

Applied Risk Identification

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Abstract

It is a common misuse of project managers to use Risk Management as a “Responsibility Transfer” tool. They are using risk management to conceal the deficiencies in the project. This article will not repeat very well known risk management processes and techniques. We will try to focus on lost meaning of the risk and starting from this point try to show practical problems and solutions in the risk management processes. An anonym idiom says that “The easiest thing is to eat a piece of bread, but you should chew it properly”. Therefore in line with the human beings experience, every endeavor itself is a risk and, that is why we are managing significant ones as projects.

Keywords

Project management, Risk Identification, Misuse, WBS, Schedule

1. Introduction

This article will not repeat very well known risk management processes and techniques. We will try to focus on lost meaning of the risk and starting from this point try to show practical problems and solutions in the risk management processes in terms of risk identification.

It should be noted that Risk Management processes and techniques can only be successful if people actually uses the results of these processes to form their decisions and future actions. It is observed that, mostly, projects are identifying and assessing their risks and then stopping; they are missing closed loop management of risks. On the root cause of this problem is the “loss of belief” because of the misuse of risk identification. In other words, during the risk identification phase, some of the stakeholders are introducing unreal risks into risk database

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2. Risk Revisited

Dictionaries confirm that the Latin word comes from a Greek navigation term rhizikon, rhiza which meant "root, stone, cut of the firm land" and was a metaphor for "difficulties to avoid in the sea". It might be of a certain interest that these lexical borrowings happened in the end of the middle-ages, when mentalities woke up and people dared to discover the world. From the 16th century on, the term got a benefit meaning, for example in middle-high-German Rysigo 1507 a technical term for business, with the meaning: "To dare, to undertake, enterprise, hope for economic success". [Rolf Skjong, 2005]

It is again mostly possible that the term rhizikon, rhiza transferred to the Arabic world via Mediterranean as “Rizk” meaning, “everything given by God for livelihood”. In this meaning, risk cannot be totally controlled by mankind and man can only work for it and wait/expect for the good results.

In terms of Project Management, risk is an event that has a realistic likelihood of occurring and an unfavorable consequence. However, it should be noted that, risk management is already renamed as “Risk and Opportunity Management”. Therefore, risk may be redefined as “the uncertainty that, if it occurs, will affect achievement of objectives, includes both negative and positive risks, threats and opportunities, both of which are types of future uncertainty, differing only in the nature of their impact on objectives” [David Hillson, 2009]

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3. Risk Identification

3.1. Rule of Thumbs

Every project has **3-plus-1 objectives**² to successfully finish a project

- Cost,
- Schedule,
- Scope (within agreed quality),
- and Stakeholders Satisfaction.

Most frequently, people are defining these project goals as risks. However, it would be meaningless to define any of these as a risk (of course any of these could be defined as risky during go/no go decision before the contract is signed); rather, risks should be derived from these objectives.

*As a mathematical definition, risk is a function of threats exploiting vulnerabilities against assets. The threats and vulnerabilities may be mitigated by deploying countermeasures*³. This means that without having a vulnerable asset and a possible threat we cannot speak about risks. In other words, as explained before, a risk is a function of asset and, assets for the projects are 3-plus-1 objectives. If you are defining a risk which is not connected/related any of these assets, asset multiplier would be zero, and hence risk value would be zero.

Additionally, it should be stressed that, to define something as a risk, its probability of occurrence should be less than one. If probability of this “thing” is one and known before it occurs, it is a problem to solve, and its measures should be planned as a work package/activity in the project WBS and Schedule.

Rule of Thumbs

- None of the 3-plus-1 objectives (or derived work packages and/or activities) could be defined as a risk
- Any risk defined in the project should be related with the 3-plus-1 objectives
- To call something as a risk, its probability of occurrence should be less than one

3.2. Misuse

It is a common misuse of project managers to use Risk Management as a “Responsibility Transfer” tool. They are using risk management to conceal the deficiencies in the project. In any endeavor, there are challenges to deal with; these challenges other than risks can be classified as:

Business as usual: Based on the timeframe and cultural environment, there are common practices for the life and work styles. These styles sometimes may tend to spoil project objectives. However, since they are continuous and daily/regular threats, another PM tools (Communications Management, Stakeholder Management, Conflict Management etc.) should be used to overcome these problems.

Complaints: Any project stakeholder may use Risk Management as an indirect conflict escalation tool. Although it is already known and planned, they may try to bring some activities/decisions to the risk board to levitate against their internal competitors.

Issues: are events that are certain to occur (or have already occurred) and entails negative consequences. Since the event has a probability of 100%, it is handled as an issue (rather than a risk) for which a corrective action plan should be generated and implemented.

² Today, it is widely accepted that famous project management triangle (cost, schedule and scope) is not enough for a successful project, besides these tree quantifiable/reductionist results, project should also reach a non-quantifiable/holistic result: stakeholders' satisfaction. I have called them together as “3-plus-1 objectives”

³ Risk = $\left(\frac{\text{Threats x Vulnerabilities}}{\text{Countermeasures}} \right) \times \text{Assets}$

Problems: are the threats which are already affecting project objectives. They are the subject of problem management. Since, mostly, there is no regular “problem register” in the projects, people tends to identify problems also in risk register to ensure traceability/accountability.

Uncertainties: The lack of complete certainty, that is, the existence of more than one possibility. It is not known if some of the possibilities involve a loss, catastrophe, or other undesirable outcome. However, project stakeholders, to be on safe side, not to be blamed later, defining these uncertainties also as risks.

TRL⁴: Having immature Technology Readiness Levels is considered as technology risk for the project and may be defined as ‘the risk that an underpinning technology, necessary for functionality, will not mature within the required time frame’. However, Technology Risk is a misuse of the term risk and in fact is an assessment (pre trade study for the possible solutions). It should also be noted that technology risk is not “technical risk”

4. Recommendations

As it is already explained, risk is a function of project deliverables, and project deliverables are already fine planned in work breakdown structure and schedule in the project. Therefore risks should be a parameter for a work package or a schedule item. In terms of application practice, detailed definitions, mitigation plans etc. could be maintained in any medium that project management has decided for the Risk Management, however, a reference for the identified risk should be a column in the project schedule and/or WBS.

PE			Activity		Risk Rating	Type Risk		Start	Duration
SA			#	Activity	(H,L,M)	(T, C, S, etc)	Risk Mitigation/ Process		
AC									
01	01	01	1	Collection of user needs	M	T			

Figure 1, Risk Management Process

In figure 1, a sample is shown for integrated risk listing. It could be easily seen that, having a risk reference in the schedule will also guarantee future incorporation of mitigation events into schedules and WBS just as subs to tasks and/or work packages.

5. References

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⁴ TRLs (Technology Readiness Levels) are a systematic metric/measurement system that supports assessments of the maturity of a particular technology and it should be assessed before the project starts. Using TRL methodologies, it is possible to assess maturity of the technologies (possibly used in implementation phase of the project).