



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Course

Code

Thursday

Master

Date

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(PMG506)

Advanced project Management

Instructions:

- آخر موعد للتسليم هو يوم الخميس 2021-05-20 في تمام الساعة 9 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**

Project:

You are required to document your role in administering a project. The project may be set in a business, social, sporting, or family environment but must be of a significant size and scale. If you do not have an actual project to write about you may complete the project hypothetically. **This report will be between three to six pages in length.** This is a significant research project.

Your report must address ~~each~~ **ONE** of the following issues:

1. Identify and describe the purpose, scope, and objectives of the project. **Display this information using an appropriate tool.**
2. Describe how the team is given an outline of the project.
3. Describe the strategies that are going to be set up to maintain communication with the team members.
4. Describe the tools that are going to be used to monitor the goals, time frames or milestones.
5. Identify project milestones and activities. **Display this information using an appropriate tool.**
6. Create a budget and link the costs to the key milestones for a project.
7. Describe how you are going to divide tasks and resources amongst a project team. **Display this information using an appropriate tool.**
8. Briefly describe how the progress will be monitored.
9. How are current project records maintained? Who has responsibility for this? provide some recommendations on how this process could be improved.
10. Describe the current procedure for finalizing projects. Create your own procedure and identify how you will evaluate the success of the project.
11. Legislation that may affect the project including health and safety, and anti-discrimination legislation.

Best of luck...

المشروع:

مطلوب منك توثيق دورك في إدارة مشروع. قد يتم تعيين المشروع في بيئة تجارية أو اجتماعية أو رياضية أو عائلية ولكن يجب أن يكون بحجم مناسب. إذا لم يكن لديك مشروع فعلي لتكتب عنه ، فيمكنك إكمال المشروع افتراضياً. سيكون هذا التقرير من ثلاث إلى ست صفحات.

يجب أن يعالج تقريرك كل **أحد** القضايا التالية:

1. تحديد ووصف الغرض والنطاق والأهداف من المشروع. اعرض هذه المعلومات باستخدام أداة مناسبة.
2. صف كيف يتم إعطاء الفريق مخططاً تفصيلياً للمشروع.
3. وصف الاستراتيجيات التي سيتم وضعها للحفاظ على التواصل مع أعضاء الفريق.
4. صف الأدوات التي سيتم استخدامها لرصد الأهداف أو الأطر الزمنية أو المعالم.
5. تحديد معالم المشروع والأنشطة. اعرض هذه المعلومات باستخدام أداة مناسبة.
6. إنشاء موازنة وربط التكاليف بالمعالم الرئيسية للمشروع.
7. صف كيف ستقوم بتقسيم المهام والموارد بين فريق المشروع. اعرض هذه المعلومات باستخدام أداة مناسبة.
8. صف بإيجاز كيف سيتم رصد التقدم.
9. كيف يتم الاحتفاظ بسجلات المشروع الحالية؟ من المسؤول عن هذا؟ تقديم بعض التوصيات حول كيفية تحسين هذه العملية.
10. وصف الإجراء الحالي لإنهاء المشاريع. قم بإنشاء الإجراء الخاص بك وحدد كيفية تقييم نجاح المشروع.
11. التشريعات التي قد تؤثر على المشروع بما في ذلك الصحة والسلامة ، وتشريعات مكافحة التمييز.

مع تمنياتي بالتوفيق..

Replacement of HVAC System from old unit to a new unit

1. INTRODUCTION

HVAC stand for Heating, Ventilation, Air conditioning. Air condition basically is a unit of cold or hot air which removing heat and controlling the humidity of the air that can be available in building. Moreover, there are different basic factors to select the unit system of HVAC which are change of the temperature from the building, the location of insulation for the unit, cost of the unit, and the standard requirement of the HVAC. Also, Air condition system have different types such as All air system, All water system, and Air water system.

Budget is very important of any organization because good estimation of the budget will help the project to be success and knowing how the profit of the project also with cogency plan which is calculate at bidding stage for any risk might case the project of any consequences of risk. However, if there is no budget estimate or not accurate estimation of the project can be cause overrun and failure in the organization which effect the reputation. Estimating the costs in including all resources, direct labor, materials, equipment, services, facilities, information technology, and special categories such as an inflation allowance, and cost contingency reserve.

I was assigned as project engineer to do budget for the replacement of HVAC system from old unit to new unit.

2. Literature Review

In project management profession they are several types of estimation teachings as per following:

2.1 Expert Judgment

It's done by senior or expert with specific knowledge area person who can estimate the budget of the project.

2.2 Analogues Estimation

Analogues estimation is one of the techniques which rely on historical data in the past for similar project to get accurate estimation.

2.3 Parametric Estimation

Parametric Estimation is used statistical data from historical project and it is more accurate estimation.

2.4 Bottom up Estimation

In this technique the estimation duration by aggregation in order to arrive of summary total and work at lower level of details.

2.4 Top down Estimation

It is method used when sometime no information available to derive accurate time and cost which is not available at internal phase of the project.

3. Methodology

Estimates can not be change or modify to fit predetermined budget which already estimated from official budget process. In the case management confirmation of an estimate that not be obtained, revisit the estimating process starting with project definition step (project information, project scope, project location, and site characteristics) in Figure 1. The components of the project cost, and cost estimates are illustrated in Figure 2.

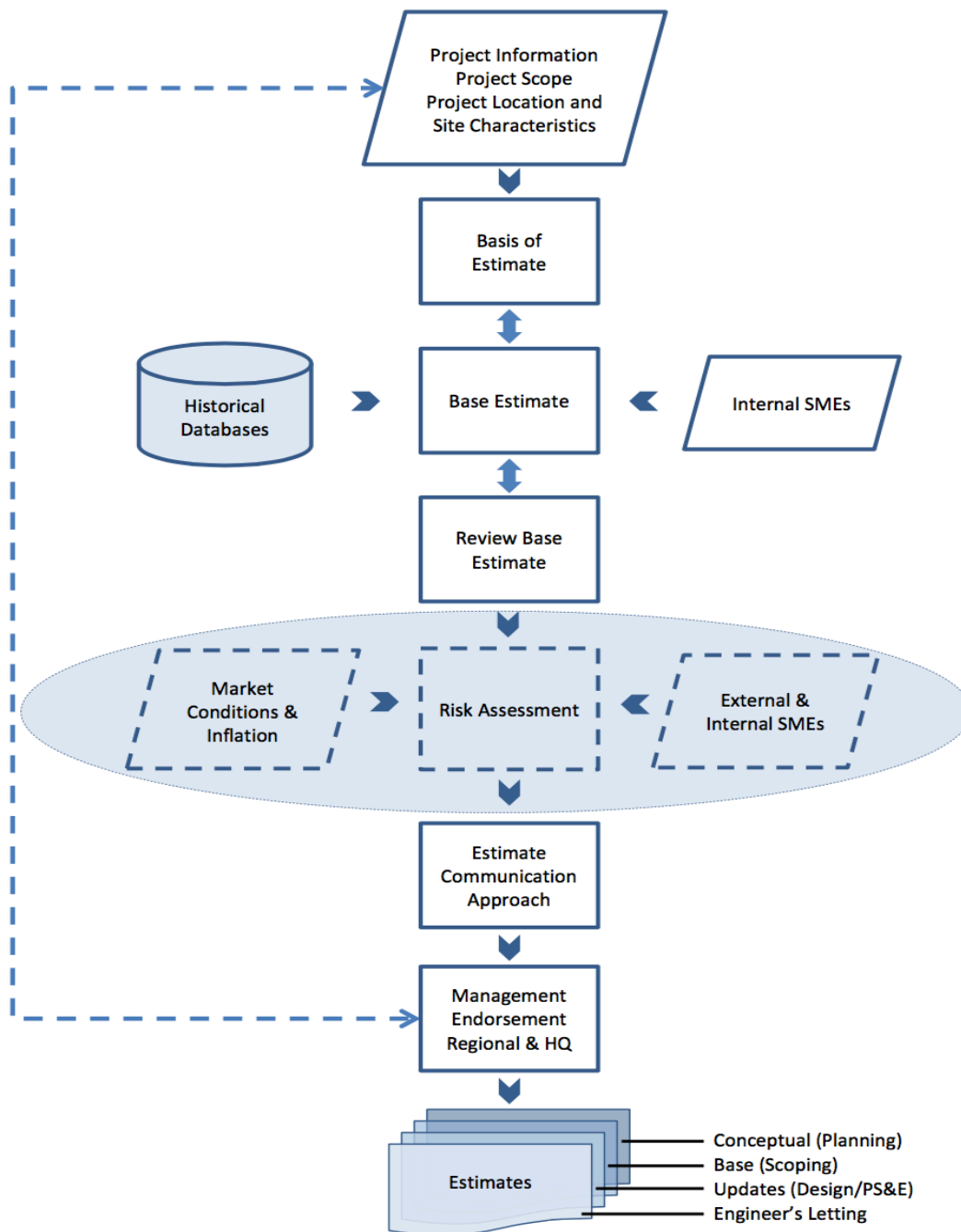
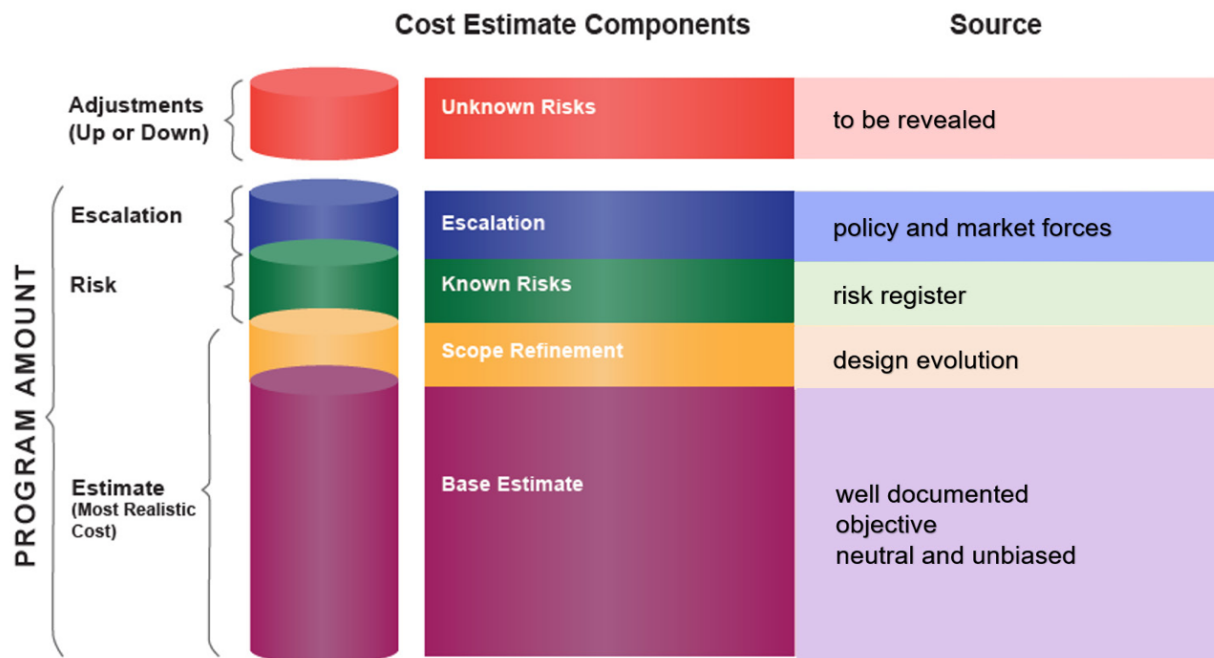


Figure 1



Page 2-6 Cost Estimating Manual for Projects M 3034.04 December 2020

Figure 2 Components of Project Cost Estimates

Estimating methodologies that may be applied of projects at various stages of project improvement include: (1) parametric, (2) historical bid-based, (3) cost based, and (4) risk-based. Every method can be used techniques and tools to support the estimator. A pattern of methods may be making in any given estimate to be accurate.

Parametric Estimation are useful to projects in the planning, scoping, or early design stage. These methods involve practices that use historical data to define the cost of the typical carrying facility using measurements that are easily determined, such as cost per lane mile, per interchange, per square foot, and cost per intersection. The two techniques are commonly used in parametric estimating analogous for similar projects and historical data of the project. Also, it is used with limited amount of details about the project and less costly than other techniques, however it is less accurate and time consuming.

4. Results and Discussion

It is importance of cost management to understand and to do estimation, if you decide to build a construction project, the first thing to do is set the budget. After, knowing how much cost on the project, then need to divide the high level budget into expenses for sub tasks and smaller line items. In our project we used Parametric Estimation which easy due to similar projects already done in the past and the information that provided for current project not complete details. Therefore, of this we used the Parametric Estimation.

Without a budget, it is difficult to control the project, also it becomes impossible to measure whether you are progressing in the right direction of the project is in progress or not. The efficient cost management practices, project managers can as per follow:

- Set clear expectations with stakeholders
- Control scope creep due to impressionable started with the customer
- Track progress and respond with corrective action at a quick step
- Provide predictable margin, and avoid losing money on the project
- Produce data to target for future projects and track long term cost trends

5. References

1. Carlidge, D. (2019). *Estimator's Pocket Book (Routledge Pocket Books)* (2nd ed.). Routledge.
2. Harvard Business School Press. (2003). *Managing Projects Large and Small: The Fundamental Skills to Deliver on budget and on Time*. Harvard Business Review Press.
3. Dalcher, D. (2016). *Advances in Project Management: Narrated Journeys in Uncharted Territory* (1st ed.). Routledge.