

**A STUDY OF THE IMPLEMENTATION OF PROCUREMENT MANAGEMENT
SYSTEM TO A PROJECT SUCCESS IN MEGA PROJECT CONSTRUCTION IN
MALAYSIA: A CASE STUDY OF KUALA LUMPUR INTERNATIONAL AIRPORT
2(KLIA2)**

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**Thesis submitted in fulfillment of the requirements for the award of the degree in Bachelor
of Project Management with Honours**

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DEC 2014

ABSTRACT

Procurement management system is very important in any industries area especially in construction area. Procurement is a highly skilled profession. It is focuses on people the knowledge, skills and capabilities either both of the public and private sector. It is because to implement procurement to innovation and ensure that these are required level of achievement. By managing a success project, it can help to minimize the risk of a project. The purpose of this study is to the implementation of procurement management system to a project success in mega project construction in Malaysia. Procurement management systems were examined to see the related between Project Management Body of Knowledge (PMBOK) and procurement management system in KLIA2. This study also identified the failure factors in procurement management in KLIA2. In conducting the research, questionnaires were collected in interview with forth respondents in Malaysian Airport Holdings Berhad (MAHB), UEM Construction Berhad and LKHDM Sdn. Bhd. The data already recorded, then analyzed through breaking down the point. The data also collected from secondary data which adhered from website journal and Jabatan Arkib Negara and is essential in narrow down the process. The result shown the process of procurement management system in KLIA2 fail based on three aspects that is human management factor, process factor and contract and technical factor. In conclusion, procurement management system is important to project successes. Once procurement management system in KLIA2 have a problem and make the project are delays. Then it will improve the procurement process in mega project construction. The information of this study will be useful in managing procurement management system.

ABSTRAK

Pelaksanaan sistem pengurusan perolehan adalah sangat penting di mana-mana kawasan industri terutama kawasan pembinaan. Perolehan memerlukan kemahiran yang tinggi. Ia adalah tertumpu kepada sikap manusia yang berpengetahuan, berketrampilan dan berkemampuan samada dalam sektor awam dan sektor swasta. Ini adalah kerana bagi melaksanakan perolehan yang berinovasi dan memastikan bahawa ia mencapai tahap prestasi. Dengan pengurusan projek yang berjaya, ia dapat membantu mengurangkan risiko bagi sesuatu projek. Tujuan kajian ini adalah untuk melaksanakan sistem pengurusan perolehan kepada kejayaan sesebuah projek dalam pembinaan mega projek di Malaysia. Sistem pengurusan perolehan telah diperiksa untuk melihat kaitannya diantara Pengurusan Projek Badan Pengetahuan (PMBOK) dan sistem pengurusan perolehan di KLIA2. Kajian ini mengenalpasti faktor-faktor kegagalan dalam pengurusan perolehan di KLIA2. Dalam menjalankan kajian ini, soal selidik telah dikumpul dalam proses temubual dengan empat orang responden di Malaysia Airport Holdings Berhad (MAHB), UEM Construction Berhad dan LKHDM Sdn. Bhd. Data telah direkodkan, dianalisis melalui penulisan semula isi penting. Data juga dikumpul melalui data sekunder yang didapati dari laman web, jurnal dan juga dari Jabatan Arkib Negara dan dianalisa melalui isi penting. Hasil penelitian menunjukkan faktor kegagalan proses sistem pengurusan perolehan di KLIA2 dikaji berdasarkan tiga aspek iaitu faktor pengurusan manusia, faktor proses dan faktor kontrak dan teknikalnya. Kesimpulannya, pengurusan sistem perolehan adalah sangat penting bagi memastikan keberhasilan sesuatu projek. Setelah dikaji sistem pengurusan perolehan yang dilaksanakan di KLIA2 adalah bermasalah dan membuatkan projek tersebut kelewatan. Kemudian, ia akan meningkatkan proses perolehan dalam pembinaan projek mega. Maklumat kajian ini diguna dalam menguruskan sistem pengurusan perolehan.

LIST OF FIGURE

Figure	Title	Page
1.1	Research Methodology Framework	7
2.1	Flow of Procurement Process	12
2.2	Project Procurement Phases cycle	14
2.3	Contract and Procurement Management Activity	15
2.4	Category of Building Procurement System	16
2.5	Flow Process of Separated Procurement System	17
2.6	Flow Process of Integrated Procurement System	19
2.7	Flow Process of Management Contract	20
4.1	Structure of Contract and Functional Relationship	37
4.2	Planning Procurement Flow in KLIA2	38
4.3	Project Life Cycle	42

LIST OF TABLES

Table No.	Title	Page
2.1	The Most Common Root Causes of Capital Project Issues	16
4.1	The Comparison between LCCT, KLIA & KLIA2	34
4.2	KLIA2 Development Cost Details	39
4.3	The Major Upgrades in Specifications	44

LIST OF APPENDICES

Appendix	Title	Page
A	Gantt Chart for Final Year Project 1	60
	Gantt Chart for Final Year Project 2	61
B	Semi Structured Interview Questionnaire	63-64
C	Interview Evidence	65-70

LIST OF ABBREVIATIONS

PMBOK	Project Management Body of Knowledge
ILO	Internal Labour Organization
MAHB	Malaysian Airport Holdings Berhad
D&B	Design & Build
BOT	Build,
PMC	Project Management Contractor
ETP	Economic Transformation Programme
MRT	Mass Rapid Transit
CCC	Certificate of Completion and Compliance
ORAT	Operational Readiness and Airport Transfer
ICAO	International Civil Aviation Organization
FAA	Federal Aviation Administration
LCCT	Low Cost Carrier Terminal
PBES	Performances Based Evaluation System
M&E	Mechanical & Electrical
JV	Joint Venture
MTB	Main Terminal Building
BHS	Baggage Handling System

TABLE OF CONTENT

CONTENTS	PAGES
SUPERVISOR DECLARATION	ii
STUDENT DECLARATION	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
ABSTRACT	vi
ABSTRAK	vii
LIST OF FIGURES	viii
LIST OF APPENDICES	ix
LIST OF TABLES	x
LIST OF ABBREVIATIONS	xi
TABLE OF CONTENT	xii
 CHAPTER 1 : INTRODUCTION	
1.1 Introduction	1
1.2 Problem Background	2
1.3 Problem Statement	3-4
1.4 Aim and Objectives of Study	5
1.4.1 Aim	5
1.4.2 Objectives	5

1.5	Research Question	5
1.6	Research Methodology Framework	6-7
1.7	Scope of Study	8
1.8	Significant of The Study	8
1.9	Operational Definition	9
	1.9.1 Project Procurement Management Process	9
	1.9.2 Mega Project Construction	9
1.10	Expected Results	10

CHAPTER 2 : LITERATURE REVIEW

2.1	Introduction	11
2.2	Project Management Body of Knowledge	12
2.3	Contracting Strategy in Mega Project	13
	2.3.1 Types of Contract	13
2.4	Procurement Management Overview	14
	2.4.1 Introduction and Definition Procurement Management	14
	2.4.2 Procurement Process	14
	2.4.3 Contract and Procurement Activity	15
	2.4.4 Procurement Method	15
	2.4.5 Procurement System	16-20
2.5	Mega Project Construction Issues	20

2.6	International Airport	21-22
	2.6.1 Berlin Brandenburg Airport	22
2.7	Kuala Lumpur International Airport 2 Issues: Case Briefing	23
2.8	Challengers and Problems Arise in Managing Procurement	24
	2.8.1 Conflict Owner and Contractor	24
	2.8.2 Lack of Accountability and Transparency Mechanisms	24
	2.8.3 Close Relationship with Supplier	24
2.9	Summary	25

CHAPTER 3 : RESEARCH METHODOLOGY

3.1	Introduction	26
3.2	Theoretical Framework / Research Objective	27
3.3	Research Design	27
	3.3.1 Qualitative Research	27
3.4	Data Collection	28
	3.4.1 Primary Data	28
	3.4.2 Secondary Data	28
3.5	Instrument Development	29
3.6	Data Analysis	30
	3.6.1 Recording the Information	30

3.6.2	Analyzing the Data	30
3.7	Summary	31
CHAPTER 4 : CASE STUDY, DATA ANALYSIS AND FINDINGS		
4.1	Introduction	32
4.2	Case Study	33
4.3	Kuala Lumpur International Airport 2	34
4.3.1	Key Players	35
4.3.2	Project Details	35-36
4.3.3	Procurement Management Process	37
4.3.3.1	Planning Procurement	38
4.3.3.2	Conduct Procurement	38
4.3.3.3	Administer Procurement	39
4,3,3,4	Close Procurement	39
4.4	Failure Factors of Procurement	40
4.4.1	Human Management Factor	40
4.4.2	Process Factor	41-42
4.4.3	Contract and Technical Factor	42-44
4.5	Conclusion	45

CHAPTER 5 : CONCLUSION AND RECOMMENDATION

5.1	Introduction	46
5.2	Limitation of the Study	47
5.3	Recommendation for Future Research	47
5.4	Recommendation of the Study	48
5.5	Discussion / Conclusion	49-51
REFERENCES		52-57
APPENDICES		58-62
A	Gantt Chart for Final Year Project 1 & 2	63-64
B	Semi Structure Interview Questionnaire	65-66
C	Research Results	67-72

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

This chapter is given that an overall introduction on this dissertation consisting research background, statement of the research problem, the objectives of the research, the scope of the study, the research question and research methodology framework this dissertation. The last part of chapter 1 will explain the expected result of the research. All information in this chapter will help reader understand on what this research is all about.

1.2 PROBLEM BACKGROUND

This research intended to carry out because the intention and curiosity of the significant relates the procurement activity in Kuala Lumpur International Airport 2 (KLIA 2) within the procurement process in Project Management Body of Knowledge (PMBOK) and also the failure factor of procurement management in Kuala Lumpur International Airport 2. (KLIA2) Procurement management is a purchase process the products, services or results needed from outside the organization to perform the work. Procurement management also includes administering any contract issued by the buyer that is acquiring the organization from the seller performing and administering contractual obligations placed on the organization by the contract. (George Belev, et al., 2004).

Procurement management processes from Project Management Body of Knowledge (PMBOK) involve plan procurements, conduct procurements, administer procurements and close procurements. Procurement means acquiring a goods and service from outside sources include purchasing and outsourcing. The three items include from procurement that is procurement service, project procurement and contract management.

However in this recent arena, the Government procurement process is to minimize delays and to obtain financially the most advantageous and qualitatively the best services, (Daya Liyanage, 2006). The registration of suppliers will be mitigating interruption and unnecessary delay in procurement. The bidding process is encounter the delivery delays and failure to provide the supplies where and when they are needed, (International Labour Organization (ILO) and World Bank).

A research is needed in Procurement Management because of several deficiencies observe in the Procurement Management system existing in the Public Sector Organizations. Wherever the construction work or purchasing is done, it was not completely accepted by the client or requirement is not satisfactorily competed. Hence the beneficiaries make repeated requests. The fund used also does not being in best product or service due to lack of knowledge, lack of present technology development and inadequate capacity of the public sector staff etc.

1.3 PROBLEM STATEMENT

Procurement is a highly skilled profession. Hence, both of the sectors public and private managers to be focuses on people the knowledge, skills and capabilities. They need to implement procurement to innovation and ensure that these are required level of achievement. The successful of procurement activities depend on both supply and demand side capabilities.

Kuala Lumpur International Airport 2 (KLIA2) is one of others Malaysian's largest constructions and low cost air terminal. The planned for completion date in September 2010 but the KLIA2 launch in Mei 2014. Since, the process is delays more than one year make many departments are involved in this project have responsible to manage it. The delay has been mainly to changes the design and the size of the airport. Malaysia Aiport Holdings Berhad (MAHB) as a government agencies start to point the finger at AirAsia Bhd as a main contractor. (The edge Malaysia, July 2013) The airport size has been change from the volume of 30 million up to 45 million. The project is delay and higher the cost of completing KLIA2, a terminal dedicate to low cost carriers.

The process of procurement management system has fourth stage in PMBoK 4th Edition which is plan procurement, conduct procurement, administer procurement and close procurement. Malaysia Holdings Airport Berhad (MAHB) is responsible for the construction as instructed by the Government of Malaysia in order to suffice to the overwhelming demands on low cost carrier airlines. MAHB point out the claiming that it is not on fault to finding the mission but that is clarifying things because the company has been slammed for supposedly not managing the project well. The contractor underestimated the difficulties to solve the problems earlier in making the building especially watertight. (Business News, May 2013) Based on this situation, the process of planning procurement is it not clears from the two parties.

In the earlier days, traditional procurement system was practiced by both the public and private sectors to develop their projects. Beginning from 1990s, Malaysia adopted a new procurement system to cope with the increasing number of project implementation, complexity of building requirement and mega infrastructure projects to support the country's growth (Rashid, et. al., 2006). He added that the introduction of different 'fast-tracking' project procurement systems is an effort by the industry to offer better deals to its clients or customers, as they start realizing the importance of 'value for money' for their projects in terms of cost, time, and quality. The new procurement practices which were said to be 'fast tracking' are D&B, BOT and PMC. However, the PMCs, which supervised and managed a majority of government projects, failed to control costs, design and scope of those projects, resulting in higher costs (Ibrahim, et.al. (2010).

According to the idea mentioned above, this research aims to identify the significant relates of the procurement activity in KLIA 2 with the process in PMBOK and the failure factors procurement management of KLIA 2. This research can help of some other case study of construction project in the Malaysia and can be improve the project performance for the next mega project construction.

1.4 AIM AND OBJECTIVES OF STUDY

1.4.1 Aim

The aim of this research to identify the significant relate the procurement activity within procurement process in PMBOK and failure factor procurement management of Kuala Lumpur International Airport 2 (KLIA 2) to achieve the project success in mega project construction in Malaysia.

1.4.2 Objectives

- i. To relate between the procurement activity in Kuala Lumpur International Airport 2 and procurement process in PMBOK.
- ii. To identify the failure factors in procurement management in Kuala Lumpur International Airport 2.

1.5 RESEARCH QUESTION

- i. What are the relations between the procurement activity in KLIA 2 and procurement process in PMBOK
- ii. What are the failure factors in procurement management in Kuala Lumpur International Airport 2.(KLIA 2)

1.6 RESEARCH METHODOLOGY FRAMEWORK

This part reviews the methods to apply in collecting the data to identify the relations between the procurement activities in KLIA 2. Research start by having preliminary study, secondary study, data collection and followed by analysis findings, conclusion and recommendation. Overall, there are included 5 stages:

i. Preliminary study

The preliminary study is a stage to develop idea on decided topic. The data can be collected from books, journals, articles for the purpose of deciding the title of research objectives and problem statements.

ii. Theoretical study

The theoretical study is more focus on the literature review and deeply understanding about the research. The reviews come from various sources such as journals, books reports, newspapers, student thesis and websites. The ideas will be defined to write the aim and objectives of the research.

iii. Data collection

Collection of data is important stage to towards accomplishing the aim and objectives of the dissertation paper. The primary data is compiled from the semi-structured interview on the manager and procurement department and secondary data is obtained from books, journals, newspapers in Jabatan Arkib Negara and student thesis etc.

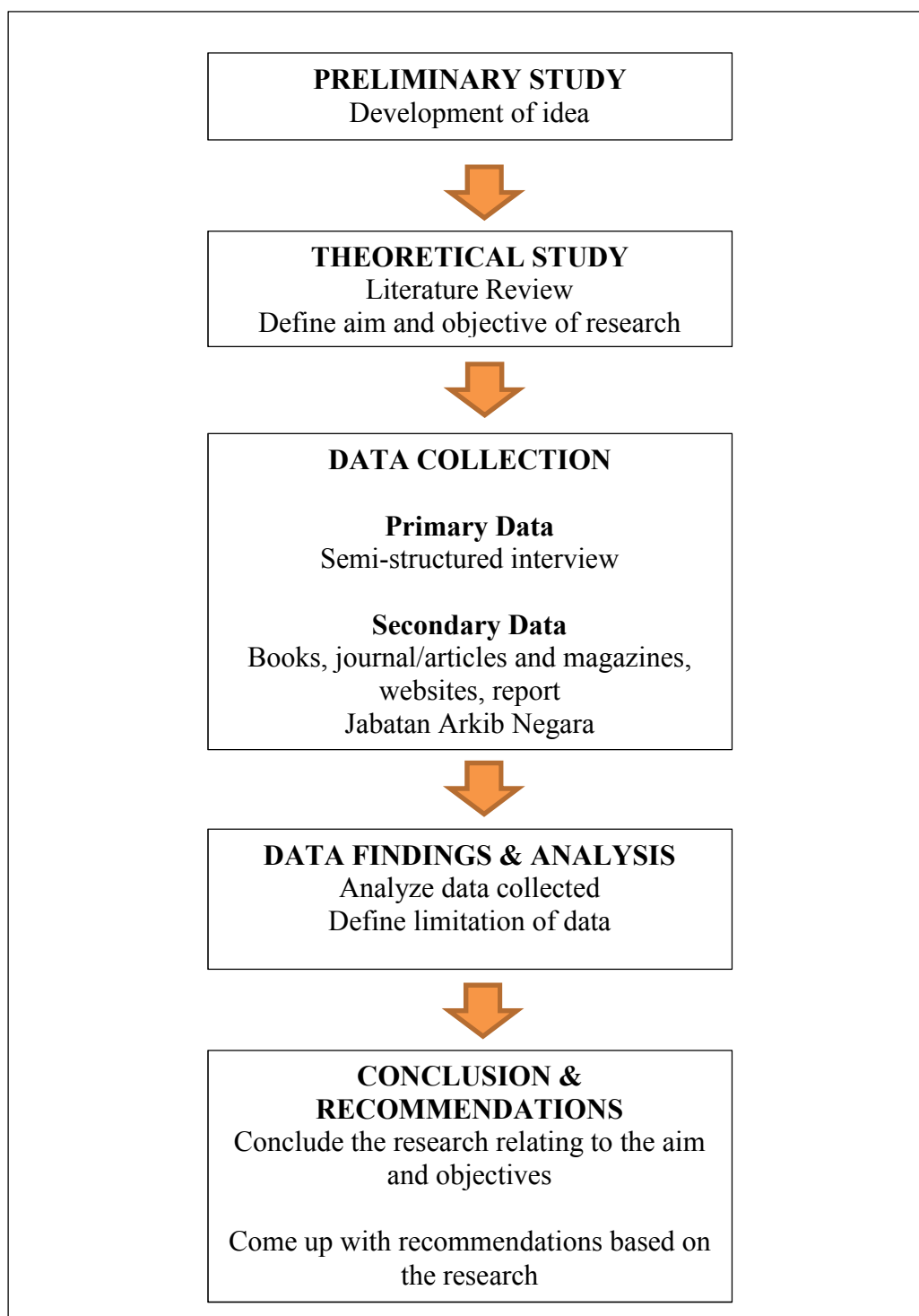
iv. Analysis findings

All the data collection from the first and second stage will be analyze in order to conclude with the finding that can achieve the objectives of the research. The failure factors on KLIA 2 will be found out and proper plan and recommendation as a final outcome of the research paper.

v. Conclusion and recommendation

In the last stage of the research is findings would be able to show the result of the research. Conclusions need to be writes based on the objective of the study. At the same time, some appropriate recommendation related to the problems and as a better solution or further research purposes.

Figure 1.1: Research Methodology Framework



1.7 SCOPE OF STUDY

Due to this research is carrying the procurement management systems in mega project construction, so, this study will focus on Kuala Lumpur International Airport 2 (KLIA 2). This study will focused on procurement activity and failure factor in procurement management in achieving a project success by relate with PMBOK. The research confined limited to Kuala Lumpur International Airport 2 (KLIA 2) only. Semi structured interview were conducted with targeted respondents of from Contract Manager and Assistant Manager from UEM Construction Sdn. Bhd.(UEMC), senior manager from Malaysian Airport Holdings Berhad (MAHB) as a client and also the project director as a consultant for client, Ar. Hisham Ali.

1.8 SIGNIFICANT OF THE STUDY

The important of the study for this research is to identify the failure factors of procurement management and related procurement activity within the procurement process in PMBOK. Since Malaysia is still new in constructing mega project construction, therefore the understanding on procurement management and procurement process is essential for future development. Therefore, the awareness regarding the process of procurement systems can be organized with clearly with both side whether supplier or buyer.

Meanwhile, the result of study can be applied into variety of industry as guideline and assist project manager and team member to managed procurement management systems effectively because the result is explain the failure factors of procurement process in mega project construction, Kuala Lumpur International Airport 2 (KLIA 2) able to improve the project performance for the next mega project construction.

1.9.1 OPERATIONAL DEFINITION

1.9.2 Project Procurement Management Process

According to PMBOK 4TH Edition, project procurement management process is defined the interaction with each other and the process can involve effort from a group of person, based on the requirement of the project. Each project occurs at least once in every project and occurs in one or more of the project phases. The process is included that is plan procurements, conduct procurements, administer procurements and close procurements.

1.9.3 Mega Project Construction

Mega project constructions are defined as the cost of the project having multi million or even billion dollars and the time frame measured in years. The term procurement are related with the mega project construction, the procurement concept are used to cover the process ranging from establish the requirements, global sourcing, placing contract, overseeing execution and in some cases dealing with through-life support (Hall & Khan, 2006).

1.10 EXPECTED RESULTS

Expected result will focus on get the much and the best information as possible on the research questions. Another expectation is can get the information about the key failure factors of the procurement management in Kuala Lumpur International Airport 2. Furthermore, expectation to receive back sufficient responds to help in collects data and analyses and then determine the relations procurement activity in KLIA 2 and the procurement process in Project Management Body of Knowledge. (PMBOK) The processes of procurement management in KLIA 2 have positive relates within the procurement process in PMBOK. That is plan procurement, conduct procurement, administer procurement and close procurement.

The failure factors of procurement management in KLIA 2 can be expect the problems arise from lack of communicating and managing expectation with clients, team members and stakeholder. The flow of information was not structured to ensure the process of managing change was clear.

The second factors that will be happened in KLIA 2 poor of strategic project planning. This process to ensure the plans that are put in place effectively streamline and offer quick responses to any conflict and issues arising out of the competing demand from external and internal parties.

I also hope that this study provides positive result to improve the contract and procurement systems for another mega project in Malaysia. This study also can identify and see the causes of project construction in Malaysia will be delay. In this study also be able to add a little bit of improvement that should be added to achieve a quality of buildings in Malaysia.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of this chapter is to provide a more detail information and news about research. This chapter explains construction projects issues, construction mega project, procurement management overview, definition of procurements and procurement in the construction area. Last but not least, challengers arise in managing procurement will be fully explained in this chapter.

2.2 PROJECT MANAGEMENT BODY OF KNOWLEDGE

Project Management Institute was published the Project Management Body of Knowledge (PMBOK Guide) in 1996. PMBOK is a collection of process and knowledge area about the project management profession acceptance as a best practice. PMBOK that is the knowledge and practice describe the most of project and there is consensus their value as a good practice. Project Procurement Management includes for ten knowledge areas contains. The procurement process are interact each other and this process include the other ten knowledge areas.

Based on the PMBOK Guide 4th Edition Project Procurement Management processes which include the following:

- i. **Plan Procurement** - the process of documenting project purchasing decision, specify the approach and identify potential sellers. This process it's about what to require, how to require, how much is needed and when to require it. In this stage, planning process included some of other committer in the project for example, project manager and quantity surveyor.
- ii. **Conduct Procurement** - the process of obtaining seller responses, selecting a seller and awarding a contract. The process to selecting the best of vendor, the project team should make the decision.
- iii. **Administer Procurement** - the process managing procurement relationships, monitoring contract performance and making changes and correction as needed. In this stage, the project will be started like a schedule planning. Quantity surveyor can monitor the process order.
- iv. **Close Procurement** - the process of completing every each project procurement. The last stage also important to make sure the buildings is saving to entrance. The organization can get the certificate.

Figure 4.2, Flow Procurement Process

