Research Paper *IJMSRR*
*Impact Factor :**3.029*** *E- ISSN - 2349-6746*
Peer Reviewed & Indexed Journal *ISSN* -2349-6738

THE ESSENCE OF COST ESTIMATION: SUCCESS MANTRA

Prof.P.Maheswari
Kasturba Gandhi Degree and PG College for Women West Marredpally, Secunderabad, Telangana State, India.

Introduction

One of the most vital factors for success of a Project is the Cost Management and is extremely important for running successful projects. Goals of an organization is directly related with cost management, in many ways reflects organization's goals, mission statement and business plan. Cost management has been critically various activities including data collections, cost accounting and cost control and it involves taking financial report information and applying it to projects at finite levels of accountability in order to maintain a set and clear sense of money management for the project. Cost accounting and cost control forms the two of the main mechanisms for identifying and maintaining control over projects, on which the successes of the project is dependent.

The success of project is mainly dependent on Cost estimation and is the first step in determining whether or not a project is viable that is can the project be done profitably and can be taken up or not. One of the initial processes is the Cost estimation processes, create a reasonable budget baseline for the project and identify project resources both human and material as well creating a time phased budget for their involvement in the project, since the ultimate goal is to reach the target. In this way we can begin to see that cost estimation and project budgeting directly related to each other and dependent on each.

Estimating project costs is not only a challenging process, but critical and time bound for some of the project to be undertaken and that can resemble an art form as a science. There are basically two important project principles at work in cost estimation. Primarily the more clearly the project's various cost are defined in the beginning there is less chance of making estimating errors and this is crucial. Other is the more accurate are the initial cost estimations, the greater the likelihood of preparing a project budget that the project within the need to cost out the project on a disaggregated basis, that is to break the project down by deliverable and work package as a method for estimating task level costs and making sub-project part is most crucial.

Methods of Cost Estimation

Since Cost Estimation is not only art but also involves science companies use a variety of methods, supported by technology and software tools, to estimate project costs, ranging from the highly technical and quantitative to the more qualities approaches. The following are the common cost estimation methods for cost estimation :

1. **Ball park estimation:** These methods basically depend on time and information and which are scarce or limited and it is referred to as order of magnitude estimate. It can be said that the ballpark estimate is typically used when either information or time is scarce. Companies often use them as preliminary estimates for resource requirements or to determine if a competitive bid can be attempted for a project contract. This method is used for quick estimate by Managers would have little time to make a completely accurate assessment of the firm's qualifications or requirements, but they could still request ballpark estimates from their personal to determine if they should even attempt to bid the proposed through a more detailed analysis. The unofficial rule of thumb for ballpark estimates is to aim for an accuracy of about ±30%.

2. **Comparative Estimates**: As the name suggests that comparative estimates are based on the assumption that historical data can be used as a frame of reference for current estimates on similar projects, depends on past data. Effective comparative estimates depend upon some important supplementary sources including a past history of similar projects and a detailed archive of project data that includes the technical, budgetary and other cost information. Adjusting costs to account for inflation simply becomes a necessary step in the process. The key to making comparative estimates meaningful lies in the comparability to pervious project work. While some argue that comparative estimates cannot achieve a degree of accuracy close to ±15%, the estimate may be much more accurate and useful.

3. **Feasibility Estimates**: For the purpose of guidelines on real numbers or figures derived after the completion of the preliminary project design work. This is followed by initial scope development it is possible to request quotes from suppliers and other sub-contractors with a greater degree of confidence, particularly as it is working project baseline.

Basically feasibility estimates are routinely used for construction projects, where there are published materials cost tables that can gave reasonably accurate cost estimates for a wide range of activities based on an estimate for a often expressed in terms of a degree of accuracy of ±10%.

4. **Definitive Estimates**: Once the preliminary design is complete these estimates can only be given most design work, at a point when the scope and capabilities of the project are quite well understood. A more concrete base is lied at this stage. At this point a comprehensive project plan is in place. As it is understood that cost estimation should naturally improve with time, as definitive estimates should be accurately reflect the expressed cost of the project, barring unforeseen circumstances at completion. However definitive estimates can be expected to have an accuracy of ±5%.

The point is which cost estimation method should a project's organization employ, will all depends on presupposes knowledge of the firm's industry, ability to account for and manage most projects cost variables, the history of successful project management a firm possesses, the number of similar projects is has completed in the past , the knowledge and resourcefulness of project managers and the company's budgeting requirements. Basically depends on its resources available for taking up the project, including its domain. The key lies in a realistic appraisal of the type of project one is undertaking, the speed with which various cost estimates must be created and the comfort level of top management has with cost estimation error. The availability of information to expect the project team to provide as accurate a cost estimate as possible and as early as possible.

Problems with Cost Estimation

As in every situation, in spite of project management's best effort a variety of problems affect the ability to conduct reasonable and accurate project cost estimates. Projects with highly innovation, can be notoriously difficult to estimate in terms of costs, especially with changing markets for new products and services. Sometimes cost overruns may be found in some projects. Among the more common reasons are

1. **Low initial estimates**: This is basically caused by misperception of the scope of the project to be undertaken, low initial estimates are a double edged sword. In proposing the low estimates at the start of a project, management is often settling them up to fail to estimate the budget constraints they have imposed. Hence low costs estimates may be created willingly or unwillingly almost always guarantee the result of cost overrun.

2. **Unexpected technical difficulties**: With the dynamic markets, a common problem the cost associated with many project activities is to assume that technical problems will be minimal that is the cost estimated is assumed to be accurate other things being equal. An estimate in order to be successful and meaningful, care must be taken to a hard look at the potential for technical problems, start up delays or other technical risks, competitors. It is a fact that new technologies, innovations procedures and engineering advances are routinely accompanied by failure of design, testing and anticipation.

3. **Lack of definition**: Basing of the result of poor initial scope development of often the creation of projects with poorly defined features, goals or even purpose. The lack of a clear view of the project can quickly spell over into poorly realized cost estimates and inevitable cost overruns. One of important items to recognize that the process of cost estimation and project budgeting must follow a comprehensive scope statement and work breakdown structure and clearly.

4. **Specification changes**: Again changing of markets and other in the ever changing environment in global scenario, one of the most common problems in cost estimation and control is mid-course specifications changes that many projects are so prone to information technology projects, for example are often riddled with requests for additional features, serious modifications and updated processes all while the projects activities are still in development. In the face of serious changes to scope or project specification it is no wonder that many projects routinely overrun their initial cost estimates. In fact, with many firms, initial cost estimates may be essentially meaningless, particularly when the company has a well-earned reputation for making mind course adjustments to scope even big companies suffered, especially software companies.

5. **External Factors**: With the changing government and its policies linked to Inflation and other economic impacts can cause a project to overrun its estimates many times seriously. Sometimes political considerations can influence the shape the course that the project is expected to follow, sometimes even good projects will not take off because of the external factors. This kind of situation is often found in government projects, particularly military acquisitions contracts that have a history of cost overrun, government intervention in the form of oversight committees, multiple constituents and numerous mid-course change requests and sometimes costs to the country itself.

Conclusions

This art and science of Cost Management has been defined to include date collections, cost accounting and cost control and it involves taking financial report information and applying it to project at finite levels of accountability in order to maintain a clear sense of money management for the project. Cost estimation for project costs is a challenging process that can resemble an art form as a science. Companies use a number of methods to estimate project costs, ranging from the highly technical and quantitative to the more qualitative approaches. As risk and return, in spite of project management's best effort, a variety of problems affect the ability to conduct reasonable and accurate project cost estimates. Therefore cost estimation is the key to the success of a project and will pave way for the further processes that lead to success of the organization and hence society.

References

1. Jon R.Katzenbach and Douglas K Smith " The Disciple of Teams " Harvard Business Review,71(March-April 1993)
2. Tom Peters, Liberation Management : Necessary Disorganization for the Nanosecond Nineties(New York : Alfred A. Knopf,1992)
3. Tom Peters, Thriving on Chaos(New York : Alfred A.Knop,1988)
4. V.Sudha " Project Management (Hyderabad : BSP 2013),254
5. Pinto Jeffrey "Project Management, Achieving Competitive Advantage" Pearson Education.
6. Peter M.Senge , The Fifth Discipline : The Art and Practice of the Learning Organization (Boston : Harvard Business School Press,1993)
7. Wendell L.French Human Resource Management, 4th Ed(Boston: Houghton Miffin,1998).