


Chapter 4

Investigating Mega Project Schedule Challenges in Transnet Capital Projects

Vannie Naidoo

 <https://orcid.org/0000-0001-8435-4348>
University of KwaZulu-Natal, South Africa

Rajen Chetty

University of KwaZulu-Natal, South Africa

ABSTRACT

In view of the present climate around the globe, mega infrastructure developments are considered to be key catalysts driving economic development and social upliftment and transformation within the world economies today. However, the complexity of megaproject development especially when it comes to infrastructural development is a like a dual edged sword, and in recent years, the delivery of many infrastructural projects have come under scathing attack for schedule slippages, huge cost overruns, and questions over real benefits to the economic viability and sustainability it proposes to bring to the countries future DDP and GNP. This study analysed megaproject schedule challenges in transnet capital projects (TCP) in South Africa. The study employed a survey, and quantitative data were collected using a closed ended questionnaire from 191 megaproject personnel. The objective of the study was to undertake the quantitative analysis to critically assess schedule challenges.

DOI: 10.4018/978-1-6684-7786-1.ch004

INTRODUCTION

Literature expounds that in the last few decades, society has started to measure progress in terms of the quality of life usually associated with large investments in infrastructure such as housing, transportation, manufacturing, and health services. Mega-infrastructure projects in recent years have been considered to be major drivers of economic growth, job creation, and sustainable communities. Naidoo (2022) posits that many theorists writing in the area of mega-projects outlined different views and perceptions of what to their understanding are mega-projects. Mega-projects do not exist in isolation but they are closely integrated and aligned to socio-economic requirements. Mega-projects are crucial as they strive to provide infrastructural development and support the growth and sustainability of a country's economy. Scheduling is an integral part of mega-projects, and special attention needs to be given to the planning of this activity. Investors in mega projects both in the private and public sectors continue to push the boundaries of development in an attempt to satisfy society's appetite and remain competitive. However, large-scale projects have come under intense scrutiny and criticism for poor delivery, overruns in project costs, and failure to meet promises of scheduled delivery. As a result of project performance and reports of failures, project practitioners appear to adopt a defensive stance whilst stakeholders remain skeptical. It is estimated that in Transnet's capital-intensive Rail Freight Business, 55% of projects have failed with detrimental impacts on its business strategy (Xaba: 2011). Further reports indicate that Transnet's projects are failing with challenges in project delivery and concomitant major schedule slippages, (Le Guerm: 2013). Transnet's situation is not isolated as an international study by Merrow (2011) that reports that 65% of mega-industrial projects have failed with dire consequences for operations and long-term sustainability. Merrow expounds further that 28% of these failed projects did not meet their scheduled delivery dates. Mega project schedules are considered a crucial factor in commitments made to stakeholders and shareholder value.

BACKGROUND TO THE STUDY

Transnet, is the backbone of South Africa's rail, port, and pipeline transport network (Transnet, 2014:6). Transnet consists of five main operating divisions namely Transnet National Ports Authority (TNPA), Transnet Port Terminals (TPT), Transnet Freight Rail (TFR), Transnet Rail Engineering (TRE), and Transnet Pipelines (TPL). The study is on Transnet Capital Projects, which is a state-owned company, that has a direct impact on the lives of all South Africans. Transnet Capital projects are involved in many different mega-projects in their various divisions. Transnet Capital Projects

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/investigating-mega-project-schedule-challenges-in-transnet-capital-projects/333678

Related Content

Automated Testing: Higher Efficiency and Improved Quality of Testing Command, Control and Signaling Systems by Automation

Lennart Asbach, Hardi Hungarand Michael Meyer zu Hörste (2016). *Handbook of Research on Emerging Innovations in Rail Transportation Engineering* (pp. 250-272). www.irma-international.org/chapter/automated-testing/154419

Constraints

(2014). *Computer-Mediated Briefing for Architects* (pp. 262-286). www.irma-international.org/chapter/constraints/82879

The Contact Dynamics Method

Katalin Bagi (2016). *Computational Modeling of Masonry Structures Using the Discrete Element Method* (pp. 103-122). www.irma-international.org/chapter/the-contact-dynamics-method/155431

Seismic Vulnerability of Historic Centers: A Methodology to Study the Vulnerability Assessment of Masonry Building Typologies in Seismic Area

Luigia Bindaand Giuliana Cardani (2015). *Handbook of Research on Seismic Assessment and Rehabilitation of Historic Structures* (pp. 1-29). www.irma-international.org/chapter/seismic-vulnerability-of-historic-centers/133343

Risk Reduction in Natural Disaster Management through Information Systems: A Literature Review and an IS Design Science Research Agenda

Guido Schryenand Felix Wex (2015). *Transportation Systems and Engineering: Concepts, Methodologies, Tools, and Applications* (pp. 79-107). www.irma-international.org/chapter/risk-reduction-in-natural-disaster-management-through-information-systems/128660