PROJECT

MANAGEMENT CASE STUDIES
To Andrea and Jeremy
For successfully managing the “miracle” project:
Our grandson, Asher Kaiden Thompson
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Other than on-the-job training, case studies and situations are perhaps the best way to learn project management. Project managers pride themselves on finding solutions to problems, and case studies are an excellent way for this to happen. Case studies require that students investigate what went right in the case, what went wrong, and what recommendations should be made to prevent these problems from recurring in the future. The use of case studies is applicable both to undergraduate- and graduate-level project management courses as well as training programs to pass various certification examinations in project management.

Situations are smaller case studies that focus on one or two points that need to be addressed, whereas case studies can focus on a multitude of interrelated issues. The table of contents identifies several broad categories for the cases and situations, but keep in mind that the larger case studies, such as “Corwin Corporation,” “The Blue Spider Project,” or “The Rise, Fall, and Resurrection of Iridium,” could have been listed under several topics. Some of the case studies, such as “The Need for Metrics” and “The Singapore Software Group,” are well suited for group exercises. Other smaller or minicases can be covered during the class period.

Several smaller cases or situations are included in this edition at the request of faculty members who asked for cases that could be discussed in class and worked on in a team environment. These smaller cases can be used as in-class assignments or take-home assignments.

Almost all of the cases and situations have seed questions either in the case itself or in the instructor’s teaching notes on the case to assist the reader in the analysis of the case. The seed questions from the instructor’s manual will be provided by the instructor. An instructor’s manual is available from John Wiley & Sons only to faculty members who adopt the book for classroom use.

Almost all of the case studies are factual. In most circumstances, the cases and situations have been taken from the author’s consulting practice. The names of many of the companies and the people in the companies have been disguised for obvious reasons.
Some educators prefer not to use case studies that are more than 10 or 20 years old. However, the circumstances surrounding many of these older cases and situations are the same today as they were years ago. Unfortunately, we seem to be repeating several of the mistakes made previously.

Eighteen new cases have been added to this edition and some existing cases have been updated. Seed questions in the case studies reflect on some of the issues that project managers might face. The new cases are:

- Disney (A): Case study discusses how Disney’s Imagineering project managers may need a different set of skills from those possessed by most traditional project managers.
- Disney (B): Case study discusses some of the challenges Disney faced with the Haunted Mansion Project.
- Disney (C): Case study discusses how the enterprise environmental factors impacted Disney’s decisions to build new theme parks.
- Disney (D): Case study discusses the contractual decisions that Disney faces with some of its partners in the construction of worldwide theme parks.
- Disney (E): Case study discusses the challenges faced by an established theme park in Hong Kong when Disney announced it would build a Disney theme park nearby.
- Olympics (A): Case study shows the complexities and enterprise environmental factors that impact the decision to host the Olympic Games.
- Olympics (B): Case study shows the complexities of following the PMI Code of Ethics and Professional Conduct when managing Olympic projects that involve billions of dollars and often-greedy contractors.
- Olympics (C): Case study shows what is involved with managing a project designed to feed 20,000 Olympic athletes and staff at the Olympic Village when they come from almost every country in the world and may have different nutritional needs.
- Olympics (D): Case study discusses the some of the health and safety risks that the Olympic athletes faced in the Rio Olympic Games.
- The Project Audit: Case study discusses a company’s recognition that it needed a process in place to audit projects, but it was unsure about how to do it, when to do it, or who should do it.
- Trade-off Decisions (A): Case study discusses the challenges that a company faces when having to make critical trade-off decisions.
- Trade-off Decisions (B): Case study discusses the options that a company faces with regard to making a critical decision.
- The Executive Director: Case study discusses how a newly appointed executive director at a government agency got immersed in political gamesmanship to protect his image.
● Boeing 787 Dreamliner Battery Problems: Case study illustrates the importance of safety as a project management constraint when designing a commercial aircraft.

● Airbus A380: Case study focuses on some of the business-related decisions that project managers must make in the commercial aircraft industry.

● Agile (A): Case study focuses on some of the strategic business decisions that may be impacted when converting to agile or Scrum, especially when your business survives on competitive bidding and your clients may not understand or allow you to use agile or Scrum.

● Agile (B): Case study describes some of the operational issues facing project managers when they must manage a project in an agile environment rather than in a traditional project management environment.

● Agile (C): Case study illustrates how reporting project status in an agile environment may be different from status reporting in a traditional project management environment.

Most of the case studies are factual, but the names of the companies, the names of the individuals involved, and other identifying details have been changed (with the exception of Disney, Boeing, and Iridium, and the case studies of the 2016 Olympics and the Challenger space shuttle disaster).
As companies approach some degree of maturity in project management, it becomes readily apparent to all that some sort of standardization approach is necessary for the way that projects are managed. The ideal solution might be to have a singular methodology for all projects, whether they are for new product development, information systems, or client services. Some organizations may find it necessary to maintain more than one methodology, however, such as one methodology for information systems and a second methodology for new product development.

The implementation and acceptance of a project management methodology can be difficult if the organization’s culture provides a great deal of resistance toward the change. Strong executive leadership may be necessary such that the barriers to change can be overcome quickly. These barriers can exist at all levels of management as well as at the worker level. The changes may require that workers give up their comfort zones and seek out new social groups.
Lakes Automotive is a Detroit-based tier-one supplier to the auto industry. Between 1995 and 1999, Lakes Automotive installed a project management methodology based on nine life-cycle phases. For the next 10 years, all 60,000 employees worldwide accepted the methodology and used it. Management was pleased with the results. Also, Lakes Automotive’s customer base was pleased with the methodology and provided Lakes Automotive with quality award recognition that everyone attributed to how well the project management methodology was executed.

In February 2015, Lakes Automotive decided to offer additional products to its customers. Lakes Automotive bought out another tier-one supplier, Pelex Automotive Products (PAP). PAP also had a good project management reputation and also provided quality products. Many of its products were similar to those provided by Lakes Automotive.

Because the employees from both companies would be working together closely, a single project management methodology would be required that would be acceptable to both companies. PAP had a good methodology based on five life-cycle phases. Both methodologies had advantages and disadvantages, and both were well liked by their customers.
QUESTIONS

1. How do companies combine methodologies?
2. How do you get employees to change work habits that have proven to be successful?
3. What influence should a customer have in redesigning a methodology that has proven to be successful?
4. What if the customers want the existing methodologies left intact?
5. What if the customers are unhappy with the new combined methodology?
In July of 2014, senior management at Ferris recognized that its future growth
could very well be determined by how quickly and how well it implemented pro-
ject management. For the past several years, line managers had been functioning
as project managers while still managing their line groups. The projects came out
with the short end of the stick, most often late and over budget, because managers
focused on line activities rather than project work. Everyone recognized that pro-
ject management needed to be an established career path position and that some
structured process had to be implemented for project management.

A consultant was brought into Ferris to provide initial project management
training for 50 out of the 300 employees targeted for eventual project management
training. Several of the employees thus trained were then placed on a committee
with senior management to design a project management stage-gate model for
Ferris.

After two months of meetings, the committee identified the need for three
different stage-gate models: one for information systems, one for new products/
services provided, and one for bringing on board new corporate clients. There
were several similarities among the three models. However, personal interests dic-
tated the need for three methodologies, all based on rigid policies and procedures.

After a year of using three models, the company recognized it had a prob-
lem deciding how to assign the right project manager to the right project. Pro-
ject managers had to be familiar with all three methodologies. The alternative,
considered impractical, was to assign only those project managers familiar with that specific methodology.

After six months of meetings, the company consolidated the three methodologies into a single methodology, focusing more on guidelines than on policies and procedures. The entire organization appeared to support the new single methodology. A consultant was brought in to conduct the first three days of a four-day training program for employees not yet trained in project management. The fourth day was taught by internal personnel with a focus on how to use the new methodology. The success to failure ratio on projects increased dramatically.

QUESTIONS

1. Why was it so difficult to develop a single methodology from the start?
2. Why were all three initial methodologies based on policies and procedures?
3. Why do you believe the organization later was willing to accept a single methodology?
4. Why was the single methodology based on guidelines rather than policies and procedures?
5. Did it make sense to have the fourth day of the training program devoted to the methodology and immediately attached to the end of the three-day program?
6. Why was the consultant not allowed to teach the methodology?
BACKGROUND

By 2010, Clark Faucet Company had grown into the third largest supplier of faucets for both commercial and home use. Competition was fierce. Consumers would evaluate faucets on artistic design and quality. Each faucet had to be available in at least 25 different colors. Commercial buyers seemed more interested in the cost than the average consumer, who viewed the faucet as an object of art, irrespective of price.

Clark Faucet Company did not spend a great deal of money advertising on the radio, television, or Internet. Some money was allocated for ads in professional journals. Most of Clark’s advertising and marketing funds were allocated to the two semiannual home and garden trade shows and the annual builders’ trade show. One large builder could purchase more than 5,000 components for the furnishing of one newly constructed hotel or one apartment complex. Missing an opportunity to display the new products at these trade shows could easily result in a six- to 12-month window of lost revenue.

CULTURE

Clark Faucet had a noncooperative culture. Marketing and engineering would never talk to one another. Engineering wanted the freedom to design new products, whereas marketing wanted final approval to make sure that what was designed could be sold.
The conflict between marketing and engineering became so fierce that early attempts to implement project management failed. Nobody wanted to be the project manager. Functional team members refused to attend team meetings and spent most of their time working on their own pet projects rather than on the required work. Their line managers also showed little interest in supporting project management.

Project management became so disliked that the procurement manager refused to assign any of his employees to project teams. Instead, he mandated that all project work come through him. He eventually built a virtual brick wall around his employees. He claimed that this would protect them from the continuous conflicts between engineering and marketing.

THE EXECUTIVE DECISION

The executive council mandated that another attempt to implement good project management practices must occur quickly. Project management would be needed not only for new product development but also for specialty products and enhancements. The vice presidents for marketing and engineering reluctantly agreed to try to patch up their differences but did not appear confident that any changes would take place.

Strange as it may seem, no one could identify the initial cause of the conflicts or how the trouble actually began. Senior management hired an external consultant to identify the problems, provide recommendations and alternatives, and act as a mediator. The consultant’s process would have to begin with interviews.

ENGINEERING INTERVIEWS

The following comments were made during engineering interviews:

- “We are loaded down with work. If marketing would stay out of engineering, we could get our job done.”
- “Marketing doesn’t understand that there’s more work for us to do other than just new product development.”
- “Marketing personnel should spend their time at the country club and in bar rooms. This will allow us in engineering to finish our work uninterrupted!”
- “Marketing expects everyone in engineering to stop what they are doing in order to put out marketing fires. I believe that most of the time the problem is that marketing doesn’t know what they want up front. This leads to change after change. Why can’t we get a good definition at the beginning of each project?”
MARKETING INTERVIEWS

These comments were made during marketing interviews:

- “Our livelihood rests on income generated from trade shows. Since new product development is four to six months in duration, we have to beat up on engineering to make sure that our marketing schedules are met. Why can’t engineering understand the importance of these trade shows?”
- “Because of the time required to develop new products [four–six months], we sometimes have to rush into projects without having a good definition of what is required. When a customer at a trade show gives us an idea for a new product, we rush to get the project under way for introduction at the next trade show. We then go back to the customer and ask for more clarification and/or specifications. Sometimes we must work with the customer for months to get the information we need. I know that this is a problem for engineering, but it cannot be helped.”

The consultant wrestled with the comments but was still somewhat perplexed. “Why doesn’t engineering understand marketing’s problems?” pondered the consultant. In a follow-up interview with an engineering manager, the following comment was made: “We are currently working on 375 different projects in engineering, and that includes those that marketing requested. Why can’t marketing understand our problems?”

QUESTIONS

1. What is the critical issue?
2. What can be done about it?
3. Can excellence in project management still be achieved and, if so, how? What steps would you recommend?
4. Given the current noncooperative culture, how long will it take to achieve a good cooperative project management culture and even excellence?
5. What obstacles exist in getting marketing and engineering to agree to a single methodology for project management?
6. What might happen if benchmarking studies indicate that either marketing or engineering are at fault?
7. Should a single methodology for project management have a process for the prioritization of projects, or should some committee external to the methodology accomplish this?
Creating a Methodology

BACKGROUND

John Compton, the president of the company, expressed his feelings quite bluntly at the executive staff meeting. He said:

We are no longer competitive in the marketplace. Almost all of the requests for proposal that we want to bid on have a requirement that we must identify in the proposal the project management methodology we will use on the contract should we be awarded the contract. We have no project management methodology. We have just a few templates we use based upon the PMBOK® Guide. All of our competitors have methodologies, but not us.

I have been asking for a methodology to be developed for more than a year now, and all I get are excuses. Some of you are obviously afraid that you might lose power and authority once the methodology is up and running. That may be true, but losing some power and authority is obviously better than losing your job. In six months I want to see a methodology in use on all projects or I will handle the situation myself. I simply cannot believe that my executive staff is afraid to develop a project management methodology.

CRITICAL ISSUES

The executive staff knew this day was inevitable; they had to take the initiative in the implementation of a project management methodology. Last year, a consultant
was brought in to conduct a morning three-hour session on the benefits of project management and the value of an enterprise project management (EPM) methodology. As part of the session, the consultant explained that the time needed to develop and implement an EPM system can be shortened if the company has a project management office (PMO) in place to take the lead role. The consultant also explained that whichever executive gets control of the PMO may become more powerful than other executives because he or she now controls all of the project management intellectual property. The executive staff fully understood the implication of this and therefore were reluctant to visibly support project management until they could see how their organization would be affected. In the meantime, project management suffered.

Reluctantly, a PMO was formed reporting to the chief information officer. The PMO was comprised of a handful of experienced project managers that could, it was hoped, take the lead in the development of a methodology. The PMO concluded that five steps had to be done initially. After the five steps were done, the executive committee would receive a final briefing on what had been accomplished. The final briefing would be in addition to the monthly updates and progress reports. The PMO believed that getting executive support and sign-offs in a timely manner would be difficult.

The first step that needed to be done was the establishment of the number of life-cycle phases. Some people interviewed wanted 10 to 12 life-cycle phases. That meant that there would be 10 to 12 gate-review meetings, and the project managers would spend a great deal of time preparing paperwork for the gate-review meetings rather than managing the project. The decision was then made to have no more than six life-cycle phases.

The second step was to decide whether the methodology should be designed around rigid policies and procedures or go the more informal route of using forms, guidelines, checklists, and templates. The PMO felt that project managers needed some degree of freedom in dealing with clients and therefore the more informal approach would work best. Also, clients were asking to have the methodology designed around client business needs, and the more informal approach would provide the flexibility to do this.

The third step was to see what could be salvaged from the existing templates and checklists. The company had a few templates and checklists but not all project managers used them. The decision was made to develop a standardized set of documents in accordance with the information in the PMBOK® Guide. The project managers could then select whatever forms, guidelines, templates, and checklists were appropriate for a particular project and client.

The fourth step would be to develop a means for capturing best practices using the EPM system. Clients were now requiring in their requests for proposal that best practices on a project must be captured and shared with the client prior