

## AI-Generated Financial Reports for Small Businesses

**Pallavi K P , Mrs. Supriya M**

P.G. Student, Department of Master of Computer Applications, BIET, Davangere-577004.

[kppallavi44@gmail.com](mailto:kppallavi44@gmail.com), Davangere, Karnataka, India

Assistant Professor, Department of Master of Computer Applications, BIET, Davangere-577004.

[supriyamallad@gmail.com](mailto:supriyamallad@gmail.com), Davangere, Karnataka, India

**ABSTRACT:** The project “AI-Generated Financial Reports for Small Businesses” focuses on efficiently and automatically generating the financial report of the business using the most recent advancements in the field of Artificial Intelligence (AI) and Natural Language Processing (NLP). Smaller organizations face many problems in handling the finances of their business due to lack of resources and expertise and the involvement of time constraints. There is a requirement to automate the system that would be able to analyze and summarize the finance details including income statements balances and cash flow statements in simple and effective reports. Allow the identification of trends in spends and predict future spends and also detect irregularities in the finance files. It is an NLP-related text generator that would assist in converting numerical details to significant finance-related details and summaries in a logical and understandable manner that would assist the businessman in making smart and intelligent decisions without the intervention of experts or finance professionals. The implement the most recent advancements in the technology of AI that would assist in efficiently and accurately conducting the operation and thus would minimize the dependencies of the business.

**KEYWORDS:**

*Artificial Intelligence (AI), Automated Financial Reporting, Small and Medium Enterprises (SMEs), AI-driven Accounting Systems, Financial Data Automation*

### I.INTRODUCTION

The proposed plan focuses on the creation of a smart automated system that can simplify and democratize financial management and lack the time resources and specific expertise needed to effectively follow their money a critical aspect the manual process of financial management.

The proposed organization discusses this trial through the use of Artificial Intelligence (AI) and Natural Language in making a seamless user experience. The innovation involves a system engine that automatically and securely connects to the business' banking accounts and credit cards to pool all the financial transactions.

The transactions will be automatically sorted based on algorithms used in machine learning thereby offering insights into cash flow predictions incongruities that may lead to fraud or accounting mistakes among others. The most remarkable Transforming numerals offered in a standard report such as the Pay Announcement or Stability Sheet into readable and comprehensible text.

“The end result will be a cloud-based app that allows for an interactive dashboard as well as customizable reporting as well as data visualizations. Through its ability to solve some of the most time-consuming parts of bookkeeping as well as its ability to provide excellent AI-driven financial insight this particular project will give small business owners the gift of saving time as well as saving money as it will give them the ability to make intelligent data-driven financial decisions in order to achieve sustainable growth.

**Multi-Source Connectivity:** The company will establish secure API-based connections with a broad variety of financial systems such as:

**Business Bank Accounts and Credit Cards:** Import all data related to transactions in real-time automatically.

**Clever Data Organization:** When the data is digested the raw transaction data like “AMZN US” would generally not make any sense to humans. “The raw transaction data will be processed by an intelligent computer model that has been trained based on the assessment of millions of business transactions where each transaction would automatically be categorized based on predefined accounting groups Such as 'Office Supplies' Software Subscriptions and Marketing and Advertising.

## II. RELATED WORK

[1]. Small and medium-sized enterprises (SMEs) face significant challenges in financial decision-making due to resource constraints, limited access to capital, and unpredictable cash flow.

To overcome these challenges, many SMEs are turning to artificial intelligence (AI) to improve efficiency and profitability. AI, through tools like machine learning and predictive analytics, has transformed how SMEs manage their finances, offering solutions that enhance accuracy, speed, and data-driven decision-making. AI-driven accounting tools are revolutionizing routine tasks such as bookkeeping, invoicing, and expense tracking. By automating these functions, SMEs can reduce human error, save time, and allocate resources more effectively. AI's ability to integrate real-time data ensures that financial records remain up to date, enabling more accurate cash flow forecasting.

[2]. This study investigates the potential for entrepreneurs to leverage advances in technological innovation, specifically generative Artificial Intelligence (AI), to build management capability to mitigate business and financial risks. Drawing on theories of Technology Affordances and Constraints and the Resource-Based View (RBV) of the firm, recognising that small and medium-sized enterprises (SMEs) are inherently resource-constrained. We examine how AI-generated financial diagnostics can empower SMEs by generating accessible, real-time analysis and insights, thus bolstering the management function and increasing chances of survival and growth. Using a dataset of 1,150 UK SMEs spanning eight years of financial statements, we test a large language model (LLM) prediction assessment and analyse the potential for SMEs to utilise the technology, notwithstanding enterprise-specific constraints.

[3]. This research paper explores the application of generative artificial intelligence (AI) in automating business report generation and analysis. The study investigates the potential of various AI models, including natural language processing (NLP) and machine learning (ML) techniques, to streamline the process of creating comprehensive business reports. We examine the effectiveness of these AI-driven approaches in extracting relevant information from diverse data sources, generating insightful analyses, and presenting findings in a coherent and user-friendly manner.

[4]. This study investigates the impact of transitioning from traditional paper-based financial reporting to AI-generated financial statements, focusing on AI's role in enhancing accuracy, efficiency, and compliance with global standards like IFRS and GAAP.  
Design/Methodology/Approach: A mixed-methods approach was employed, incorporating regression analysis, paired T-tests, and chi square tests to assess the effects of AI-driven automation on financial reporting. The study analyzed the changes in financial statement accuracy, reporting time, and compliance rates following AI implementation.

[5]. Artificial intelligence fundamentally redefines financial reporting and audit processes by applying sophisticated analytical strength for automatic data processing, real-time transaction analysis, and enhanced risk analysis. Obsolete periodic audit paradigms based on manual reconciliation and sampling-based testing converge on models of continuous assurance where intelligent systems scan entire populations of transactions rather than statistical samples thereof.

Financial data management is dramatically enhanced by AI-powered automation of data ingestion, transaction accuracy verification, and automation of regulatory-compliant disclosure preparation requiring little to no human intervention.

[6]. Financial information systems are organized sets of technologies, procedures, controls, and databases that collect, record, store, process, and report financial data for managerial and external decision-making. In modern organizations, these systems include accounting information systems, enterprise resource planning modules, treasury and cash management platforms, payment gateways, credit management applications, and reporting dashboards that transform raw transactions into structured financial intelligence (Chen et al., 2021).

[7]. Generative AI refers to deep learning technology that can automatically produce original text, images, audio, video, and other outputs. With its emerging capabilities, Generative AI can radically change the dynamics of key operational processes in most industries. In this document, we illustrate how it is possible to integrate Generative AI technologies into the Financial Reporting System (FRS) of a corporation.

[8]. In swift response to the phenomenal innovation in technology occasioned by the advent of Artificial Intelligence (AI) driven tools across all aspects of life, accounting scholars, researchers, and professionals are not lagging in taking the bull by the horns. Accounting practitioners are therefore determined to key into the new realm of technological innovation to enhance

operations and restructure their business models, ensuring they are competitively ahead of their peers and drive sustainable development within the industry (Syed et al., 2020). The trending developments in deep learning (DL), machine learning (ML), and artificial intelligence (AI) across diverse fields of study have created unanswered questions and puzzles among scholars, practitioners, and policymakers on whether the evolution in innovation will herald a paradigm shift globally.

### III. METHODOLOGY

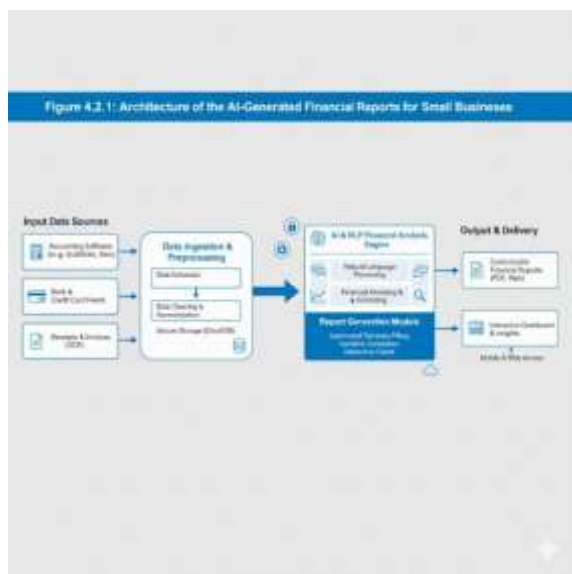


Figure1 : shows that architecture diagram

#### Data Aggregation and Normalization Layer:

This is the basic data-ingestion pipeline of the system. Its core job is to create an integrated unique and clean source of financial truth.

API Integrations - Secure: The software will implement secure APIs with token-based read-only integrations to a wide array of economic establishments including national and local companies along PayPal.

Data Cleansing and Enhancement: When raw the transaction data is processed in a normalization engine when it is ingested. The engine removes confusing merchant names such as “Mexican Food” to “Taco Spot.” More specifically it also enhances transactions by adding more details like merchant location and type and further normalizes date and monetary formats.

#### 2. Core Analytics and Intelligence Engine:

This is the system's brain: this is where raw data is turned into high-value intelligence.

Financial Statement Generation: It enables automatic generation of the three core financial statements namely the Income Statement [Profit & Loss] the Balance Sheet and the Cash Flow Statement. It does this in real time meaning these reports are always up-to-date. Insight machine learning models: This module runs a suite of pre-trained machine learning models into the data of the business. The inclusion is:

Time series forecasting models allow the projection of future cash flow revenue and key expenses.

#### 3. NLG and Presentation Layer:

This forms the user-facing layer intended to be clear and as user-friendly as possible. Translation from detailed financial analyses into simple actionable language. Narrative Generation Module: This module takes the structured outputs from the analytics engine like "Revenue increased 15%; Cost of Goods Sold increased 25%" and synthesizes them into readable narrative summaries. It can explain reasons for changes in metrics such as ".this margin decrease was driven by a 40% increase in supplier costs for raw materials."

It can explain reasons for changes in metrics such as ".this margin decrease was driven by a 40% increase in supplier costs for raw materials."

## IV. RESULTS



Figure 4.1: Dashboard



Figure 4.2: In this figure the user can enter their financial data and also choose the report type and report period and click on the Generate Report button to generate the report.



Figure 4.3: This figure shows how the report is generated based on the data entered by the user.

## CONCLUSION

Smaller businesses are actually the backbone of the global economy but are deplorably underserved in terms of financial technology being forced to fall back on manual processing that is both time-consuming and error-prone. The not-for-profit initiative “AI-Generated Businesses” PCB “Smaller Business Financial Independence Initiative” to give it its full title and explanation that will be expounded on in due course in this report has the ambitious aim of fully addressing this issue first by automating those financial management activities that are currently most time-consuming but much more importantly allowing the businessman to take control of his financial destiny.

The true innovation in the new system however lies in the intelligent multi-layered methodology that it incorporates. The seamless processing of information by the system which has intuitive ease and automated processing also has the backbone of accuracy and efficiency.

To this backbone the predictive analytics engine or the machine-learning algorithm brings-extraordinary width and converts this information-tracking system into an information-prospecting system. Finally the implementation of the Natural Language Generation which is the revolutionary breakthrough brings all the intelligent information to all people irrespective of how much they know about finance. That in essence is where the revolutionary innovation exists.

## V REFERENCES

1. Okeke, Njideka & Bakare, Oluwaseun & Achumie, Godwin. (2024). Artificial Intelligence in SME financial decision-making: Tools for enhancing efficiency and profitability. Open Access Research Journal of Multidisciplinary Studies. 8. 150-163. 10.53022/oarjms.2024.8.1.0056. [https://www.researchgate.net/publication/384545865\\_Artificial\\_Intelligence\\_in\\_SME\\_financial\\_decision-making\\_Tools\\_for\\_enhancing\\_efficiency\\_and\\_profitability](https://www.researchgate.net/publication/384545865_Artificial_Intelligence_in_SME_financial_decision-making_Tools_for_enhancing_efficiency_and_profitability)
2. Metzger, M., O'Reilly, S., & Mac an Bhaird, C. (2025). Generative artificial intelligence augmenting SME financial management. Technovation, 147, 103313. <https://doi.org/10.1016/j.technovation.2025.103313>
3. Modak, R. (2025). Generative AI for automated business report generation and analysis. World Journal of Advanced Engineering Technology and Sciences, 15(2), 894–901. <https://doi.org/10.30574/wjaets.2025.15.2.0610>
4. Mishra, A.K. and Celestin, Prof. Dr. Mbonigaba, From Paper-Based Reports to AI-Generated Financial Statements: Examining Automation's Role in Enhancing Accuracy, Efficiency, and Compliance (April 28, 2025). Available at SSRN: <https://ssrn.com/abstract=5239481> or <http://dx.doi.org/10.2139/ssrn.5239481>
5. Brij, Vijay. (2025). AI in Financial Reporting and Audit Automation. Journal of Information Systems Engineering and Management. 10. 876-885. 10.52783/jisem.v10i62s.13714. [https://www.researchgate.net/publication/398322136\\_AI\\_in\\_Financial\\_Reporting\\_and\\_Audit\\_Automation](https://www.researchgate.net/publication/398322136_AI_in_Financial_Reporting_and_Audit_Automation)
6. Md Mehedi Hasan. (2026). AI-Enabled Financial Information Systems for Credit Risk Forecasting to Support Small Business Growth. American Journal of Interdisciplinary Studies, 7(01), 270-314. <https://doi.org/10.63125/fhzazv80>
7. Sriram, Harish Kumar, Integrating generative AI into financial reporting systems for automated insights and decision support (December 27, 2022). Available at SSRN: <https://ssrn.com/abstract=5232395> or <http://dx.doi.org/10.2139/ssrn.5232395>
8. Adedokun, R. A., & Adedokun, A. (2025). Influence of artificial intelligence (AI) integration on financial reporting quality – the United States and African business ecosystem in focus. Research Journal of Finance and Accounting, 16(8). <https://doi.org/10.7176/RJFA/16-8-02>