

# Uncovering various parameters involved in Project Profitability and Measures of Project performance

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## I) Introduction

The success of any projects is depends on its profitability ratio achieved after closure of the same, there are many more parameters are involved to get desired project profitability. Software, design, construction and consultancy companies and, mechanical, any company that undertakes projects for its clients must pay significant attention to the profitability of each project.

This research paper offers an analysis of the main parameters influencing project profitability. This is very critical and important parameters from efficiency point of view. Hence, these factors must be adapted to the specific circumstances surrounding each company, department and customer.

The key difference in performance measures versus value measures is the reason for doing the analysis of project efficiency. In measuring project performance, you are trying to get the information to help you make management decisions to affect change that, hopefully, that will improve the performance. For example, project performance measures are carried out to provide information to managers in order to exert control over the project. Those measures must be appropriate to the organizational level that can immediately effect change based on information it learns in order to control the performance of the project at hand (measuring the earned value of the project will provide information on the performance of the project to allow managers to make critical decisions to bring the project to closure successfully). These

measures must be collected from actual data available from various support functions and regular basis. Perhaps even weekly or monthly. It is depending upon the duration of the project.

In measuring value, management are trying to demonstrate that decisions PM made to implement change (project management improvement initiatives) has indeed added value to the organization. So management are measuring value rather than performance (which may or may not be the same). Sometimes (usually) improved performance can be translated into value. For example, improving schedule performance for all your projects over a period of a year can be translated into improvement in average project cycle time, which can be translated into improvement in time to market, which can add significant value to your organization. Value measures, therefore, provide information on the performance of the organization rather than the performance of a project. They must be collected over a longer period of time (no more than quarterly) and over your portfolio of projects.

## **II) Objective of the study**

The objective of this paper is to study various parameters involved in project profitability and expected measures to achieve estimated project profitability.

## **III) Scope of the study**

Every Project department scope covers Timely execution of all activities, within budgeted cost & delivery of product as per quality standards. Planning, tracking and control of all aspects of a project is key responsibility of PM. Motivation of is to achieve the project objectives on time and to the specified cost, quality and performance. All such parameters must be compared and measured with reference to some targeted objectives then only organizations can work towards value improvement in complete supply chain.

#### IV) Identification of the Problem

Project profitability is all about accurate and precise planning, and making the correct decisions at all levels of the project life cycle. It is big challenge for organizations to empower project managers and others involved in project delivery about margin ratio awareness. Such kind of view will help them to precisely plan and efficiently complete all milestones to achieve estimated profit. It's about having integrated processes and connected workflows that increase the efficiency and collaboration of project teams. Mostly project managers can't access information in a timely way or don't have correct data about profitability rate during execution stage. Such information they are getting at closure stage of project when all milestones are closed and they don't have any other option to maintain estimated profit.

Project base ERP Systems can be a powerful tool to help overcome these issues and promote a practice of project profitability within an organization. A project-based tool provides a guideline for project managers to implement consistent processes and best practices across the organization. It provides those involved in project delivery access to the right information about expenditure when they need it, ensuring better business decisions through improved visibility, insight and control. But only technology will not support for improvisation in complete supply chain, for that task Project managers should stretch their scope at various milestones. Organizations are more concerned about profitability measurement at closure stage but now it is essential for PM to track all milestones and expenditures at individual level.

#### V) Key Parameters involved in Project Profitability

##### Scope clarification:

The first and major issue affecting project profitability is linked to discrepancies between customer expectations and understanding of organizations about scope of a project. Customer tend to consider a broader scope than project leaders and this difference in perception often leads to problems and conflicts that eventually affect project profitability at last stage. These

discrepancies may be in terms of time, material, service but if there is any deviation in any area then it affects project targets at last stage. Spending the necessary time to define and share the scope of a project is a key factor in project profitability.

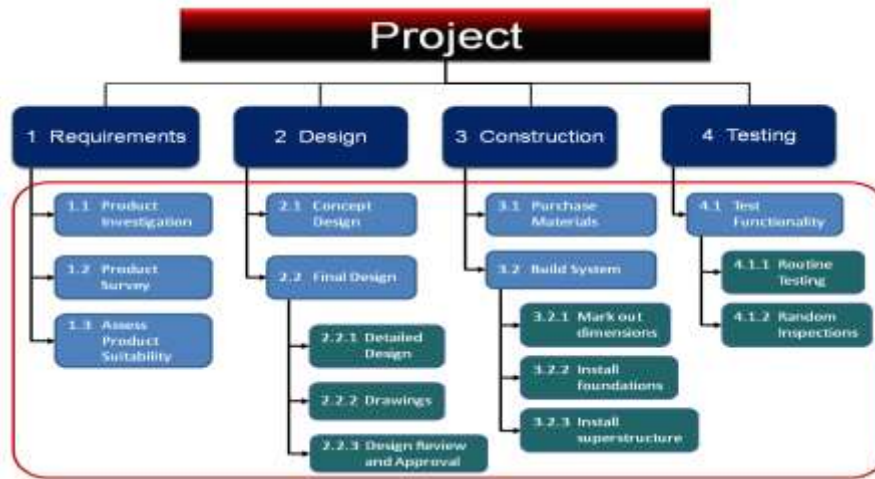
### **Precise estimation**

There can occasionally be little time to provide a client with a commercial offer for the project. This can lead to hasty estimations based on similarities between the project in question and others carried out in the past. As a result, the risk of mistakes is very high and should be reduced by breaking down the tasks involved and producing a bottom-up estimation to confirm that the overall estimation is in line with the work that needs to be done.

This estimate should include as much detail as possible on the profiles needed for each activity. A good estimate will avoid project cost deviations after execution of project.

### **Break down structure with correct resources**

The project needs to divide in various sub projects for close monitoring if all milestones. Support team is a key parameter of the supply chain in execution of project estimates and converting in to end product, thereby meeting customer expectations and achieving the desired level of quality. Economize on resources may be more expensive in the long run. Using low experience personnel with less knowledge or little motivation may be cheaper to begin with but this can very easily become a negative factor for project profitability when having to do the same work more than once, it may call some minor mistakes which will turned in to major customer claims. So High-productivity teams are always capable of significantly increasing project profitability.



## Identification of risks

All projects have some sort of risk that must be identified at initial stage of project after consultation with customer as well as internal stake holder. Such risks are in form of Delivery terms, Costing challenge or Satisfying customer from quality point; Those risks with the greatest exposure, i.e. those whose impact and likelihood are average or high, should be managed and may require specific actions to guarantee project profitability.

It might even be necessary to establish a safety margin in the cost to be paid by the customer depending on the degree of uncertainty and the risk involved in that project.

## Periodical status updates to all stake holder

Internal stakeholder communication and communication with the customer are key to project profitability. If the project team gets updates on all critical issues quickly, it will become easier to identify any issues in time and identification of any mistakes that could ruin a project.

Regular updates and discussions with the client will enable expectations to be properly managed and the customer will be well informed about possible issues in supply.

## Data management and Tracking deviations

Project data is main key to project management and performance measurement. Expenditure and balance in project cost sheet data will be able to provide the information needed for

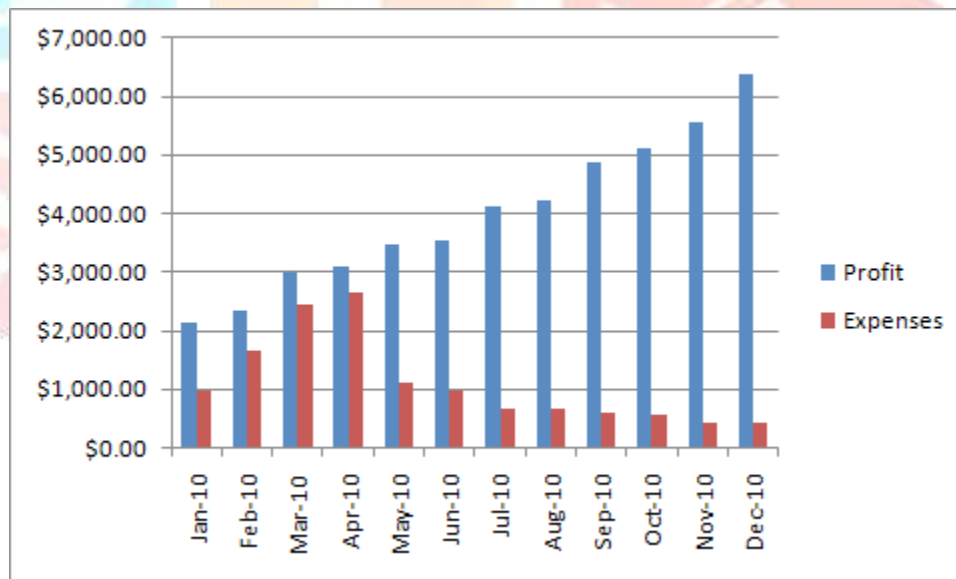


efficient project management. Recording milestone wise data may lead to quality discussion with the internal stakeholder, the team of which tend to focus on activities they consider to be productive.

It is essential for the team to understand the importance of tracking of milestones in terms of schedule as well cost and undertaking data entry on a regular basis.

### Profitability tracking

Project profitability rate mostly calculated by PM after closure of project, but it should be undertaken precisely, regularly and in case of any deviations then it has to be escalated for further compensation plan. Such culture will help to identify all costing related issues at individual level and at the end it helps to maximize project profitability ratio.



### Project deviations

Project deviations are mainly in terms of Time and budget; this deviation will impact on complete supply chain of project and final impact on project performance. Furthermore, such deviations are often the symptom of a major problem, meaning it is essential to identify such deviations at correct point gain a clear picture of the progress.

Project Grant chart tracking tool is a very useful tool for making project status clarification and clarification on deviations.

## VI) MEASURES OF PROJECT PERFORMANCE

Implementation of a project management value Measurement system to understand project management performance and the value which will help organizations to following goals:

- For the Identification of Business impact due to various factors
- To measure cost benefit and expenditure ration
- To analyse its progress towards planned objectives
- To support market team for expansion of targeted customer after improvement in project efficiency

All these objectives are based on determining the value of implementing project management improvement initiatives in the company. That value is determined by showing improvement in some measure or measures over cost, time and quality. Selection of such measured is a key to success of the project management performance measuring system.

### Project Value Management measures

#### Financial Measures

- Return on Investment
- Return on Capital Employed
- Economic Value-Added
- Sales Growth %
- Sales Growth \$
- Productivity
- Cost Savings
- Earnings Per Share
- Cash Flow Per Share

#### Customer Measures

- Customer Satisfaction
- Customer Retention
- Customer Acquisition
- Customer Profitability
- Market Share
- Customer Use

**Project/Process Measures**

- Project Budget Performance
- Project Schedule Performance
- Requirements Performance
- Process Errors
- Defects
- Rework
- Resource Utilization
- Time to Market
- Scope Changes
- Project Completions

- Business Strategy
- Project Risk

**Learning and Growth Measures**

- Employee Satisfaction
- Employee Turnover
- Training Time
- Employee Productivity
- Employee Motivation
- Employee Empowerment
- Information System Availability

**Project Management measures****Output**

- Units produced
- Tons manufactured
- Items assembled
- Items sold
- Sales
- Forms processed
- Loans approved
- Inventory turnover
- Patients visited
- Applications processed
- Students graduated
- Tasks completed
- Productivity
- Work backlog
- Incentive bonus
- Shipments
- New accounts generated
- Lost time days

**Costs**

- Budget variances
- Unit costs
- Cost by account
- Variable costs
- Fixed costs
- Overhead costs

**Time**

- Cycle time
- Response time for complaint
- Equipment downtime
- Overtime
- Average delay time
- Time to project completion
- Processing time
- Supervisory time
- Training time
- Meeting time
- Repair time
- Efficiency (time-based)
- Work stoppages
- Order response time
- Late reporting

- Operating costs
- Delay costs
- Penalties/fines
- Project cost savings



**Quality**

- Scrap
- Waste
- Rejects
- Error rates
- Rework
- Shortages

- Product defects
- Deviation from standard
- Product failures
- Inventory adjustments
- Percentage of tasks completed properly
- Number of accidents
- Customer complaints

**Project performance measures****Resource**

- Cost/budget
- Resource utilization: staff planned, Experience levels, laboratories, Manufacturing

**Progress**

- Development progress
- Test progress
- Incremental capabilities/technical Performance
- Milestone completion
- Rate charts
- Productivity

**Technical**

- Design stability
- Requirements stability
- Design structure/complexity
- Error margins
- Performance margins

**Quality**

- Defects
- Rework
- Defect removal rate

**VII ) MANAGEMENT OF ORGANIZATIONS BY PROJECTS**

- Number of project completions per year
- Percentage of cost, schedule, and performance deliveries per year (performance = scope & quality)
- Number of authorized changes to CSP during implementation phase (per project)
- Number of cancellations by phase
- Project manager turnover
- Team turnover within phase
- Number of active projects (taken monthly)
- Number of on-hold projects (taken monthly)
- Number of process exceptions per month (bypass process)
- Number of process changes per year (as approved by PST)

## Summary:

The main difference in project performance measures and value measures is the purpose for doing the measuring. In measuring performance, Management is trying to gather information to help them to make management decisions to affect change that, hopefully, will improve that project performance. Project performance measures are undertaken to provide information to managers in order to take control over the project. Those measures are appropriate to the organizational level that can immediately effect change based on information it learns in order to control the performance of the project at hand (measuring the earned value of the project will provide information on the performance of the project to allow managers to make critical decisions to bring the project to closure efficiently). These measures must be collected fairly often, perhaps even weekly, depending on the volume and duration of the project.

While measuring the project value, management is trying to demonstrate that decisions which was made by PM or any stakeholder has indeed added value to the supply chain. Hence management is actually measuring value rather than performance. Most of the times improved project performance is considered as a value addition. For example, improving project schedule performance for all your projects over a period of a time can be considered into improvement in average project cycle lead time, which can be converted into improvement in delivery to market, which can add significant value to your supply chain. Techniques and systems of value measures provide information on the performance of the organization rather than only performance of a project. Such kind of measures need to review on periodical basis and further improvement decisions should be followed for further value addition in project supply chain in terms of Quality , Delivery and cost.

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