What If You Build It & They Won't Buy It

Six Steps to Plan and Manage Requirements Problems Before They Happen

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ABSTRACT
The ability to plan, analyze and mitigate product, project and program obstacles to success and take advantage of opportunities is key to innovation and for delivering highly successful products and services that customers will buy.

The 2015 CHAOS Report from the Standish Group, has redefined project success as "**on time, on budget with a satisfactory result**" This shifted focus on **providing value** has shown a marked decrease in the number of projects that are considered successful when tracked over the last 5 years (2011-2015). The shift means that organizations can no longer simply default to using the traditional project "triple constraints" success criteria and must use other performance metrics to prove success.

Key to providing value is baked into the 6 steps of the PMBOK® Guide (2013) Project Risk Management process which can be integrated within the Business Analysis' planning activities and deliverables. Additionally, the use of a risk-based approach to requirements planning and management can be used in any traditional plan-driven or change driven (such as "agile") approach.

Keywords:
value, risk, agile, requirements, success

INTRODUCTION

Once upon a time, there were three project constraints; time, cost and scope. Overtime, these constraints have become the de facto standard of project success criteria for organizations. A project might be on time, on budget and on target (scope), but does that automatically guarantee stakeholders are happy with the outcome? The truth is that many projects have met the triple constraints success criteria but they did not return value to the stakeholders. Neither the organization nor the sponsor was happy. When I was working at Motorola, we built a $1M solution that got implemented but not used by the target audience. Not using a system means it can never provide a Return On Investment (ROI). All the right project management activities were accomplished but no real results were produced.

In order to increase the probability of project success, we need updated project success criteria that more accurately reflects how projects are seen from a business investment perspective.

REDEFINING PROJECT SUCCESS

The CHAOS Report from the Standish Group, has summarized software development outcomes of 50,000 IT projects around the world. Projects ranged from small software development

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enhancements to massive system implementations. In 1994, the Standish Group reported that 16% of IT projects were considered a success, 53% of the projects were challenged, and 31% failed outright. By 2006, we thought we were making progress with our projects when 35% of projects were successful, 46% were considered challenged and only 19% failed. Then in 2009, the percentage of successful projects dropped by 3%, and failed projects jumped up by 5%. (Van Hese, 2010). We seem to have a problem here. Are we using the most informative project success criteria?

After much research, the 2015 CHAOS Report redefined project success as **on time, on budget with a satisfactory result.** Furthermore, the Standish Group believes that organizations should forget about the triple constraints to measure individual projects and focus on the value of their project portfolio. (http://www.standishgroup.com/service)

They believe this will free your organization to:

- Increase ROI
- Increase innovation
- Improve stakeholder satisfaction
- Decrease project overhead
- Reduce management frustration

Exhibit 1 shows that with this updated project success definition on average, only 29% of projects are considered successful between 2011-2015. A marked decrease in percentage of successful projects since 2006. (Hastie, 2015).

MODERN RESOLUTION FOR ALL PROJECTS

	2011	2012	2013	2014	2015
SUCCESSFUL	29%	27%	31%	28%	29%
CHALLENGED	49%	56%	50%	55%	52%
FAILED	22%	17%	19%	17%	19%

The Modern Resolution (OnTime, OnBudget, with a satisfactory result) of all software projects from FY2011-2015 within the new CHAOS database. Please note that for the rest of this report CHAOS Resolution will refer to the Modern Resolution definition not the Traditional Resolution definition.

Exhibit 1: Percentage of successful IT projects

No matter what definition you choose for project success, the traditional triple constraints or the updated version, organizations still are struggling to deliver successful projects and to make their stakeholders happy. So what can you do to dramatically raise an organization's confidence in the idea that *if you build it, stakeholders will buy it?*

SIX STEPS TO PLAN AND MANAGE REQUIREMENTS PROBLEMS BEFORE THEY HAPPEN

I have seen many organizations plan and manage requirements differently by various roles in the organization. Sometimes the product owners are assuming the responsibility of defining the requirements. If the requirements are handed to the Business Analysts (if there are any) and/or Project Managers, then these roles just become order takers. A better scenario is to involve the key project team members early in the workflow to elicit the requirements from the business to produce better requirements. Better requirements produce more successful projects.

Ideally, any role can learn more about the science and more so, the art of eliciting high quality user requirements to make projects more successful. Getting users involved in project decision-making and information gathering is cited as one of the top 3 factors of that make projects successful. (Hastie, 2015).

FOUNDATIONS

To plan and manage requirements, a Product Owner, Business Analyst, Project Manager or any other project team member needs to understand that there is a difference between the requirements lifecycle and the project lifecycle. According to the *Business analysis for practitioners: A practice guide*, (2015) the requirements lifecycle (Exhibit 2) is "the flow or

life of a requirement throughout a project or program." (glossary).

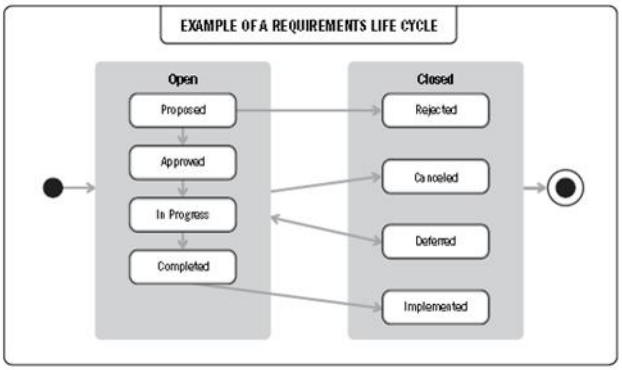

Exhibit 2: Requirements lifecycle example.
(Source: BA for Practitioners Guide, page 149)

While this flow is continuous when eliciting stated requirements, it is just the tip of the iceberg in requirements lifecycle. Every requirement brings with it, a certain degree of risk. Risk has a positive or negative effect on one or more project objectives. Therefore, combining the good practices of eliciting requirements along with risk planning and management can significantly improve satisfactory results.

Often times, I hear that Risk Management seems so hard and people avoid doing it. The rest of this article provides ideas in how to make it easier to plan and manage your requirement related risks. There are 6 process steps (Exhibit 3) that should be done for every project. he most critical step is to plan for **HOW** you will do risk planning for requirements.

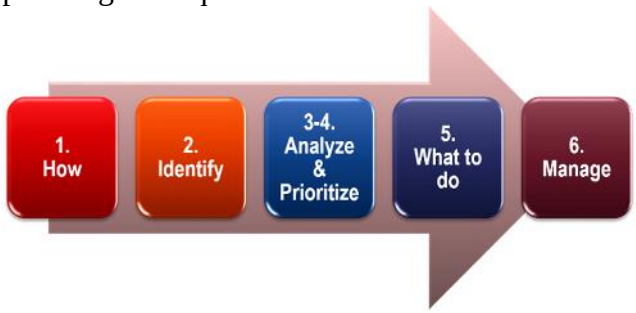

Exhibit 3: 6 steps to plan and manage risks.

1. HOW

I was brought into a major beer manufacturer in St. Louis, MO to teach project management essentials to sales people. I had only 2 hours. At first, I wasn't clear as to the underlying reasons for wanting this class to be taught at a sales meeting. I quickly realized that this topic was part of the sales management teams secret plan to illustrate to their VP of sales about the value of spending more time on planning rather than just hitting the sales numbers. The directors knew that mainstream beer customers who are not happy with their beer, will prove to easily jump to microbrews. It became clear that if the sales team spent more time on planning to prevent known issues with the product and delivery before they happened, it could help keep the sales numbers from declining.

The most successful projects and programs have a detailed plan. "When you fail to plan, you plan to fail." With the trend in using change driven project management methodologies, such as Agile, organizations assume that less time in planning means more doing. However, they have failed to calculate the costs of poor customer satisfaction, poor brand image and increased competition when deciding how much time should be spent in planning.

According to the *Business analysis for practitioners: A practice guide*, (2015) creating a Requirements Management Plan which is part of the Project Management Plan "describes how the overall requirements of the project will be elicited, analyzed, documented and managed across the project." (p. 46)

For example, how do you know whether items should be *risks, issues* or *requirements*? Use the concept of probability to define what activities should go into each of these three buckets. If the probability is 100% of something happening, it's a problem and should go into the *issue* bucket. If conflict is going on right now and it is getting in the way of project success, that conflict is an issue and should be documented on the issue log.

If the probability of an activity is less than 80% that it may happen, then it is considered a *risk*. If the probability of an activity happening is greater than 80%, then it is considered a *requirement* and it goes into your plan. If you determine that the probability is greater than 80% of having defective requirements, then you should create a **Requirements Management Plan**.

2. IDENTIFY

As you are identifying requirements in the initiation phase of a project, Business Analysts and Project Managers should also identify the risks related to the stakeholders providing the requirements. For example, user involvement has been identified as a factor for making projects successful. Therefore, a Business Analyst or Project Manager might do **persona analysis** for anyone who will touch the end product(s) and has a need or want fulfilled. A product that may delight a customer might be hell for those who have to repair and maintain it. By gaining continuous feedback from persona as the product is developed we avoid unpleasant surprises later.

The difference between a persona and a stakeholder is that the persona focuses on defining types of stakeholders such as "Peter the Purchaser." Persona includes a detailed story about how "Peter the Purchaser" will interact with a product, his specific preferences, frequency of doing certain actions, etc. A persona may even be a user who has no influence on the outcome of the product. In stakeholder analysis, individual stakeholders are identified. Each has interest and influence in the outcome of the project. *(*Business Analysis for Practitioners: A practice guide. (2015), (p. 45)

3. ANALYZE

My assumption is that for 90% of projects, subjectively analyzing requirements risks is good enough. However, I often see that the process for analysis is flawed and becomes a frustrating exercise that provides little value to the stakeholders.

For example, the commonly used process of using High, Medium, and Low for assessing probability and impact is not clearly defined as part of the Requirements Management Plan and thus each stakeholder has a different definition of what High means.

The key to doing the analyze step is to make it quick and easy. Micheal Lant, founder of projectyap.com, describes how to quickly analyze and prioritize user stories by using one of the most frequent finite resources: time, or **Urgency** multiplied by **Business Value**. (Exhibit 4)

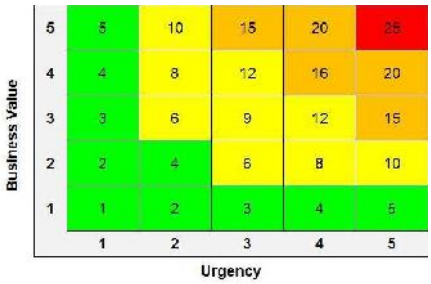

Exhibit 4: Urgency/Value matrix.

First, as part of your Requirement Management Plan, define *Urgency* and *Business Value* by creating guidelines for analysis.

For Urgency, use a scale of 1- 5; 1 = not time constrained and 5 = extremely time constrained.

For Business Value, use a scale of 1- 5; 1 = little to no competitive advantage and 5= critical to the success of the business.

Once stakeholders have given each user story a score for urgency and business value, they can multiply **Urgency * Business Value = Priority**. These three values can be captured on the upper right hand corner of the user story cards. The

highest priority user stories are those that score 25.

In only a few seconds per user story, this analysis technique can provide more value to the stakeholders thus increasing the likelihood of success.

4. PRIORITIZE

If the risk posed to your end-users is significant, it is worth your time to quantitatively prioritize the riskiest requirements.

When you identified your risks and have written them on sticky notes, you can easily prioritize them by placing the risks you identified on a **Simple Prioritization Matrix.** (Exhibit 5) with probability on the vertical axis and impact on the horizontal. Step back and you will have a great visual tool for SEEING what risks you really have to deal with. Draw a line to focus on what risks you will deal with above the line. The ones below the line you will have to let go for the moment. This threshold line is subjective depending on the risk tolerance of you and your stakeholders. Finally, number your risks to give you an idea of priority after you transfer the information on the sticky notes to a document or spreadsheet.

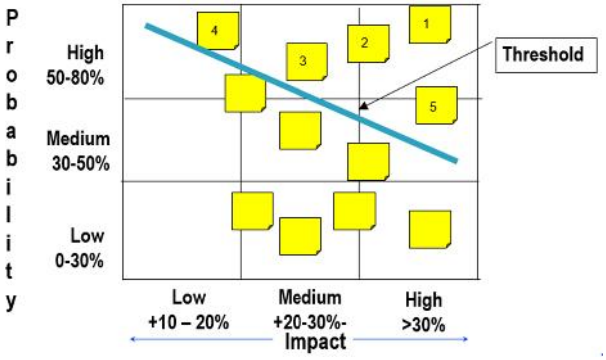

Exhibit 5: Simple prioritization matrix.

5. WHAT TO DO

Many organizations think they do risk management when they identify risks. If all you do is identify risks and have no plan for what to do if the risks happen, then you have wasted your time.

A properly written risk (threat or opportunity) helps to identify what is the best set of risk responses. Use the **Cause, Risk, Impact Format** (Exhibit 6) for risks. By using this format, you will be able to clearly see what to do to mitigate the probability and impact of this risk.

Cause	Risk	Impact
Due to/As a result of ... (Definitive cause)	*May result ...(Uncertain event)*	*Which could lead to...*
Due to a server failure	one hour's worth of transactions may not be available on the fail-over server	which could lead to the end user needing to revert to manual processes

Exhibit 6: Cause, Risk, Impact Format.

6. MANAGE

This is the only step that is not a planning step. Managing risks for requirements means to identify new risks during the course of the project, keeping an eye on existing risks and reporting on performance metrics.

Business Analysts and Project Managers need to capture more than just time and cost when considering performance. Yet so many times I see companies struggle to know what other performance metrics can be managed.

You can use tools to assess the **impact of individual contributors** to the success of the project. (Exhibit 7)

This chart depicts the use of a productivity % to determine **performance** for each of the staff members in the define phase of a project.

PPF fac	1.25	Personnel Productivity Factor
Team#	Types of staff skills	Productivity %
0		0
	PROJECT MANAGEMENT	
1	Senior expert	25%
	ANALYSIS	
2	junior	110%
3	average	100%
4	senior	80%
	QUALITY ASSURANCE	
5	junior	110%
6	average	100%
7	senior	80%
8	CREATIVE ARCHITECTI	120%

Exhibit 7: Assessing staff productivity %.

Estimates for the time it takes to elicit requirements can be multiplied by the productivity % of each team member. When an activity is completed, the gap between the actual and the estimate can be analyzed to create a performance metric which may provide continuous improvement and more successful project outcomes.

CONCLUSION

These 6 steps for planning and managing requirements problems before they happen is something every team member can do. Instead of focusing on status of projects which focuses on the past, spend more time in planning to make happy customers who will buy your product, time and time again.

ABOUT THE AUTHOR

For over 25 years, Dayle Beyer has taught thousands of people how to save lives, manage projects better, take sophisticated exams and deal with business and personal obstacles. She is a frequent speaker at industry events.

As CEO of Dayle Beyer Learning Solutions, Dayle combines her knowledge and experience in peak performance project management, business analysis, leadership and team development to help you build leadership strength for extraordinary success.

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