

Program Management Approach for Concurrently Managing Projects – A study from Khairun University

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ABSTRACT

Complexity and uncertainty has led organizations to sustaining the strategic operations for future challenges. Project management is expected to uplift its scope in managing complex projects into strategic level. The study aims to offer a prospective angle in realizing organization's goals by managing a number of small projects that are reached through a competition of limited resources within an organization. Program management is suggested as methodological paraphernalia, particularly in refining pathways of strengthening an organization, including a higher education institution such as Khairun University. The study demonstrated a solution to manage small and separated projects concurrently.

Keywords: higher education institution, program management

INTRODUCTION

Organizations is constantly facing changes, so they need ad-hoc activities that can cope with the dynamic business environment. Projects emerge as they are to realize long-term strategic objectives. They are more complex when an organization interacts various groups of external and internal stakeholders, tight budget and schedule, and unpredicted future.

Organizations then need a special skill that is able to manage projects. Project management is aimed managing project in efficient and effective way within tight budget, schedule, and specific objectives to yield a novel, unique result or process (PMBOK, 2004; Turner, 1999). Project management has proved its powerful methodology and tools in managing projects (Kerzner, 2006).

Project management, nevertheless, is seen to manage a single project. When several projects are running within an organization and consume as well as compete several resources at the same time, a higher level of managing project is needed. At this point, program management is seen to be a solution to manage projects simultaneously.

Program management is "the management of a coherent group of projects to deliver additional benefit" (Turner, 1999). Project Management Institute (PMI) defines program management as to the centralized management of a program to accomplish the program's strategic objectives and benefits (PMBOK, 2004). Cooke-Davies (2002) also explains that program management acknowledges the interdependence of projects within a program, confining its focus to a single-program. He also adds that top management might heavily rely on program management to ensure the alignment of projects and business goals as whole.

Gower Handbook of program management defines program management as the coordinated management of a portfolio of projects that change organizations to achieve benefits that are of strategic importance (Lock & Wagner, 2016). This definition is mostly derived from UK Government context and is derived from Managing Successful Programmes, published by the Office of Government Commerce (OGC; OGC, 2003).

Organizations are attempting to change and improve their management by connecting “investment in organizational change, projects delivering the capacity to change, the adoption of those changes, harvesting the benefits of those organizational changes” (, ,p.9). Usually, a change implicates contributions from almost all organization’s units. Even though it is an IT component, there tend to have organizational issues, training and processes that must adjusted as well.

Moreover, the Office of Government Commerce (OGC) is a part of the UK government and has published an important publication called Managing Successful Programmes (OGC, 2003). This publication contains this definition of program management as the coordinated management of a portfolio of projects that change organizations to achieve benefits that are of strategic importance.

The question of managing projects in public sector becomes important is likely because of the level of and the influence of stakeholders (Thiry, 2006). According to Wadel (2005, p. 167), a program manager in public sector is responsible for:

- Strategic planning for the program area
- Service development planning, in collaboration with the service provider units
- Resource allocation consistent with the strategic and service development planning
- Determining clinical practice standards and clinical governance processes/frameworks for the program area, consistent with Area clinical governance frameworks and in collaboration with clinical staff
- Monitoring progress against performance indicators, targets and standards and providing reports to the Department or other funding bodies
- Providing support or guidance for service managers and/or program staff to assist with implementation of program-related services
- Providing or overseeing training for employees in program-related areas consistent with the program’s strategic and service plans

Debates still exist in the literature regarding the use of program management in public sector (Levy, 2001). In fact, program management in public sector is highly expected to improve governance of the institution (Crawford & Helm, 2009; Fricke, 1991). However, studies on the implementation of program management are still rare (Buijs, & Edelenbos, 2012; O’Toole & Meier, 2004). It is then believed the studies on this is much rarer in Indonesia, including the implementation on educational sector such as higher education institution.

This includes Khairun University that needs number of projects as enablers to realize its long strategic objectives. As a higher education institution Khairun University was used as an example of implementing program management. In this study, the main research question was “Among other proposed projects, what is the most feasible project that can be executed?”

RESEARCH METHOD

This study was basically departed from the fourth paradigm, called decision-making paradigm, by Huber and McDaniel (1986). According to the decision-making paradigm lies “when designing organization it is primarily important to create structures and processes that facilitate the making of organizational decisions. ... [and the paradigm serves] as (1) a framework for organizing thoughts and observations, (2) a basis for developing working hypotheses prior to observation, (3) communication aid, and (4) a source of organizational design guidelines.” (Huber & McDaniel, 1986, p.573). This paradigm then needed a practical tool and technique to decide an activity or a project that should be executed within an organization with limited resources, and program management has been introduced to assist decision-making process

This study used Khairun University as a pilot institution to promote the use of program management analysis. The university was the case study for proposing the implementation of program management. Cresswell (2007, p.73) defines case study as “the study of an issue explored through one or more cases within a bounded system (i.e., a setting, a context)”. In this context, Khairun University is conventional higher education institution (*Satuan Kerja*, SATKER) that run its business under rigid rules and regulations in dynamic environment.

This university was located in Ternate, the Province of North Maluku. This university was conveniently selected as the researchers were also the lecturers in the institution. Data were collected mainly from secondary resources, such as documents of annual reports and university statute.

This paper demonstrated a step-by-step use of program management. In this regards, program management analysis consisted of stakeholder analysis, functional analysis, ideation and elaboration, program approach and organizational structure, and task-oriented work-breakdown structure (WBS). Nonetheless, a brief description on the institution (Universitas Khairun) was firstly elaborated to provide context on which the implementation was conducted.

RESULTS AND DISCUSSION

Khairun University was selected as the site of this study because of accessibility of data and familiarity of the authors to actual situation. The development of the university is briefly illustrated in Figure 1. The figure shows that Khairun University was established in 1963 and has many contributions to the local community by developing and improving human resources quality in the Province of North Maluku, Indonesia. After forty years as a private university, through the enactment of Government Regulation No. 12, 2003, Khairun University was formally enacted University as the first state university in North Maluku.

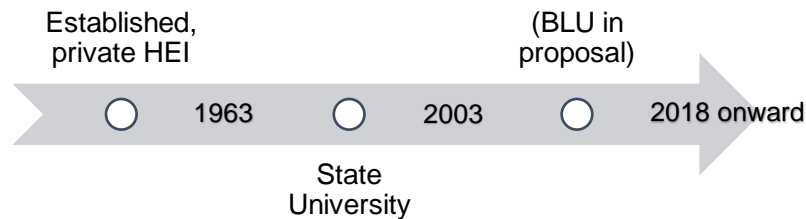


Figure 1 - Khairun University Development

Along the way, the environment has been constantly changing, including moving from a conventional business (*Satuan Kerja*, SATKER) to more an autonomous higher education institution. The latter was enacted and implemented based on Presidential Decree Number 18 of 2004. As a result, the university has to prepare itself to meet all required qualities. There are plenty of issues rises after changing the status, which are mainly concern with (Unkhair, 2005).

Program Management Analysis

A program will be decomposed into smaller “projects” that interrelate to one another and consume similar and limited resources. Program management analysis is then utilized to coherently manage the complexity. Program management encompasses stakeholder analysis, functional analysis, ideation and collaboration, program approach and organizational structure, and task oriented WBS (work breakdown structure). This approach was used to analysis the use of resources consuming by projects at Khairun University.

Stakeholder Analysis

According to Thiry (2006, p.45), the objective in analyzing stakeholders is to “identify and classify by sector, measure influence on action and its implementation, and determine needs and expectations”. In analyzing the stakeholders, it was assumed that Khairun University places DGHE as one of the key stakeholders, following with other group of stakeholders as shown Table 1. These stakeholders have different needs and expectation of any programs within the university.

Table 1 - Stakeholder Analysis

Key Player	Needs/Expectations
Directorate General of Higher Education	Improve organizational health
Board of counselors	Recruit qualified staff
	Improve staff capabilities and competencies
	Improve the infrastructure
	Re-engineer the process
Academic staff	Gain opportunity to upgrade skills and qualifications
	Establish and broaden network
Administrative staff	Gain better work environment
	Be clear career path
Students	Increase university reputation

	Produce qualified graduates
	Provide better facilities
Public or community	Develop local human resources
	Be a change agent
Local governments	Improve their employees' skills and knowledge
	Save educational and training costs

Once the stakeholders were identified, another part of stakeholder analysis was determining the level of influence. This analysis is depicted in **Error! Reference source not found.** that describes the different level and power, although the stakeholder group are in the same grid. This analysis expected to provide a clear picture of stakeholders' needs and expectations as well as the impacts to the program.

Functional Analysis

From higher perspective, expected benefits seem too abstract such as in vision, mission, objectives, and goals. These benefits are needed to be detailed into more doable tasks or concrete activities through a hierarchical structure. After analyzing the stakeholders' level of power and level of interests, the analysis is continued by breaking down its functional structure, was called as Functional Breakdown Structure (FBS) (Thiry, 1997). The structure created a model that signified needs and expectations of the stakeholders in more concrete actions. By employing the FBS, the stakeholders at Khairun University have shared view of tangible tasks in achieving their expected benefits and needs (Figure 3).

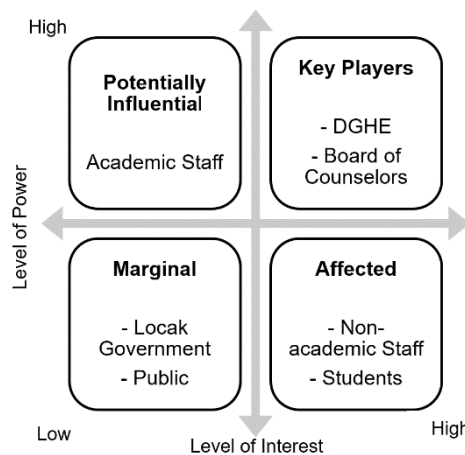


Figure 2 - Stakeholder Analysis

Figure 3 depicts concrete actions from higher level needs and expectations into more practicable tasks. The most left-part of the hierarchal of need came from DGHE which had to be implemented at all higher education institutions (HEIs) in Indonesia. These was expected to be cascaded down according to situation in each university which may be dissimilar from one university to another. It was also similar to different needs and expectations of Khairun University. Four actions were needed to satisfy the requirement from DGHE. However, those actions are very broad and abstract; therefore, they need to be decomposed into eleven tangible actions.

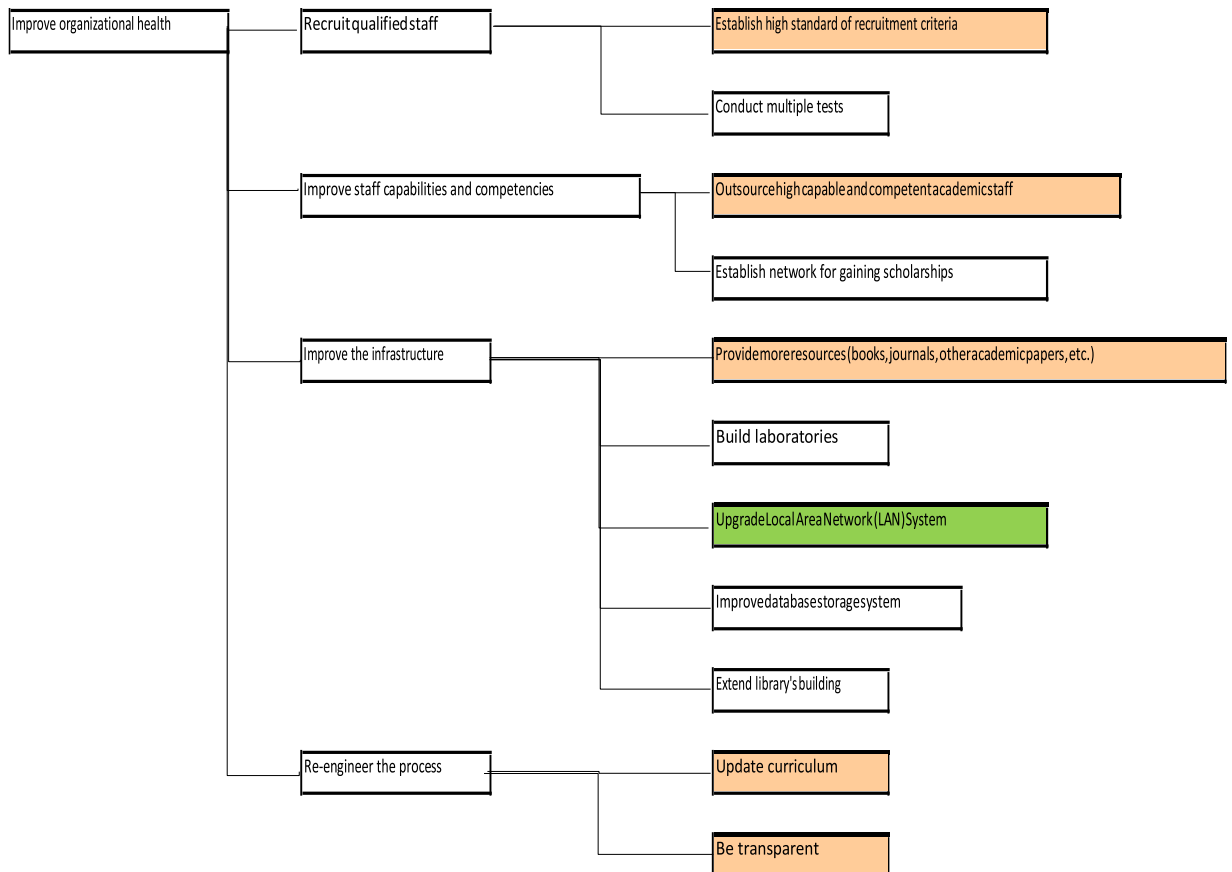


Figure 3 - Functional Breakdown Structure

Once the FBS is established, the process was continued by selecting Critical Success Factors (CSFs). These factors were still at higher level and easy to be measured (Thiry & Willey, 2004), although they are still more qualitative statements. The highlighted actions are the CSFs for the university's program:

- a) Establish high standard of recruitment criteria
- b) Outsource high capable and competent academic staff
- c) Provide more academic resources (text books, journals, and other types of academic papers)
- d) Upgrade Local Area Network (LAN) System
- e) Update curriculum
- f) Transparency

Table 2- Paired Comparison

	A	B	C	D	E	F	Total	Weight
A		2	1	2	2	3	10	13%
B	3		2	4	3	3	15	20%
C	4	3		3	3	3	16	21%
D	3	1	2		2	2	10	13%
E	3	2	2	3		3	13	17%
F	2	2	2	3	2		11	15%
							75	100%

The CSFs then highlighted two short term focuses: outsource high capable and competent academic, and provide more academic resources. It was because the university really needs these qualified staff and supported by recent academic resources in order to urgently fortify management capacity, particularly in academic and quality assurance.

The CSFs were then prioritized by using paired comparison as shown on Table 2. This comparison resulted in identifying top three of CSFs—providing more academic resources; recruiting highly capable and competent academic staff; and updating curriculum. The process was then continued by setting up Key Performance Indicators (KPIs), aiming at measuring the achievement of the CSFs. These indicators had four fundamentals: criterion, level, flexibility, and measuring tools, as summarized in Table 3.

Table 3 - Key Performance Indicators (KPIs)

CSFs	Criterion	Level	Flexibility	Measuring Tools
Providing academic resources	significance	types & ranges of academic resources within 6 months increase by 20%	± 10%	library's semester report
	years	20% of current resources (up to 5 years)	± 10%	library's semester report
	publisher	75% local & national publisher, and 25% international publisher	± 10%	library's semester report
Recruiting highly capable and competent academic staff	experienced practitioners	30% increase within 12 months	± 10%	HR department's annual report
	qualified researchers	30% increase within 12 months	± 10%	HR department's annual report
	doctoral degree	50% increase within 6 months	± 10%	HR department's annual report
Updating curriculum	proportion	20% within 6 months	± 10%	benchmark against best practice
	no. of offered subjects	20% within 12 months	± 10%	benchmark against best practice
	legalization of DGHE	none	± 10%	DGHE legalization
				University's

CSFs	Criterion	Level	Flexibility	Measuring Tools
	frequency	year	± 10%	annual report

Ideation and Elaboration

The next steps of program management approach are ideation and elaboration (Thiry, 1997). Ideation is a lateral thinking process, aiming at broadening possible alternatives to implementing the top three of CSFs. Elaboration stage (vertical thinking process) is the process where alternatives are evaluated, developed and then clustered into the most viable and profitable decisions. The two processes are depicted on Table 4.

Table 4 - Ideation and Elaboration

Critical Success Factors	How to implement CSFs (ideation)	Option (Elaboration)
Providing more academic resources	Buy license from providers	A. Benchmark against best practice from particular universities which is combined with the demand from the academic community
	Benchmark against best practice from other universities	
	Set up resources criteria	
	Co-operate with other universities	
	Establish the committee	
	Bid the materials from supplier	
	Provide regular report	
	Set up references list from lecturer	
	Offer exchange program	
	Run an academic-demand survey	
Recruiting highly capable and competent academic staff	Offer professional development program	B. Offer professional development program which is based on setting the recruitment standard.
	Set up HR recruitment standard	
	Benchmark against best practice	
	Modify curriculum	
	Review strategic plan	
	Promote the university	
	Provide incentive program	
	Establish network with other universities	
Updating curriculum	Benchmark against the best practice	C. Ensure the alignment of workforce demand and offered courses by carrying out a survey on business and industrial sector.
	Conduct a survey to business and industrial sector	
	Set up official committee	
	Build network with other universities	
	Provide mentoring and training program	
	Establish standard quality	
	Conduct curriculum seminar or workshop	
	Align workforce demand with offered program	
	Modify learning system	

Table 4 aimed to measure an option that can contribute benefits or CSFs. The table shows that option 1 is the most attainable options, tailed by option 3 and 2. At this stage, the three options were then treated as projects: Project A (Option 1), Project B (Option 3), and Project C (Option 2). These projects were then assessed based on their level of achievability. This process used MESA© (Model for Evaluation of Strategic Alternatives) (Thiry, 2003) as shown on Figure 4. This figure shows that all projects are highly beneficial as they were in range of 500 – 700, and Project A was higher in terms of its achievability compared to project C and B.

Program Approach and Organizational Structure

Once the prioritizations were done, the process was continued with establishing an organizational breakdown structure (OBS). This structure used program approach and aimed as a basis in appointing a responsible party, a person, or a group of persons to manage critical success factors of each project. In this study, the OBS, that carried roles and responsibilities of each party, is depicted in Figure 5. Specific to the Khairun University program, the structure was limited at internal institution to emphasize the uniqueness of needs and expectation.

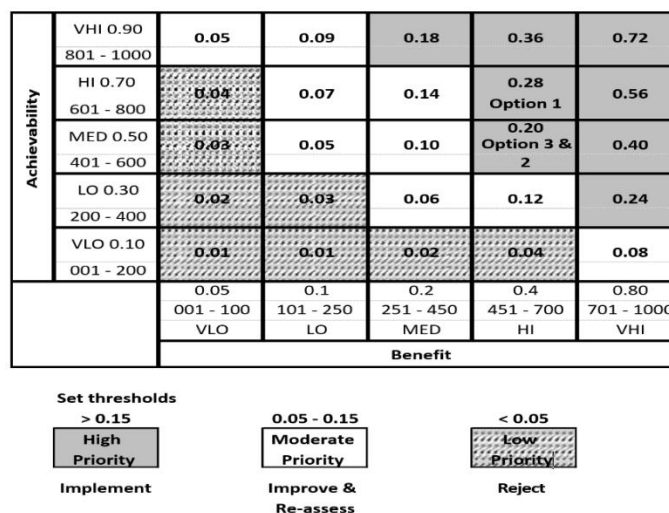


Figure 4 - MESA

Task-oriented Breakdown Structure

Task-oriented WBS proposes better integration of deliverables and the expected needs and benefits. Task-oriented WBS uses verb-noun expression in order to explain project managers how to achieve the CSFs. In this study, the explanation about the WBS was only for Project 2 (see Figure 6), as an example. From the exhibit, project 2 had four main actions: analyze situation, increase job satisfaction, develop academic personnel, enhance knowledge and experience exchange. These actions were then decomposed into several activities in every main action. It was challenging to establishing task oriented WBS because it had to be re-reviewed for its logical integration to the project, Critical Success Factors, Function Breakdown Structure, and stakeholders' needs and expectations.

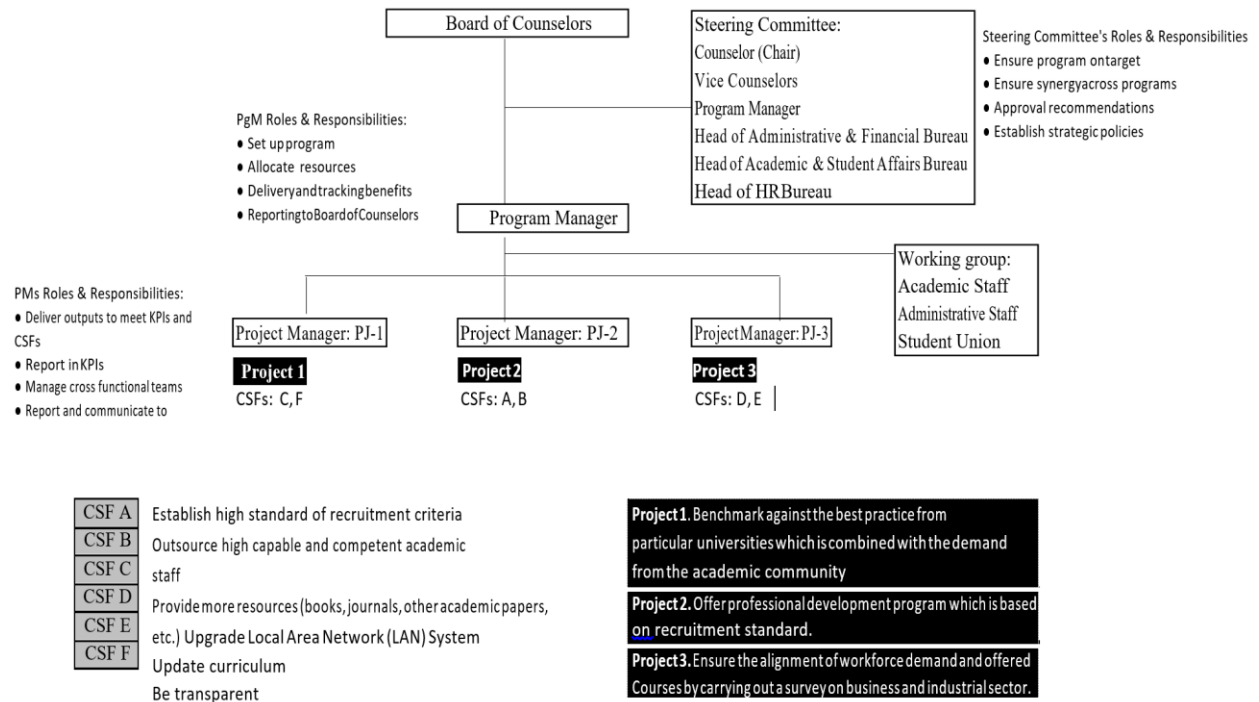


Figure 5 - Organizational Breakdown Structure

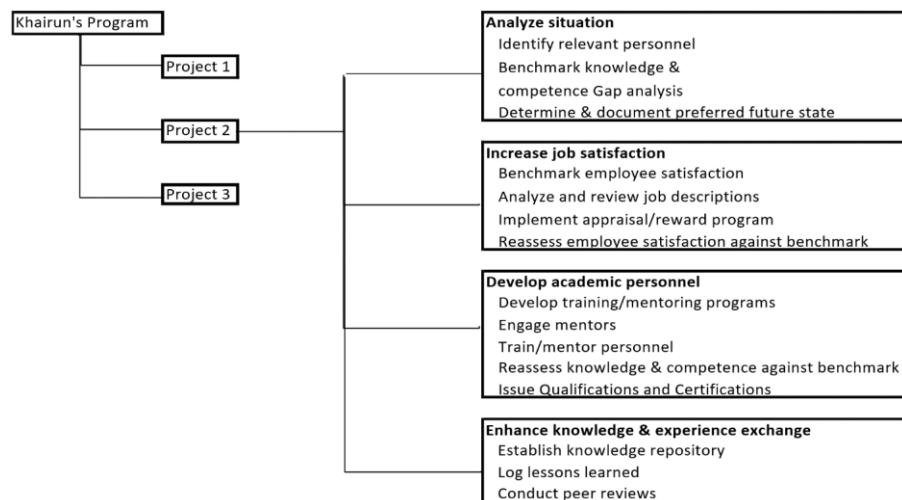


Figure 6 - Task-oriented Breakdown Structure

CONCLUSIONS

An official implementation of program management has been widely open. The scarce resources of an organization, including Khairun University, has forced top management to strategically managing a number of project-based activities and tasks; because they aim to achieve similar strategic objectives. The result of implementing the model demonstrates that only few projects are allowable to be executed. MESA© is

implementable to assist managers and top management in prioritizing potential ideas, yet under limited resources. By managing concurrently, program management can ensure the alignment between projects' and organization objectives. This was the main contribution of this study.

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