


Chapter 5

Human Factors and Workforce Adaptation in Digital Transition

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ABSTRACT

The rapid evolution of digital technologies is reshaping business processes, necessitating workforce adaptation to sustain organizational competitiveness. While digital transformation enhances efficiency and innovation, its success is contingent on human factors influencing employee adaptation. This chapter examines key psychological, behavioral, and organizational challenges in digital transitions, including skill gaps, resistance to change, and digital fatigue. It explores workforce adaptation strategies through theoretical frameworks such as the Technology Acceptance Model (TAM), Lewin's Change Management Model, and the Job Demands-Resources (JD-R) Model. The chapter further highlights leadership roles, change management strategies, and case studies of successful digital workforce adaptation. A human-centric approach to digital transformation is essential to balancing technological advancements with employee well-being, fostering a resilient and future-ready workforce.

1. INTRODUCTION

The digital transition is fundamentally reshaping how organizations operate, compelling workforce structures to evolve in response to new technological paradigms. As automation, artificial intelligence (AI), and data analytics become integral to business processes, human factors such as adaptability, emotional intelligence,

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and continuous learning gain prominence. The human workforce is no longer just a passive participant but a dynamic driver in digital transformation, requiring both psychological readiness and technical agility (Subrahmanyam, 2025). This shift presents a dual challenge: harnessing the potential of digital tools while ensuring that employees remain empowered and resilient amid change.

Workforce adaptation is critical in navigating this transformation, with emphasis placed on skill development, change management, and fostering a culture of innovation. Organizations must align digital strategies with human-centric approaches to ensure sustainable growth and employee well-being (Subrahmanyam, 2025). This chapter explores the interplay between human factors and digital integration, emphasizing the need for inclusive, ethical, and agile transition strategies. It argues that the success of digital initiatives hinges not only on technological investments but also on cultivating a workforce that is prepared, supported, and engaged throughout the transition journey.

1.1 Digital Transformation and the Role of Business Process Management (BPM)

Organisations in today's corporate world that want to stay competitive, provide better customer service, and achieve operational excellence must undergo digital transformation. Organisational operations and the value they provide to stakeholders are both radically altered by digital transformation, which involves incorporating digital technology into every facet of a company (Vial, 2019). It requires a thorough reevaluation of business models, organisational structures, and cultural perspectives; it goes beyond just implementing technology.

At the core of this transformation lies *Business Process Management* (BPM), a structured approach to analyzing, redesigning, implementing, and continuously improving business processes. BPM acts as a critical enabler for digital transformation by providing the tools and methodologies necessary to align technology with business goals, ensure operational agility, and optimize workflows (Dumas et al., 2018). Effective BPM helps organizations streamline operations, reduce costs, and enhance service delivery in a digital environment.

1.2 Recognizing the Centrality of Human Factors

Despite the focus on technologies such as artificial intelligence, robotic process automation, and big data analytics, digital transformation ultimately hinges on the people within the organization. The human element is often the determining factor in whether digital initiatives succeed or fail. Employees are not passive recipients

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