



Risk Management or Russian Roulette?

By: Janet Dahmen PMP







Table of Contents

Overview	1
The "Big Five" Risks	1
Risk 1: Inadequate Project Resources/Underestimating Resource Needs	2
Risk 2: Inadequate Requirements	3
Case Study: You Know What Happens When You Assume	3
Case Study: Surprise, Surprise!	3
Risk 3. Resistance and/or Inability to Change	4
Case Study: Fear of Failure	4
Risk 4: Lack of a Project Sponsor	5
Case Study: Corporate Initiatives and the VP Bonus	6
Case Study: The Power to Change	6
Risk 5: Strength of Project Management Team	6
Creating a Risk Register	7
Appendices – Additional Risk Management Collateral	9
Compressed Risk Register	9
Listing of Common Project Risks	9
References	14
Conclusion	14
About the Author	15





Overview

Managing risk in a major implementation shouldn't be thought of as a gamble. This paper explores what risks have the potential to kill your project timelines and budget, which risks are inherent and should never be ignored, and which risks - when mitigated effectively - are just speed bumps along the way.

If you are managing or are responsible for the success of an ERP project (project manager, project sponsor, project stakeholder), you want to empty the risk roulette chamber and not let your implementation fall victim to the spin of a barrel. Ensure you are aware of the types of risks that, when not mitigated properly, grow in complexity, spawning additional and even more lethal situations.

This paper provides insight into ERP implementation risk management, how best to monitor the risks within this type of project to ensure success, and the risks that have the potential to jeopardize success. The definition of project success includes meeting project budgets and timelines, and extends into the organization's ability to realize the full benefits of an ERP. Successful ERP projects streamline business processes, provide access to strategic data, enable resources to be more analytical and less tactical, ensure data consistency and accuracy, and most importantly, position an organization to be self-sufficient in the management and maintenance of the solution.

After reading this paper, you will be able to:

- Identify the five risks that are lethal to any project and how best to escalate and mitigate these types of risks when they are realized.
- Identify who is best positioned to mitigate the big five and which of these risks are so great they may require waving a white flag.
- Create a Risk Register before the project starts.

The "Big Five" Risks

Many organizations begin a project with the end in mind, but do not take into consideration the path or processes needed to get there. They lack clear understanding of the resources and changes needed to execute the project and most certainly have not considered how the organization will need to evolve as a result of the changes an ERP will introduce. This level of change does not happen without leadership or a roadmap. The following section describes five risks that have the potential to stop your project in its tracks. Included within each example are mini case studies that illustrate these types of risks. These real-world examples will help you identify warning signs and mitigation strategies if the risk is realized.





Risk 1: Inadequate Project Resources/ Underestimating Resource Needs

The resource needs for an implementation project can be broken out into three key groups: management, business analysts, and implementation. When properly staffed, these groups create a powerful and effective implementation team. The risks associated with inadequate staffing in any of these groups will vary, yet the outcome will remain the same – significant jeopardy to the project's quality and success. This section outlines the natural progression of project impact when this risk is occurring. The risks associated with an improperly staffed implementation group and business analyst group are provided below. Those associated with an inadequate management team are outlined later in this paper.

Business Analyst Group: The most successful ERP projects attribute a significant portion of their success to one key decision: investing in the future by pulling people out of their full-time positions and immersing them into the team to learn the technology, participate in design decisions, and gain knowledge of the integration of business processes across the organization. Unfortunately, the emersion approach is rarely followed because many organizations focus on the near-term impact and assign resources to participate on a part-time basis.

The risk of an improperly staffed business analyst group is often realized within the first weeks of a project when requirements meetings are impossible to schedule due to the demands of day-to-day operational needs. This situation compounds when meetings that are scheduled are poorly attended, leaving the implementation group wondering whether the business really cares. Shortly thereafter, additional risks emerge when strategic decisions about process and design are needed and key members from the business group are missing or ill prepared. As the project progresses, the business representatives begin to fall farther and farther behind in their knowledge of the solution and lack the ability to approve the solution during final acceptance testing. Project timelines slip, as the business requests time extensions to key milestone dates such as requirements approval, CRP participation, and solution approval. Training opportunities are lost and the organization finds itself with a system that is ready and poised for deployment, but an organization that has fallen so far behind they don't know how to use it.

The scenario above describes exactly how your project will progress if the business group is not properly staffed. This risk is best mitigated before the project begins by clearly defining what demands the business group will have placed on them during the project, and by clearly articulating the compounding risks to the solution, organization, and project schedule if they aren't. Your organization must consider the cost and impact of assigning the right people to the project, and preparing in advance to backfill these resources. At a minimum, the business group must be available 30-40% of the time, with peaks and valleys during key periods.

This risk is best escalated to the project sponsor, as only they have the ability to assign resources and influence change at an organizational level. If the risk associated with staffing is not mitigated, be prepared to extend project budgets to cover the costs associated with a delayed implementation, increased training, and increased post-implementation support.

Implementation Group: Most ERP projects require the services of an implementation group to provide the specialized knowledge of how the software can be configured and set up to meet the specific needs of the organization. This specialized knowledge can be brought in from the outside or can be homegrown through extensive software training prior to the implementation project.

ORACLE Gold Partner





The strength and adequacy of the implementation group can best be determined by assessing their ability to:

- map business process to the software capabilities
- explain how the software is used to fulfill the business needs
- craft an overall solution
- meet project timelines

This group must be able to work closely with your business group, with strong relationships built between implementer and business analyst.

Risk monitoring with this group is through a day-to-day awareness of the tone of meetings, the interaction between team members, the fit of software as demonstrated through process alignments, and the progress of tasks against project schedules. It is time to replace an implementation team member if they are exhibiting issues in several of these areas. If there are multiple implementation group members that are exhibiting similar issues, the overall project success is truly in jeopardy, and it is time to escalate to the project sponsor to recommend resource changes within the implementation group.

Risk 2: Inadequate Requirements

The ability to design a solution without proper requirements is like trying to build a house without blueprints or leave for vacation without a destination. Now some may say that it's all about the journey – but with an ERP implementation, not having properly defined requirements is a huge risk. The following scenarios might easily happen if your team has not taken the time to thoroughly and accurately define the business processes and requirements.

Case Study: You Know What Happens When You Assume....

This particular project began with a business division providing two pages of requirements to represent the whole of their financial and distribution business processing needs. Responding to the division's request for an implementation quote included many assumptions, the most fundamental being that standard processes would be implemented. It didn't take long to uncover that there were interfaces to sub-systems that were unaccounted for, data reporting needs that were impossible to meet, and not-so-standard processes that would require customizations in order to fulfill.

The further the team dug into the requirements, the more complicated the project became. Design decisions that were made early on had to be revisited in order to address the reporting needs uncovered during solution approval. The project was delayed as the solution was refined to incorporate the reporting needs and technical resource costs were expanded to cover the requirement to integrate to a subsystem and to handle the customizations to standard software functionality.

Case Study: Surprise, Surprise, Surprise!

The project team submitted their business requirement documentation at the end of the analysis stage according to the project plan. The next step was to begin designing the solution and start the software setups. The implementation team moved into the next phase and proceeded according to the requirement documentation that was published. Unfortunately, the governance team never took the step to ensure that the business representatives thoroughly reviewed or signed off on the requirements. The project proceeded according to plan and seamlessly moved into the solution validation phase. It was at this point

ORACLE Gold Partner





that the business began to identify missing processes as well as other processes that would not work due to unique customer needs. In addition, a major interface to a subsystem was missing.

The underlying theme in both these case studies is that both the implementation team and the business made significant assumptions about the business needs and system capabilities. Both of these projects had to stop and regroup; to assess what really needed to be in scope and how these changes would impact the overall project timelines.

If your project has begun without detailed business requirements, or has not included enough time in the analysis stage to completely define and receive business approval of the requirements, you must stop and reassess. The snowball effect of this risk is dramatic and will introduce additional risks to the project's quality, scope, cost, and timeline. This risk is a deal breaker!

Risk 3. Resistance And/Or Inability To Change

Projects are all about transformation and are intended to create change of one kind or another, no matter how small or large. Every organization has unique characteristics that make implementing change easy or challenging. These organizational attributes are important to understand so that potential obstacles associated with the resistance to change can be mitigated. During the project initiation, the organization should be analyzed to assess the initial risk associated with ability to change. Areas to assess include:

- Perceived need for change among employees and managers
 - » The greater the need for change, the more accepting an organization will be.
- · Impact of past changes on employees
 - » Organizations that have asked the employees to change frequently may either be adaptable to handling change or exhausted from the amount of change being thrown at them.
- Shared vision and direction for the organization
 - » A common understanding of how change will better the organization and the role each employee has in this vision is critical to removing resistance.
 - » An understanding of how the organization may look after the implementation may prove beneficial to those managers that resist change for fear of losing resources and perceived power, and may also alleviate the fear of people losing their job.

Change Management is the process of realigning the organization to meet the changing demands of the business environment. As business processes are documented and compared against standard processes within the new software, an organization's ability to handle change will be the first test of organizational readiness.

Case Study: Fear Of Failure

The fear of failure or being associated with a failed project is a change management risk that may present itself within any project team member. In this case, it concerns a large, high-profile implementation project consisting of 60 team members and an expansive user base. The project had recently completed the final acceptance testing, which went well and end-user training was happening across the organization. The steering committee team was meeting weekly so that they had regular





updates and the ability to quickly remove any potential roadblocks. There was one small problem that the project management team couldn't get past, and that was the project sponsor contending the project was in a RED status. There was no justification for the status—the technical and business teams were on track, and the team leads were all comfortable with the status of how things were progressing—yet the Sponsor would not lower the risk rating from red to yellow. The business team completed their own readiness assessment and presented it to the project team. The business was ready to go. The change management lead decided to spend some time with the project sponsor to understand the red status. After several long discussions, it was determined that the project sponsor was self-positioning for a political appointment and feared that a failed go-live would negatively jeopardize the chances of being awarded this new position. The fear of the unknown and the fear of potential failure was causing the sponsor significant concern, which was displayed in the form of resistance. The risk mitigation for this situation was to spend more time with the sponsor diving into the best case/worst case scenarios. The team was able to convince the sponsor to suggest that the go-live decision be put before the steering committee for an organizational vote that would in effect distribute the impact of the decision across the organization. The number of members that were confident in the readiness of the project outnumbered those that feared the unknown and the project proceeded with go-live activities. The project was ultimately very successful and the sponsor in fact did win the political appointment.

During the project, end-users will look to a variety of individuals and leaders to help them understand the changes that will come with the ERP implementation. There are many leaders in an ERP project - implementation team members, subject matter experts, supervisors, managers, executives, and members of an organizational change management team that can help address the resistance to change.

If your project is exhibiting symptoms of inability to change or resistance, it will be important to discuss this risk with your project sponsor and management team. It is the leadership team's responsibility to develop and articulate a vision for the organization. It is critical that the leadership team advocates for change and have the authority and ability to assemble and motivate a group with enough power to lead the change effort.

Risk 4: Lack of a Project Sponsor

The transformation of an organization requires strong leadership and the support of the executive management team. The responsibilities of the project sponsor are to appoint the project management team; approve the scope, objectives, schedule, and budget; obtain resources; define organizational priorities and resolve conflicts; and provide direction with the executive team. This role is not simply a figure head that stands by and collects a status update, but rather the lynch pin to the success of the project. They typically have the most to gain or to lose from an ERP implementation. Experience has shown that a successful sponsor typically holds a "C" level positon within the organization, either within finance, operations, or IT. The level within the organization is important in that they have the relationships and clout necessary to pave the way for a successful implementation. Only the sponsor has the ability to work through cross departmental road blocks, to allocate (or reallocate) the resources needed to ensure success, or to redefine corporate goals that may be conflicting with the project. Without an active and engaged project sponsor, the success of an ERP project is at great peril. Below are a few examples where an active project sponsor prevented failure in an ERP project.





Case Study: Corporate Initiatives and the VP Bonus

During an ERP implementation, end user and subject matter expert (SME) involvement is critical to ensuring that business processes are properly defined and tested. This resource group is also responsible for assisting with data conversion definitions, data clean-up, and final validation of conversion processes. This ERP was scheduled to go through final user acceptance testing (UAT) during the last quarter of the year. The project began to see a significant drop in SME participation and escalated the risk to the management team. After several weeks of not being able to resolve the issue, the project sponsor and executive team were called in. During the discussion, the executives disclosed that they each had corporate initiatives that needed to be completed by the end of the year in order to secure their personal bonuses. The SME team members were being pulled in multiple directions and their departmental managers had redefined priorities to be in line with their departmental initiatives. The project sponsor was able to escalate the priority conflict to the executive board, whereby the completion dates for departmental initiatives were extended until after the ERP went live. SME involvement resumed at the required levels and UAT activities got back on track.

Case Study: The Power to Change

The Accounts Payable processes were being reviewed with the procurement team and the concept of a three-way match was being discussed. This particular client had Net 30 terms with many of their vendors, so invoices were paid within the term period. The only problem with this particular process was that vendors shipped product from overseas, and shipping times were routinely between 45 and 60 days. With this situation, there would never be a true three-way match and the client was actually paying for goods prior to receiving them. When the ERP team suggested that this was not a standard or even best practice, the response was "We've always done it this way." When it was suggested that the net terms be changed to allow a proper three-way match, the implementation team was presented with even more resistance. The situation was brought up at the steering committee, at which point the project sponsor responded that they never pay for goods before they are received. Reality can be a painful pill. When the dust settled, the sponsor called for business process changes immediately.

If you are preparing for an ERP, it is critical that your project sponsor knows what is expected of him. His leadership, decision making, and prioritization will be key factors in the project. His active involvement in the project will underscore the importance of the project across the organization. If a project is so important to an organization that he is involved, it's widely regarded as an important project!

Escalating a risk rooted with the project sponsor is probably the most difficult and politically sensitive risk a project manager will ever deal with. Often there is no one above the project sponsor; and when there is, that person is often at a level within an organization where no prior relationship exists. If your project is suffering from a lack of active project sponsor involvement, the project management team must define contingency plans to mitigate project risks that are typically mitigated by the sponsor. It may be time to wave the white flag if you are managing a project without proper executive support and leadership.

Risk 5: Strength of Project Management Team

The risks that have been outlined in this paper are not unique to any one implementation or any one organization. The strength of the project management team is critical in that they must have the vision

ORACLE Gold Partner





and support needed to recognize in advance that they will need risk monitoring processes and mitigation strategies that are quick to implement. Your management team must have the experience needed to see into the future, to know what comes next, to be two steps ahead of the team. They need to be able to understand the symptoms of each risk, identify mitigation activities, and assess the effectiveness and impact of mitigating risk. Most importantly, they need to have escalation paths and relationships to address the risks that cannot be contained or corrected within the project team.

When assessing the strength of your management team, key things to consider are their ability to plan the work of the entire team, monitor progress as the team works against the plan, and truly understand the critical path in order to assess the impact of activity slippage. Not every slipped task will cause the project to veer off track and they need to be able to quickly identify when delays will create resource overloading in later stages. Another major assessment of the project management team is their overall capacity to handle the day-to-day management of the project. On smaller projects, part-time project managers can be effective. A full-time project manager will be required for an ERP implementation project that spans multiple departments within the organization.

Risks within the project management team can only be corrected by active involvement of a project sponsor who has the ability to escalate to the appropriate executive team members and/or reassign project resources.

Creating a Risk Register

One of the first major tasks in any project is to assess the overall readiness of the organization to take on transformation. The assessment includes determining project risks prior to the project ever beginning and setting expectations with the management team about the types of behaviors and activities that will be monitored. Most importantly, the risk assessment identifies corrective action needed in order to keep the success of the project on track. By definition, a risk is anything that has the "potential" to impact a project – either positively or negatively. A risk does not have to be realized, nor should one wait until it is realized to track it.

The following are some of the typical risks assessed during project initiation and tracked within the Risk Register:

- Business group availability
- Business group effectiveness in new role
- Organizational readiness (change management assessment results)
- Production support structure (people/hardware/process)
- Attrition of key resources (Across Business, Implementation, and Management Groups)
- Team effectiveness
- Solution design (ability to minimize customizations)
- Integration to subsystem (ability to integrate to 3rd Party software)
- Performance of solution (ability to handle peak processing demands)

ORACLE Gold Partner





- Maintainability (organizational readiness to maintain solution once complete)
- Hardware (development/test/production readiness at key milestone dates)
- Impact of business black-out dates (impact to project schedule during business blackout dates)

The risk register is used to capture the results of the initial assessment and is utilized throughout the project to actively capture, monitor, and manage risks. It is a communication and governance vehicle that is shared with all project members, as managing risks is the responsibility of the entire project team.

On an ongoing basis, project management must review all risks and log any that have the potential to impact the overall project. The project manager must actively evaluate project issues to determine if an issue should be elevated to a risk. The project steering committee serves as the primary risk management and review board with time set aside on a regular basis to review the risk register.

The risk register can be as simple as a Word document or spreadsheet, or can be tracked in an enterprise project management tool such as Primavera or RationalRose. The register should track and score the risk according to the following attributes:

Risk Attribute	Attribute Description			
ID	Unique Identifier			
Short Description	3-4 word description of risk			
Status	Current Status: Monitoring, Realized, Mitigated, Eliminated			
Source	Person or department responsible for logging risk			
Category	Budget, Scope, Timeline, Quality, Resource, Integration, Training, Deployment, Support			
Stage	The project stage in which the risk was initially identified: Initiation, Analysis, Design, Build, Test, Deploy, Support			
Long Description	Detailed description of the risk			
Triggering Event	Event that will trigger this risk being realized			
Risk Probability	Probability of the risk occurring			
Cost if Realized	Cost to the project if the risk is realized			
Monitoring Tools/Process	Tools or processes that will be used to monitor the realization of the risk			
Result of Realized Risk	What will happen to the project if the risk is¬ realized			
Escalation Assessment	Steering committee assessment of risk and next steps, which might be one of the following: Eliminate, Mitigate, Accept, Transfer to a third party			
Mitigation Strategy & Probability	Strategy to recover from the risk once it is realized and the probability that the risk can be contained utilizing this strategy			
Mitigation Owner	Party responsible for enacting the strategy			
Mitigation Effectiveness Assessment	Who will analyze the effectiveness of the mitigation strategy			





Risk Attribute	Attribute Description
Mitigation Assessment Owner	Who will determine if the mitigation strategy was effective
Mitigation Cost	Cost of Mitigation
Risk Priority	High, Medium, Low
Risk Impact Score	Calculated score based on project impact, probability, and cost
Fallback Plan	Fall-back plan if the risk and mitigation strategy are not effective

Appendices – Additional Risk Management Collateral

Compressed Risk Register

Depending on the complexity of the project and the level of governance needed, a more streamlined version of the risk register may be utilized. An example of a compressed register is provided below with the example of how a technical risk might be documented and managed:

Risk	Mitigation Strategy	Responsible Person/ Group	Probability of Occurrence	Risk Level/ Status			
Category Name: Technical							
Risk Effect: Inability to meet the project schedule due to supporting shadow systems not being ready. Risk Cause: Changes required/desired to the current applications and other	Impact to other systems will be identified early on in the project. Adequate resources incorporated into governance and project resource plan. Resources required to make modifications to shadow systems will be assigned to the project.	Project Management / Steering Committee	Medium	Medium			
shadow systems.							

Listing Of Common Project Risks

This last section provides an inventory of common risks that may occur within a project. The risk inventory is broken out by risk category and has been provided to trigger deeper risk analysis throughout the project lifecycle.

ORACLE Gold Partner





Organizational

- Project lacks an effective top-management sponsor.
- Project languishes too long in fuzzy front end.
- Layoffs and cutbacks reduce team's capacity.
- Management or marketing insists on technical decisions that lengthen the schedule.
- Inefficient team structure reduces productivity.
- Management review/decision cycle is slower than expected.
- Budget cuts upset project plans.
- Management makes decisions that reduce the development team's motivation.
- Non-technical third-party tasks take longer than expected (budget approval, equipment purchase approval, legal reviews, security clearances, etc.)
- Requirement validation is too poor to support the desired development speed.
- Management places more emphasis on heroics than accurate status reporting, which undercuts its ability to detect and correct problems.
- Facilities are available but inadequate (e.g., no telephone, network wiring, furniture, office supplies, etc.)
- Facilities are crowded, noisy, or disruptive.
- Product depends on government regulations, which change unexpectedly.

Project Schedule / Schedule Management

- Schedule, resources, and project definitions have been dictated by the customer or upper management and are not in balance.
- Schedule is optimistic, "best case," rather than realistic, "expected case."
- Schedule omits necessary tasks.
- Schedule was based on the use of specific team members, but those team members were not available.
- Effort is greater than estimated: functional requirements, integration points, modules.
- Project plans are abandoned under pressure, resulting in chaotic, inefficient work
- Excessive schedule pressure reduces productivity.
- Target date is moved up with no corresponding adjustment to the product scope or available resources.
- A delay in one task causes cascading delays in dependent tasks.

Governance Processes

- Amount of paperwork results in slower progress than expected.
- Inaccurate progress tracking results in not knowing the project is behind schedule until late in the project.







- Upstream quality assurance activities are shortchanged, resulting in time-consuming rework downstream.
- Inaccurate quality tracking results in not knowing about quality problems that affect the schedule until late in the project.
- Too little formality (lack of adherence to software policies and standards) results in miscommunications, quality problems, and rework).
- Too much formality (bureaucratic adherence to software policies and standards) results in unnecessary, time-consuming overhead.
- Management-level progress reporting takes more developer time than expected.
- Half-hearted risk management fails to detect major project risks.
- Software project risk management takes more time than expected.

Project Team / Personnel

- Hiring takes longer than expected.
- Task prerequisites (e.g., training, hosting contract, completion of other projects) cannot be completed on time.
- Poor relationships between developers and management slow decision-making and follow-through.
- Team members do not buy into the project and consequently do not provide the level of performance needed.
- Low motivation and morale reduce productivity.
- Lack of needed specialization increases defects and rework.
- Personnel need extra time to learn unfamiliar software tools or environment.
- Personnel need extra time to learn unfamiliar hardware environment.
- Personnel need extra time to learn unfamiliar programming language.
- Contract personnel leave before project is complete.
- Permanent employees leave before project is complete.
- New development personnel are added late in the project and additional training and communications needed to get them up to speed reduces existing team members' effectiveness.
- Team members do not work together efficiently.
- Conflicts among team members result in poor communication, poor designs, interface errors, and extra rework.
- Problem team members are not removed from the team, damaging overall team motivation.
- The personnel most qualified to work on the project are not available.
- The personnel most qualified to work on the project are available for the project but are







not used for political or other reasons.

- Personnel with critical skills needed for the project cannot be found.
- Key personnel are available only part time.
- Not enough personnel are available for the project.
- People's assignments do not match their strengths.
- Personnel work slower than expected.
- Sabotage by project management results in inefficient scheduling and ineffective planning.
- Sabotage by technical personnel results in lost work or poor quality and requires rework.

Business & End Users

- Users insist on including new requirements.
- Users ultimately finds product to be unsatisfactory, requiring redesign and rework.
- Users do not buy into the project and consequently do not provide needed support.
- Users' input is not solicited, so product ultimately fails to meet user expectations and must be reworked.
- Business insists on new requirements.
- Business review/decision cycles for plans, prototypes, and specifications are slower than expected.
- Business will not participate in review cycles for plans, prototypes, and specifications, or is incapable of doing so—resulting in unstable requirements and time-consuming changes.
- Business communication time (e.g., time to answer requirements-clarification questions) is slower than expected.
- Business-furnished components are a poor match for the product under development, resulting in extra design and integration work.
- Business-furnished components are poor quality, resulting in extra testing, design, and integration work and extra customer relationship management.
- Business will not accept the software as delivered even though it meets all specifications.

Contractors

- Contractor does not deliver components when promised.
- Contractor delivers components of unacceptably low quality, and time must be added to improve quality.
- Contractor does not buy into the project and consequently does not provide the level of performance needed.







Requirements

- · Requirements have been baselined but continue to change.
- Requirements are poorly defined, and further definition expands the scope of the project.
- Additional requirements are added.
- Vaguely specified areas of the product are more time-consuming than expected.

Design and Build

- Overly simple design fails to address major issues and leads to redesign and reimplementation.
- Overly complicated design requires unnecessary and unproductive implementation overhead.
- Inappropriate design leads to redesign and re-implementation.
- Use of unfamiliar methodology results in extra training time and rework to fix first-time misuses of the methodology.
- Code or class libraries have poor quality, causing extra testing, defect correction, and rework.
- Schedule savings from productivity enhancing tools are overestimated.
- Components developed separately cannot be integrated easily, requiring redesign and rework.
- Business insists on technical decisions that lengthen the schedule.
- Business micro-manages the development process, resulting in slower progress than planned.
- Business has expectations for development speed that developers cannot meet.
- Development facilities are not available on time.
- Development tools are not in place by the desired time.
- Development tools do not work as expected; developers need time to create workarounds or to switch to new tools.
- Development tools are not chosen based on their technical merits, and do not provide the planned productivity.

Product

- Error-prone modules require more testing, design, and implementation work than expected.
- Unacceptably low quality requires more testing, design, and implementation work to correct than expected.
- Development of the wrong software functions requires redesign and implementation.
- Development of the wrong user interface results in redesign and implementation.







- Development of extra software functions that are not required (gold plating) extends the schedule.
- Meeting the product's size or speed constraints requires more time than expected, including time for redesign and re-implementation.
- Strict requirements for compatibility with existing system require more testing, design, and implementation than expected.
- Requirements for interfacing with other systems, other complex systems, or other systems that are not under the team's control result in unforeseen design, implementation, and testing.
- Operation in an unfamiliar or unproved software / hardware environment causes unforeseen problems.
- Development of a kind of component that is brand new to the organization takes longer than expected.
- Dependency on a technology that is still under development lengthens the schedule.

References

The following project management organizations have provided the project management community with acumen, insight, and a source of collaboration for decades.

- Project Management Institute: PMI.org (founded in 1969)
- ProjectManagement.com (formally gantthead.com, founded in 2000)

Conclusion

Major projects, the ones that truly make a difference, impact an organization in ways that are not always readily apparent in the beginning. ERP implementations are transformational beyond the technology changes and include an evolution of departmental roles and responsibilities, business process adaptations, and the expansion of resource skills to include becoming more analytical and strategic in their day-to-day activities. The rewards of this transformation are measured in increased productivity and a greater visibility of the metrics needed for organizations to focus on strategic decisions vs. tactical business survival. The organizational rewards of a successful project are substantial; but the reward doesn't come without inherent risks. As Thomas Jefferson once said, with great risk comes great reward.





About the Author

Janet Dahmen is in charge of Avout's Project Management Office, including validating the use of standardized best practices across accounts, aligning implementation methodologies with best practices, and integrating with client governance. With more than twenty years of management consulting experience with a proven track record governing and leading large-scale delivery teams, Janet excels at bringing together client needs and leading technology capabilities into one cohesive solution. She has built and led PMO offices for multiple clients and consulting companies, delivering \$30+ million programs on time and on budget with teams exceeding 115 members.

Janet began her career in the Civil Service and Healthcare industries, two sectors that are known for their stringent regulations and quality requirements. She developed and implemented relational database systems and managed multiple conversion efforts. In 1996, Janet joined TUSC (now Rolta TUSC), where she managed dozens of development projects across multiple industries, directed testing for an R-12 upgrade effort, and eventually became a practice-level Partner, in charge of creating TUSC's Project Management Office and conducting quarterly audits on \$1+ million projects.

Prior to joining Avout, Janet provided executive management and oversight on client engagements at AST Corporation, ensuring the quality of deliverables from point-of-sale through project close. She instituted provisions for continual process improvement and supported project staffing.

In the past six years alone, Janet has served as the Project Governance Director for over 35 accounts and led Executive Steering Committees for 11 implementation teams. Over the course of her career she has been a mentor and coach to 32 Project Managers.

Janet holds an Associate's degree in Computer Programming and a BS in Business Administration from Columbia College. She is a PMI-certified Project Management Professional (PMP) and a member of PMI's International and Chicago chapters, and has been a session speaker at Oracle IOUG, RMOUG and Collaborate.

