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Drey 👑  ·  Jun 9  ·  4 min read

# Our fine-tuned Large Language Models (LLM) for Financial Statement Analysis in SMB & Corporate credit assessment

Updated: Jun 25

Crediflow AI leverages Large Language Models (LLMs) to revolutionize financial statement analysis in SMB & corporate lending.

A key part of the job of a SMB & corporate credit analyst or underwriter is the ability to perform accurate credit analysis and risk assessment on a business looking for a credit facility. This process often requires in depth analysis of financial statements to identify all the key risks that could impact the ability of the borrower to repay its obligations.

Crediflow AI has finetuned LLM with proprietary dataset to automate the process of reviewing, analysing financial statements, and generating a comprehensive credit paper with key risks and credit recommendation under 3 minutes instead of days. The final credit memo/paper generated is in line with the company internal credit policy and credit model.

## Understanding Financial Statement Analysis with LLMs

Financial statement analysis, also known as fundamental analysis, involves evaluating a company's financial health using financial statements and other third party information to predict future performance and creditworthiness. Traditionally, this task requires

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deep expertise, significant human input and a large volume of unstructured data manually reviewed. Credit analysts usually spend days or weeks reviewed these data, scrutinizing balance sheets, income statements, and cash flow statements to gauge a company's financial condition. Credit analysts are also expected to draft a comprehensive credit memo which presents the key risks supported with a recommendation for credit decision. This process, though thorough, is prone to human error and inefficiencies.

With the rise of Generative AI and LLM, it is now possible to automate this process with increased accuracy and precision. Our finetuned LLM model is capable of understanding, analysing and generating human-like credit analysis that arguably can outperform human analysts.

## Automating Corporate Credit Processes

Reviewing financial data/documents, completing credit analysis, structuring credit transactions and writing credit memo account for 80% of the job of a credit analyst or underwriter in SMB or corporate lending. For banks and non-bank lenders, the efficiency of this process is paramount. Crediflow AI automates the process of collecting documents from clients, reviewing/analysing financial documents, structuring transactions and writing credit papers. This automation not only speeds up decision-making but also enhances the accuracy and consistency of credit decisions free from human bias.

By processing vast amounts of data quickly and accurately, the platform identifies trends, computes key financial ratios, and synthesizes this information to predict a company's future ability to service its obligations and support the requested credit facility.

Integrating Crediflow AI's LLM into corporate credit processes can brings transformative change. Traditional methods involve manual analysis and subjective judgement, leading to inconsistencies and delays. Crediflow AI's automated platform ensures consistency, accuracy, and speed.

## The Crediflow AI Advantage: Fine-Tuned LLMs

While generic LLMs like GPT-4 demonstrate impressive capabilities, their performance in specialized tasks like financial analysis can be limited. This is where Crediflow AI distinguishes itself. By fine-tuning our LLM with proprietary data, we significantly enhanced its ability to analyze financial statements. This fine-tuning involves training the model on a vast corpus of financial documents from different languages, structure and format, ensuring it understands the nuances of financial terminology, industry-specific contexts, and the intricate relationships within financial data.

## Proprietary Data: The Edge in Financial Analysis

Crediflow AI's use of proprietary data sets it apart. This data, curated for the nuances of financial analysis - that is often seen as an "Art" and not a "Science" - ensures that the model understands the complexities inherent in financial statements.

Our proprietary data sets include anonymized and standardized financial statements in various formats and languages, ensuring the model's predictions are unbiased and robust. By omitting company names and specific time periods, we focus purely on the financial numbers, pushing the LLM to develop insights based solely on the data provided and in line with the lender credit policy and

metrics. This rigorous training enables our LLM to identify future credit risks with remarkable accuracy, often surpassing human analysts.

## How Crediflow AI Leverages LLM for Financial Insights

Crediflow AI's approach involves a two-step process:

1. **Data Standardization and Anonymization:** We pre-process financial statements to ensure consistency and remove potential biases. This includes standardizing the format of balance sheets and income statements and anonymizing company-specific details.
2. **Chain-of-Thought Prompts:** We employ sophisticated prompts that guide the LLM to analyze financial data like a human analyst. These prompts instruct the model to identify trends, compute key financial ratios, and synthesize this information to form a holistic view of a company's financial health.

## Benchmarking Against Traditional Methods

Our LLM's performance has been benchmarked against traditional financial analysts and specialized machine learning models. The results are compelling:

- **Higher Accuracy:** The fine-tuned LLM achieves an accuracy rate superior to the average financial analyst's accuracy of 53%. This performance often exceeds state-of-the-art artificial neural networks (ANNs) trained for default prediction.
- **Robust Insights:** The LLM outperforms specialized models in predicting financial health, particularly in scenarios where human analysts struggle, such as analyzing small or loss-making companies.

## Real-World Applications and Continuous Improvement

Crediflow AI's LLM is continuously learning and adapting. By incorporating feedback and new data, we ensure our model stays at the cutting edge of financial analysis. Our interactive platform, with an inbuilt AI credit assistant, showcases the LLM's capabilities in real-time, allowing users to upload financial statements and receive detailed and comprehensive credit reports, including full narrative, credit analyses, risk analysis, market analysis, country analysis, ESG analysis, ratio analysis, credit recommendations, and predictions.

## Conclusion

Crediflow AI is revolutionizing the future of financial analysis with its advanced, fine-tuned LLM. By automating financial statement analysis and corporate credit processes, the platform offers a unique tool for banks and non-bank lenders to unlock significant value currently tied up in manual processes. Crediflow AI ability to accurately predict financial performance and streamline credit assessments is a game changer for the credit industry.

Visit Crediflow AI to learn more about how our solutions can transform your SMB & corporate credit assessment and financial analysis processes.

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