The Role of Artificial Intelligence in Enhancing Financial Sustainability for SMEs in Ghana

David Laud Amenyo Fiase[1], Kwadwo Opoku Attah[2], Prince Sackey[3], and Samuel Lartey[4]

david.fiase@regent.edu.gh; opoku.attah@regent.edu.gh; prince.sackey@regent.edu.gh
samuel.lartey@regent.edu.gh

Regent University College of Science and Technology, P.O. Box DS1636-dansoman, Accra-Ghana

Abstract

This research investigates the role of Artificial Intelligence (AI) in enhancing the financial sustainability of Small and Medium Enterprises (SMEs) in Ghana. It explores how AI can improve access to credit, reduce operational costs, and streamline financial management processes for SMEs. Utilizing a mixed-methods approach, including surveys, interviews, and statistical analysis, the study finds that AI significantly boosts financial sustainability while also identifying challenges such as data security risks and a lack of AI literacy among SME owners. The study concludes with practical recommendations for businesses and policymakers to manage these risks and maximize the benefits of AI adoption for SMEs in Ghana.

Keywords: Small and Medium Enterprises (SME); Artificial Intelligent (AI): GDP;

Introduction

Small and Medium Enterprises (SMEs) play a crucial role in Ghana's economy, contributing significantly to job creation and GDP growth. However, financial sustainability remains a significant challenge for SMEs due to limited access to capital and complex financial management. Artificial Intelligence (AI) has emerged as a transformative tool to address these challenges, offering innovative solutions to improve financial sustainability and operational efficiency.

Problem Statement

SMEs in Ghana often struggle with financial sustainability due to barriers in accessing credit, high operational costs, and inefficient financial management practices. The lack of innovative financial solutions hampers their growth and long-term success. This study seeks to explore how AI can help overcome these challenges and enhance the financial sustainability of SMEs in Ghana.

Study Objectives

The study aims to investigate the role of AI in enhancing the financial sustainability of SMEs in Ghana. The objectives are:

To analyze how AI can improve SMEs' access to credit and financial resources.

To examine the impact of AI-based tools on financial management and cost reduction.

To identify potential barriers and risks associated with AI adoption for SMEs.

To explore AI's role in driving innovation and efficiency within SMEs.

Theoretical Frameworks

The study is anchored in the theory of technological innovation and its impact on business sustainability. A risk-assessment framework is used to evaluate the risks associated with AI adoption, particularly regarding data security and ethical concerns.

Methodology

The methodology involves:

Surveys: Distributed among SMEs in Ghana to assess their current financial sustainability and AI adoption.

Interviews: Conducted with financial experts and SME owners to gain insights into the benefits and challenges of using AI.

Statistical Analysis: Applied to identify patterns and correlations between AI adoption and financial sustainability.

Results

The study finds that AI significantly enhances the financial sustainability of SMEs by improving access to credit, reducing operational costs, and streamlining financial management processes. However, it also highlights challenges such as data security risks and a lack of AI literacy among SME owners.

Conclusion

AI has the potential to transform the financial sustainability of SMEs in Ghana. Its adoption can lead to improved financial efficiency and business growth. However, careful management of risks, such as data security and ethical concerns, is essential. A balanced approach to AI adoption, involving training and regulatory measures, is recommended to maximize its benefits for SMEs in Ghana.

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