AI-Driven Robotic Process Automation (RPA): Enhancing Efficiency in Business Processes

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Abstract: Artificial Intelligence (AI) and Robotic Process Automation (RPA) have emerged as transformative technologies, promising substantial enhancements in operational efficiency across various industries. This research paper explores the integration of AI-driven RPA in business processes, aiming to identify its impact on efficiency improvements. Through qualitative research and thematic analysis, the study examines real-world applications, benefits, challenges, and future implications of AI-driven RPA. Findings suggest that while AI-driven RPA offers significant efficiency gains, its implementation requires careful consideration of organizational contexts and technological capabilities. The paper concludes with insights into the strategic adoption of AI-driven RPA to optimize business operations and achieve competitive advantage in the digital era.

Keywords: Artificial Intelligence