

ANALYSIS OF HUMAN RESOURCE COMPETENCY DEVELOPMENT STRATEGIES IN IMPROVING ORGANISATIONAL PERFORMANCE IN THE INDUSTRY 4.0 ERA: LITERATURE REVIEW AND PRACTICAL IMPLICATIONS

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Abstract

This study aims to analyse human resource competency development strategies in improving organisational performance in the Industry 4.0 era through a literature review and practical implications. Digital transformation has brought significant changes to work patterns, management systems, and workforce competency requirements. HR is now required to have not only technical skills, but also digital, collaborative, and creative competencies in order to adapt to dynamic technological developments. This study uses a qualitative method through a literature review of various scientific journals, management books, and organisational reports published in the last five years to obtain a comprehensive picture of the relationship between competency development and organisational performance. The results of the study show that effective competency development strategies include the implementation of technology-based training, continuous learning, knowledge management, and the strengthening of an organisational culture that supports innovation. These strategies have been proven to play a role in increasing productivity, efficiency, and organisational competitiveness through the improvement of individual and collective capabilities. In practical terms, organisations need to adopt HR development policies that are adaptive to technological changes by expanding reskilling and upskilling programmes, strengthening digital leadership, and building a collaborative and sustainable learning ecosystem. These findings confirm that competency development is a key pillar for creating superior and innovative organisations in facing the challenges of Industry 4.0.

Keywords: competency development, human resources, organisational performance, Industry 4.0, digital transformation.

Introduction

The Industry 4.0 era has brought major changes to almost all aspects of human life, including the world of work and the dynamics of modern organisations. This revolution is characterised by the development of digital technology, artificial intelligence, the Internet of Things (IoT), big data analytics, and robotics integrated into production and service systems. These changes require organisations to be more adaptive, responsive, and innovative in facing increasingly complex global competition (Patel, 2025). In this context, human resources (HR) are no longer seen merely as