

## **An integrated performance-based budgeting model for Thai higher education**

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### **Abstract**

This research mainly aims to develop an administrative model of performance-based budgeting for autonomous state universities. The sample population in this study covers 4 representatives of autonomous state universities from 4 regions of Thailand, where the performance-based budgeting system has been fully practiced. The research informants consist of administrators and staff in charge of planning, financial affairs and budgeting. The research techniques applied in this study are surveys and a study of 4 selected cases. The research instruments are document analysis, a questionnaire and in-depth interviews. The key research findings reveal that the proper administrative model of performance-based budgeting for institutions of higher education is an “integrated model” of budgeting which consists of 4 principal components: 1) a strategic plan; 2) a budgeting system to be operated based on 7 hurdles; 3) the structure of an integrated approach of budget management and 4) the conditions for implementation of the proposed model and the supporting factors.

**Keywords:** An administrative model of performance-based budgeting, 7 hurdles of standards for financial management, the principles of good governance, institutions of higher education.

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## Introduction

Owing to the Thai government's reform of the bureaucratic system since 1980 which has concentrated on agility, modernity, transparency and accountability, there has been a shift of paradigm from the previous administrative concept that focussed on input and regulations to "result-based management (RBM)," with the emphasis on the efficiency and effectiveness of an administrative model that is consistent with the strategic plans, objectives and goals of an organization. At present, many countries apply RBM, integrating it with the transformation of the budgeting system into a "performance-based budgeting system: PBBS," focusing on the allocation of resources to each institution based on its ability to attain its objectives, goals and outcome, which are consistent with those of the government/the central body (Gaither et al., 1994).

As cited in the "Guidelines for the Administration of a Performance-Based Budgeting System in accordance with a Standard of Financial Management" issued by the Ministry of Education (2002), unlike the traditional line-item budgeting system, a performance-based budgeting system places emphasis on output and outcome obtained from the operation on the tasks of an institution. The mentioned output/outcome has to respond to the organization's objectives and mission, while being consistent with government policy and goals. In accordance with what has been indicated by Geuna and Martin (2003) as well as Frolich and Klitkou (2006), it concentrates on the systematic application of financial incentives to improve organizational behavior, while empowering administrators with the authority to make decisions and to be flexible in the use of budget. Also, it focuses on efficiency, with the emphasis on maximizing the number of products/outputs while minimizing resources and effectiveness, focusing on the attainability of objectives and goals of a unit/an organization, that are consistent with government policy.

As a result of the economic crisis in East Asia which seriously hit Thailand in 1997, Thai higher education policy has moved towards its most drastic reform in nearly a century. To render universities more flexible in terms of operation at a time of rapid expansion in higher education when the government's supporting funds have been limited, an innovative way of university administration, known as "being autonomous" (partly freed from the state control in its financial and administrative autonomy) under state supervision, has been introduced. Apart from being autonomous, institutions of higher education need to be more accountable for their performance. In accordance with what was implied by Melkers (2003), universities, as non-profit organizations, need to be concerned with monitoring the quality of their training and research outputs, the relevance of their programs and their use of public subsidies. This requires a performance-based management system, together with a performance-related allocation mechanism, to foster the efficient use of public resources.

## Statement of the problem

The performance-based budgeting system was introduced into Thai higher education in 2003 and it has been put into practice since 2004. This budgeting system is operated under the concept of good governance consisting of transparency, justice, participation of stakeholders, efficiency and effectiveness, accountability, autonomy, plan-target-regulation settings, decentralization of authority, evaluation with a set of performance indicators relating to institutional goals and social responsiveness. Many universities, in the course of becoming autonomous, have tried to implement the performance-based management system in their institutions in order to upgrade the potential for financial resource management in each unit. However, there have been some problems and obstacles that may have prevented them from attaining the set goals of efficiency and effectiveness. Therefore, a study of the performance-

based budgeting system needs to be conducted in order to discover the state and problems existing in the implementation of this kind of budgeting approach in some autonomous state universities where it has been fully practised. The data obtained from this study could be used as a guideline for the development of an administrative model of performance-based budgeting that will be applicable to an autonomous state university in Thailand and other nearby contexts.

### **Research Objectives**

This research aims to:

- 1) study the state and problems in as well as solutions for the administration of a performance-based budgeting system in the selected institutions of higher education in Thailand;
- 2) apply the information on obstacles to the implementation of a performance-based management system in the institutions of higher education and suggest possible solutions for the development of an administrative model of performance-based budgeting, befitting the context of Thai institutions of higher education.

### **Scope of the study**

This study covers an exploration of the state and problems as well as solutions in the administration of a performance-based budgeting system in some particular contexts of Thai higher education in order to develop a suitable and feasible administrative model of performance-based budgeting for Thai institutions of higher education. This type of administrative model is designed in conformity with those principles of financial and budget management which are relevant to the ideas on good governance, objectives emphasizing the link between output/outcome and the strategic plan of an organization, the characteristics and management approach of a performance-based budgeting system, a standard of financial management called 7 hurdles, and a set of conditions leading towards success in the implementation of a performance-based budgeting approach in Thai institutions of higher education.

### **Research methodology**

This study applies a descriptive and mixed-method approach. The sample population, derived from purposive sampling, consisted of 4 selected autonomous state institutions of higher education from 4 regions of the country: the northern, northeastern, southern and central regions, where the performance-based budgeting system has been fully translated into action.

This research comprises 4 phases which are:

*Phase 1* Development of the conceptual framework by analyzing and synthesizing related literature concerning the administration of performance-based budgeting in the institutions of higher education in Thailand and other countries and the development of a performance-based budgeting approach in accordance with the strategic plan of an institution.

*Phase 2* Development of an administrative model of performance-based budgeting by exploring the state and problems in the administration of performance-based budgeting in the 4 selected institutions of higher education. At this phase, questionnaires were distributed to 14 administrators and 39 officers (a total of 53) in charge of planning, budget management as well as finance and accountancy. 16 chief executive administrators and heads of

division/section/unit (about 4 from each institution), in charge of planning, financial affairs and budgeting, were interviewed.

*Phase 3* Evaluating the appropriateness of an administrative model of performance-based budgeting by interviewing 3 academics and scholars with expertise in higher education finance and budgeting and with some experience in budget management from both public and private institutions of higher education as well as external organizations.

*Phase 4* Evaluating the possibility and feasibility of the proposed administrative model of performance-based budgeting by distributing questionnaires to practitioners, including administrators and officers in charge of planning, finance and budgeting from 13 autonomous state institutions of higher education.

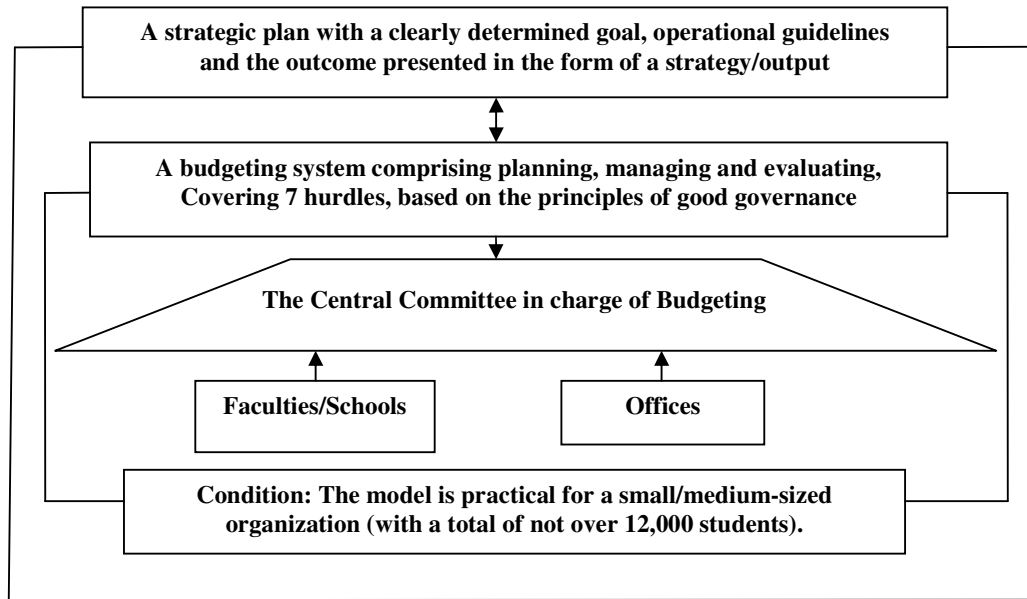
The research instruments consisted of questionnaires for administrators and officers in charge of planning, finance and budgeting from the selected institutions, in-depth interviews of administrators in charge of planning, finance and budgeting from the selected institutions, and analyses of related documents such as action plans and self-assessment reports for each fiscal year, dating from 2005-2009.

Data was analyzed by statistical analyses using frequency, percentage, mean and standard deviation, whereas the qualitative data, obtained from documents, interviews and open-ended questions, was operated by content analysis.

### **Research findings**

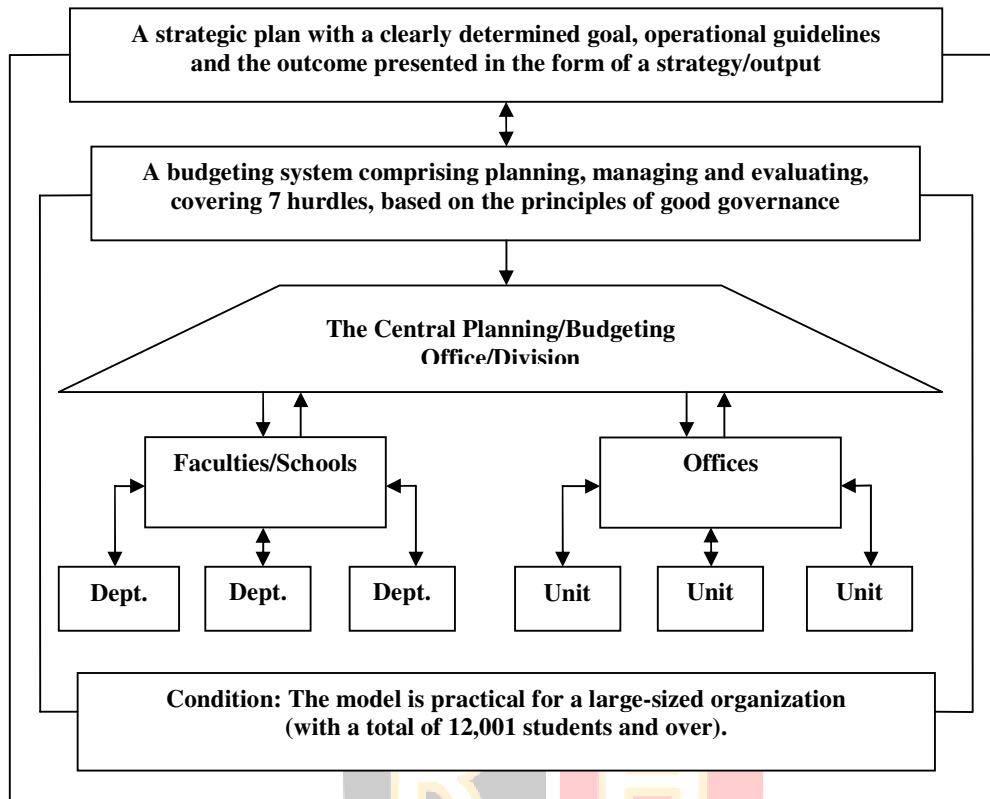
In this study, the key research findings reveal that the 4 selected institutions of higher education apply a model of performance-based budgeting covering budget planning, managing and evaluating, which are all operated in accordance with the 7 hurdles of standards for financial management, adhering to their 5 missions of academic tasks, research, academic services and student affairs as well as the promotion of arts and culture.

For the styles of management, it was found that 3 institutions apply a “centralization-of-authority approach” for which the structure comprises a central committee in charge of the whole cycle of budgeting, from planning and managing through evaluating. This committee has to cooperate with each faculty/department/ school and office/section/unit to obtain information on finance and the budget for further operation on the part of the institution.



**Figure 1:** An Administrative Model of Performance-based Budgeting:  
A Centralization-of–Authority Approach

The other institution applies a “decentralization-of-authority approach”, in which the central office of the institution is only responsible for coordination and transfer of policy on planning and budgeting to each faculty/school/unit that is in charge of the operation of budgets starting from planning for implementation and expenditure, financial management and budget control, asset management, procurement management and evaluation as well as reporting to the central office at the end of each fiscal year.



**Figure 2:** An Administrative Model of Performance-based Budgeting: A Decentralization-of –Authority Approach

For the state and problems of budget planning, in spite of the highest level of congruence between the strategic plan of a unit and the organization’s vision, missions and goals, the decentralization of authority to personnel concerned in terms of strategic planning and setting a Medium Term Expenditure Framework (MTEF) is still practised at a low level, whilst the provision of knowledge and skills to personnel regarding the preparation of a MTEF, and the assessment of alternatives resulting in low costs to attain the same output/outcome turns out to be least practised.

Nevertheless, the most critical problems are the incongruence between MTEF and reality and the lack of systematic reporting as well as output specification and costing. To solve these problems, the institution of higher education should constantly monitor the revision of MTEF by each office/unit so that information can be justified and updated. In addition, there should be a quest for an appropriate and feasible approach to output specification and costing befitting the context of each institution so that it can be applied as baseline data for budget planning, while the results obtained from the evaluation of expenditure in each fiscal year will be a valuable source of information for budgeting. In this regard, there should be the promotion of strength and professionalism in strategic planning by establishing an office of institutional strategic management, to be in charge of inspecting, monitoring and evaluating the implementation of strategies by each unit reporting to the institution.

For the state and problems of budget management, it reveals that the determination of standards concerning procurement services provided for personnel and other stakeholders and the linkage of information on procurement within the institution are still practised at a low

level. In terms of financial management and budget control, a monitoring system focusing on output/outcome-oriented expenditures and a comparative and evaluative analysis of financial risk for efficient management are also practised at a low level. As for asset management, there are not many activities that promote knowledge, understanding and the skills of the personnel concerned in the management of the institutional assets and to facilitate pre-planning for the acquisition of assets to compensate for the obsolete ones through the application of the MTEF

The most important problems are the personnel's lack of understanding about the budgeting system and procedures as well as the personnel's strong belief in traditional approaches to budgeting, which sometimes create a discrepancy between what is defined in the plans and the actual budget allocation and expenditure. To relieve such problems, the institutions of higher education should be aware of human resource development in applying some innovative activities of knowledge management arranged for personnel in the same area and across different fields of tasks and assignments, in instilling into their personnel the culture of teamwork and performance/output focus, as well as by improving the processes, approaches and work procedures so that they are flexible and adjustable to any situation and surroundings. In this matter, both chief executives and middle managers have to cooperate closely in the justification of the personnel's attitudes and modes of communication in order to ensure that they do understand the principles and operational approaches in accordance with the concept of performance/output-oriented budget management.

For the state and problems of monitoring and evaluation, it discloses that an internal audit of each office/unit under the supervision of the institution and the presentation and dissemination of the results obtained from internal audit to all the offices/units concerned as well as the construction of a system and mechanism for the inspection and control of any operation to attain an objective/a goal as defined in the plans and the arrangement of meetings to search continuously for guidelines for development of an internal audit system, including the preparation of reports demonstrating the linkage between input factors, such as men, materials, and the actual performance/outputs, are all practised at a low level.

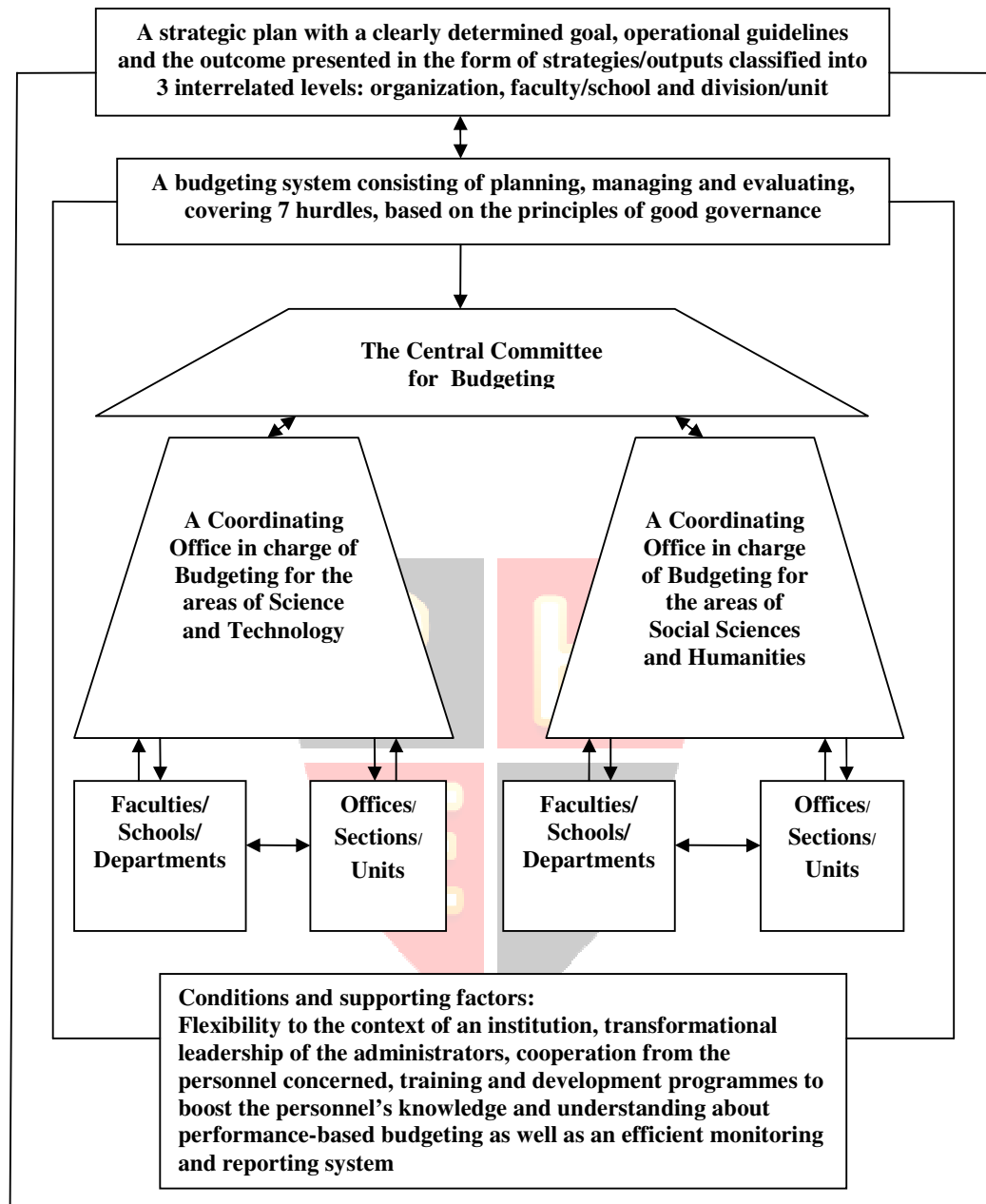
The most crucial problem is the lack of an efficient reporting system and a non-clarity of the linkage between the performance (outputs/outcome) and the goals/targets defined in the strategic plan of the institution. Therefore, each institution of higher education can deal with such a problem by systematically preparing a self assessment report (SAR) for each fiscal year. The above-mentioned SAR should manifest the actual performance (output/outcome), including the amount of budget spent on each programme/project which supports each strategy of the institution. The report should demonstrate the performance/results of the institution as a whole and of each faculty/school/office or unit concerned, by comparing between the actual performance/output and the criteria or targets defined in the action plan of each fiscal year. The institution can apply this kind of information to further improve its performance and to review the approaches to budget allocation so that it becomes more consistent with the expected performance and targets.

From this study, the proposed administrative model of performance-based budgeting for institutions of higher education is an "integrated model" of budgeting which connects the output/outcome with the organization's/unit's strategic plan. The budgeting system is operated in accordance with the 7 hurdles of standards for financial management. The centralization-of-authority approach and the decentralization-of-authority approach are integrated to make a balance and to conform to the principles of good governance, focusing on transparency, accountability, decentralization of authority and participative management. This integrated model of performance-based budgeting consists of 4 principal components: 1) a strategic plan with a clearly determined goal, operational guidelines and the outcome presented in the form of 3- tiered strategies/output; 2) a budgeting system, with the emphasis

on the operation in accordance with the 7 hurdles of standards for financial management, consisting of planning, managing and evaluating; 3) the structure of an integrated approach of budget management, focusing on the decentralization of authority to more offices/units concerned under the supervision of a central body composed of coordinating offices operating on behalf of the institution and 4) the conditions for implementation of the proposed model and the supporting factors consisting of the transformational leadership of the administrators, cooperation from the personnel concerned at each stage of budgeting, training and development programmes to boost the personnel's knowledge and understanding about the role and responsibility of each section/unit in charge of performance-based budgeting, as well as an efficient monitoring and reporting system from which information can be applied for improving budget planning and operating it in a way that is more consistent with the strategic plan of an institution.







**Figure 3:** An Administrative Model of Performance-based Budgeting: An Integrated Approach

**Discussion of findings**

The findings of this study have indicated the significance of the integration of the decentralization-of –authority into the centralization-of-authority approach of performance-

based budget management, including some of the outstanding characteristics of the proposed “integrated” model of budgeting which focuses on the connection between output / outcome and a strategic plan as well as an operational approach that corresponds to the principles of good governance in terms of transparency, accountability, decentralization of authority and participative management. This model and its characteristics coincide with what was indicated by CIDA (2001), Chalermmiprasert (2001) and the Ministry of Education (2002), as well as what was emphasized by Jongbloed and Vossensteyn (2001), who pointed out the significance of the link between an output / outcome stated in a strategic plan and funding as well as the determination of a widely accepted standard, i.e. 7 hurdles based on the principles of good governance, for operation on the results or performance-oriented management towards efficiency and effectiveness. For budget planning, it has been found that decentralization of authority to construct a medium term expenditure framework (MTEF) for the personnel concerned is practised at a low level. Therefore, institutions of higher education should provide their staff with additional knowledge and workshop training in MTEF, alongside giving them the opportunity to participate in strategic and budget planning. Regarding budget management, it reveals that some critical issues need to be emphasized more such as in the determination of a standard of operation on procurement, a proper and systematic audit for output / outcome-oriented expenditure as well as the sensible division of scopes of responsibility between university and school / department / office, especially in the management of immobilized assets. To ameliorate this, university administrators should cooperate with heads of school / department / office in questing for innovative concepts applicable to educational resource management, i.e. total quality management, risk management and balanced scorecard and benchmarking, to promote participative administration and the continuous development of an organization. For monitoring and evaluating, it turns out that there remain some problems and minimal practices in defining the key performance indicators for success and the internal auditing of various sections / units. Hence, each institution of higher education should arrange an efficient monitoring and reporting system to assure that the operation of each unit can attain an objective or a goal stated in the strategic plan. Moreover, the performance of all activities under each project included in the annual action plan should be taken into account and compared with the criteria and targets defined for each fiscal year. Such information is to be used as a guideline for further improvement in order that each institution may adapt its allocation of budget so that it is more consistent with the actual performance that efficiently corresponds to its goal.

### **Recommendations**

According to the research findings, to successfully implement the “integrated model” of performance-based budgeting, it is recommended that administrators of institutions of higher education apply the principal components of the integrated model of performance-based budgeting, consisting of a strategic plan, a budgeting system with the emphasis on operation in accordance with the 7 hurdles of standards for financial management, a structure of the integrated approach of budget management as well as the conditions for the implementation of the proposed model and the supporting factors, as instruments for communication with the personnel in their organization/unit and for alignment of the personnel’s perceptions and operational approaches to budgeting. To achieve this, administrators should possess the characteristics of transformational leaders or change agents who have vision and are able to motivate personnel to work as a team to drive towards the outcome and goals of the organization/unit.

Prior to implementation of the integrated model of performance-based budgeting, the institutions of higher education should arrange a programme of training, conferences and

workshops to develop and equip their personnel with a knowledge and understanding of the principles and objectives of performance-based budgeting, operation in accordance with the 7 hurdles of standards for financial management, as well as conducting the activities spelt out in each subcomponent of the integrated model. First and foremost, they should bear in mind that cooperation from the personnel concerned at each stage of budgeting will become a key factor leading to successful outcome-oriented budget management.

Nevertheless, each institution of higher education should make some minimal modifications to the integrated model of performance-based budgeting in order that it can fit in with the situation and surroundings of each institution. To enhance the effectiveness and efficiency of the reform and development of budgeting, each institution should apply the integrated model of performance-based budgeting along with the concept of result-based management (RBM), concentrating on improving and developing towards effectiveness. In addition, the concept of a balanced scorecard (BSC) should also be applied to help monitor and evaluate the implementation of a strategic plan.

## Conclusion

Performance-based budgeting is indispensable for any institution of higher education in Thailand and in other developing countries which are facing limitations in educational resources. The proposed integrated model of budgeting tends to bring about some possible solutions to the problems found in this study and serves as an alternative for any institution of higher education / educational organization facing a limitation of resources and having or planning to have a supporting system to successfully operate the model.

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