

ABSTRACT

The research involved investigating the occurrence of project failure within the Transnet environment and developing a conceptual framework, called the Front End Research Framework, to guide the organisation in mitigating project failure through the application of Systems principles. Project failure, whether it be partial or complete non-delivery on the organisational and/or market needs, leads to the inefficient use of Transnet's resources including time, capital and manpower.

Twenty key causes for project failure in various industries, including transportation and logistics, were derived from critical literature review. In this thesis, these are titled the "20 Project Failure Red Flags". These 20 Project Failure Red Flags were narrowed down through archival research of Transnet project reports as well as a survey conducted on Transnet project and programme team members. The results indicated that the five most pertinent causes for project failure in Transnet were lack of sponsor support/buy in, unclear strategic direction by top management, communication breakdown among stakeholders, interdependencies not identified in the early stages of planning and lack of documented requirements and/or success criteria.

The Front End Research Framework was developed by adapting the Zachman Framework™ (Zachman, 2008) as well as the Viable Systems Model (Beer, 1989) to indicate how stakeholder engagement, needs elicitation, requirements analysis and management, Systems Engineering management and system design can be applied during the pre-project phase in order to mitigate project failure.