

Production Planning & Control >  
The Management of Operations  
Volume 23, 2012 - Issue 12

4,970 Views | 77 CrossRef citations to date | 2 Altmetric

Original Articles

# Project risk management using multiple criteria decision-making technique and decision tree analysis: a case study of Indian oil refinery

Prasanta Kumar Dey

Pages 903-921 | Received 07 Oct 2010, Accepted 03 May 2011, Published online: 06 Jul 2011

Cite this article <https://doi.org/10.1080/09537287.2011.586379>

Sample our Economics, Finance, Business & Industry Journals

## We Care About Your Privacy

We and our 854 partners store and access personal data, like browsing data or unique identifiers, on your device. Selecting "I Accept" enables tracking technologies to support the purposes shown under "we and our partners process data to provide," whereas selecting "Reject All" or withdrawing your consent will disable them. If trackers are disabled, some content and ads you see may not be as relevant to you. You can resurface this menu to change your choices or withdraw consent at any time by clicking the ["privacy preferences"] link on the bottom of the webpage [or the floating icon on the bottom-left of the webpage, if applicable]. Your choices will have effect within our Website. For more details, refer to our Privacy Policy. [Here](#)

We and our partners process data to provide:

I Accept

Reject All

Show Purpose



Full Article

Reprints

Abstract

This study

project

tree &

thorough

petroleum

demonstr

technical

strict en

research

ement of  
d decision  
rough  
arch on a  
er to  
cause of  
lders and  
been  
g. In the  
analysed

proposed framework, risks are identified using cause and effect diagram, analysed

using the analytic hierarchy process and responses are developed using the risk map. Additionally, decision tree analysis allows modelling various options for risk response development and optimises selection of risk mitigating strategy. The proposed risk management framework could be easily adopted and applied in any project and integrated with other project management knowledge areas.

Keywords: risk management cause and effect diagram the analytic hierarchy process decision tree oil refinery construction project

### Related Research Data

System-oriented supply chain risk management

Source: Informa UK Limited

Project risk evaluation using a fuzzy analytic hierarchy process: An application to information technology projects

Source: Wiley

Methodology for Integrated Risk Management and Proactive Scheduling of Construction Projects

Source: [Journal of Construction Management and Education](#) (2005)

Project risk management: A review of the literature and a framework for success? ✕

Source: [Journal of Construction Management and Education](#) (2005)

An overview of risk management in project management

Source: [Journal of Construction Management and Education](#) (2005)

Group decision-making in project risk management

Source: [Journal of Construction Management and Education](#) (2005)

Key project risk management factors for project success agement

Source: [Journal of Construction Management and Education](#) (2005)

Project risk management: A review of the literature and a framework for success?

Source: [Journal of Construction Management and Education](#) (2005)

On the importance of risk management in project management

Source: [Journal of Construction Management and Education](#) (2005)

On the importance of risk management in project management

Source: [Journal of Construction Management and Education](#) (2005)

From project risk management to project risk management

Source: [Journal of Construction Management and Education](#) (2005)

Supply Chain Risk, Simulation, and Vendor Selection



Source: Elsevier BV

Applications and Studies

Source: Springer Berlin Heidelberg

Analyzing project management research: Perspectives from top management journals

Source: Elsevier BV

Assessing risk and uncertainty inherent in Chinese highway projects using AHP

Source: Elsevier BV

Enterprise risk management: small business scorecard analysis

Source: Informa UK Limited

Time and Cost Overrun in the Saudi Arabian Oil and Gas Construction Industry

Source: MDPI AG

Delay causes analysis in complex construction projects: a Semantic Network Analysis approach

Source: Taylor & Francis

Project risk evaluation by using a new fuzzy model based on Elena guideline

Source: Vilnius Gediminas Technical University

A graphical analysis of ratio-scaled paired comparison data

Source: Institute for Operations Research and the Management Sciences (INFORMS)

Project risk assessment using the analytic hierarchy process

Source: Institute of Electrical and Electronics Engineers (IEEE)

The analytic hierarchy process: can wash criteria be ignored?

Source: Elsevier BV

On a

Source

Fram

Source

A dyn

phase

Source

Pricing

in

So

Accur

Source

A sta

indus

Source

Risk

Source

Planning for project control through risk analysis: a petroleum pipeline-laying project



Source: Elsevier BV

Risk issues in operations: methods and tools

Source: Informa UK Limited

Incentive contract design in competing distribution channels

Source: Informa UK Limited

Construction risk assessment by linguistics

Source: Institute of Electrical and Electronics Engineers (IEEE)

A classified bibliography of recent research relating to project risk management

Source: Elsevier BV

Early-warning management of inner logistics risk in SMEs based on label-card system

Source: Informa UK Limited

Decision support system for risk management: a case study

Source: Emerald

Procedure for reducing the risk of delayed deliveries in make-to-order production

Source: Informa UK Limited

Integrated project evaluation and selection using multiple-attribute decision-making technique

Source: Elsevier BV

A decision support system using judgmental modeling: a case of R&D in the pharmaceutical industry

Source: Institute of Electrical and Electronics Engineers (IEEE)

Integrating risk and performance management in quality management systems for the development of new products

Source:

Linkin



## Related



Choosing

Anna C  
Journal o  
Publishe

Project

Thomas A. Carbone et al.  
Engineering Management Journal  
Published online: 18 Apr 2015

Impact of risk management on project performance: the importance of soft skills >

Marly Monteiro de Carvalho et al.  
International Journal of Production Research  
Published online: 6 Jun 2014

View more



Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Keep up to date

Register to receive personalised research and resources by email

 Sign me up

- 
- 
- 
- 
- 

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Copyright

Accessib

Registered  
5 Howick Pl

or & Francis Group  
orma business

