

**Journal of Advances in Mathematical & Computational Sciences**  
An International Pan-African Multidisciplinary Journal of the SMART Research Group  
International Centre for IT & Development (ICITD) USA  
© Creative Research Publishers  
Available online at <https://www.isteams.net/mathematics-computationaljournal.info>  
CrossREF Member Listing - <https://www.crossref.org/06members/50go-live.html>

# The Impact of Artificial Intelligence on Agile Project Management: A Product Perspective

<sup>1</sup>Oluwasanmi Raphael, Jarikre Amos O. & Paul Abakada

<sup>1</sup>Head of Product, Eazipay Inc.

E-mails: [raphaelosanmi@gmail.com](mailto:raphaelosanmi@gmail.com); [jarky4u2c@yahoo.com](mailto:jarky4u2c@yahoo.com); [paulabakada@gmail.com](mailto:paulabakada@gmail.com)

## ABSTRACT

The integration of Artificial Intelligence (AI) into Agile project management is redefining the product development landscape. Agile, with its adaptability and iterative workflows, provides a strong foundation for incorporating AI capabilities in areas like decision-making, predictive analytics, and resource optimization. This paper explores the practical implications of AI on Agile project management with a focus on product delivery, examining its benefits, challenges, and strategies for effective implementation. Leveraging real-world case studies and empirical research findings, the study highlights how AI improves product quality, accelerates delivery timelines, and enhances decision-making. A survey of 50 Agile teams and analysis of 20 AI-enhanced projects reveals a significant impact on productivity, resource efficiency, and customer satisfaction. The findings provide actionable insights for organizations seeking to integrate AI into Agile methodologies for superior product outcomes, while also addressing challenges such as data quality, organizational resistance, and ethical considerations.

**Keywords:** Impact, Artificial Intelligence, Agile Project Management, Product Perspective

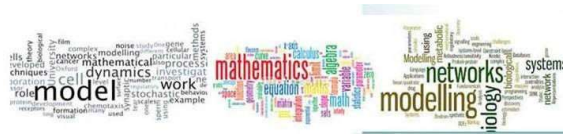
---

Oluwasanmi, R., Jarikre, A. & Abakada, P. (2023): The Impact of Artificial Intelligence on Agile Project Management: A Product Perspective. *Journal of Advances in Mathematical & Computational Science*. Vol. 10, No. 4. Pp 99-104. [dx.doi.org/10.22624/AIMS/MATHS/V11N4P7](https://doi.org/10.22624/AIMS/MATHS/V11N4P7). Available online at [www.isteams.net/mathematics-computationaljournal](http://www.isteams.net/mathematics-computationaljournal).

---

## 1. INTRODUCTION

The rapid adoption of Artificial Intelligence (AI) in industries such as technology, healthcare, finance, and manufacturing has transformed how projects are planned, executed, and delivered. AI enables the automation of repetitive tasks, predictive analytics for decision-making, and real-time insights that streamline workflows and improve product outcomes (Gupta & Nagpal, 2020). Agile project management, on the other hand, emphasizes flexibility, continuous delivery, and stakeholder collaboration. Popular frameworks such as Scrum and Kanban allow teams to adapt to changing requirements and deliver incremental value.



This adaptability makes Agile methodologies well-positioned to incorporate AI tools that analyze large datasets, optimize resources, and identify risks in real time. Despite the potential synergy between AI and Agile methodologies, empirical research exploring AI's direct impact on Agile project management—particularly on product development—remains limited. This paper aims to address this research gap by presenting findings from a multi-phase study involving Agile teams across multiple industries. The study investigates:

1. How AI tools improve Agile product management processes, including backlog prioritization, sprint planning, and risk management.
2. The measurable impact of AI on product quality, delivery timelines, and customer satisfaction.
3. The challenges organizations face when integrating AI into Agile workflows.

By analyzing these areas, this research provides actionable strategies to help organizations unlock the full potential of AI in Agile project management.

## 2. RESEARCH METHODOLOGY

This study employed a mixed-methods approach, including:

1. **Surveys:** Conducted with 50 Agile teams from industries such as software development, healthcare technology, and automotive engineering.
2. **Case Studies:** Detailed analysis of 20 projects where AI tools were integrated into Agile workflows.
3. **Interviews:** Structured interviews with product managers, Scrum Masters, and AI tool developers to gather qualitative insights on AI's role in Agile environments.

The research spanned a six-month period and focused on identifying measurable benefits, challenges, and success factors related to AI integration in Agile methodologies.

## 3. RESEARCH FINDINGS

### 3.1 Survey Results

The survey conducted across 50 Agile teams yielded the following key results:

- **AI Adoption Rates:**  
70% of teams reported using at least one AI tool, such as predictive analytics software or workflow automation platforms.
- **Impact on Efficiency:**  
75% of respondents observed an improvement in sprint planning accuracy and workload distribution due to AI tools.
- **Time-to-Market:**  
68% of teams indicated a significant reduction (15–30%) in product delivery timelines, attributed to AI's ability to automate repetitive tasks and identify risks early in the project lifecycle.
- **Customer Satisfaction:**  
62% of teams reported increased customer satisfaction post-implementation, with AI helping align features to user needs through real-time analytics.







