**Risk management of IT enterprises**

**What is risk?**

Let’s start with definition of risk. The risk is related to:

* Actions, which haven’t happen
* Possible actions
* Actions, which we are able to prevent
* Positive or Negative actions
* Actions, which may be minimalized, maximized or accepted

**Risk management in IT. The root of risk**

There are three main risks

* External risk – risk from client
* Internal risk – risk during development
* Personal risk – related to team effort

**7 common risks during management of IT project**

**1. Changing scope and task priority**

During development there are a lot of changings such as concept, acceptance criteria, count of tasks, priority or tasks may be changed

* Aftermath:
  + overloaded (or underloaded) sprints,
  + abandoned unfinished tasks,
  + full or partial alteration of the application,
  + schedule changes,
  + incomplete or extended sprints,
  + sudden opportunity to increase the number of people in the team.
* Solution:
  + When introducing changes, you must first analyze how this will affect the current state of the project, how much effort will be required and whether there is a risk of delay. Through analysis, you will be able to intelligently divide responsibilities, make changes in priorities, and provide the client with accurate information about what can (or cannot) be completed.
  + An unresponsive reaction in this case will mean your unconditional acceptance of certain changes. This is a common practice in the software development process. That is why it is very important for all project participants to be aware of the consequences of changes and jointly make some compromises, if necessary.

**2. Lack of involvement**

The involvement of all team members is a prerequisite for the success of every project. Therefore, it is very important that each participant in the process is committed to a common goal, understands his role and supports other team members.

The word "team" refers to each project participant - the client, project managers, developers, testers, designers, analysts.

* Aftermath:
  + deadline delays,
  + negative impact on the motivation of other team members.
* Solution:
  + Pay attention to other team members and try to understand what can increase their involvement. They must be in a good mood, but at the same time, they must be able to focus on their work. Give them the opportunity for personal growth, talk to them and praise them. Make sure you give them complete information about the projects so they can feel like an important part of something bigger.0

**3. Lack of communication**

Communication is essential to work effectively during a software development project. What are the consequences of poor communication?

* Aftermath:
  + gaps in knowledge
  + redundant tasks,
  + reduced productivity.
* Solution:
  + Regular meetings of all team members to complete tasks and share knowledge exist as part of the project. Meetings should be held in a healthy atmosphere where everyone has a chance to speak. Never leave anyone's question unanswered. If you don't know how to answer, tell the person that you will try to find the answer and come back with it later.
  + It is very important that everyone understands their role in the project. Meeting in a non-working environment can also have a positive effect on team spirit.

**4. Bad documentation**

What is project documentation? A Minimum Feature Product (MVP), task descriptions in JIRA, and dedicated space for a project in Confluence are all critical to the success of a project.

* Aftermath:
  + chaos,
  + a team wasting time on repetitive questions about basic information about the project,
  + lack of good benchmarks for team members to use both during and after the project,
  + insufficient knowledge of team members who joined the project halfway through.
* Solution:
  + Even minimal project documentation can play a big role in preventing consequences.
  + According to Agile best practices: “working software is more important than detailed documentation.” However, the documentation should not be considered an insignificant element. What is the best way to solve this problem?
  + Take some time to write documentation from the beginning. In this case, you will not have any excuses. Use tools like JIRA, Confluence or QA Touch - they really make things easier. There are also many more specialized tools to help you write documentation for the PPI and other project reporting materials. Determine what information should always be available. A good place to store it is Confluence. This is a system that allows you to find all the basic project documentation, team members, their roles and other important information about the properties of the project, its environment, user descriptions and list of functions.
  + Always use specific conventions to identify and describe tasks. Remember, documentation doesn't have to be lengthy. Its task is a comprehensive description of the project in a simple and understandable language.

**5. Unplanned absence of a team member**

Every unplanned absence of a team member is cause for concern. In autumn and winter, the chances of getting sick increase significantly.

* Aftermath
  + disorganization,
  + delays in completing tasks,
  + lack of knowledge about the project if this specialist was the main member of the team (again, the importance of good documentation becomes obvious!),
  + team demotivation.
* Solution:
  + It is important that all team members have the same fundamental knowledge of the project. Depending on how long the employee is absent and at what stage the project is, the project manager must decide whether a replacement is necessary. It will be easier for a beginner to get started if they share information about the project and provide documentation.

**6. Weak communication with the customer**

Customer not responding? Have you already tried to contact him several times? Most likely the client is on vacation, but did not bother to notify the other team members.

* Aftermath
  + project delays due to the silence of the client,
  + demotivate other team members.
* Solution:
  + Show the client how important it is for you to maintain a good relationship with him from the very first meeting. Designate which decisions should always be made jointly and which should be made by the developers/project managers on their own. When you send an email with a request to a client, indicate why a delay in response may cause problems (for example, difficulties in delivering a service on time). If none of the ways to reach the client works, the project manager must take steps to improve communication with the customer.

**7. Failure to complete the project on time**

I can't think of any project with absolutely no delays Requirements changes during implementation, poorly priced tasks, failed testing, unplanned absences, poor communication with the customer, etc. Most of these problems can be prevented with good planning. Therefore, you must take these risks into account from the very beginning.

* Aftermath:
  + project delays,
  + an unfinished task that interferes with the completion of other tasks,
  + customer dissatisfaction,
  + bad working atmosphere.
* Solution:
  + When planning project and/or sprint deadlines, take all factors into account. Analyze possible risks and inform the client about them. Always assign tasks based on the number of team members available, as well as their skills, strengths, and weaknesses. Always report on your progress and resolve issues during daily briefings. This is the best way to control quality in software development.
  + If it is impossible to meet the deadline, it is necessary to notify the client about this as soon as possible. A good way to deal with everything is to split one big task into several small ones. It is better to complete a couple of small tasks than nothing at all. For the client, this will also be an indicator of team engagement.

**What methods are best in identifying risks?**

* There are many tools and techniques that improve the risk identification process:
  + documentation analysis,
  + detailed analysis of the project goals,
  + checklists based on the experience of previous projects,
  + Brainstorming – A simple conversation between all team members can do wonders.

In the process of risk analysis, you will definitely notice how closely they are interconnected. It is for this reason that it is very important to identify them at an early stage and prevent their combined impact on the project.

**IT project risk management – summary**

As I said earlier, there is no risk-free software development project. It is important to understand that risk is a normal thing in IT. Therefore, there is no point in being afraid of them. If you…

* hold regular meetings
* solve problems immediately
* find, share, document and understand information and data
* motivate all team members within your organization,

you are more likely to succeed.

**Questions?**