

Capstone Project Summary

TAMING THE COMPLEXITY OF FINANCIAL AUDITS WITH ARTIFICIAL INTELLIGENCE

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1. Executive Summary

Advancement in technology has enabled the implementation of automated accounting systems that make it possible for firms to shift from traditional to automated auditing. This change has a direct influence on audit firms. The project entails working as an audit consultant for a FinTech start-up offering audit support, guidance, and expertise that will help the project owner gain an in-depth understanding of the overall audit processes, access the impact of automating certain audit procedures, and support in testing key functionalities on the platform from an auditor's point of view.

2. Client Background

The FinTech start-up adapts Artificial Intelligence (AI) solutions and Big Data tools in financial audits. Its main goal is hinged on researching and developing cutting-edge AI audit solutions to tame complex financial data and improve business processes. It also aims to develop front-line solutions to push the boundaries of efficient financial risk identification and enable auditors to find anomalous transaction records in huge datasets within the shortest possible time.

The client plans to develop a highly interactive web-based platform that will be used by small and medium-sized audit firms to improve the efficiency and speed of financial audits, reduce manual and time-consuming sampling procedures, capture fraudulent activities and financial losses hidden in enterprise transaction data.

3. Key Issues Addressed, Outcomes and, Value-added to Client

Auditors sometimes undergo tedious and labor-intensive processes, traditionally associated with the completion of the audit exercise. In helping the client deploy a platform that could be used to simplify audit processes and ensure timely completion of the audit exercise, the following issues were addressed: (i) offer expertise and provide clear auditing concepts that will guide the business start-up in deciding key audit processes that could be automated, (ii) how the platform could be used in performing audit tests such as Inventory, Property Plant and Equipment (PPE), and Cash, (iii) how the platform could be used to identify unusual transactions, (iv) provide guidance and perform testing of some key functionalities on the platform.

Achieving the first objective involved carrying out extensive research on audit automation for continuous auditing implementation. Several meetings were done with the project sponsor, IT expert, software developer, etc. In these meetings, presentations were delivered explaining auditing concepts, how traditional audit differs from continuous audit, reviewing various audit stages, and identifying audit procedures that could be automated.

From the list of audit procedures identified, the next timeline involved designing an automated process that could be used to perform audit tests on certain items on the financial statements. The scope of the project was limited to the test of Inventory, PPE, and Cash.

The next outcome involved designing a process to help the client identify unusual transactions on the platform using suggested measures such as (i) invoices without a valid purchase order, (ii) invoices from vendors not in approved vendor file, (iii) invoices for more than one purchase order authorization, (iv) multiple invoices with the same item description (v) vendors with duplicate invoice numbers, (vi) multiple invoices for the same amount on the same date, (vii) invoice payments issued on non-business days (Saturdays and Sundays).

The final result from working on the project involved conducting several tests of key functionalities on the platform, using available datasets, and offering suggestions and improvements that will optimize the platform for users. The outcomes from conducting these tests were communicated to the client and further ideas were proposed, the final section of this report includes some of these recommendations.

Major value-added to the client and other stakeholders at the completion of the project includes:

- a) Project Sponsor: Understood better how the audit process works, various stages of the audit, and the areas that could be easily automated.
- b) Prospective Auditors: Increase turnaround time, allowing the auditor to channel time and resources to more productive activities.
- c) Prospective Auditor Clients: Simplify the process of providing audit supporting documents requested by auditors.

4. Lessons Learnt

The lessons learned from working on this project could be broadly grouped into two major categories. The first involved understanding from a wider perspective how start-ups are formed, some challenges experienced in identifying a potential problem, and proffering solutions that would be useful for the specific target market. The second centered around gaining insights into how some audit procedures could be automated in a bid to improve efficiency around the overall audit exercise.

Overall, it was discovered that the shift to more technology-based auditing affects the audit process in many ways. The part that is believed to be affected the most is the execution stage of the audit process. On a practical side, working on the project was a good opportunity to test several functionalities on the platform, offer suggestions to the client on how key functionalities could be optimized, and how the overall platform could assist prospective auditors to reduce manual audit processes, such as in performing sampling procedures.

5. Conclusions and Recommendations

Based on the research done it was discovered that the advancements in technology promote continuous auditing, which is useful to auditors when there is complete information they can review before actual auditing begins.

Similarly, after conducting several tests of key functionalities on the platform, it was found that the automation of some audit processes would support the completion of audits within less time. It was also found that automation is expected to increase audit efficiency and improve audit quality.

The following key recommendations were provided to the project sponsor that would help improve the overall performance of the business in the long run especially with respect to the use of the platform for audit purposes:

- Create a dashboard that would measure productivity and task management. The functionality of this dashboard would break down the audit process into several stages while monitoring the processes to ensure early completion of the audit on the client's platform.
- Another functionality recommended to the client was automating the timesheet process. This would enable the audit manager to monitor the contributions of each team member during the audit and enhance signing off on various audit tasks.
- In identifying risky transactions on the platform, it is advised to create a functionality that would allow the verify the materiality level for the items on the financial statements being tested.
- The project owner should consider how the platform could be explored for internal audit purposes.
- Make the platform more robust to accept datasets in various formats, improve the speed of processing the data and ensure the platform could be used by multi-users at the same time.