



ISSN 2278 – 0211 (Online)

## Project Deliverable: Process and Guidelines

**Manpreet Singh**

Infosys Limited, Chandigarh, India

### **Abstract:**

A project from inception till completion goes through various cycles of deliverables. These deliverables are largely driven by the requirements of the client / service provider to enrich the customer experience. While traversing these cycles, there are various activities a project need to follow for successful completion. These activities are driven by external and (or) internal stakeholders' and are recommended to follow the process around it. This paper discuss about the activities, roles and responsibilities to achieve successful and quality (Juran Global; Robert W. Góra) deliverable. It also provides the ways to improvise as well.

**Keywords:** Business, Program, Project, Delivery, Management, Requirement, Analysis, Funding, Communication, Reporting, Retrospection

### **1. Introduction**

A project from end to end delivery perspective can be broadly classified under the following 6 key process factors based on 5W + H approach, as:

- **What** – Defines what all activities need to be done to achieve the desired outcome  
What is the expected / desired outcome
- **Who** – Defines who are the teams and stakeholders involved to make this happen including:  
Skilled resource to perform respective activities as per their domains  
Sponsor of the project/deliverable  
Actual user of the end product
- **Where** – Defines where would the task(s) / activity(s) need be performed in terms of:  
Application: Impact on existing application or new application to be delivered  
Software: Impact on existing software which might be due to licences agreement, end of service life, or to be replaced by new software as per application requirement  
Hardware: Impact on existing hardware which might be due to licences agreement, end of service life, or to be replaced by new hardware due to performance issues, capacity issues or as per application requirement  
Geographical Location: Location of teams working on project, users of application, hardware and software installation
- **When** – Defines when the activity need to be performed, and should capture following:  
Start and finish time  
Duration of each project activity as defined in “What”  
Consider the difference in working timing of the resources around the globe, while defining “When”
- **Why** – Defines the significance of the project as why is it required, in following terms:  
reason to do the project  
consequences / business impact if not done  
understand of the profit / loss associated with the deliverable  
state if this is driven by industry / government or any other regulations  
other task dependent upon this activity
- **How** – Defines how to get the activities completed with:  
the optimum utilization of the available resources  
within the allocated time  
within allocated funding and budget available with the agreed caveats

It's always advisable to baseline "When" as out of the six parameter, this parameter has a high dependency on the other 5 parameters. Based on this 5W+ H approach, project deliverable has to follow process governing the 7 key areas as follows:

- Business Analysis
- Project Funding Estimate & Approval
- Project Prerequisite
- Project Initiation & Progress
- Project Communication
- Reporting Reporting
- Project Closure and Retrospection

These 7 key activities as per the stage of project are governed by the 4 layers of the management

- Program Management
- Release Management
- Project Management
- Delivery Management

## 2. Business Analysis

One of the very important aspect of delivering a successful project is the apt analysis of the business and end user requirement. Business analysis plays critical role in this regards.

Business analysis helps to quantify the business value by combining the process, functional and technical aspects of the system/application in question. This is dependent upon the quality, completeness and accuracy of the data gathered throughout the organization. Usage, requirement from strategic / tactical view point and benefits need to be articulated properly as an outcome of this. Since the outcome of this is the business case which demonstrates the business and financial value addition, so the above exercise should lead to following:

- simplify applications / systems
- reduce redundancies
- improve user experience
- improve effectiveness
- save OPEX and CAPEX
- minimise bee spoke applications/systems
- analyse the process/functional gaps to be fixed
- roadmap to realize the final outcome
- financial realisation in terms of improvement owing to the cost incurred

## 3. Project Funding Estimate and Approval

Once the business case is understood and agreed by stakeholders, the next most important area is/are the source(s) of funding and funding approval. Funding availability is the first step prior to project kick off, as the available funding is the key factor to determine the extent of demand which can be met. So it become very important that the funding estimate should be done with due diligence and should not have more than  $\pm 20\%$  deviation from the actuals, which can be realised only after successful delivery.

Thus to achieve this funding estimate should consider the cost incurred for following activities as applicable:

- Component Deliverable
  - Design
  - Code Development
  - Configuration
  - Deployment
- Database
  - Database Setup
  - Database Upgrade
  - Database Migration
- Software
  - Software Licensing
  - Software Procurement
  - Software Installation
  - Resource Engagement
- Hardware
  - Hardware Licencing
  - Hardware Procurement
  - Hardware Installation
  - Hardware Build

- Resource Engagement
  - Testing
    - Functional
    - Non Functional
  - Pilot Project
    - End User Training Manual
    - End User Training
    - Resource Engagement
    - Pilot Rollout
  - Application Support Teams
  - Operational Expense
  - Maintenance Expense
  - Rationalization Expense
  - Project Management
  - Delivery Management

#### 4. Project Prerequisite

Due diligence of a project holds a key to ensure the client requirement are met and better to delight. If not done would leads to supply risk in terms “men, material and machinery” are not understood before committing to demands. And this is quintessential when the demand(s) is/are aggressive with respect to the delivery timelines. Further funding cap might add additional constraint to the aggressive timelines.

Thus key to initiate any projects rests on 3 critical parameters:

- Talent or Skilled Resource pool – involves resources from:
  - within the organization
  - vendors
  - partners to the organization
  - contract resources
- Available software and hardware
- Realistic plan

Thus before initiating the project and agreeing on the timelines for delivery, demand and requirement must be understood at granular level satisfying the above 3 parameters. This is to ensure the quality of deliverable should not be compromised at the expense of indiscreet or exaggerated demands. Equally important is to chunk out the demand into smaller deliverables, as per the criticality and priority of the requirement. This would help to achieve parallel deliverables to progress at a better pace.

Sometime, it's also observed that the actual project deliverable is dependent upon the proof of concept work. If so then this should be encouraged as it helps to conceptualize the initial requirements and designs and users can get the early look and feel on the application and systems. This also allows design and development team to achieve the early feedback resulting in better code and design quality. The concept of acceptance test drivendeploymenttesting (Vishal Aggarwal, Manpreet Singh |Acceptance Test Driven Development, February 2014) will also be handy while working on such prerequisite

This would also help the teams to plan even more effective way and would also help to align the earlier funding estimate provided with the actuals.

During the course of any project manual quality checks and automated quality gates play an important role to measure the success of any project. So business must be made aware of its importance and need. Also management teams should refrain to agree with stakeholders/clients at the expense of compromising the quality checks and gates, essentially because:

- This might appear attractive to stakeholders/clients to skip these, for short term gain, to make the project go live happen at a forecasted date
- But in long term post go live fortunes have to shed to:
  - fix defects
  - improvisedesign and code quality
  - improvise performance issues
  - resource re-engagement for these activities would become even more costlier affair

#### 5. Project Initiation and Progress

With above prerequisites addressed it's the time to initiate the project in best endeavours to have successful delivery without compromising the quality and timelines. So while initiating the project it's becomes important that business should be educated about the final deliverable and important interim milestones to be achieved. Also this should be agreed with business as well. This complete exercise during the project kick off phase would help to minimize or zero down the following during the course of project:

- Rework
- Resource engagement

- Wastage in available funding
- Potential loss of market share due to any delays
- Potential fine due to breach in SLA

And at the heart of this phase will be the responsibility of the delivery and project manager.

## 6. Project Communication

Key to successful project and deliverable is to ensure all the team members are aligned at any point of the project life. This becomes even more important when the teams in IT Deliverable follows the global product development model (Anil Bhatia and Romit Dey). To meet this, appropriate and accurate communications must happen across team members. One of the practise followed is daily scrum (Ken Schwaber and Jeff Sutherland, October 2011). These scrums are usually driven by the delivery manager of the assigned project.

Besides the teams involved, it becomes quintessential to keep the business apprised of the daily updates as a confidence building measure. To achieve this program manager must ensure that the impacted line of “business, stakeholders with in client organisation and senior management within own organisation” are aware of the status quo. In case of any blockers or show stoppers they are best placed to keep this moving.

Thus to achieve effective communication following points need to be followed:

- **Audience Understanding**  
Before communication is initiated, one should understand the participants of the discussion
- **Content**  
With the understanding of audience, content should be articulated in a manner that it should translate and provide an input - good or bad in terms of business impact.
- **Language** (PMI, December 2013)  
The content should be addressed in language recognised and understood by stakeholders (both internal and external). As to get the stakeholder listen, they should be able to correlate the discussion with their business requirement and benefits
- **Effectiveness** (PMI, May 2013)  
It's found that one of the major factors leading to project issues and failures is the ineffective communication. This might happen even if the above aspects are known.  
The crux of effectiveness is to ensure that communication is two way process, where orator and listener need to be aligned in there thought processing

## 7. Project Reporting

Every project has its own reporting process. These reports are prepared at every stage of project life cycle (as mentioned in introduction), catering requirement of varying management layers as in program, release, delivery and project. Reporting usually is a complex mechanism as reports are usually intertwined across activities.

In lieu of above, final reports should be worked on and be simplified to ensure the information does not get lost and can be used easily.

Thus Irrespective of the nature of report, key aspects of the project reporting are:

- **Report Content**  
Understand the requirement and type of report from its user before preparing it. This is important as client/user requirements differ. Some may require detailed explanatory report while other might be looking for concise summary oriented report.  
Type of report can differ from detailed word documents, pictorial representation, quantitative analysis, graphs, etc.
- **Timeliness**  
User should get the report well within time, to allow the user to review and utilize the report as appropriate
- **Frequency**  
Interval of updating and sending the report should be agreed with client/users
- **Precision**  
Report should be precise and to the point as per the report requirement. This would minimize the user's effort and would then prove an effective tool in quick decision making process

If appropriate reporting is followed and is on the lines of by verbal communication then it would also compliment project communication aspects. So it is essential to streamline both communication and reporting process.

## 8. Project Closure and Retrospection

Completeness of any deliverable can be measured by the Success of the Project Closure.

Hence it's measured in:

- Meeting all the project demand
- Timelines of meeting the demand
- Quality of the deliverable
- Budget to meet all the demands
- Customer satisfaction of the end product

- Customer acceptance of the product

Post project closure, retrospection (J R. Ryan Nelson, September 2005) along with the above measurable parameters of the project delivered helps in following:

### 8.1. Learning

Learning can be at the organizational, department and individual level. As the individual build the department and hence organization, so areas of learnings are:

- Strength acquired
- Challenges faced
- Quick wins
- Domain Understanding
- Areas of improvement

### 8.2 Funding optimization

As mentioned in Project Funding Estimate and Approval, funding requirement during the initial stages is based on the best understanding of various elements. However sometime the budget overshoot or at other time complete funds are not properly utilized. Post closure with the deliverables done, it's an opportunity to optimize the funding requirement with the lessons learnt above

### 8.3. Better Planning

As mentioned in Project Prerequisite, realistic plan should be prepared. However it's often seen that, unless delivered, plan is based on assumptions, risks and best practises know. So from learning, planning will also improvise

### 8.4. Rewards and Recognition

Most important in any successful project are the skilled resources who made it happen. So organization should reward those deserving resources and recognize their efforts

## 9. Conclusion

The outcome of the 7 key project areas discussed above are recommended to be mapped to 5W+ H matrix as follows:

	What	Who	Where	When	Why	How
Business Analysis	√			√	√	
Project Funding Estimate & Approval	√		√	√		√
Project Prerequisite	√	√	√	√		√
Project Initiation & Progress	√	√	√	√		√
Project Communication	√	√		√	√	√
Project Reporting	√	√		√	√	√
Project Closure and Retrospection	√	√		√	√	√

## 10. References

1. A Whitepaper from Juran Global | 5 Unexpected Ways Continuous Improvement With Lean Six Sigma Can Improve Your Company | Pages 1 - 5
2. Robert W. Góra | Bioinformatics | Quality management systems | Institute of Physical and Theoretical Chemistry | Wrocław University of Technology | Pages 1 - 61
3. Vishal Aggarwal, Manpreet Singh (2014), Acceptance Test Driven Development, Journal of Advanced Computing and Communication Technologies (ISSN: 2347 - 2804) Volume No. 2 Issue No. 1
4. Anil Bhatia and Romit Dey, Globalization of Product Development: The Inevitable Next Stage, Infosys Whitepaper
5. Ken Schwaber and Jeff Sutherland (2011), The Scrum Guide, The Definitive Guide to Scrum: The Rules of the Game
6. PMI White Paper (2013) – Communication: The Message Is Clear - 2013 Project Management Institute, Inc., Pages 2 -3
7. PMI ((2013), THE HIGH COST OF LOW PERFORMANCE: THE ESSENTIAL ROLE OF COMMUNICATIONS, Page 4
8. R. Ryan Nelson (2005), Project Retrospectives: Evaluating Project Success, Failure, and Everything In Between, University of Virginia, MIS Quarterly Executive Vol. 4 No. 3 / University of Minnesota