

Retail

Combining Agile and UX principles in bespoke software development

BSG applied Agile development and user experience (UX) practices to develop a bespoke system to automate the debt recoveries process at a leading South African retailer.



Overview of the client's needs

- Develop a system to automate the management of the recoveries process
- Increase the operational efficiency of the recoveries team
- Reduce the business' exposure to unnecessary risk



Objectives of the engagement

- Automate the debt recoveries process through the development of a bespoke software system with various integration points to other systems
- Apply Agile development practices to incrementally deliver value
- Apply UX principles and practices to ensure the system meets the users' needs in order to support efficiency and maximisation of the department



Benefits of the change

- The project team ensured quality skills transfer by introducing Agile practices
- Greater control and accuracy when processing accounts ensured an improvement in overall customer experience
- The system enabled the recoveries team to more accurately track bad debt handed over, as well as the recovery success rate of each team, which resulted in a more empathetic and respectful engagement of customers who found themselves in a difficult financial position

Combining Agile and UX to deliver an automated debt recoveries system and reduce the client's exposure to risk.

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Engagement Overview

After realising its manual collections and recoveries process often resulted in customers being handed over in error, the client engaged BSG to develop a bespoke system to automate the process. In order to deliver value to the client and the system users as quickly as possible and ensure the system met the users' needs - the project team employed an Agile development approach utilising UX principles and practices such as observation, user interviews, personas and user testing. It was critical that the system seamlessly interfaced with numerous other systems, both internally controlled and managed and external.

Solution

In order to ensure a more intuitive and practical user experience, BSG employed UX principles and practices. The team observed users completing daily tasks and conducted a series of user interviews to determine functionality and usability priorities. The interview process allowed the project team to develop user personas, which were used during the development and testing phases to ensure the system met the requirements of the users. The project team constructed a series of wireframes, which were used to ensure the functionality and look and feel of the system were in line with the users' expectations.

Once the project team had built an overall picture of the user interface requirements, development began. Two-week development sprints within a Scrum framework were followed. This enabled the team to gain ongoing insight into the system's functionality, as well as immediate feedback from client stakeholders. This ensured the project stayed on track throughout its duration.

The new system was built to replace a legacy component of a mainframe system, in order to enhance its functionality for the newer debt review and related processes. Packaged as a web application, it included an HTML5 user interface for direct user input (such as data overrides) as well as user reporting. A large percentage of the functionality was developed to perform scheduled batched operations, which needed to be synchronised into the various daily, weekly and monthly data processing cycles of the organisation.

The system therefore needed to integrate with other systems operating in the client environment, such as scheduling and reporting, together with the client's existing mainframe systems. Furthermore, the system needed to deal with data being received from external sources (e.g. debt review agencies) and needed to be able to handle and report on data abnormalities and exception conditions. It was developed using a combination of Asp.Net MVC, knockout.js, WCF, SSRS and custom Entity Framework—required to handle bulk data ETL processes and be able to process millions of rows within a very short duration.

BSG making a difference

This project afforded BSG the opportunity to leverage its knowledge as a leading software development business, while imparting skills to the client. By automating a previously manual process, BSG enabled the client to improve operational efficiencies and optimise customer experience. Bad debt customers can now be handled more respectfully by the client due to the system allowing for more accurate tracking of bad debt which has been handed over.

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