Case Study: Agile Approach – Loyalty Program & Billing

How Do I Identify What Needs to Be Done

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Background

I was assisting TinyCorp, a startup, with analysis work related to agile software product development. Our product enabled our customers, which were businesses in their own right, to collect payments in turn from their customers, on a recurring basis.

We referred to the businesses who paid us, TinyCorp, for the use of our system as “Customers”, and the people who paid recurring amounts to our Customers via our system as “Billing Clients”. We made it possible for our Customers to be paid by their Billing Clients. Our fee was about one half of one percent of the revenues we collected from Billing Clients for our Customers.

Challenge

The product roadmap had suddenly shifted. I had a backlog of work ready for developers for the next 2 to 3 weeks, all of that work had to be discarded.

Now, we had two new major areas of capability to develop.

- The first, of highest priority, would enable a Customer to set up a loyalty program. If Billing Clients of this customer reached 6 consecutive on-time, successful payments, then the Customer could define a discount in their payment. If they ever became delinquent, they would lose the discount until they again reached 6 consecutive on-time, successful payments.
- The second, of lower priority, would enable Billing Clients to alter their stored payment preference at any time via a self-service page. This eliminates the need for them to call in to change payment methods.

Both features made sense. However, there was a complication.

The SME’s needed to really think through the Loyalty program (the more important feature) were not available for 2 weeks. The SME’s for the Billing Client feature were available immediately.

I had to make an analysis plan.

Action

The Start of Analysis

Looking at the BACCM, here is where we started.

Change	• This will create new capabilities for both Customers and Billing Clients.
Solutions	• The solution is definitely software. • Conceptualized as two independent software features, one for each user group.
Contexts	• Software development must start soon. • This will avoid wasting developer time as well as produce valuable new features for key groups.
Value	• Creating the features for Billing Clients will increase their satisfaction, increasing the value of our product for our Customers. • Creating the features for our Customers will give us a competitive advantage and help us drive revenue through acquisition of new Customers.
Stakeholders	• Product management. • Developers. • Customers. • Billing Clients. • Training team (who writes documentation for Customers and Billing Clients) • User experience team (ensuring strong usability & good design). • Service team (who will support the products to Customers and Billing Clients after launch).
Needs	• Internal: create speed & avoid waste. • For Customers: Create the loyalty program, helping drive customer retention & their own revenue. • For Billing Clients: Create the self-service page for payment changes, saving them time and increasing convenience.

Creating My Business Analysis Approach

My approach had to balance the difference between the respective value of each feature, with the availability of the experts I needed, to create useful requirements.

- I had the people I needed for the lower priority and lower value feature.
- The higher priority, higher value feature couldn't start for a few weeks because the experts for that were different and unavailable.

As this was a change driven, adaptive approach, I decided to work with what I had and evaluate opportunities for improvement as my requirements and user stories became concrete. As is consistent with a start-up and a change-driven approach my documentation would be the minimum necessary to do the immediate work, plus retain some history about our thinking and what we actually did in case we needed to revisit that in the future.

- I would do analysis on the self-service feature and create the artifacts necessary to support the development work in our next two sprints, which started in 2 weeks.
- While self-service is in development, I would do the research and stakeholder interviews regarding the loyalty program and have that ready for the sprints following that.

If we found easy parts of the loyalty program that we could pull forward in the plan we could see

- if it made sense to do both features at the same time, or
- if it was better to finish one and then the other.

Documented Analysis Approach

In our waterfall example, the plan was formally documented and accepted by the project team and sponsors. In our agile example most of the approach was a 15 minute conversation amongst me, the product manager (product owner), our technical lead, and our scrum master.

We did not formally document the plan at the time. I am doing so here to illustrate the thinking and what was discussed in the conversation.

The changes to our roadmap & the request to scrap previously planned work in favour of these two new features happened at the start of sprint 10. Each sprint represents 2 weeks of time.

The following is the general plan the team agreed to. We based this on some rough conversations with the product manager and the technical lead.

See the details section for explanation of artifacts and techniques used in the course of the work.

SPRINT	ACTIVITIES
10 Weeks 1 & 2	• Rough concepting of the 2 features with the PO. • Elicitation & documentation of self-service feature. • Create self-service stories for at least sprint 11 and possibly sprint 12.
11 Weeks 3 & 4	• Refine any self-service stories needed for sprint 12. • Start of elicitation with SME's for Loyalty program. • Create initial prioritization and effort estimates for Loyalty program.
12 Weeks 5 & 6	• Complete self-service feature if it takes 2 sprints. • Start loyalty program stories if possible or required.
13 Weeks 7 & 8	• Continue to build loyalty program.
14 Weeks 9 & 10	• Continue to build loyalty program. • Identify next feature (TBD) with Product Manager and begin analysis. Expect stories for this to start not later than Sprint 16.
15 Weeks 11 & 12	• Final sprint we will consider allocating to Loyalty program.

Outcome

Here is what happened in each sprint.

Sprint 10.

- Achieved and agreed upon the rough plan you see above for each sprint.
- The Product Manager, myself, and the UX designer met and discussed what “self service” meant, and what it would not mean.
- I wrote an epic and set it up in our agile tool for tracking purposes.
- I wrote candidate stories to incrementally build the pages that the Billing Client would use and prioritized them.
- The UX designer created a simple UX design for the self-service feature.
- We arrived at a solid set of design & user stories for Sprint 11, including:
    - wireframes,
    - user stories, and
    - acceptance criteria.
- We identified what still needed refinement and we expected to put that into Sprint 12.

Sprint 11.

- The developers worked on the work we had created for sprint 11. A few minor alterations were made to stories during team review & estimation.
- Stories we planned for sprint 12 went through refinement. Some things we thought of were deferred indefinitely. We wanted to keep some room in sprint 12 available to start the Loyalty feature.
- We started conversations with the relevant large-team members for Loyalty. There were a lot of ideas and competing views from the stakeholder groups.
- I facilitated a workshop which resulted in achieving consensus about grouping abilities for Loyalty into “Must, Should, Could, Won’t”, also known as the “MoSCoW” technique.
- Given the level of effort it was decided that only “Must do” items would be tackled by the team at this time. A second look at “must do” was very aggressive and pared down the list substantially, moving about 30% of original “must do” into “should do”. (Explanation follows this list.)
- The technical lead, participating in the session, asked to take two “must do first” stories into sprint 12. Doing those first would enable parallel development of other abilities during sprints 13 and 14, speeding up development. The team agreed.
- I created an epic for the Loyalty program.
- I wrote robust stories for the first two items that the tech lead wanted to do in sprint 12.
- I wrote rough stories for the remainder of the stories we would do in sprints 13 & 14, and prioritized them, with the product manager & tech lead.
- The UX designer created a rough draft of the Loyalty program web pages.

Regarding reduction of "Must Do":

A key feature that added work to "must do" was allowing Customers to customize their loyalty programs. Based on early/rough conversations it was determined that this ability would require 2-3 sprints of work by itself. Making that process easy for customers to do independently was not simple & would be a lot of design, error handling, and managing flexibility. All of this would increase time & effort to construct the solution.

The product manager, me, and the UX designer talked to a few customers and their needs were very similar. We decided that a single, standard loyalty program would be enough to begin with and to get feedback. If customization was then absolutely essential, we could revisit that work at that time. By making this choice we could allocate 2 to 3 sprints to the new feature, instead of 4 to 6 sprints, a large savings of time.

The **MoSCoW approach**, as well as **stakeholder interviews**, surfaced this issue as a problem for the development team, and then enabled this decision by the product manager.

Sprint 12.

- The developers worked on the stories concluding Self-Service.
- The developers worked on the two identified stories to jumpstart Loyalty.
- I worked with UX to match the user stories prioritized for sprint 13 with relevant parts of the UX design. Both the designer and I refined our work planned for sprint 13, with an eye towards what would need incremental work in sprint 14.

Sprint 13.

- One story from Self-service was trailing and went into this sprint.
- Both the Loyalty stories had finished, so we started on about 4 stories for Loyalty.
- I refined stories for sprint 14, along with the UX designer.

Sprint 14.

- Final stories for Loyalty work were worked on by developers in this sprint.
- In consultation with the Product Owner we started analysis of the next feature as well as a few bugs which had surfaced as important. This would fill sprint 15.