

# Task Automation and Absent Efficiency: A Literature Analysis and Research Proposal to Overcome Measurement Issues

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## Abstract

Digitalization progresses and the requirements on job profiles face constant ambiguities. Not only the unequivocal conceptual distinction of digitalization itself triggers discussion potentials, but also its impact on single occupations within labor markets which still enjoys the attention of most current publications. The pervasive impact of digitalization and enforced utilization of digital technologies to perform single tasks, instead of whole occupational profiles, however, still requires in-depth analysis to transfer the concept to a firm's performance measurement. The task approach indicating routine-biased technical change reveals correlations between digital technologies being a perfect substitute for low-skilled human labor in performing routine tasks and a complement for high-skilled labor in performing non-routine tasks. This interplay is summarized as high-skill and low-skill automation scenarios, which especially highlight the latest achievements in artificial intelligence, that not even non-routine manual tasks are shielded by digital technologies. To transfer this concept to firms a research proposal is provided to facilitate a firm's performance measurement analysis and reduce the input of human labor while substituting individual tasks with digital technologies. Furthermore, as highly skilled human labor is complemented by digital technologies accompanied by the creation of new, even more output conveying tasks, overall efficiency increases. The paper proposes a research framework to operationalize these performance-driving aspects and emphasizes the identification and determination of efficiency potentials.

**Keywords:** Digitalization, Job, Performance, Technologies, Work