

# Challenges and Best Practices of Managing Government Projects and Programs

Young Hoon Kwak, The George Washington University, USA;  
Min Liu, North Carolina State University, USA;  
Peerasit Patanakul, Pennsylvania State University, Erie, USA;  
Ofar Zwikael, The Australian National University, Australia

## ABSTRACT

### KEY WORDS

*Program Management*  
*Megaprojects*  
*Public and Government*  
*Projects*  
*PM Practices*

The research examined 39 public megaprojects and programs from diverse sectors from developed countries and presents a set of recommendations to improve the success in these project types. The research contributes to the body of knowledge and good practices for large-scale and complex projects. It also presents information to help practitioners make better decisions in megaproject management.

## THE STUDY

This research investigates the peculiarities of government project and program practices via the analysis of a set of 39 projects and programs in developed countries: the US (18), Australia (15), and the UK (6). The sample includes government projects in various industry sectors including infrastructure and transportation, ICT, and defense among others. The average duration was 8.8 years, with an average cost of US\$13 billion. Data was collected from governmental audit reports and other related public documents from the respective countries.

## PRACTICAL IMPLICATIONS

The research identified six key characteristics of government projects, and a set of recommendations for enhancing performance:

1. Non-financial benefit goals
  - a. Identify clear non-financial benefits in the business case
  - b. Ensure that target benefits are realistic and achievable
  - c. Establish an agreement about the methodology and evaluation of project benefits
  - d. Evaluate the impact of the project in achieving the strategic goals
2. Susceptibility to political dynamics
  - a. Consider legal advice to ensure that proposed ideas are in line with current legislation
  - b. Consider financial advice to improve the understanding of financial issues

## ■ PRACTICAL IMPLICATIONS *(continued)*

### *Key characteristics of government project and program practices:*

- *Non-financial benefit goals*
- *Susceptibility to political dynamics*
- *Mandated PM processes in place*
- *Large complex megaprojects*
- *Long product life cycles*
- *Multiplicity of stakeholders*

- c. Ensure that the project is aligned with strategies of the government agencies
  - d. Consider public-private partnerships when appropriate
  - e. Ensure that public-private partnerships are economically feasible
  - f. Provide more authority to project manager
3. Mandated project management process in place
  - a. Establish / follow government PM process and practices
  - b. Follow formal planning and estimating process
  - c. Follow formal risk management process
  - d. Follow formal monitoring and change management process
  - e. Establish a project governance framework
4. Large and complex megaprojects
  - a. Develop a base cost estimate and schedule baseline
  - b. Align project cost with the annual budget cycle
  - c. Consider off-the-shelf solutions rather than high-risk new developments
  - d. Split programs into smaller manageable projects
  - e. Develop contingency plans
  - f. Identify training needs
5. Long product life cycles
  - a. Ensure robust design and quality management process
  - b. Carefully consider the technologies to use, avoiding the obsolete as well as the too "avant garde"
6. Multiplicity of stakeholders.
  - a. Engage procurement personnel on the project team
  - b. Consult the business community when relevant
  - c. Coordinate the project with current operations
  - d. Establish inter-agency agreements when necessary
  - e. Ensure collaboration with procurement personnel
  - f. Ensure an effective acquisition process

### *PM practices positively affect performance of government projects:*

- *with low and medium levels of novelty, but not in breakthrough projects.*
- *with low, medium and high levels of technology, but not in projects that involve super-high tech.*
- *when complexity is high, but not in cases with low or medium complexity.*
- *in time-critical projects, but not in regular, fast, and blitz projects.*

The research also identified key factors affecting project performance. Common factors contributing to poor performance include:

- Lack of support from users of the project product
- Underestimation of project complexity and cost
- Lack of leadership and management skills

Common factors affecting positive performance include:

- Established timelines and checkpoints
- Clear leadership and accountability
- Quality planning
- Effective and comprehensive feasibility studies

## ■ PRACTICAL IMPLICATIONS *(continued)*

---

Additionally, projects that used knowledge from multiple expert sources often resulted in faster completion times and fewer complications. Clear leadership and due diligence are key factors of success on projects that engaged multiple parties.

The research also found that the application of project management practices also positively affects the performance of government projects:

- With low and medium levels of novelty, but not in breakthrough projects
- With low, medium and high levels of technology, but not in projects that involve super-high tech
- When complexity is high, but not in cases with low or medium complexity
- In time-critical projects, but not in regular, fast, and blitz projects

## ■ FINAL REMARKS

---

The project management community can use this study to extend knowledge of government projects and programs. PMI's Government Extension to the *PMBOK® Guide—Third Edition* can draw on the results of this study in its standard's revision process.

## ■ FULL CITATION

---

Kwak Y, Liu M, Patanakul P, Zwikael O. *Challenges and Best Practices of Managing Government Projects and Programs*. Newtown Square: Project Management Institute, Inc., 2014.

### FOR MORE INFORMATION

- PMJ articles and Sponsored Research monographs are available to members for free download.
- Monographs can also be purchased at the PMI Store on PMI.org.



From Academia: Summaries of New Research for the Reflective Practitioner | October 2014

This material has been reproduced with the permission of the copyright owner. Unauthorized reproduction of this material is strictly prohibited. For permission to reproduce this material, please contact PMI.