are comprehensive and balanced in their application to the setting of private higher education institutions throughout the transition to higher education reform, and they correspond to all areas of the Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017).

Figure 1. The relationship of the five elements of innovation in educational management for higher education



4.2. The development of innovative financial management models for private higher education institutions

Given that financial management is the most critical component of innovative educational management in higher education, based on the previous section’s findings, seven sub-elements of financial management were analysed using the system theory framework,

which includes input, process, result, output, and feedback. As a consequence, an innovative financial management model for private higher education institutions was developed in accordance with the Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017). This model is referred to as the 7FM model, and its specifications are shown in Table 1.

Table 1. 7FM model

<i>System elements</i>	<i>Sub-elements of financial management</i>
Input	FM1 — Modern management
	FM2 — Revenue generation and customer and stakeholders management to generate income for private higher education institutions
Process	FM3 — Working capital management for the development of private higher education institutions
	FM4 — Budget management and control according to short-term and long-term financial plans
	FM5 — Systematic preparation of financial statements and financial reports
Result	FM6 — A focus on results and creating value in finance, budget, and markets
Feedback	FM7 — Report on the results of the development of innovative treasury management systems

Seven financial professionals agreed with the model’s outputs following an evaluation of the model’s quality via a focus group discussion. This is because the model has system features consistent with systematic education management theory, in which components are interdependent and influence one another. The components are a collection of interconnected mechanisms. If one component of the system is modified, this will have an influence on the alteration of another component, as cause and effect dictate. It is a proven scientific idea that entails considering the entire system rather than focusing just on one component. Additionally, it adds a new dimension to money management in private higher education institutions, which will result in future modifications. This model reflects the participation of all sectors in the joint administration of higher education in response to the Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017). The many components of the 7FM model are interdependent and influence one

another. The components might be merged or act as pivotal gears in the transformation of money management to accomplish a certain aim.

5. DISCUSSION

Five components are identified in this study as crucial to the Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017) and are inextricably linked: general management, academic management, research management, financial management, and human resource management. As a result, these five components should be addressed in parallel while developing educational management strategies for higher education. However, financial management is the most crucial component of educational management in higher education, as money is the primary motivator in all dimensions of the university and higher education institution administration. With the advent of technological applications, compliance with new regulations, and

the pressures of the global economy, the educational sector has seen a dramatic expansion in school administration responsibilities (Kiwango, Mselle, & Mtahabwa, 2018; Shkurina, 2018). Such a requirement, which also benefits the educational sector, places a premium on the efficient management of financial resources necessary to meet school commitments (Hanif, Buzdar, & Mohsin, 2018). Numerous studies have demonstrated that an educational institution's success or failure in terms of providing high-quality education is strongly dependent on the appropriate management of financial resources that results in sustainable development (OECD, 2017; Bilkisu, 2018). Moreover, maintaining effective, efficient, equitable, responsive, relevant, reflexive, and sustainable financial management would finally assure the quality of teaching and learning processes (Laurie, Nonoyama-Tarumi, McKeown & Hopkins, 2016; Mosha, 2018).

Since financial management is the most critical factor for higher education management among private educational institutions, it was used together with the system theory to create an innovative financial management model called the 7FM model. This model consists of four main elements based on the system theory and seven sub-elements of financial management. The first element of the model is the input which includes all resources for school administration and management, such as man, money, materials, management, and motivations. In this model, an input consists of FM1 (modern management) and FM2 (revenue generation and customer and stakeholders management). Educational institutes require financial resources to meet a variety of demands. This means that the success of any school plan is strongly dependent on effective resource management, which in turn improves overall school performance (Bilkisu, 2018). Previously, the majority of private higher education institutions have derived revenue from tuition and related fees; however, during the COVID-19 crisis, the number of students enrolled in private institutions decreased significantly, resulting in a decline in income for many private universities (Hanover Research, 2020). As a result, such schools have sought alternative income streams, such as engaging non-traditional students and generating new revenue streams through job training and enrichment programmes (Alstete, 2020). This demonstrates that income generation is a critical component of financial management for postsecondary educational institutions.

The model's second component is the process, which comprises the systematic integration of numerous variables or administrative resources. FM3 (working capital management for educational institution growth), FM4 (budget management and control in accordance with short- and long-term financial goals), and FM5 (financial management and control in accordance with short- and long-term financial goals) are all processes included in this model. The major objective of working capital management is to enable a business to maintain an effective cash flow to pay both short-term operational expenditures and short-term obligations. A comprehensive working capital management framework enables entrepreneurs to successfully meet their financial commitments while growing their revenues (Gamage & Sachitra, 2021). Budgeting

is a continuous process that involves forecasting, analysing, and monitoring actual revenue and spending against current operating budgets and financial projections for future years (Amir, 2020). Budget forecasting, development, and management are critical skills for all administrators in higher education (Barr & McClellan, 2018).

The third component of the model is the outcome or the mechanism by which results are achieved. FM6 is an outcome of this model (a focus on results and creating value in finance, budget, and markets). This element can create and enhance competitiveness among private educational institutions. With higher education's current expansion and growing demand, it is vital to meet students' expectations. Being well-known will assist the school in attracting the best consumers (students) and employees. According to INOMICS (2015), the goal is to create value for students by first understanding their expectations and the factors that impact their decision to enrol in a programme, and then reading the market and choosing the best effective strategy to meet those expectations.

The final component of the model is feedback, which contributes to increased productivity and system efficiency. FM7 is feedback in this model (report on the results of the development of innovative treasury management systems). Having solid evidence, such as reports or statistics, may allow the administration and management to form a clear image. This enables administrators and other interested parties, such as investors, to easily assess a school's financial history and estimate future financial patterns.

6. CONCLUSION

According to the findings, general management, academic management, research management, financial management, and human resource management are intimately connected and critical for higher education administration and management under the Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017); however, financial management is the most critical. The 7FM model was created to serve as a guide for higher education administration and management, particularly for private educational institutions. This model is composed of four major components based on system theory and seven sub-components dealing with financial management. On the basis of the findings, the following recommendations were made.

First, private higher education institutions should focus on establishing a financial organisational structure and submitting it for approval to the Council of Higher Education Institutions, as well as formulating a financial strategic plan that is consistent with the institution's strategic plan and establishing a management plan. The risks to the institution in both the short and long term regarding the management structure (organisation chart) of the organisation must be clearly defined in terms of structure and roles, which are responsible for the financial management of private higher education institutions. Next, a rector and vice chancellor for finance or otherwise named administrators responsible for finances and budgets should focus on reforming and improving

the financial system and earning models, together with other executives, to expand the system of providing various educational services to obtain more sources of income. They should not generate income from teaching alone, but from sources such as research revenue, academic service income, donation-based income, research subsidised income, and monetisation. Moreover, private universities should focus on the results and creation of financial, budget, and market value as measured or calculated from the current financial information databases of private higher education institutions, which can provide information to executives to make decisions faster and more efficiently. There are results, or metrics, for the success of financial, budget, and market actions from constituent factors and groups. The three-dimensional constituent factors are 1) financial result, 2) budgeting result, and 3) customer and market result. Finally, private institutions of higher education should encourage executives at all levels of the institution to conduct research or training to develop knowledge, understanding, and attitudes towards financial management and to adopt innovative treasury

management models. The Long-Term 20-Year Higher Education Plan (2018–2037) (OHEC, 2017) is to expand the results together to achieve the goals of each institution. In particular, innovations in management with digital technology and administrative innovation will create opportunities and approaches to develop innovative organisational management so that private higher education institutions can respond more effectively to the changing context.

This innovative model may be used as a guideline for private educational institutions' financial management in order to help them overcome financial crises or develop financial management strategies. The study's one drawback is the small sample size. Due to the qualitative nature of this study, which included a focus group discussion, and the fact that some sample groups consisted of only one participant, prejudiced viewpoints may have arisen regardless of the samples' skills, experience, and work position. As a result, it is advised that future research use a larger sample size to avoid this bias.

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