

**REPUBLIC OF YEMEN
SANA'A UNIVERSITY
INCLUSIVE DEVELOPMENT
RESEARCH CENTER**



**STRATEGIES OF MODERN METHODOLOGIES IN
PROJECT MANAGEMENT AND THEIR REFLECTION ON
SUSTAINABLE DEVELOPMENT IN THE REPUBLIC OF
YEMEN
TELECOMMUNICATIONS SECTOR**

**Submitted in Partial Fulfillment of the Requirements for the Degree of
PhD in International Development**

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2024-1446

ABSTRACT

In light of the complex challenges currently facing humanity, including climate change, rapid population growth, and global economic and political turmoil, sustainable project management (SPM) is a valuable framework for addressing these complex issues and ensuring sustainable resource allocation. This study assesses the efficacy of contemporary project management methodologies in promoting sustainable development, with a particular focus on the telecommunications sector in Yemen.

This study addresses the concept of sustainable project management by analyzing its multiple dimensions. Of these, the strategic dimension emerges as a vital element in the development of strategies that support the achievement of sustainable development goals. Through this dimension, the study seeks to understand how modern methodologies such as Agile, Lean, and Six Sigma can be integrated into sustainable project management strategies, enhancing the ability of organizations to effectively balance economic, environmental, and social objectives.

Using a mixed-methods approach, the research analyzed quantitative data collected through a survey of 150 telecommunications professionals, complemented by qualitative insights from 21 in-depth interviews with project managers and stakeholders of telecommunications sector in Yemen.

The findings indicate a predominant reliance on traditional methodologies, such as Waterfall, with limited adoption of modern methodologies like Agile, Lean, and Six Sigma. While there is growing familiarity with these modern approaches, the integration of sustainability objectives remains inconsistent. Some projects have adopted energy-efficient practices; however, comprehensive sustainability strategies are lacking. Despite the recognition of sustainability's importance, practical barriers persist, revealing a partial alignment between project management methodologies and sustainability goals.

Key challenges identified include inadequate training, regulatory obstacles, and insufficient stakeholder support, which significantly impede the effective incorporation of sustainability practices into project management processes. To address these challenges, the study recommends strengthening training

programs, improving the integration of sustainability into project management, enhancing stakeholder involvement, adopting global best practices, and improving the documentation of sustainable practices.

Keywords: Modern Project Management Methodologies (Agile, Lean, Six sigma), Sustainable Development, Telecommunications Sector, Yemen.