



SOEN 6841

Software Project Management

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**TOPIC ANALYSIS AND SYNTHESIS
(TAS)**

Instructor

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Chapter 1

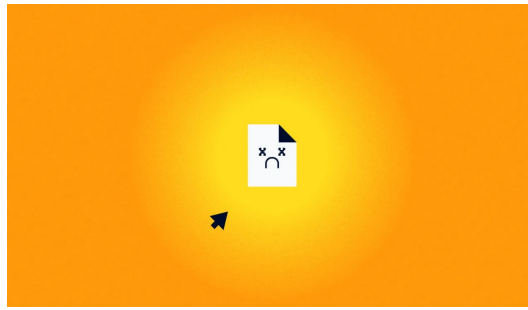
Topic: What are good practices for ending a canceled project?

1.1 Abstract

The landscape of project management is dotted with challenges, and among them, the premature termination of projects presents a unique set of complexities. This report delves into the nuanced process of handling canceled projects, exploring the intricacies of project closure, assessing deliverables, and recognizing individual accomplishments. Real-world examples underscore the diverse factors contributing to project cancellations, from financial constraints to evolving market dynamics. The report advocates for a holistic approach to project closure, emphasizing the importance of documentation, stakeholder engagement, and the transformative potential of learning from setbacks. Insights from influential voices and case studies weave together a narrative that positions canceled projects not as failures but as opportunities for strategic insights and organizational growth. As we navigate the dynamic terrain of project management, this report serves as a guide, offering practical strategies and lessons to turn setbacks into stepping stones toward future success.

1.2 Introduction

In the dynamic landscape of project management, not every journey reaches its intended destination. By **Robert K. Hurley and Joseph T. Jimmerson**, “If you’re going to be a project manager at NASA, you need to be prepared for cancellation.”—Gene Austin, X-33 Space Plane program manager. Projects, despite meticulous planning and earnest efforts, can face unforeseen challenges that lead to the difficult decision of cancellation. While project cancellations may seem like setbacks, they also offer invaluable opportunities for learning, improvement, and strategic redirection. The cancellation of a project impacts multiple stakeholders, encompassing team members, investors, and customers, necessitating careful consideration throughout the cessation process. When projects are closed on time, on budget, and within scope, and they meet or exceed stakeholder expectations, the process of closing out contracts, handing over deliverables, and releasing project resources is a rewarding conclusion to a successful project. Even when projects are closed under less than ideal conditions (maybe over budget or late), closure can be rewarding, especially for large projects or those of historic significance. By examining canceled projects through a strategic lens, we seek to redefine their narrative and extract valuable lessons that can shape the future of project management.



1.3 What is Project cancellation

A project termination marks the premature end of a project. It is the immediate stop of project implementation. It is a declaration of intent to no longer continue the project. And it is the admission that a continuation makes less sense than an early end of the project.

Many projects end before they reach fruition, however. In fact, project cancellation is common. An **April 2009 Project Management Institute (PMI)** survey indicates that the number of companies canceling or delaying projects continues to grow as the economy struggles to recover. More than half the 1,000 randomly sampled PMI members and credential holders reported that their companies had canceled or delayed projects during the previous four months.

1.4 Notable Examples of Project Cancellations

Let's explore the following examples of projects that were canceled for various reasons. Each case provides insights into the factors that contributed to project cancellations, shedding light on the challenges and decisions faced by organizations. Project cancellation can be termed as the "cessation of project execution before the project objectives have been achieved".

- **Boeing Sonic Cruiser:**
Reason for Cancellation: The Boeing Sonic Cruiser, a high-speed commercial aircraft, was canceled in 2002 due to a downturn in the airline industry and a shift in focus towards more fuel-efficient aircraft models.
- **NASA Constellation Program:**
Reason for Cancellation: The Constellation Program, which aimed to return humans to the moon, was canceled in 2010 due to budget constraints and technical challenges. NASA shifted its focus to other exploration initiatives.



- **Google Wave:**
Reason for Cancellation: Google Wave, a collaboration platform, was canceled in 2010 due to a

lack of user adoption. Google decided to discontinue the project but incorporated some of its features into other products.



- Segway Centaur:
Reason for Cancellation: The Segway Centaur, a four-wheeled ATV version of the Segway, was canceled in 2009 due to financial challenges faced by the company. The Segway PT continued, but the Centaur project was abandoned.
- Microsoft Courier Tablet:
Reason for Cancellation: Microsoft's dual-screen Courier tablet, which aimed to redefine digital note-taking and content creation, was canceled in 2010. Microsoft cited internal strategy shifts and the desire to focus on other projects as reasons for the cancellation.
- Volkswagen Phaeton Electric:
Reason for Cancellation: Volkswagen's plans to introduce an electric version of its luxury sedan, the Phaeton, were canceled in 2016. The decision was part of Volkswagen's strategic shift toward electric vehicles in the wake of the "Dieselgate" scandal.
- Google Glass (Consumer Edition):
Reason for Cancellation: Google decided to halt the consumer version of Google Glass in 2015. Privacy concerns, the high price, and the device's limited functionality contributed to its discontinuation.
- Project Ara (Google):
Reason for Cancellation: Google's ambitious modular smartphone project, Project Ara, was canceled in 2016. Technical challenges and concerns about the market viability of a modular phone contributed to its discontinuation. Each example offers a glimpse into the diverse factors that can lead to the discontinuation of a project, providing valuable lessons for project managers and decision-makers.

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1.5 Factors Influencing Project Cancellations

Projects can get canceled for various reasons, and understanding these factors is crucial for improving project management practices. Statistics say, 39% of projects are successful, while 43% are challenged, and 18% are failing. Hence, some common factors for project cancellations include:

Changing Business Priorities: Shifting organizational strategies or priorities may lead to the reevaluation and cancellation of projects that no longer align with the company's goals.

Financial Constraints: Budgetary constraints, cost overruns, or unexpected financial challenges can force organizations to halt projects to mitigate losses or reallocate resources.

Technological Challenges: Unforeseen technical difficulties or advancements in technology that render the project obsolete may result in its cancellation.

Market Dynamics: Changes in market conditions, such as shifts in consumer preferences, emerging competitors, or economic downturns, can prompt organizations to abandon projects.

Poor Planning and Execution: Inadequate project planning, unrealistic timelines, or inefficient execution may lead to project failures, prompting organizations to cancel them to cut losses.

Inadequate Stakeholder Support: Lack of support from key stakeholders, including investors, customers, or internal teams, can contribute to the decision to cancel a project.

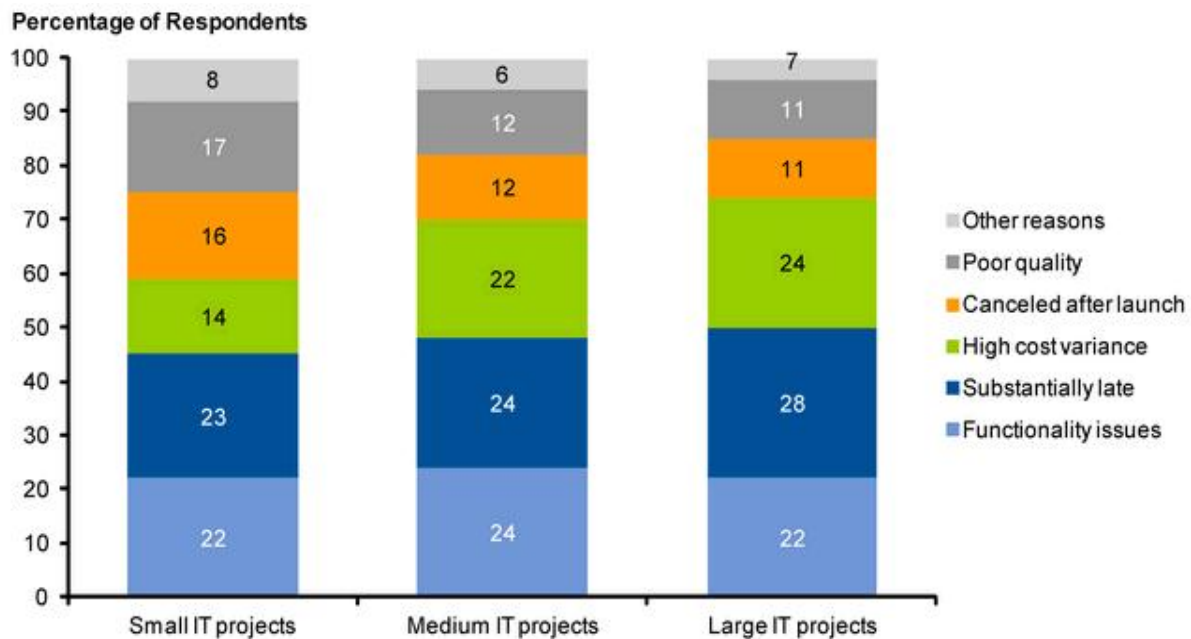


Figure 1.1: A 2012 Gartner report outlines why IT projects fail:

Legal or Regulatory Issues: Legal challenges, regulatory changes, or compliance issues that arise during a project can lead to its cancellation to avoid legal repercussions.

Resource Constraints: Shortages of essential resources, including skilled personnel, materials, or technology, can hinder project progress and contribute to its cancellation.

Scope Creep: Expanding project scope beyond the initially defined parameters can lead to increased costs, timelines, and complexity, prompting organizations to reconsider and cancel the project.

Lack of Clear Objectives: Projects without well-defined goals, objectives, or measurable outcomes may face challenges in demonstrating their value, leading to cancellation.

Poor Communication: Inadequate communication among team members, stakeholders, or project managers can result in misunderstandings, conflicts, and project failures.

Strategic Reevaluation: Organizations may periodically reassess their strategic direction, leading to the cancellation of projects that no longer align with the updated vision or mission.

External Events: Unforeseen external events, such as natural disasters, political instability, or global crises, can impact project feasibility and necessitate cancellation.

Insufficient Risk Management: Failure to identify, assess, and manage risks effectively can result in unforeseen challenges that may lead to project cancellation.

Lack of Customer Demand: Projects that do not meet or generate sufficient demand from customers may be canceled to avoid investing in initiatives with limited market appeal.

1.6 Key Practices for handling canceled project

As per the case study, Canceled projects are a rich source of experience. Dealing with a canceled project is important for several reasons. Handling a canceled project professionally and thoughtfully not only mitigates immediate challenges but also sets the stage for future successes by leveraging the experiences gained. Handling a canceled project requires careful attention to various aspects to ensure a smooth and constructive conclusion. Here are key practices for handling a canceled project:

1.6.1 Documentation

- Assessment of Deliverable:

The evaluation of the state of deliverables and the subsequent turnover to stakeholders with acknowledgment is a crucial aspect of project closure, especially in the context of a canceled project. This involves a systematic review of all project deliverables, which can include completed work, documents, software components, or any tangible outcomes. The evaluation assesses the quality, completeness, and relevance of these deliverables. Once the assessment is complete, team need to communicate the status of deliverables to relevant stakeholders. They can clearly articulate which deliverables are finished and can be used without further effort and which ones could be enhanced with minimal additional work. Thus it can take the time to facilitate a clear understanding between the project team and stakeholders regarding the state and potential use of the deliverables. This minimizes misunderstandings and ensures that stakeholders are aware of the value they can derive from the project work, even in its current state.

- Final Project Report:

Creating a comprehensive final project report is a crucial step in the project closure process. It involves summarizing accomplishments, stating reasons for project termination, providing a final status summary, and archiving project data for future reference. The report must have a concise and objective overview of the project's objectives, goals, and scope. It should clearly state what the project aimed to achieve. The report then should provide a transparent and clear explanation for why the project is being terminated. This could include the factors that led to this decision, whether they are related to budget constraints, changes in organizational priorities, external factors, or any other valid reasons. Reflection of challenges faced, decisions made, and the overall project management process. These lessons can be valuable for future projects.

Providing a Final Status Summary may include the Status of Deliverables, Financial Summary, Timeline, and Milestones. Including a financial summary detailing the project's budget, expenditures, and

any remaining funds is essential for stakeholders and can influence future resource allocation decisions. The report present a timeline summary, highlighting key milestones and their statuses. This helps stakeholders understand the project's progression and where it stood in relation to the initial schedule. As a part of the final report, team can Archive Project Data. Establishing a centralized repository for all project-related data, including documentation, reports, code repositories, and any other relevant materials will work excellently. This can be a physical or digital archive accessible to authorized personnel. Last but not least it should acknowledge the Team Contributions. It can highlight the contributions of team members and recognize individual and collective efforts that played a role in the project's accomplishments.

- **Post-Project Retrospective:**

A post-project retrospective is an opportunity for the project team to reflect on their collective experiences, celebrate successes, and collaboratively identify areas for improvement. By creating a positive and open environment, teams can learn from their past endeavors and enhance their effectiveness in future projects. Team can hold a meeting involving all contributors where they can emphasize Successful Processes and Achievements and identify changes that could have improved project outcomes. Starting the retrospective by emphasizing successful processes, achievements, and positive outcomes of the project creates a positive atmosphere and acknowledges the hard work and dedication of the team. Encouraging open and honest discussions about challenges, setbacks, and areas where the project fell short will create an environment where team members feel comfortable sharing their perspectives without fear of blame. We can view challenges as learning opportunities and discuss what could have been done differently to mitigate risks, address issues proactively, or improve decision-making for future projects.



1.6.2 Recognising Individual Accomplishments

- **Individual Appreciation Meetings:** Team manager may meet individually with each person involved to express gratitude and acknowledge their efforts. It is recommended to reward the team members for the recognition of their efforts. The recognition makes it more likely that they will work hard on their future projects.
- **Stakeholder Engagement:** Meeting the stakeholders and project sponsors for a debrief to discuss met and unmet expectations is necessary. It is must for exploring strategies for improving future projects and ensuring better project conclusions.
- **Team Event :** Team can schedule a small event at the conclusion of the project to celebrate achievements. If organizational support is lacking, they can consider self-funding or organizing a 'pot luck' gathering. This doesn't have to be a big meeting—it could just be a 10-minute check-in or a quick cup of tea. Everyone should strive to end the project on a positive note to foster a collaborative and supportive environment for future endeavors.

1.7 Plausible Arguments

Closing a canceled project is a complex undertaking that demands careful consideration of various factors. In this section, we will explore plausible arguments supporting the adoption of best practices for project closure. These arguments are rooted in established project management principles, expert opinions, and motivational theories. By examining each aspect systematically, organizations can not only navigate the challenges of project termination but also leverage the experience gained for future endeavors.

- Documenting What Happened:
 1. Assessing Deliverables: A systematic assessment of deliverables is crucial for identifying salvageable components. By referring to project management literature, such as the PMBOK Guide (PMI, 2017), organizations can ensure that they are capitalizing on existing resources, reducing waste, and potentially repurposing work for future projects.
 2. Final Project Report: Objectively outlining the reasons for project termination is essential for organizational learning. Expert opinions, as cited in works like "Project Management: A Systems Approach to Planning, Scheduling, and Controlling" by Kerzner (2021), emphasize the importance of unbiased post-project evaluations. This not only facilitates understanding the causes of failure but also supports better decision-making in future projects.
 3. Post-Project Retrospective Meeting: Actively engaging in a retrospective meeting, as guided by motivational theories like Self-Determination Theory (Deci & Ryan, 1985), ensures that contributors feel heard and valued. This fosters a culture of continuous improvement, where lessons learned are integrated into the organizational knowledge base.
- Recognizing Individual Accomplishments:
 1. Individual Appreciation Meetings: Utilizing project metrics and key performance indicators (KPIs), aligned with industry standards like those recommended by the Project Management Institute (PMI, 2017), provides an objective basis for recognizing individual contributions. This practice not only acknowledges efforts but also reinforces a culture of accountability and performance.
 2. Stakeholder Engagement: Engaging stakeholders throughout the project lifecycle, as advocated by project management best practices (Schwalbe, 2020), ensures that expectations are managed effectively. This proactive engagement can prevent misunderstandings and contributes to a collaborative relationship, even in the face of project termination.

1.8 Reconsidering Project Cancellations: Exploring Counterarguments

While advocating for best practices in closing a canceled project is crucial, it is equally essential to acknowledge potential challenges and counterarguments. In this section, we will explore plausible arguments against some of the described practices. Recognizing these challenges provides a holistic view, enabling organizations to make informed decisions based on a comprehensive understanding of potential drawbacks.

1. Assessing Deliverables:
Counterargument:
Challenge: The systematic assessment of deliverables might incur additional costs and time, which could be deemed impractical, especially in projects with limited resources.
2. Final Project Report:
Counterargument:
Challenge: Objectively outlining the reasons for project termination may lead to an overly critical

view, potentially demoralizing the team and creating a negative organizational culture. Transparency about project shortcomings may lead to resistance, hindering open communication about the causes of project failure.

3. Post-Project Retrospective Meeting:

Counterargument:

Challenge: Ensuring active participation in a retrospective meeting might prove difficult due to team members feeling demotivated or disengaged following project termination.

4. Recognizing Individual Accomplishments:

Counterargument:

Challenge: Utilizing metrics and key performance indicators to assess individual contributions may oversimplify the evaluation process, potentially neglecting nuanced aspects of teamwork.

5. Stakeholder Engagement:

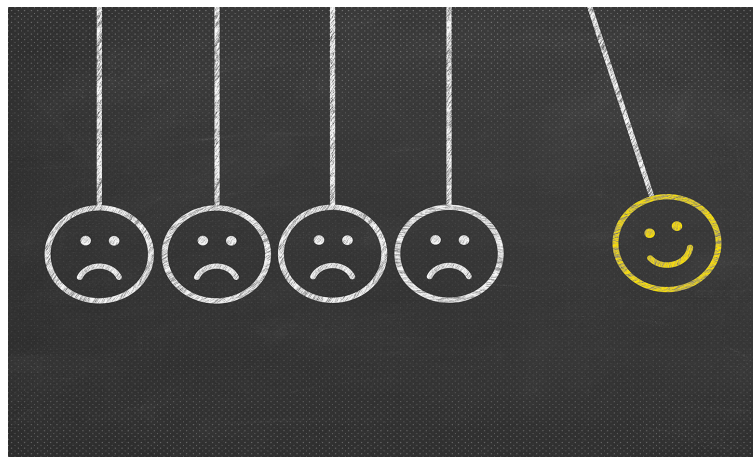
Counterargument:

Challenge: Proactively engaging stakeholders throughout a project's life cycle may be resource-intensive and challenging to sustain, particularly in dynamic environments.

This section introduces counterarguments by highlighting potential challenges and considerations associated with each best practice. Addressing these counterarguments provides a more nuanced understanding of the complexities involved in implementing these practices and prepares organizations to navigate potential obstacles effectively.

1.9 Is Project Cancellation Always Bad?

Normally, there should be no shame in canceling a project that's already underway. Project cancellation is not inherently "bad" in all situations. While the decision to cancel a project may be perceived negatively, it can actually be a strategic and prudent choice under certain circumstances. By adopting a forward-thinking approach, organizations can transform canceled projects from perceived losses into reservoirs of knowledge, assets, and insights that contribute to future successes. The key is to conduct a thorough assessment, extract the valuable elements, and integrate them into the broader organizational strategy. The sooner a bad project is killed, the better—from the standpoint of wasted time, money, and resources, at least. In a word, The earlier, The better.



1.10 When it's time to pull the project plug?

Half of the projects companies launch end up failing, according to a 2004 PricewaterhouseCoopers global survey of 200 small and large companies. By putting a halt to projects on the path to failure, organizations can divert resources to more valuable endeavors. Yet most companies don't have a process for shutting down projects before their scheduled demise—and that's proving to be a costly mistake.

According to **Dr. Wang**, "It's more a matter of expert judgment than quantitative and accurate analysis. At any point in a project life cycle, technical, managerial, financial and administrative experts may suggest that the project is not worthy of continuing. In that case, the project needs to be judged against the project termination checklist prepared during the planning phase. The examination should be conducted by a group representing the key project stakeholders. The results then should be reviewed by a change control board. A decision to terminate the project must then be submitted to the management who issued the project charter. As soon as the management approves the decision, the project goes into the closing process"

Despite the fact that there are often a multitude of symptoms indicating that a project is experiencing trouble, there can be great reluctance to admit that there are problems. The root causes for the trouble are not likely trivial, but the very fact that a project is in trouble should always be clear. And, yet, there is still great reluctance to say or do anything.

The longer team wait to declare trouble, the more time and money will be required to recover the project and the higher the risk that the project will be outright cancelled. The sooner we deal with problems, the easier it will be to have successful solutions.

The following figure illustrates the impact of delaying the declaration of project trouble. As the project's health deteriorates, the cost and time of recovery and the risk of project cancellation increase.

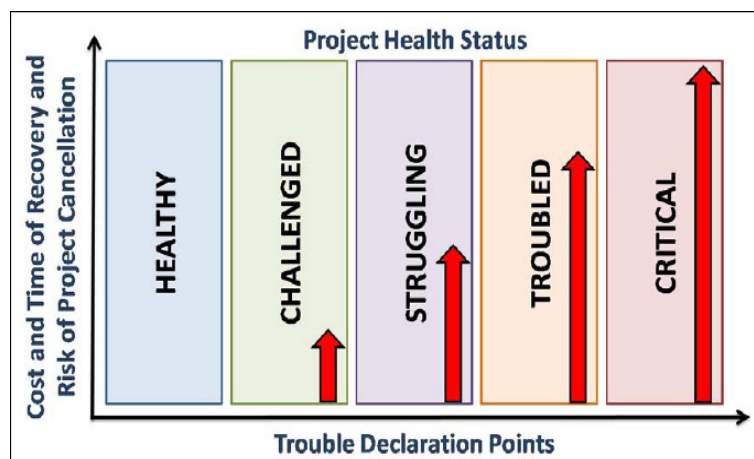


Figure 1.2: Impact of Delaying Declaration of Project Trouble

1.11 Conclusion

In the ever-evolving landscape of project management, where success is often measured not just by achievements but also by adaptability in the face of setbacks, the exploration of good practices for ending a canceled project reveals a compass for navigating uncertainty. The journey through canceled projects underscores that project closure is not merely a procedural conclusion; it is a strategic opportunity.

In conclusion, a project has so many moving parts that it can be easy for things to go wrong. It seems that no matter how carefully a project is run, some will always fail and only 2.5% of companies manage to successfully complete 100% of projects. So, the adoption of these best practices is not just a matter of organizational efficiency but a testament to an organization's commitment to continuous improvement, transparency, and the cultivation of a positive work culture. As organizations navigate the complexities of closing a canceled project, it offers a roadmap for not only mitigating challenges but transforming setbacks into opportunities for future success.

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