

EXAMINATION OF PROJECT FEASIBILITY ANALYSIS METHOD

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ABSTRACT

This study aims to Examine the method and process of project analysis for meeting the management or budget provider's needs, expected benefit is that a guideline for project analysis can be made for the Graduate School of Commerce.

Research method is an interview of 10 experts in project writing and budget approval (Morse, 1994). The experts are selected by purposive sampling, and result from the interview is compared with two research works from the Graduate School of Commerce.

Result from this work is that for a project to be authorized for execution and granted budget, it would need following things: name conforming to government policy, rationale matching government policy, objective conforming to the budget agency, work scope concurring with the value chain, clear work process and duration within the limit imposed by the employer, respectable and experienced project manager who is also well-connected, and budget reasonable for the objective. The project executor must also be able to carry out the project, has a representative and coordinator to explain importance and rationale to the budget authorizer. Some parts of the process can be skipped, or executed first as long as conformance to the budget provider's criteria is maintained. Expected benefits and suggests are discovered in this study: 10 project analysis guides.

Keywords: Project analysis, Project feasibility, Rationale for authorization

Background and Importance

Budget for public projects is an important factor in national administration. The government would use budget to drive national strategy. Making annual budget requests in government sectors are done as projects and the agency's annual budget request. This is examination of budgeting process which faces difficulties in data collection to make an effective budget request that conforms with the agency's mission and strategy, and government policy

(Office of the National Economics and Social Development Council, 2016).

Project writing is one thing that the planner (or anyone else responsible) of a plan or project must have good knowledge and understanding of. The planner must also be well-versed in relationship between the plan and project. To make an effective project proposal, everything must be consistent before writing, or the agency's form can be analyzed (Sangunprasert, Roopsang, & Lakman, 2014).

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Operational work of faculties in Burapha University must be written in projects, which there are two types: project that request budget from agencies outside the university, and project that request budget from the university itself. The latter can be further divided into the project that request public budget with Burapha University as the budget authority, and another type is the project that asks for budget from the University's own revenue budget. If the project is authorized, it will later be executed (Department of Budget Planning, Burapha University, 2019).

About the Graduate School of Commerce, every staff member has KPI requirements, and possible OKR in the future. Whether KPI or OKR is used, completion of works needs project writing to obtain authorization from the Dean with or without asking for budget support (from either the University or Bureau of the Budget). Results of such requests are mixed (Graduate School of Commerce, 2019).

The researcher is thus interested in examination of the project analysis method and process in order to better match the project with the management or budget provider's needs, so that information from this study is considered and used for improvement of project analysis method, and as a source of information for others.

Objectives

Examine project analysis method and process to match the project with the management or budget provider's needs.

Expected benefits that a guideline for project analysis can be made for the Graduate School of Commerce.

Related Concepts and Theories

Stedry (1979) defined the term "budget" as a plan for necessary future works, a tool to

control project work that can be used to estimate future expense and income. Eckstein (1964) also prioritized budget as part of the project plan related with finance and expense. Trairat Pokpalakorn et al. (2006) summarized that project budget must consist of 1) Conservation of money and reduction of overspending and wasteful practices, 2) Good effectiveness, 3) Equal budget distribution, 4) Good quality spending, not overspending, 5) Accurate estimation of future income and expenditure, and 6) Transparency of the budget.

Meredith and Mantel (2006) and Jirachiefpattana (2009) shared a view on project management that directing the project is a technical method. Concepts about project management, execution, tracking and assessment will allow completion of the project. Thus, good project management will cause change according to the organization's objective.

Schwalbe (2007) summarized that a good project must 1) Have a clear goal, 2) Have a unique identity, 3) Have a clear project timeline from the start to finish, 4) Have a highly-detailed process, 5) Use resources from related agencies, 6) Have a project handler with clear work scope.

Preeyakorn (2009) stated about project writing that it should have topic, rationale, objective, goal, process, duration, location, budget, project handler, tracking, assessment and expected benefit.

Office of the National Economic and Social Development Board (2016) stated that any budget request to the government project proposal (regional level), needed to have a value chain for the project from the start to the finish.

Turner (1993) found that project success measurement should be 1) The project achieves the goal, 2) The project owner is satisfied, 3) Result of the project meets the relevant parties' needs or is useful as stated in the

project, 4) Result conforms with the project objective, 5) The project is finished on time, and 6) All project participants are satisfied.

For the project to be authorized, and completed after authorization, Wiggins and McTighe (1998) commented that sometimes backward thinking was necessary. In this case, project design is done backwards to connect everything together and form a coherent explanation for the budget/ project authorizer.

Furthermore, on completion of the project objective and process, White and Bruton (2007, pp. 107-109) explained that upon authorization there should be planning, during which vision, obligation, objective, goal, procedures and activities should all be defined in detail. The project leader should be bold, able to face and solve problems. Three more things are supposed to be done by the project leader: 1) Build basic knowledge as culture everyone has to follow, 2) If there is misunderstanding, the project leader must train the staff and always remain close as a babysitter, 3) The project leader must reward all participants. Starkey (2006) and Oatley (2000) supported that to get the project authorized and “done”, interorganizational networking, connection between stakeholders, and motivation for new, famous and publicly-impacting activities are needed.

Related Works

Pattamasiriwat and Rachataphibunpop (2016) examined departmental budget allocation in the government and found that reduction of the budget was due to closing of projects from

the previous year, or lack of support from the political network.

Sangunprasert et al. (2014) researched about examination of problems and solutions in projecting proposal writing and found that the first problem was lack of knowledge about project writing on the staff's behalf. Many projects were written without knowledge or understanding, resulting in them being rejected and uncompleted.

Research Methodology

This study is qualitative research. The first step is in-depth interview of 10 experts who are involved in writing of authorized and successful projects (Morse, 1994). The experts are selected by purposive sampling, and four interview topics are defined. The first question is how to write topics, sentences, phrases, words for a project that is guaranteed budget. The second question is how to write topics, sentences, phrases, words for a project that does not have guaranteed budget but is necessary such as request for cooperation or fundraising. The third question is how to write topics, sentences, phrases, words for request to Bureau of the Budget for budget allocation. The last question is suggestions on project analysis to accomplish the project's goal such as suitability, feasibility and budget analysis. The second step is using discovered issues in the study as a guideline for project writing. After that the written project will be compared with two completed projects authorized by the Graduate School of Commerce.

Results

Table 1 Shows replies to question number 1 How to write topics, sentences, phrases, words for a project that is guaranteed budget

Comments on project components	Experts										Total
	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	
A. Objective	✓	✓	✓	✓	✓	✓		✓	✓	✓	9
B. Target group	✓	✓		✓	✓	✓	✓	✓	✓	✓	9
C. Method	✓	✓	✓	✓	✓	✓		✓	✓	✓	9
D. Duration	✓	✓	✓		✓	✓	✓		✓	✓	8
E. Location	✓	✓		✓	✓	✓		✓	✓		7
F. Budget	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
G. Result	✓	✓	✓	✓				✓	✓	✓	7
H. Follow-up	✓		✓	✓		✓		✓	✓	✓	7
I. Rationale		✓	✓	✓	✓	✓		✓	✓	✓	8
J. Operational plan		✓		✓				✓			3
K. Indicator		✓		✓	✓					✓	4
L. Expected result		✓				✓	✓	✓		✓	5
M. Project handler		✓	✓	✓	✓	✓			✓	✓	7
N. Project name			✓	✓		✓	✓	✓	✓	✓	7
O. Budget plan			✓	✓	✓				✓		4
P. Project proposer			✓		✓					✓	3
Q. Project approver			✓	✓						✓	3
R. Project authorizer			✓	✓	✓					✓	4

Note ✓ Means agreement with the component in the leftmost column

From Table 1, it can be concluded that expert opinion on the first question or writing for a project with guaranteed budget is as follows (from highest to lowest) 1) budget, 2) Objective, target group and method 3) Duration and

rationale, 4) Location, result, follow-up, project handler and project name, and 5) Expected result, indicator, budget plan, project authorizer, operational plan, project proposer and project approver respectively.

Table 2 Shows replies to question number 2 How to write topics, sentences, phrases, words for a project that does not have guaranteed budget but is necessary such as request for cooperation or fundraising

Comments	Experts										Total
	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	
A. Rationale	✓		✓	✓	✓	✓	✓		✓	✓	8
B. Project name	✓	✓	✓	✓		✓	✓	✓	✓	✓	9
C. Objective	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
D. Operational plan, method	✓	✓		✓			✓	✓	✓	✓	7
E. Duration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
F. Budget	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
G. Expected benefits	✓	✓	✓			✓	✓	✓	✓	✓	8
H. Project importance	✓	✓				✓	✓	✓		✓	6
I. Project goal			✓	✓	✓	✓					4
K. Location				✓	✓	✓	✓	✓	✓		6
N. Indicator of product and result	✓			✓	✓			✓	✓	✓	6
O. Project handler	✓			✓	✓		✓		✓		5
P. Follow-up	✓			✓		✓	✓		✓	✓	6
Q. Project approver and project authorizer				✓					✓		2

Note ✓ Means agreement with the component in the leftmost column

From table 2 it can be summarized that expert opinion on the second question or writing for a project that does not have guaranteed budget but is necessary such as request for cooperation or fundraising is as follows (from highest to lowest) 1) Duration and budget, 2)

Project name, 3) Rationale and expected benefits, 4) Operational plan, 5) Importance of the project, location, indicator and follow-up, 6) Project handler, project goal, method, product/ result, project authorizer, budget plan and project approver respectively.

Table 3 Shows replies to question number 3 How to write topics, sentences, phrases, words for request to Bureau of the Budget for budget allocation

Comments	Experts										Total
	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	
A. Objective	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
B. Target group	✓	✓			✓			✓	✓	✓	6
C. Method	✓	✓		✓	✓	✓	✓	✓	✓	✓	9
D. Duration	✓	✓	✓	✓	✓	✓	✓	✓		✓	9
E. Location	✓	✓		✓	✓			✓			5
F. Rationale	✓		✓	✓		✓	✓		✓	✓	7
G. Budget	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
H. Expense detail	✓				✓		✓	✓	✓	✓	6
I. Product/ result	✓	✓	✓	✓		✓	✓	✓		✓	8
J. Indicator		✓	✓		✓			✓	✓	✓	6
K. Goal		✓	✓	✓		✓	✓	✓	✓		7
L. Project name			✓	✓	✓	✓	✓	✓	✓	✓	8
M. Government policy	✓	✓	✓		✓			✓	✓	✓	7
N. Follow-up				✓		✓	✓	✓	✓	✓	6
O. Project handler				✓	✓	✓	✓				4
P. Project authorizer				✓	✓				✓	✓	4

Note ✓ Means agreement with the component in the leftmost column

From Table 3, it can be summarized that expert opinion on the third question or writing request to Bureau of the Budget for budget allocation is as follows (from highest to lowest) 1) Objective and budget, 2) Method

and duration, 3) Product/ result and project name, 4) Rationale, goal and government policy, 5) Target group, expense details, indicator and follow-up and 6) Location, project handler and project authorizer.

Table 4 Shows replies to question number 4 Suggestions on project analysis to accomplish the project's goal such as suitability, feasibility and budget analysis

Comments	Experts										Total
	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	
A. Conformity to government policy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
B. Clear writing of product/ result/ achievement units, numbers and time.	✓	✓	✓	✓	✓	✓	✓	✓		✓	9
C. Duration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
D. Goal	✓	✓	✓	✓	✓	✓			✓	✓	8
E. Modest budget	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
F. Showing project handler	✓	✓		✓	✓	✓		✓	✓	✓	8
G. Project background	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
H. Short process	✓	✓		✓		✓	✓	✓	✓	✓	8
I. Backward execution of activities or skipping if progress is inadequate		✓	✓	✓	✓	✓	✓	✓		✓	
J. Clear conformity with scope and value chain	✓	✓	✓	✓	✓	✓	✓	✓	✓		9
K. In case of budget request to other agencies, the goal should include benefits they will get during and after the activities in addition to objectives and goals	✓	✓	✓	✓	✓		✓	✓	✓	✓	9
L. The project executor must have a network assisting in explanation and follow-up	✓	✓	✓	✓	✓		✓	✓	✓	✓	9

Note ✓ Means agreement with the component in the leftmost column

From Table 4, it can be summarized that expert opinion on the fourth question or other suggestions on how to accomplish the project's goal such as suitability, feasibility and budget analysis, from highest to lowest, is as follows: 1) Conformity to government policy, duration, modest budget and project background, 2) Clear writing of product/result/ achievement units, numbers and time, clear Conformity with scope and value chain, In case of budget request to other agencies,

the goal should include benefits they will get during and after the activities in addition to objectives and goals, the project executor must have a network assisting in explanation and follow-up, and 3) Goal, Showing project handler, and short process.

Shows comparison between issues discovered in the study and past two successful projects in Pattani Province (considered dangerous area) that have high satisfaction from the proposer as shown below.

Table 5 "Thailand 4.0" Southern Thailand education management efficiency improvement project

Project topic	Issues found in the study	✓ Match
		✗ is match
1. Project name	Conform to government policy	✓
2. Rationale	Conform to government policy in problem solution and project naming	✓
3. Objective	Conform to the budget provider's needs	✓
4. Work scope	Conform to the value chain	✓
5. Method and duration	Is clear and conforming to the employer's requirements	✓
6. Project handler	Has trustworthiness, network and experience	✓
7. Budget and other behavior	Conform to the project objective	✓
8. Execution	The management leads the execution	✓
9. Coordination to improve the capital owner's understanding	Has a representative to explain the project's feasibility	✓
10. Backward execution	Later steps could be executed first if no limitation	✓

From the table there are seven main issues and three other behaviors. When compared with this study, the Thailand 4.0 Southern Thailand

education management efficiency improvement project has perfectly concurring characteristics.

Table 6 Public relations project to create public awareness and increase the number of vocational students in the Southern Economic Corridor (SEC)

Project topic	Issues found in the study	✓ Match
		✗ is match
1. Project name	Conform to government policy	✓
2. Rationale	Conform to government policy in problem solution and project naming	✓
3. Objective	Conform to the budget provider's needs	✓
4. Work scope	Conform to the value chain	✓
5. Method and duration	Is clear and conforming to the employer's requirements	✓
6. Project handler	Has trustworthiness, network and experience	✓
7. Budget and other behavior	Conform to the project objective	✓
8. Execution	The management leads the execution	✓
9. Coordination to improve the capital owner's understanding	Has a representative to explain the project's feasibility	✓
10. Backward execution	Later steps could be executed first if no limitation	✓

Like in the previous project, from the table there are seven main issues and three other behaviors. When compared with this study, this project has perfectly concurring characteristics.

Conclusion and Discussion

Result of this study answers the objective which is to study methods and processes of project analysis to conform the project to the management or the budget provider's needs. It is found that in project writing and analysis, following factors should be given attention:

1. Project writing must conform to government policy, project background must be clear, budget must be modest, and duration should be reasonable (preferably within one fiscal year).
2. Activities within the project should clearly conform to the value chain (from the start to the end), benefits for the budget provider should be included and clearly written. Product, result, achievement should be written

in numbers. Duration must be clearly written, and there should be a network that helps in explanation and follow-up of the project during budget request or project execution.

3. Project goal must be clearly stated, along with summary of the process. The project handler should be experienced in the field.

Order of the project writing can be conventional but order of importance should be focused. Pokpalakorn, and Rungruengkolakit (2006) summarized that it is very important to use the project's operational budget for its stated purposes. Schwalbe (2007) also stated that project duration must be completely shown from the beginning to the end. Preeyakorn (2009) mentioned project components in the similar fashion as this study: rationale, objective, goal, method, duration, location, budget, handler, follow-up, and expected benefit. Only topic importance was omitted in that study.

The examined past projects that were allocated budget and completed showed that such success came from modest budget request, clear project background, conformity to government policy, appropriate duration, and a network that can improve the budget provider's understanding. This is consistent with Starkey (2006) and Oatley (2000) which stated that project writing needs a network that connects the organization and stakeholders. This also applies to academic service project such as course registration. After obtaining budget, the project handler must have good leadership, able to carry out work. Sometimes later steps must be done first (backward execution). All stakeholders must be satisfied for the project to be successful. Wiggins and McTighe (1998) found that sometimes some later steps must be carried out first, and Turner (1993) found that successful projects must satisfy the stakeholders. White and Bruton (2007, pp. 107-109) found that for the project to be successful, the project handler must have good leadership and courage to carry out work.

Suggestions

1. The project writer can apply the first result as a focus for the topic i.e. which topic should be given the highest importance, lower importance, and which topic is related with another.
2. If the project writer plans to request budget from the government or register participants, there should be a network that helps in explanation and public relations.
3. For the authorized project to be successful, the project handler must lead from the front and keep the stakeholder satisfied.
4. For the project authorizer, approver or follow-up staff, result of this study can be used to improve the project for re-proposal or recommendation to accomplish the goal.

5. In case of inadequate budget during execution, later activities that are simple and cheap can be carried out first, and invite a person who has a large social network to be a managing committee member so that person can explain to the budget provider about budget inadequacy or provide additional budget to the project.

6. Regarding the guideline for project feasibility analysis, there are 10 issues that could be adjusted to meet the suggestions:

- 6.1 The project name should conform to government policy
- 6.2 Rationale should conform to government policy in problem solution and project naming
- 6.3 Objective should conform to the budget provider's needs
- 6.4 Work scope should conform to the Value Chain
- 6.5 Method should clear and conforming to the employer's requirements
- 6.6 The project handler should trustworthiness, network and experience
- 6.7 Budget and other behavior should conform to the project objective
- 6.8 The management should lead the execution.
- 6.9 Has a representative to explain the project's feasibility to the capital owner.
- 6.10 Later steps could be executed first if no limitation.

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