



Construction Management and Economics >

Volume 28, 2010 - [Issue 12](#)

2,012 | 74

Views

0

CrossRef citations to date

Altmetric

PAPERS

Risk identification and assessment in subway projects: case study of Nanjing Subway Line 2

Patrick X.W. Zou & Jie Li

Pages 1219-1238 | Received 18 Aug 2009, Accepted 25 Aug 2010, Published online: 13 Dec 2010

<https://doi.org/10.1080/01446193.2010.519781>

Sample our
Built Environment
Journals



>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

[Full Article](#)

[Figures & data](#)

[References](#)

[Citations](#)

[Metrics](#)

[Reprints & Permissions](#)

[Read this article](#)

[Share](#)

Abstract

Underground subways are constructed in major cities across China to overcome the transportation problems in the urbanization process. The aim is to develop a comprehensive risk checklist associated with subway projects and a methodology to assess the risks at the early stage of a project. Based on the analysis of accidents that have happened in previous projects, a review of current literature and the results of interviews, a comprehensive risk checklist was developed, followed by proposing a risk analysis methodology using fuzzy analytical hierarchy process (AHP). Then the Nanjing Subway Line 2 project was analysed using the proposed risk checklist and fuzzy AHP method. The data were obtained through interviews and two rounds of questionnaire surveys with the personnel directly involved in the Nanjing Subway Line 2 project. The results of risk identification and assessment are presented and their managerial

implications are discussed. The information presented here should be relevant to both academics and practitioners in the field of subway project management.

Keywords:

Subway project

risk identification

risk checklist

risk assessment

fuzzy analytical hierarchy process

Related Research Data

[Risk-Based Safety Impact Assessment Methodology for Underground Construction Projects in Korea](#)

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

[An introduction to China's rail transport Part 2: Urban rail transit systems, highway transport and the reform of China's railways](#)

Source: [Proceedings of the Institution of Mechanical Engineers Part F Journal of Rail and Rapid Transit](#)

[The application of analytical hierarchy process to analyze the impact of hidden failures in special protection schemes](#)

Source: [Electric Power Systems Research](#)

[The two-dimensionality of project risk](#)

Source: [International Journal of Project Management](#)

[Multicriteria analysis with fuzzy pairwise comparison](#)

Source: [Unknown Repository](#)

[Risk management practices of leading UK cost consultants](#)

Related research

People also read

Recommended articles

Cited by
74

Information for

Authors

R&D professionals

Editors

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

Open Select

Dove Medical Press

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

Keep up to date

Register to receive personalised research and resources
by email

 Sign me up

  

  

Copyright © 2026 Informa UK Limited Privacy policy Cookies Terms & conditions

Accessibility

 Taylor and Francis Group

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG