



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

Student Name	Walid Ibrahim Ali Zeinu..... وليد إبراهيم علي زينو	اسم الطالب
Students I.D	2021202424	الرقم الجامعي

Section

Master

Date

Thursday

18 / 03 / 2021.

Course Code

(PMG506)

Advanced project Management

Instructions:

- اخر موعد للتسليم هو يوم الخميس 2021-05-08 في تمام الساعة ٩ مساءً.
- الإجابة متاحة باللغة الإنجليزية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الانجليزية.
- يتم تسليم المشروع في صيغة ملف pdf مع الالتزام نموذج الجامعة ولن تقبل أي مستندات أخرى.
- يجب مراعاة أقسام البحث الرئيسية (مقدمة Introduction، دراسات علمية سابقة Literature Review، طريقة البحث Methodology، النتائج والمناقشة Results and Discussion ، وأخيراً المراجع References . وان كان هناك ملحقات Appendices يتم إضافتها)
- يجب الالتزام بـ Theme موحد كما يلي:
- حجم الخط 12.
- نوع الخط Arial.
- لون الخط أسود.
- المسافة بين الأسطر 1.5 line spacing
- عدد صفحات البحث (لا يقل عن ثلاث صفحات ولا يزيد عن ست صفحات).

Instructor's Name: ~~Eng. Amaal Aburumman~~ **Eng. Dr. Akram M. S. Ali**

Advanced project Management Research

1. Introduction

In this research I am going to study one of my projects in which I was assigned as a deputy project manager. The study will focus on the methodology followed for scope, and milestones identification. It is vitally critical for project success to clearly define the scope at the beginning of the project (preferably before project conception phase). “In the definition stage, the appropriate team member(s) determines what it may take to meet the client requirements and develops a plan for that purpose” [1]. Moreover, the research presents a case study, and at the end we shall compare, and discuss the results and draw our conclusion.

1.1 Project Brief

My Project Title is “**Installation and Maintenance of Broadband Wireless Data Link System**”. The Scope of my project covers the installation and maintenance of offshore broadband wireless data link system. The intent of the project is the deployment of offshore and onshore data link by installing a fully integrated, redundant and secured broadband data radio networks with suitable antenna system for Oil and Gas facilities, Rigs and marine vessels. Contractor will be responsible for Design, Supply, Installation, Testing & Commissioning, Training, Support/Service. Moreover, Operations and Maintenance support will be provided by the Contractor who has well experienced workmanship.

Contract period is 45 months, which includes 9 months for design and implementation, and 36 months for the operation and maintenance support of the installed equipment.

Equipment to be installed include Access Point/Base Station (AP/BS) and UTs.

All the installations shall be completed with approved design and method by required time limit. The recommended location for Access Point/Base Station (AP/BS) shall include but not limited to the following:

No.	AP/BS Locations	No. of Radio Set	No. of Sector Antenna	No. of Beam Antenna
1	Location-1	4	4	0
2	Location-1	4	0	4
Total		8	4	4

As for the UTs, the following table shows minimum locations of the UT installation that shall be implemented at the commencement of this contract, and based on “Service Order (SO)”

UT Package	Jack-up Rig	Maintenance Barge	Service Boat	Total
Package-1 Long range with fixed antenna	02	00	00	02
Package-2 Long range with automatic tracking antenna	00	01	05	06

2. Literature Review

Many studies indicated that utilization of efficient, most appropriate to organization scope and milestones identification, relate directly and highly impact the success of a project. “...the intelligent structure of work breakdowns is a precursor to effective project management” [2] A study also proposed that the best way to identify milestones, is by creating a detailed enough WBS, and choose major deliverables as a project milestone [3]. Whereas in my project milestones were chosen best on several factors including the WBS, however the main contribution was to the cost associated with deliverables.

3. Methodology

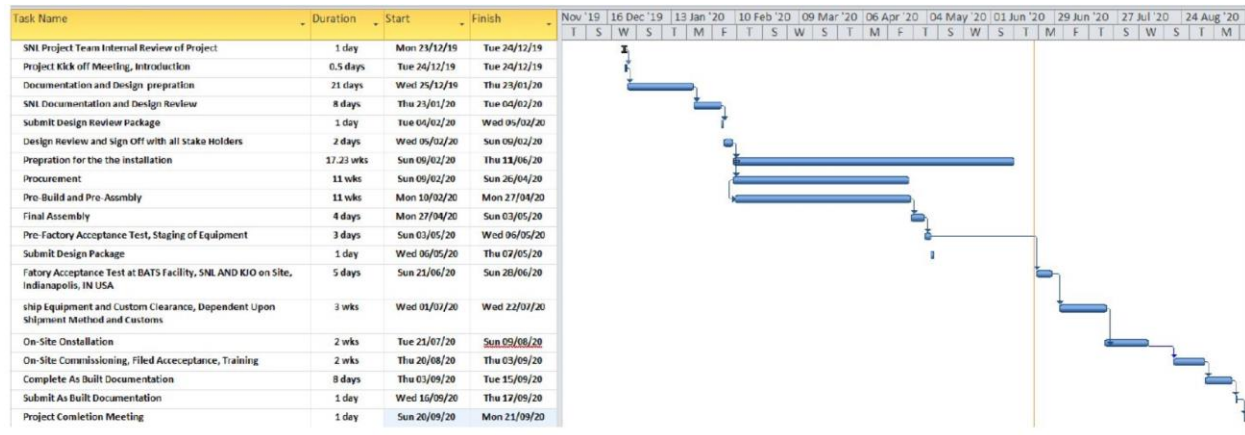
In my project the methods utilized in order to identify the scope, were mainly:

- 1- Always referencing to the company vision “To be a model oil and gas operation in the gulf” and mission “to perform all activities in a competitive, profitable, and responsible way, creating lasting value to all our stakeholders”
- 2- Collect requirement from stakeholders, such as operation departments, and senior staff inputs, and service providers, standardization organizations best practices in the matter.

Upon implementing the above, we identified the need for wireless network in offshore to connect all the company vessels, rigs, and barges. This would add value to the company, as vessels would be able to access company network and perform all types of tasks which can be done at onshore office. Moreover, it would enhance redundancy in communication means beside the voice radio system. As for identifying the milestones, we started by defining the scope through market survey and experience from past projects, comparing with same nature companies’ implementation and company organizational assets including lesson learnt. upon knowing what needs to be done, we created the WBS in detail as possible then through market survey we estimated time and cost associated with every step. Finally, we decide on project milestones using weighted factor scoring model in which we assigned highest weight to the cost factor, as our management has a higher concern for the cash flow. So some high cost activities in a deliverable will be considered as a mile stone and link the cash flow accordingly

4. Results and Discussion

As a result of the methodology utilized the below project schedule was build using Gantt chart



We faced several issues during implementing the scope. Firstly, during defining the scope, some stakeholders were not involved enough, and that resulted on unveiling some requirement by these stakeholders, which the scope missed. For that reason, extra coordination and compromising was utilized to smoothen disagreements, and avoid extra cost to the project. Secondly, the expert advice on the execution of one item on the scope was way off, and caused delay on the project, and additional cost during implementation. Finally, the approach used for identifying the milestones was weighted factor scoring model, giving highest weight to the cost associated activities, which resulted in confusing the stakeholders during the updates, and being less useful when some activities costed a lot higher than expected.

5. Conclusion

In summary, the method taken by our company in order to identify project scope were basically, referring to the company vision, and mission, and Collecting requirement from stakeholders, such as operation departments, and senior staff inputs, and service providers, standardization organizations best practices in the matter. And we concluded that above method was effective, however, a careful analysis of stakeholders (power vs interest matrices) was supposed to take place, and a way to double check or verify expert inputs. As for the milestone's identification process, we applied the weighted factor score model on the developed WBS and assigned highest weight to the cost factor of the

activity. And we concluded that it was not flexible enough to be practical after identifying higher cost for some activities during implementation, and hard to update to stakeholders. Therefore, next time we are going to propose to management to assign milestones based on the logical sequence of the project and more related to major deliverables regardless of cost.

6. References

- [1] (Mesa, Molenaar and Alarcon, 2016).
- [2] (Homer & Gunn, 1995, p. 84).
- [3] (Brotherton, S. A., Fried, R. T., & Norman, E. S. (2008). Applying the work breakdown structure to the project management lifecycle. Paper presented at PMI® Global Congress 2008—North America, Denver, CO. Newtown Square, PA: Project Management Institute)