

# Chapter 5

## Impact of Digital Transformation in the State of Chile: A Case Study of a Public Higher Education Institution

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### ABSTRACT

*The document examines the impact of Digital Transformation (DT) on Chile's public institutions, with a particular focus on the Metropolitan Technological University (UTEM). It emphasizes the role of Law 21.180 in promoting the adoption of digital systems to enhance administrative efficiency, transparency, and accessibility. Key achievements include the digitalization of administrative processes, the adoption of electronic signatures, and the strengthening of cybersecurity measures. However, challenges persist, such as resistance to change, connectivity gaps in rural areas, and financial sustainability for maintaining technological updates. UTEM is highlighted as a model institution, showcasing innovations like its "Paperless Program" and advanced data management practices, though it also reveals the need for inclusive*

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*strategies to bridge digital divides. The document concludes that while Chile has made significant progress in DT, addressing interoperability, training gaps, and cultural resistance is essential for ensuring long-term success.*

## **INTRODUCTION**

Over the past decade, digital transformation (DT) has been a key catalyst in the modernization of the Chilean State, significantly influencing all public institutions, including those in the higher education sector (HEIs). This digitalization process has redefined administrative management, citizen interaction, and academic activities within these institutions. In this chapter, in addition to reviewing the legal and policy frameworks that have structured digital transformation in Chile, we present an in-depth analysis of its impact across various public organizations, with particular emphasis on state universities—especially the case of the Universidad Tecnológica Metropolitana (UTEM), a pioneering institution in the development of digital initiatives in the country.

This analysis explores how Chile's regulatory framework has driven the adoption of digital technologies by HEIs, identifying major achievements and the main challenges faced during implementation. It also examines the adaptations required in technological infrastructure and work methodologies, as well as the cultural implications of this shift, the impact of electronic signatures, and the growing role of cybersecurity in public administration. Additionally, the chapter considers the effects of emerging technologies such as Artificial Intelligence (AI), among others.

To structure the discussion, the chapter is organized into several key sections. First, it examines the implementation of Chile's digital transformation agenda, focusing on its origins, progress, and challenges. This is followed by an analysis of Digital Government in Chile, including its definition, implementation issues, and institutional obstacles. Next, a section is dedicated to how state-owned enterprises and public organizations have responded to digital transformation initiatives. Subsequently, the chapter discusses the impact of digital transformation on higher education institutions, highlighting both advancements and persistent challenges, and culminates in a detailed case study of UTEM. This case illustrates the institutional strategy and preparedness for digital transformation and reports on outcomes achieved to date. The chapter closes with an analysis of pending challenges and progress made under the Digital Agenda, emphasizing accomplishments at both the state organizational level and within higher education institutions, particularly UTEM.

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