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Revenue Forecasting in a Professional Services Automation Software

Master's thesis

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PhD

Tallinn 2023

Goal of the thesis

The aim of this master's thesis was to analyze and design a revenue forecasting solution in Scoro to support the company's strategic goal of becoming the leading professional services automation software in the market.

The existing software currently lacks future projections in the financial reporting capabilities expected by the users and increasingly found in competing products. This negatively affects the company's ability to grow and expand to new markets. Hence, the following research question addressing the problem area was proposed:

- What kind of revenue forecasting solutions should Scoro build into the existing platform to match the needs of customers, exceed the capabilities of the direct competitors, and support the overall growth strategy of the company?

To answer the research question, an analysis was carried out, focusing on the company's strategic goals, motivations, and capabilities. This was followed by an in-depth analysis of the existing system and its limitations. A product discovery phase involving customer and competitor research was carried out, resulting in a set of prioritized functional requirements for the upcoming developments.

Multiple solutions addressing the problem were designed to match the needs of the market and support the strategic outcomes of the company. The required developments were described as prototypes along with the proposed changes to the underlying system architecture. With the above, the goal of the thesis was reached, laying the foundation for product development projects in the latter half of 2023.

Although the thesis is based on the example of Scoro, the framework and methods used in the research have the potential to be applicable to other similar scenarios. This thesis is written in English and is 112 pages long, including 9 chapters, 36 figures and 22 tables.

Scope and stages completed

The following stages were completed to provide evidence-backed answers to the proposed research questions:

1. Strategic analysis of the company, involving value stream mapping and motivation models.
2. Capability-based planning based on the company's upcoming strategic shift, heatmap analysis.
3. Overview and analysis of the current forecasting capabilities in Scoro, BPMN process mapping and business information models.
4. Mapping and analyzing the existing assumptions in the company, highlighting the biggest risks involved in product development.
5. Product interviews with potential and current users, exploring the problem area and validating solutions.
6. Opportunity-solution tree analysis based on the opportunities discovered during product interviews.
7. Competitive analysis of three directly competing solutions on the market, focusing on revenue forecasting.
8. Defining functional and non-functional requirements based on the previous research.
9. Designing conceptual level solutions for the highest value opportunities.
10. Creating multiple prototypes describing the detailed solutions connected to defined epics and user stories.
11. Defining the updated processes related to revenue forecasting using the newly added functionality.
12. Defining the required changes to system architecture on a business object and component level.
13. Prioritizing the solutions and creating a roadmap, considering the efforts required for development.

Conclusions

The research was conducted by analyzing various aspects of the company, product, and market to provide a high confidence plan of the required changes, minimizing the risks associated with investing into product development. Hence, a considerable effort was made to assure that the proposed solutions would be aligned with the market needs and would support the company's strategic goals.

The results of this thesis provide a clear prioritized roadmap of the software solutions and development projects required to remove the growth hindering feature gap of revenue forecasting. The solutions were designed considering the already existing system and with the intention of maximizing the returns on investments, prioritizing quick wins over bigger scale investments. A holistic analysis of the system's business architecture and processes was conducted to assure that the solutions fit the systems overall logic and provide ample ways of developing the platform further.

The direct actionable output of this thesis is the following:

- A detailed analysis on the company's strategic goals, motivations, and capabilities, with concrete conclusions on which capabilities are most affected by the repositioning activities and should be invested in to assure a successful strategic shift.
- A detailed analysis on the existing processes and system architecture related to revenue forecasting, laying a foundation for all future developments and further research in the company.
- An evidence-backed set of functional system requirements that are based and prioritized on extensive product discovery phase, including assumption mapping, customer interviews and conducting an opportunity-solution tree analysis.
- A competitive analysis on the direct competitors that aids in prioritizing the features to be built to achieve a competitive advantage in the market. This analysis could be used for further research as it includes methods and sets of predefined actions.

- Multiple proposed and prioritized solutions in the form of planned product developments to address the main research question. The solutions are presented both on a conceptual level, as well as newly formed processes, the changes in the business information models and medium fidelity prototypes to help with visualizing the scope of the changes planned in the information system.
- High-level cost estimations and a prioritized roadmap for the basis of actual development projects, planned to start in the second half of 2023 at the time of writing this thesis.

With the above, the research question has been thoroughly answered, fulfilling the goal of this thesis.

The methods and approaches used in this thesis have proven to be appropriate for the type of analysis conducted and could potentially be used in other similar situations.