

Analysis, comparison and evaluation of different approaches and practices adopted in order to identify and mitigate most common project risks ¹

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ABSTRACT

This paper aims to collect, analyse and study the best practices adopted in order to identify and mitigate most common project risks by comparing some of the most interesting articles retrieved in the current literature around the world.

The analysis aims to help practitioners to acquire more awareness about project risk management that unfortunately remains an undeveloped discipline while it should become a key activity in every project and should be integrated during all phases of project management, from starting to the very end.

For every source, the present document report in a table the risks identified by the original researcher together with descriptions and mitigation actions proposed in his/her work.

INTRODUCTION

According to the PMBOK Guide, sixth edition, the objectives of project risk management are to increase the probability and/or impact of positive risks and to decrease the probability and/or impact of negative risks, in order to optimize the chances of project success.

PMI also states in the “Practice standard for Project Risk Management” that Project Risk Management is a valuable component of project management and it enhances the value of the other project management processes.

Project Risk Management should be conducted in a manner consistent with existing organizational practices and policies, in a way that is appropriate to the project, and should recognize the business challenges as well as the multi-cultural environment associated with an increasingly global environment including many joint venture projects and customers, suppliers, and workforces spread around the globe.

Identifying and properly addressing risks has become, for several reasons, a troubled process in modern Project Management and many risks recur often in many projects; for this reason many

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scientific articles, papers and books have analysed and studied the most common risks occurring during project's life cycle with the goal to give to project manager proper tools and workarounds.

The present paper aim to compare different approaches to project risk and different lists of project risks created by several authors with the objective to give a holistic vision of the most important and common risks actually faced around the world.

The 7 Common Project Management Risks reported by JetRuby Agency

JetRuby Agency gives an interesting picture of project management risks in the web article <https://expertise.jetruby.com/7-common-project-management-risks-and-how-to-avoid-them-2395f3af9cab>, in which the authors have gathered and commented some of the most common project management risks that may occur during project implementation and how to avoid them.

In the following table, risks and descriptions are reported along with JetRuby's general considerations about project risk management.

RISK	DESCRIPTIONS
Estimating time and risks.	One of the most important things about implementing a project is estimating it correctly. But since every website and mobile app is somewhat unique, it's not always possible to come up with exact estimations right off the bat.
Change of requirements.	Today's market is competitive as ever. Because of that, clients may sometimes change their vision of how their product or certain features in it should look like. Even though it's hard to be prepared for change of requirements, it's one of the things that a project manager need to consider.
Unforeseen circumstances.	Just like any other people, project managers and developers are humans. For example, if some of them gets sick, it can delay the project for an indefinite period of time or even derail it.
Unclear specifications.	Because of incorrect project initiation, specifications may not always be clear or complete enough for developers to start their part of the work.
Neglecting design.	Trying to save time, many developers sometimes tend to neglect design processes. However, that decision often throws them a wobbly, since design plays one of the most crucial aspects about development.
Technical risks.	Budget cut is among the most challenging risks as it brings into a situation where a project manager need to satisfy client's requirements while being low on resources.
Unavoidable risks.	These are risks, which can't be controlled or estimated:

	starting from technologies being discontinued to even changes in government policy.
FINAL CONSIDERATIONS	
<p>According to the article, “the path to successful implementation of a project is not only long but also full of certain risks”. For these reasons, JetRuby Agency has also prepared a list of rules that should help practitioners avoid troubles and manage projects efficiently.</p> <p>The list comprises the following principles:</p> <ul style="list-style-type: none"> • Identify risks • Keep in touch with clients. • Don’t miss good opportunities • Remember to prioritize risks. • Make a risk response plan. • Keep track of every risk. 	

What to do about 5 common project risks? PmTips.net’s point of view.

In “5 common project risks and what to do about them”, PmTips.net’s staff starts by considering that “*every project has a certain amount of risks in it*”.

In authors’ ideas, in order to manage projects successfully, practitioner need to know what those risks are and be able to deal with them efficiently.

For this reason, PmTips.net’s authors have analyzed and studied some common risks that are highlighted in the following table.

RISK	DESCRIPTION
Poor leadership	<p>This is a really common problem on projects and one that you might not be aware of during project initiation. Too often project sponsors are really excited at the start of a project and give you every indication that they will work hard and support you and the rest of the team. The reality can be different.</p> <p>Once the glamorous bit of getting a project approved is done, the hard work begins and they might not be so interested in all of that. Especially when it involves turning up to regular Project Board meetings, making decisions and being the active advocate for the project! They won’t act like this because suddenly they don’t want the project to</p>

	<p>succeed. It is more likely to happen because they didn't realize it would be so much work and because they are happy to delegate everything to you. Unfortunately, that still gives you a leadership problem at the top.</p> <p>The only way to prepare for and mitigate this risk is to establish a dedicated project management leadership team. Explain the commitment that is required and ensure they are adequately supported as well. Look out for the first signs that their commitment is waning and talk to them about it. An honest conversation might be able to stop the problem before it really takes hold.</p>
<p>Staff problems</p>	<p>Unfortunately, many project risks are caused by the people on the team. Staff leave (through choice or because you are asking them to leave), and that means that the project team lose expertise. Turnover – or even negative people on the team who have no plans to leave – can create issues with morale.</p> <p>This is one risk that you should definitely plan for – someone on your team is going to feel disgruntled at some point as conflicts happen, and it's best to be prepared!</p> <p>Make sure that you are managing the team consistently with fair benefits and terms for everyone. If you have essential people on the team consider talking to their line managers to try to secure their commitment at least until the end of the project, maybe through the payment of a bonus or similar.</p> <p>You may also find yourself working in a location where the local labor market simply doesn't have the skills you need to successfully complete the project so you may have to factor in training for local staff or the cost of bringing in experts from overseas to work with the local team.</p>
<p>No continuity</p>	<p>The risk that something will change is barely a risk – you know when you start a project that there will be changes. But lack of continuity</p>

	<p>can be an issue in some projects. Take, for example, the situation where you are moving buildings. This relocation effort may have absolutely nothing to do with your project and could be a completely separate piece of work. But it will still have an impact on your team.</p> <p>You may not be able to access certain resources during this time or you may struggle to create a sense of team cohesion in the new location. Think about situations that might affect the continuity of your team and try to plan in advance so that they don't have a large impact on the project.</p>
Lack of resources	<p>A lack of resources can hit any project at any time. This could be anything from not being able to get parts for your project due to a natural disaster in the manufacturing company (as hit me once on a project) down to the meeting room being booked at the time you want it.</p> <p>Think about the resources that you need on your project and what you would do if they suddenly became unavailable. This could involve sourcing alternative suppliers or cross-training your team so they can cover for each other. You might also need extra time to complete the project due to delays in getting the right kit, or you might be able to compromise on quality.</p>
Change to business strategy	<p>This is another risk that has a potential impact on any project. We can't predict the future with any degree of certainty so there is always the chance that your project will suffer as a result in the business changing direction. This could be because the management team has decided not to launch a new product, to launch a new product, to open an overseas facility, to close an office, to float on the stock market or pretty much anything else!</p> <p>Most project managers don't get involved with setting business strategy so we can only react to changes when they happen.</p> <p>The best mitigating action in these</p>

	<p>circumstances is to carry out a thorough review of what the change means for the project. It might have no impact but at the other extreme it might require closing down the project prematurely. Think about what you would need to know in order to make the right decision and then if this happens to you it will be straightforward to carry out that analysis.</p>
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In authors’ idea, *“the best thing to do for a project is to carry out proper risks identification. It is important to spend some time brainstorming the risks that might affect the project and document them in a tool like “iMindQ” which is perfect for recording the output of discussion sessions. Then a project manager will be able to refer back to her/his original notes and transfer the important points to her/his risk log.”*

As we can read on “FinancesOnline”, *“iMindQ is a productivity software that lets you map and structure your thoughts and ideas. You can use it for brainstorming and conceptualization by yourself or with your teammates and even for project planning and presentation. This shows that the mind mapping tool is dynamic and has multifarious usages”.*

Carl Pritchard’s three “don’ts”

A very interesting article about project risk management is “The Three Most Common Risks in Project Management” published on MPUG (official industry association for Microsoft® Project) and written by Carl Pritchard, PMP®, PMI-RMP®, who is the author of seven project management texts, and co-produced “The Audio PMP Prep: Conversations on Passing the PMP® Exam” with Bruce Falk.

Prichard, who also is the U.S. Correspondent for the British Project Management Magazine, “Project Manager Today” and serves on the board of directors for ProjectConnections.com, in its paper highlights three fundamental “anti-pattern”, suggests to not do three risky actions during project management process.

RISK	DESCRIPTION AND MITIGATION ACTION
On Defining Requirements	<p>The easiest way to find iffy requirements is generated by an adjective hunt. Seek out the adjectives. User-friendly. Legible. Sufficient. Fast. Limited. Uninterrupted. Reasonable. Those are the words in a requirement that anyone can leverage/exploit to their own advantage. They are the holes in what may otherwise be a reasonable document. Or better</p>

	<p>still, they can be defined down the road. Suggesting that terms can be defined later generates huge risks. Don't do that.</p> <p><i>“Forget the requirements! Start building!”</i> Oddly enough, that's the real-world sentiment of many organizations. To show physical, visible progress, they want to start creating something before they fully understand what it is that they need to create. Sometimes they succeed, but more often, they don't. What's a major risk to almost any project? Unclear or undefined requirements.</p> <p>To validate whether you truly understand a requirement, it takes at least three participants. One should be a representative of the ultimate product owner. That person can define what they need. Another should be a representative of the product provider or generator. That person can define what they're going to deliver. And the third person should have been an English major in college. This individual will be responsible for determining whether vague language is included in either of the other parties' statements.</p>
<p>On Helping Team Members Play Nicely Together</p>	<p>The Internet era has brought about a strange phenomenon. Workers can communicate real-time with someone halfway around the world. They can also use the same communications tool to talk with someone two cubes down the hall. Just because they can, doesn't mean they should. When staff are deployed in the same physical space, it's a good idea to allow them some face time. Faces matter. They provide a human touch and a human connection. And for those team members that are halfway around the world? We need to make sure we find some ties that bind.</p> <p>Little things matter. Dogs. Children. Cars. Vacation spots. Hometowns. Familiar landmarks. The more that we can do to find the</p>

	<p>small threads that bind us to the rest of those with whom we work, the less chance they will assume anything less than positive intent. As managers we want positive intent. We want our team members to feel like they are genuinely part of something larger than themselves. And they need to know that we appreciate them and believe they add true value.</p> <p>Team members are often left in isolation under the assumption they'll get more done if they just get basic direction and someone to point the way. Don't do that.</p>
On Getting It in Writing	<p>From virtually any perspective, this risk strategy sounds cold and calculating. Sign it. Someone asks you to do them a favor. You say, "Sure! Happy to! Just sign here that you wanted that favor done!" It sounds impersonal and like you're doing harm to the relationship. But nothing could be further from the truth. Signatures have meanings. We only sign things that truly matter. If someone <i>really</i> wants a favor, they'll be willing to sign a piece of paper saying, "I wanted that favor."</p> <p>It affirms what's been said. It is important to always confirm that everyone knew what was requested, when, why and how. It clarifies relationships. Sadly, many relationships die on the altar of miscommunication, but the written word affirms communication. In a somewhat ironic twist, many managers refuse to ask for a signature because they feel it creates more distance in a relationship. In the long term, it's the documentation that affirms the relationship existed in the first place!</p> <p>Managers often refuse to ask for promises in writing because they're afraid the other party might be hurt. Don't do that.</p>

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<p>Pritchard closes his article writing that, although the described three “don’ts” may not seem like much in the scheme of a multimillion-dollar project or a decades-long relationship, they represent three of the simplest, clearest, most readily implemented risk responses a practitioner could put in place.</p>	

The risk register published on “StakeholderMap.com” and the Kim Heldman’s work

The staff of StakeholderMap.com has published online a very well-constructed risk register containing 20 common project risks with mitigating and contingency actions that a project manager can take against each one.

The register proposed by StakeholderMap.com is based on Kim Heldman’s work and on his considerations written in the book “PMP: Project Management Professional Exam Study Guide”.

According to Kim Heldman, *“Risk is evident in everything we do. When it comes to project management, understanding risk and knowing how to minimize its impacts (or take full advantage of its opportunities) on your project are essential for success”*.

The register is described in the article “20 Common Project Risks - example Risk Register”, available at the following address: <https://www.stakeholdermap.com/risk/register-common-project-risks.html>.

As we can read on the web page, the full tool comprises the following risks along with suggested mitigating actions and contingency actions:

- Project purpose and need are not well-defined.
- Project design and deliverable definition are incomplete.
- Project schedule is not clearly defined or understood
- No control over staff priorities
- Consultant or contractor delays Estimating and/or scheduling errors
- Unplanned work that must be accommodated
- Lack of communication, causing lack of clarity and confusion.
- Pressure to arbitrarily reduce task durations and or run tasks in parallel which would increase risk of errors.
- Scope creep
- Unresolved project conflicts not escalated in a timely manner
- Business Case becomes obsolete or is undermined by external or internal changes.
- Delay in earlier project phases jeopardizes ability to meet fixed date. For example, delivery of just in time materials, for conference or launch date.

- Added workload or time requirements because of new direction, policy, or statute
- Inadequate customer testing leads to large post go live snag list.
- Legal action delays or pauses project.
- Customer refuses to approve deliverables/milestones or delays approval, putting pressure on project manager to 'work at risk'.
- Theft of materials, intellectual property or equipment.
- Acts of God for example, extreme weather, leads to loss of resources, materials, premises etc. Stakeholder action delays project.

In the following table, only the rows associated to risks with Medium/High Likelihood and Medium/High Impact are reported.

While original register contains 12 columns foreach row, in this paper only the following columns are proposed:

- Risk description
- Likelihood of the risk occurring
- Impact if the risk occurs
- Severity: Rating based on impact & likelihood.
- Owner: Person who will manage the risk.
- Mitigating action: Actions to mitigate the risk e.g. reduce the likelihood.
- Contingent action: Action to be taken if the risk happens.

Risk description	Likelihood	Impact	Severity	Owner	Mitigating action	Contingent action
Project purpose and need is not well-defined.	Medium	High	High	Project Sponsor	Complete a business case if not already provided and ensure purpose is well defined on Project Charter and PID.	Escalate to the Project Board with an assessment of the risk of runaway costs/never-ending project.
No control over staff priorities	Medium	Medium	Medium	Project Manager	The Project Sponsor will brief team managers on the importance of the project. Soft book resources as early as possible and then	Escalate to the Project Sponsor and bring in back up resource.

					communicate final booking dates asap after the scheduling workshops. Identify back ups for each human resource on the project.	
Consultant or contractor delays	Medium	High	High	Project Manager	Include late penalties in contracts. Build in and protect lead time in the schedule. Communicate schedule early. Check in with suppliers regularly. Query “90% done”. Ask again and again if they need anything else.	Escalate to Project Sponsor and Contracts Manager. Implement late clauses.
Estimating and/or scheduling errors	Medium	High	High	Project Manager	Break this risk into two: 'cost estimating' and 'scheduling errors'. Use two methods of cost estimation, and carefully track costs and forecast cost at completion making	Escalate to project sponsor and project board. Raise change request for change to budget or schedule. Pull down contingency.

					<p>adjustments as necessary. Build in 10% contingency on cost and scheduling. Track schedules daily and include schedule review as an agenda item in every project team meeting. Flag forecast errors and/or delays to the Project Board early.</p>	
<p>Lack of communication, causing lack of clarity and confusion.</p>	<p>Medium</p>	<p>Medium</p>	<p>Medium</p>	<p>Project Manager</p>	<p>Write a communication plan which includes frequency, goal, and audience of each communication. Identify stakeholders early and make sure they are considered in the communication plan. Use most appropriate channel of communication for audience e.g. don't send 3 paragraph</p>	<p>Correct misunderstandings immediately. Clarify areas that are not clear swiftly using assistance from Project Sponsor if needed.</p>

					email to Developers, have a call instead.	
Scope creep	Medium	High	High	Project Manager	Document the project scope in a Project Initiation Document or Project Charter and get it authorised by the Project Board. Refer to it throughout the project and assess all changes against it also ensuring alignment of any changes with the Business Case.	Document each and every example of scope creep NO MATTER HOW SMALL in a change order and get authorisation from the project board BEFORE STARTING WORK . This includes ZERO COST changes.
Delay in earlier project phases jeopardizes ability to meet fixed date. For example, delivery of just in time materials, for conference or launch date.	Medium	High	High	Project Manager	Ensure the project plan is as accurate as possible using scheduling workshops and work breakdown structure. Use Tracking Gantt and Baseline to identify schedule slippage early.	Consider insurance to cover costs and alternative supplier as a backup.

Inadequate customer testing leads to large post go live snag list.	High	High	High	Project Manager	Ensure customer prepares test cases/quality checks and protect testing/quality assurance window.	Raise risk immediately and raise issue if it is clear testing inadequate. Customer could extend testing & bring in additional resource.
Customer refuses to approve deliverables/milestones or delays approval, putting pressure on project manager to 'work at risk'.	Medium	Medium	Medium	Project Manager	Ensure customer decision maker with budgetary authority is identified before project start and is part of the project board. Communicate dates for sign-off points up front.	Escalate to project Board and recommend action e.g. to stop the project.

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According to cited articles, most frequently “Risk Managers attempt to reduce the likelihood of the risk occurring or the impact if the risk does occur. The responses are documented on the Risk Register and the register should regularly reviewed to monitor progress. Ideally the Risk Register should be reviewed in every project team meeting. It should certainly be reviewed at the end of each phase of the project lifecycle.

Management of risk should be a constant ongoing process with the project team raising risks with the Risk Manager or Project Manager who then logs the risk and identifies actions that can be taken to mitigate the risk. To properly respond to a risk the Risk Manager may need to bring in experts to understand the actions that can be taken to reduce the likelihood of the risk occurring or the impact if the risk does occur”.

Full register is available at the following address:

<https://www.stakeholdermap.com/risk/risk-register-of-common-project-risks.xls>

The list published by John Strange on ProjectPractical.com

In his article on ProjectPractical.com, John Strange starts by considering that there are a number of internal as well as external factors which play a vital role in the outcome of a project.

According to the author, *“the external factors are the ones which play a vital role in the cause of project risks. In the formal language, a risk is an event due to which a project is affected negatively. This means that risk factors are to be taken care of so that the project can run successfully. Risks if managed efficiently can be mitigated and prevented from causing any trouble for the business. There are several factors which need to be considered and proper understanding of risks is must in order to prevent them.”*

Strange describes also a list of 20 risks along with a possible mitigation action so that a project manager can analyse them efficiently and select the right remedy for the risk as soon as possible.

With the objective to make the list easier to read, Stange’s items has been reported in the following table, in which there are three columns (Risk, Description and Mitigation) for each row.

Risk	Description	Mitigation
Purpose and Need not well-defined:	This is a medium type of risk but it can get transferred to the high project risk category if the project is impacted by this factor.	It is important for any organization to complete a business case if it has not been provided beforehand. Also, the need and purpose of the project have to be mentioned and defined accurately.
Incomplete project design and deliverable definition:	It is a low-risk factor but can eventually turn out to be a high-risk factor if not controlled beforehand.	It is always beneficial to appoint a subject matter expert to prevent such a risk. The experts will help define the project by conducting design workshops. This way the risk can be prevented efficiently.
Difficulty in defining and understanding project schedule:	Every project must have a specific time period to be completed. If there is no set schedule or if there is difficulty in understanding the project schedule then this project risk example will arise. It is included in the low-risk category but can turn out to cause a medium risk	Workshops are really important in such cases. It is advisable for all to conduct schedule workshops with the team members. This will help them manage time efficiently and also avoid missing tasks.

	to the project.	
Risks related to budget	There may be times when the costs go beyond the revenue and in such scenarios, this project risk example arises. There may be uncertainty in every business activities related to the future and when the cost exceeds revenue, the risk factor becomes severe.	In order to prevent such risks, it is advisable for all to analyze the external factors as well as the internal factors that hinder the working of the project and keep some cash aside for meeting the crisis in the near future.
Resistance to changes	This is another project risk example in which if a project does not implement changes with the changing trends, it will cause issues in the project. For example, if technology has to be changed in an organization, and the team members resist the changes, it will cause a problem with respect to the working of the project.	A successful project is the one which goes with the flow. This means the flexible project will see long-lasting success in comparison to the projects which resist those changes.
Risks related to the resources	The next project risk example is related to the resources. This risk arises if the project is not able to acquire the relevant resources, for example, skilled workers, finances, and so on.	A project must show a bright picture to the investors and the team members related to the success of the project. This way the project can attract more investors to fulfill the financial aspects and also attract the skilled workers to give their best.
Lack of control over staff priorities	The next project risk example is related to the staff members. If a project fails to create a backup for team members, then the project will be delayed which is indeed a negative aspect that may give rise to other risk factors.	To prevent this risk factor, a project manager must take the initiative to brief out the importance of the project to the other managers. The manager should schedule the dates of performing each task and provide backup for every team member. In case anyone leaves the project team, time must not be wasted in finding another candidate suitable for the profile. Instead, a backup must be kept ready to avoid such risks.

Risk factors related to disputes	A project is handled by many people and it is likely to happen that disputes can arise due to different thoughts, different, and different expectations. So, therefore, this is included in the project risk examples.	The way to avoid such risks is to conduct meetings on a regular basis and let all the team members and project related personnel participate so that the issues can be discussed openly and a relevant solution is provided as soon as possible.
Unplanned work risk	There are a number of tasks to be performed by each one related to the project. When tasks are not planned efficiently then this type of risk arises and the project will have cases of delayed work more than the tasks which are being completed.	To avoid this risk, one must attend the project schedule workshops and analyze the previous projects. Project manager must check all the plans and quantity surveys and document all the findings. All of this must be reported to the project manager before the project kicks off.
Communication issues	One of the other project risk examples includes the communication channel between the people related to the project. Due to lack of communication, there will be no clarity, and instead, confusion will arise which will be stressful for the efficient running of the project.	To prevent such risks, the communication plan must be established considering the audience, frequency, and goal of the project. Along with the plan the right channel of communication is to be established through emails, phone calls, in written and so on.
Risk related to errors	Another project risk example is related to the errors. The team members must not be forced to complete tasks in a limited time period as this will increase the possibility of getting errors. This type of project risk also arises when the team is working under pressure.	To avoid such risks, it is important for the project team to have enough time to complete the tasks and space must be given to the workers to do the task as per their skills and efficiency levels. The task duration must not be reduced certainly as it will increase the possibility of getting errors.
Escalating project conflicts not reported timely	This gives rise to another project risk examples. According to this, conflicts arising in the team and outside the team are not handled timely due to which the conflicts	Regular project team meetings must be conducted and conflicts must be looked out and resolved.

	arise. This is a low to medium risk factor if it causes an impact on the project.	
Delay in projects	Delay in competing for earlier project causes this risk to occur in the current project.	To avoid such risks, trackers must be made to analyze the task completion and delays must be reported immediately so that the relevant action plan can be made to complete the tasks as soon as possible.
Increased workload due to changes in policies, direction or statute	It is a low to medium risk factor. The statement itself states that increasing workload or reducing the timeline for the tasks will cause a problem in completing the project efficiently.	Proper management of tie must be done and if possible new employees can be hired to compensate the project requirements rather than the increasing workload of the existing team members.
Health and Safety	This is another field of risk where if the health and safety of the project team is ignored, the project will be affected,	: To avoid such risks, team members must be provided with the facilities like first aid at the project site.
Change in Exchange rates	If the project involves making payments and collecting revenue in multiple currencies, then the change in the exchange rate will cause a risk.	To prevent such risks, proper knowledge of the exchange rates must be given to the team members and exchange must be done when the rate is affordable.
Quality related risk	The input and output of project hinder the quality which causes this risk.	Quality check must be done for each step and if changes are required, these must be implemented right away.
Resource suppliers' risk	Another project risk examples include risk related to the resources. If the project does not acquire the required resources on time, the project will face many problems.	To avoid such risks, resources must be gathered before starting the project by analyzing the requirements efficiently.
Risk related to the partners	There is a possibility that the project partner does not meet the obligations of the project. In such a case the risk arises.	An agreement must be made and signed by the parties in order to abide by the set rules and regulations to be followed in the process. This will avoid partner obligations.
Market-based risk	Another set of project risk examples include market-based	To avoid such risks, market analysis is essential from

	risk. This is related to the price of the commodity. Changing market conditions will cause this risk.	time-to-time and necessary change must be made in accordance with the demand of the customers.
FINAL CONSIDERATIONS		
<p>Strange closes its article highlighting that a project manager, being aware of the 20 most common risk factors previously reported, can analyse them efficiently and select the right remedy for the risk as soon as possible.</p> <p>One important activity is certainly to list previous and other project related risks in a risk register that Strange defines as <i>“a document used to record all the risks identified in a project. It is also used to store any additional information on every risk that has been identified in any project, for example who is responsible for the risk and what is the probability and the impact scale of the risks listed. It is essential because it acts as a reference book for the project manager for all the risks associated with the project”</i></p>		

CONCLUSIONS

Project Risk Management is a fundamental process in Project Management but unfortunately many project managers do not pay proper attention to it.

Thus, Project Risk Management is still an undeveloped discipline, distinct from the risk management used by Operational, Financial and Underwriters' risk management.

This situation leads to many untreated or not properly treated risks that could provoke high negative impacts on projects and, finally, cause a project to have some troubles or to fail.

Because there are many recurrent risks, it is important to understand the different approaches and best practices adopted in order to mitigate their consequences and prevent their occurrence, starting from considerations, tips and workarounds gathered daily “on the field” and periodically published by skilled and expert practitioners and project managers.

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Giuseppe Arcidiacono, PMP, CISM, CISA, CGEIT, CRISC, ISO/IEC 27001 Lead Auditor is an Italian Computer Engineer, member of ISACA.

Graduated with honours from the University of Calabria, Giuseppe holds two post-graduate master's degrees in "Public Management" and in "Governance, Audit and Control System for Public and Private Organizations".

He holds the following international certifications:

- PMP – Project Management Professional – PMI (Project Management Institute);
- CISA – Certified Information System Auditor – ISACA;
- CISM – Certified Information Security Manager – ISACA;
- CGEIT – Certified in Governance of Enterprise IT;
- CRISC – Certified in Risk and Information Systems Control.
- ISO/IEC 27001 Lead Auditor

Giuseppe has working in Project Management since 2003 and is specialized in the European Commission Project Management Framework based on PCM (Project Cycle Management).

Giuseppe is author of several scientific articles about Governance of IT (GEIT), Information Security Management and Audit, and Project Management published in prestigious international Journals and Blogs.

Since 2008 Giuseppe is the Head of IT Department in ARCEA, Agenzia della Regione Calabria per le Erogazioni in Agricoltura (<http://www.arcea.it>), an European Commission Accredited Paying Agency (pursuant to Reg (UE) 907/2014).

He has worked as IT Auditor, IT Risk Practitioner and CEO – consultant for many Italian enterprises. Previously, Giuseppe worked as IT Project Manager in several international IT projects.

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