

Performance Assessment of Myanmar Telecommunication Sector Reform Project

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Abstract: The paper analyzed the cost and schedule performance of a real telecommunication infrastructure project in Myanmar. The reason for money can not be disbursed in time is poor scope management, so the EVM characteristics of the project both in cost and schedule perform bad. Terrible project situation is another cause which effect project performance as well. The proper selection of organization structures and procurement methods may help to improve the project performance.

Keywords: EVM; Project performance; Cost

1. Introduction

Myanmar telecommunication sector reform project (P145534) [1] is a portfolio which was supported by specific world bank investment loan and constructed in the country of Myanmar, Southeast of Asia. The boarding date of this portfolio is on April 1st, 2014 and expected clothing date is on December 31st, 2019. Total imple-

mentation duration is nearly 6 years. The Ministry of Communications and Information Technology (MCIT) as a part of government borrowed 31.5 million USD from the world bank IDA to reform the previous communication conditions through a series of projects. The 3 components and 1 project supporting action are as below:

Table 1. Summary of budget for all components

Components	Cost
Creating an enabling environment for connectivity	14
Extending connectivity to rural areas	10.65
Enabling e-Government Foundations	4.79
Project Implementation Support	2.06
Total	31.5

The objectives of these 4 components are to enable the telecommunication environment and to extend the net coverage of the country, and to establish a e-Government foundation. Creating an enabling environment for connectivity is the main purpose of component 1 and the net connectivity to rural areas is accomplished through component 2. E-Government work is planned to be done in component 3, and supporting component is mainly responsible for projects implementation supporting.

2. Low Percentage of Project Objectives Accomplishment

In order to manage and monitor the process and performance of those projects, different kinds of indicators are set to assess how well the portfolio goes. According to the periodical auditing reports, the process of project is determined by 14 indicators as below (Table 2) which are defined based on 4 components.

Table 2. Indicators for project assessment

No.	Indicators
1	Direct project beneficiaries
2	Female beneficiaries
3	Myanmar Telecommunications Commission established as an independent institution by the end of CY 2015
4	Access to Telephone Services (fixed mainlines plus cellular phones per 100 people)
5	Percentage of spectrum assignments made within 30 days of application.
6	Access to Internet Services (number of subscribers per 100 people)

7	Myanmar National Portal operational
8	Number of licensed telecommunications operators
9	Spectrum Management and Monitoring System established
10	Myanmar Post and Telecommunications corporatized
11	Universal service strategy adopted
12	Number of pilots implemented
13	Number of applications available on the National Portal
14	Number of e-Government visioning and capacity building training conducted with (1) Senior Government officials, and (2) line level project executives

The updated project status reports for all 8 periodical audits (shown as Figure 1) are reviewed and compared. Only 7 indicators show some satisfying result. Indicator 1, 4, 6 and 8 have met the requirement already till the latest audit, indicator 2 and 5 achieved their 67% and 71% of

goal. But others still remain zero or no which means there still over a half of projects not yet been implemented or can not meet the standard determined at the very beginning.

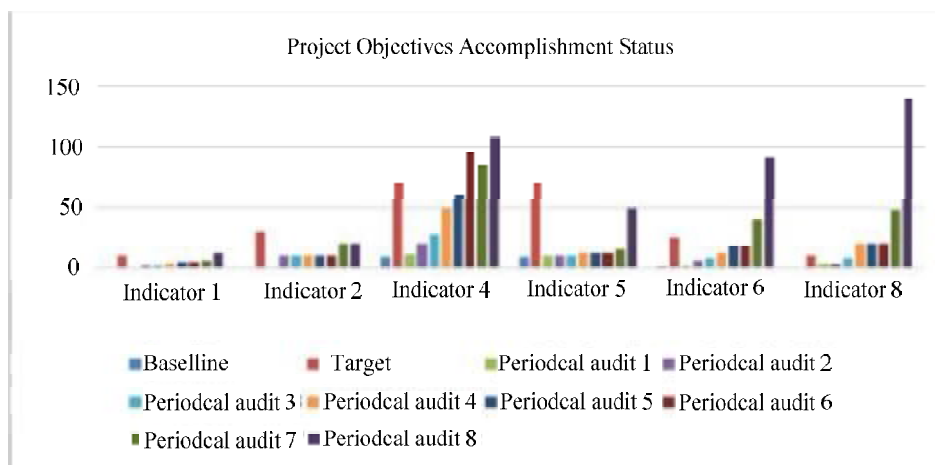


Figure 1. Periodical result of objectives accomplishment

3. Delay of Money Disbursed Due to Poor Scope Management

The fund of telecommunication sector reform project is supported by the IDA of world bank through the government loan. The original expected amount is 31.5 million USD expressed in the first project appraisal. With time going on, MICT has not received the corresponding money disbursed by world bank even a half of amount

still has not been disbursed yet until last month. In 2014, the original budget is 20.6 million USD, only 29% of amount was delivered by 1st of May in 2017. Then the original budget was revised to 31.5 million USD and the disbursed percentage was up to 33% relatively. Two years later, total disbursed amount is still very low under a half of the total budget. The money receipt status is listed as below in Table 3.

Table 3. Periodical money receipt and disbursed status from world bank

Archived date	Current date	Original	Revised	Disbursed	%disbursed
2014/6/2	2014/4/23	20.6	20.6	0	0
2014/12/19	2014/12/9	20.6	20.6	0.62	3%
2015/4/8	2015/3/31	20.6	20.6	0.62	3%
2015/10/13	2015/8/7	20.6	20.6	0.68	3%
2016/2/19	2015/12/31	20.6	20.6	2.04	10%
2016/12/6	2016/10/31	20.6	20.6	2.9	14%
2017/6/30	2017/5/1	20.6	20.6	5.88	29%
2017/12/7	2017/5/1	20.6	31.5	10.27	33%

2018/6/29	2018/2/6	31.5	31.5	12.37	39%
2019/2/18	2018/2/6	31.5	31.5	13.39	43%

The reasons for delay of money disbursed may related to working scope closely. After reviewed the all updated procurement plans, it is not hard to find that working list had been changed for many times, some projects were added or canceled very arbitrarily. Lacking of scope management and effective cost control contributes so much for delay of money disbursed.

In the project management, scope, cost and time control are critical for the success of a certain project. It is never possible to ensure one of them under control without controlling others. Working scope was changed with the cost growth through nearly 20 times of procurement plan revising. Poor scope management skills were shown to the world bank and there is no doubt a signal of high investment risk occurred. As an investor, the world bank certainly will not be pleased to loan money to MCIT any more unless they perform better than before. Without funding resources, the delay of projects processes is much easier to be explained.

4. Cost and Schedule Assessment through EVM

Earned Value Method is a common used way to assess the performance of a traditional project. [2] The limited information and auditing report make it impossible to do detailed EVM analysis for this portfolio. Based on the latest auditing report which was updated on March of 2018, the ACWP (AC) was \$10,882,960.53, BCWS (PV) is \$30,939,026.07. All the procurement plan and contract award reports provide a way to calculate the BCWP (EV), the EV was \$9,879,000. Then EVM is applied to measure the performance of projects. CV could be determined by BCWP and ACWP as the number of -1,003,960.53, SV could be defined by BCWP and BCWS as -21,060,026.07. CPI and SPI are 0.91 and 0.32 respectively. Because of both CV and SV are less than zero, which means there is a significant variance of amount among beginning budget and revised budget for 4 components of the portfolio, and serious delay and cost overrun occurred.

Table 4. EVM assessment for portfolio

EVM Assessment	
BCWP(EV)	9,879,000.00
ACWP(AC)	10,882,960.53
BCWS(PV)	30,939,026.07
CV	-1,003,960.53
SV	-21,060,026.07
CPI	0.91
SPI	0.32

5. Specific Analysis based on a Project of the Portfolio

The Myanmar Telecommunication Sector Reform Project consists of numbers of sub-subjects such as Network Expansion and FTK Project, PSTN Renew Project and some Sub Trunk Projects. To further analysis the project and figure out the critical factors which caused delay and cost overrun, Network Expansion and FTK Project is selected as a case to be studied. It belongs to a part of component 2, the purpose is expanding the network coverage to rural areas of remote counties in Myanmar. Civil work in this project is building a telecommunication site including erecting a high tower for antenna installation. All the works in CW part can be analyzed through setting a WBS and listed in Figure 3. Thirty subtasks can be divided into 3 working packages based on the properties and ranked according to time sequence. The main relationship among these subtasks is Finish to Finish relation. Construction duration of each subtask can be crashed to ensure the shortest completion period. Figure 3 shows the Gantt Charts of working schedule based on the above WBS. Expected construction duration for CW part is 45 days. But the project implementation record said that the average duration is almost 98 days, doubled than the original one.

Such kind of serious delay affects the project performance and even will lead to the failure of project possibly. From the project management knowledge, the environment in which project operates plays a significant role in project implementation period. The influences can be divided into two aspects, one is EEF, the other is OPA [3]. In order to measure the performance and monitor the processes, both of hem need to be taken into consideration. For this huge portfolio, global stakeholders are involved and the difficulty of project management is obvious.

In the EEF side, organization issues, procurement methods and global suppliers are the most three important factors to affect the performance. MICT, as a functional department of government, has less experience to operate such global team and global business even a new company called MPT is organized to operate these kinds of detailed business. The organization structure of the new company remains a traditional style to manage the project, lacking of modern techniques and integrated concurrent engineering methods, so the functional organization structure still be used, low effectiveness and long response latency during project management occurs. In addition, a lot of small bidding lot awards costs much time and power and prevent the client focusing on main purpose. The popular procurement method such as EPC

is highly recommended even it may cost a little bit higher, the convenience could be improved and it helps to avoid the conflicts between design and construction.

From the bidding documents, we know that the goods and consulting firms of this portfolio come from all over the world. It takes months to transport these goods from foreign countries to Myanmar, delay and damage will be common if not managing well in advance.

In the OPA side, continual financial supporting from world bank limits the processes of projects due to poor scope management. Besides, extremely bad weather condition in remote area of this country such as Rakhine State, storms and cyclones make delay happen unpredictably. In YGN and NPT region, it is almost impossible to work outside during rainy season and hot season. The political safety is another critical factor in this country especially in northern and western area. Complexed religious and racial conflicts make usual suspensions and material lost.

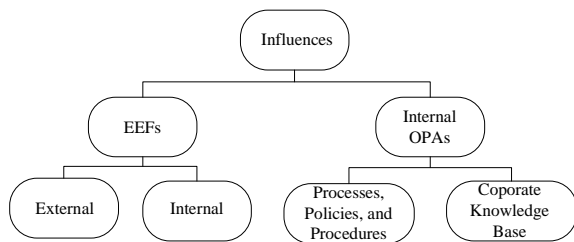


Figure 3. Environment in which project operates (cited from PMBOK Guide)

Some typical factors in EEFs and OPAs should be responsible for serious delay, especially in the complexed country background. And it also brings much difficulties for global team to operate the projects. It is suggested that all influences mentioned in Figure 4 should be involved when coming up with solutions to control the projects.

6. Conclusion and Suggestion

Myanmar Telecommunication Sector Reform Project is one of the most important portfolio of the government. It is not only a common business, but a real contribution to the nation. Traditional management style could not meet the global requirements any more, changes and reforms of national firms are necessary. Borrowed experience from other similar projects in foreign nations, may be that EPC and BOT modes can release the financial pressure of the government to develop the infrastructures in states of poverty.

References

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