Research Case Study

Chris Nguyen

Invoicing & Payments Case Study

The Product

Our business's core product is a two-sided marketplace to connect consumers who need a job done with local service providers who are available to do the work.

The Business Problem

The business was pivoting from one revenue model to another. This required information that occurred at a later stage in the journey than our product inhabited (i.e. payment information). In order to improve the experience, while collecting revenue under the new model, it was decided that we would facilitate the actual payment.

The Solution

We aimed to encourage our businesses to conduct their transactions onsite by addressing their existing pain points when getting paid. The product we were introducing was a system to allow businesses to accept credit card payments from customers.

Constraints

Contextual Inquiry was not feasible. I compensated for this by screensharing on Skype during some of my interviews, so that even if I couldn't observe the physical context/environment, I could at least observe their digital behaviour.

Research

We knew the business impetus for the project, but was actually there a problem to be solved from the users' perspective? Only one way to find out.

Research Objective
Find out how payments currently work and why people prefer various methods. (i.e. establish the status quo and identify any opportunities for improvement)

Conducting the Research
I set up a survey asking users about how they paid for a specific job and why, as well as their general preferences with payments. This way, I elicited both preferential data and the actual outcome. *Refer to Appendix A for survey questions and considerations*.

In addition to the survey, I added a modified version of the questions to one of the customer support call scripts and used the call centre to get volume around the research. I also conducted my own phone and/or Skype interviews to delve deeper

Analysis

I affinity mapped the research findings, grouping them by payment method and then by reasons/themes. I was able to identify patterns in cases where each payment method was the most preferable and why. I also paid attention to when the preferential data was different to their actual behaviour, as that suggested an unfulfilled need. *(Refer to Appendix B for a summary).* We were able to uncover some insights about the payments process and validate the existence of a problem to be solved regarding credit cards.

Customers wanted to do what was easiest for the business
Although customers had preferences for payment, the actual payment method used was generally influenced by what was easiest or asked for by the business. This fits in with the mental model of a purchase where the payment is initiated by the goods/service provider who asks for an amount and the customer responds with the payment. Provided nothing went wrong, there would also have been a rapport between the customer and the business by this time, adding to the customer's preference to accommodate the business where possible.

Cash and Bank Transfer were easiest
The words "easy" and "quick" featured prominently in the research results, and cash and bank transfer were considered the most convenient.

There are a number of circumstances that influence which method is preferable including

- If the price is known/predictable before the job starts
- The size/value of the job
- Whether the payment is made face to face

Cash was preferable for smaller jobs and/or where the cost was known
The big drawcard for cash is that it's instant and universal. Customers knew that cash would always be accepted (and sometimes they even got discounts). For businesses, it saved them a lot of hassle. And for both customers and businesses, paying cash meant that it was over and done with. However, a big dependency in this advantage is having the cash on hand. The larger the job, the less likely the customer would be to have enough cash on hand. Likewise, for jobs where the cost is not known in advance. Having to withdraw cash, particularly large amounts, was a disadvantage (and withdrawing may not even be feasible for jobs where everything takes place on the same day). In these cases, bank transfer was preferable.

Bank Transfer was preferable for large and/or less predictable amounts
Bank transfer was advantageous in that it didn't require the customer to have the cash on hand (which is useful when the amount is large and/or not known upfront). It also had the advantage of being traceable, which provided the customer with a sense of security. With cash jobs, there was not always an invoice or receipt, but traceability was not as big an issue for smaller value jobs. For businesses, it allowed them to go home after they've been working all day and take care of the invoicing and admin tasks later (as payment by bank transfer doesn't need to be done face to face). Additionally, for some businesses, their accounting systems were set up to automatically match bank receipts with accounting revenue.

However, since the payment is not settled then and there, there is a risk of dragging the process out as customers do not always pay promptly (and in some cases, they don't pay at all).

Accepting credit cards wasn't worth it
While the majority of payments were by bank or cash transfer, very few businesses offered credit card as a payment option. This was because of the cost and equipment associated, which business's could not justify given the size of their business and the ease of alternatives. Credit card did feature prominently in the preferential data from customers, however.

Businesses were anxious about getting paid
By far, the pervading theme of business's frustrations with the payment process was anxiety about getting paid, including not getting paid on time (or at all), customer resistance to payment, and the feeling of uncertainty that came along with all of it. Moreover, chasing customers up for payment was time consuming.

Opportunity: The best of both worlds
There was an opportunity to save business's time and ease their anxiety by combining the certainty that came with settling the payment immediately, and the traceability and flexibility of bank transfers. Furthermore, if the barrier to accepting card payments was cost and equipment, that was something we could address using mobile and absorbing the credit card fees (this was possible as the businesses paid a commission that was greater than the cost of the credit card fee).

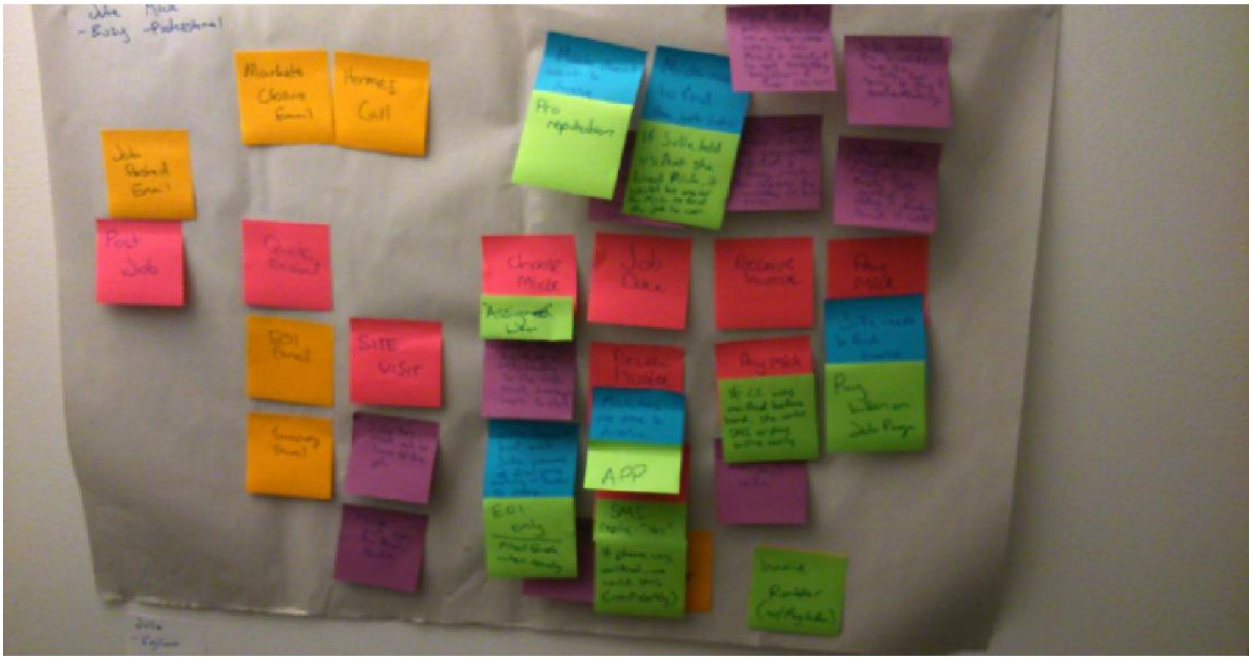
Synthesis

Personas

We saw some patterns emerge in the data, which we captured by creating personas. *Refer to Appendix D for an example of one of our personas for this project.* In summary, our main personas were:

- **Mick**: 35 year old electrician, high domain knowledge, relatively low tech savviness, prefers cash but also accepts bank transfer.
- **Alana:** 25 year old architect, larger scale jobs, tech savvy, not always present, prefers bank transfer.
- **Julie:** 30 year old customer, low domain knowledge, time poor. Prefers whichever is easier in the situation (prefers cash if she has it on hand/doesn't need to withdraw).

Scenarios



A storyboard of a job, with emphasis on the pricing and payment (including narrative, issues and proposed solutions)

I gathered everyone who would be working on the payments project and we storyboarded the different scenarios (price known/unknown, settled immediately/later, etc.) based on the research and the personas we had identified. We looked at when the pain points happened, and the surrounding context. Then we iterated on the storyboard with the proposed solution.

In our scenarios we were particularly interested in:

- Mick doing a small/large job
- Price is known/unknown at the start

- Invoicing on site/after the job
- Julie paying promptly/needing to be prompted

The main problem points we identified were:

- Julie doesn't have the cash on her
- Julie has so much to do, she forgets about/procrastinates paying Mick (bank transfer)
- Mick is anxious about getting paid, and has to spend time chasing customers up

Our thesis for this project was to combine the best parts of cash and bank transfer payments to help businesses secure the payment as soon as possible. To this end, our ideal flow was, in summary:

- Mick has come to replace some power points. He knows it'll take roughly a couple of hours, which he has already told Julie.
- After he's done the job, Mick (the service provider) adjusts his quoted amount and he tells Julie (the customer) how much it was. He then sends a request to Julie from his mobile.
- Julie receives the request and pays by card (card details are saved) on her phone. Because it's a small job, she doesn't require an invoice.

This approach has the immediacy of a cash payment, without the need to have cash on hand.

We also came up with possible variations for other scenarios:

- Escrow - jobs requiring deposits and/or instalments (I went back and did more research on this one)
- Invoice - jobs where Julie requires traceability or a breakdown of the price
- Customer initiated transactions - where Julie is more tech savvy than Mick, Mick can initiate verbally as normal and Julie can respond by initiating the online portion of the transaction

Design Studio

We knew broadly what were going to do, and we had described it in prose. We had an invoicing system on the site that we could adapt for some of this project (this made it a lot easier for the developers, and we could make changes based on feedback). However, for the more substantive parts that we were starting from scratch, we began the design process with a design studio. It has been proven that groups outperform individuals when performing creative tasks, and the design studio technique allowed us to harness this effect in eliciting creative ideas from a cross functional team.

One example is the design studio we conducted for escrow. In preparation, we looked at competitor's offerings (e.g. Airtasker, Freelancer, Odesk) to see how they implemented theirs. Together, we analysed the merits of each, and identified the differences in context (e.g. Freelancer's solution was good for Alana, but not so great for Mick). *Refer to Appendix C for*

how the design studio was conducted. A variety of ideas came out of the design studio including:

- A contract metaphor: accepting the quote for works done and establishing the escrow with release contingent upon said works being completed
- Automatically establishing escrow for some job types
- Replicating the existing payment flow (instead of requesting just payment, adding an extra step of requesting escrow deposit)
- Use of mobile to conduct the transaction (particularly releasing funds), including authorising the payment by replying to an SMS
- There were also ideas about the language to be used, where the feature should sit in the site and various interface elements

It was decided that for practicality, we would adapt the existing payment flow for escrow in the short term, with a view to fleshing it out with the other ideas (e.g. contract metaphor) in the long term (subject to any learnings in the interim).

Sketching
Sometimes a design studio was considered overkill if the problem was fairly straightforward, such as allowing Julie to access her transaction history and receipts. In cases such as this, I would look at the research we had done and sketch the required screens for the user goal, either on my own or with my payments colleagues. At this stage, the aim was to come up with the flow, rather than the specific interface details. I would come up with a couple of alternatives and discuss it with the team. Once we had a shared vision, we began prototyping.

Delivery

Prototyping
Before we began building anything, I first built a prototype to validate it and identify any issues. The method for prototyping depended on the maturity and/or scale of the concept. For some of the larger and/or more novel portions, such as the mobile solution, I used paper prototyping. For smaller, higher confidence interfaces, or where it would otherwise be easier to start directly from an Axure prototype, that is what I did. For instance, for the original flow (business requests payment, customer pays), we had decided to leverage our existing invoicing system. As such, I was able to reuse my Axure prototypes, and I made the relevant changes.

Once the prototype is built, it's then a matter of usability testing and iteration. For instance, to speed up invoicing, I originally had the due date prefilled and uneditable (the business would set their terms in their settings and this would be applied across all invoices). However, in testing, it was revealed that the terms could be different depending on the type of customer (a business customer vs. a residential customer). This meant that we needed to allow businesses to set the due date of each invoice, which we fixed for the next iteration.

Release of MVP
After iterating, we got the developers to code up the minimal viable product, so that we could learn from people actually using it.

Evaluation and iteration
Once the MVP was released I monitored how it performed. For example,

- After the interface for customers to pay businesses was released, I had a poll/widget appear on the page to collect feedback. This showed that people were not receptive to the credit card fee, for example.
- Further usability testing showed that improvements we had made (e.g. creating a standalone page for payment instead of including it in an existing page) had reduced the cognitive load on users.
- I also used Clickstream analysis as an indirect method to observe people using it. This showed that some people were having difficulty with the SMS code and abandoning after multiple attempts.
- I also used analytics to quantitatively assess the success of some initiatives. For instance, there was a sprint-long experiment with collecting credit card information as an optional part of posting a job on the site. Based on the low microconversion rate (of credit cards collected) and the high bounce/exit rate, it was recommended that this be removed.

Challenges

Timing
Another challenge was one of timing, as the interaction happened offline. Since we don't know when the transactions happen, it limits what we can do in terms of communications and providing well timed triggers.

To overcome this, we decided to focus our efforts on increasing business adoption and making it as easy as possible for businesses to use it. This conforms well to the established script and provides the correct timing.

Disparity between Mick's mental model and the product
Most business users have their own invoicing systems, that often link up to their accounting software. Rather than compete, we decided to separate the invoice from the payment to avoid double handling and avoid extra admin work for the user.

However, in the mental model of the business, the invoice and the payment request are one and the same. This was further complicated by the fact that there were three types of payments – with invoice, without invoice and customer initiated (no request, just a payment). Tree testing had revealed a pretty even split between the wording choices of "payments" and "invoicing".

To overcome this problem, we had a controlled vocabulary and we combined invoicing and payments under a page titled “Invoicing & Payments” to catch everyone, and to provide one central location for all three types of payments. This hid the system-centric distinction between payment types and reduced ambiguity as to where to go. In usability testing, it showed that there was less hesitation/more certainty. (There was a reduction in the time taken to complete the task)

Conclusion

We were given a business problem, which we were able to reframe from the users' perspective. Through research we were able to uncover the users' pain points, and we employed design thinking tools to go about solving them in a creative, user centred way.

Appendices

Appendix A
Survey Questions

- Customers
  - What was the last job you hired someone for?
  - How did you pay for this job?
  - Why did you choose that method over the others?
  - If different to the above, what is your most preferred method and why?
- Businesses
  - Which industry do you work in?
  - Which payment methods do you accept?
  - Which is your most preferred and why?
  - Which do you NOT accept? Why not? (Optional)

Considerations when writing these questions

- Asking for the industry/job type allows us to look at the differences/similarities between payments in different industries
- Asking about the customer's last job specifically helped to get more accurate information than if we were to ask them to generalise
- We asked for both actual and preferred payment methods to track the difference

Appendix B

Customers		
Method	**Advantages**	**Disadvantages**
Cash	- Easy (esp. smaller amounts) - Instant - Accepted by everyone - May already have it on hand	- Withdrawing - Not traceable
Bank Transfer	- Easy (esp. larger amounts) - Traceable - Don't need to withdraw - Can be done remotely	- Another thing to do (after the fact) - have to remember to do it
Card	- Traceable - Instant - Don't need to withdraw - Can put it on the credit card if you don't have the cash at the time - Rewards programs (e.g. frequent flyer)	- Fees

Businesses		
Method	**Advantages**	**Disadvantages**
Cash	- Easy - Instant	- Not traceable - Customers may not have cash
Bank Transfer	- Easy - Secure - Traceable	- Delay in receiving the money
Card	- Works with PayPal - Fast - Easy	- Cost - Requires CC facilities - It's considered overkill (the business isn't large enough to justify the cost)

Appendix C

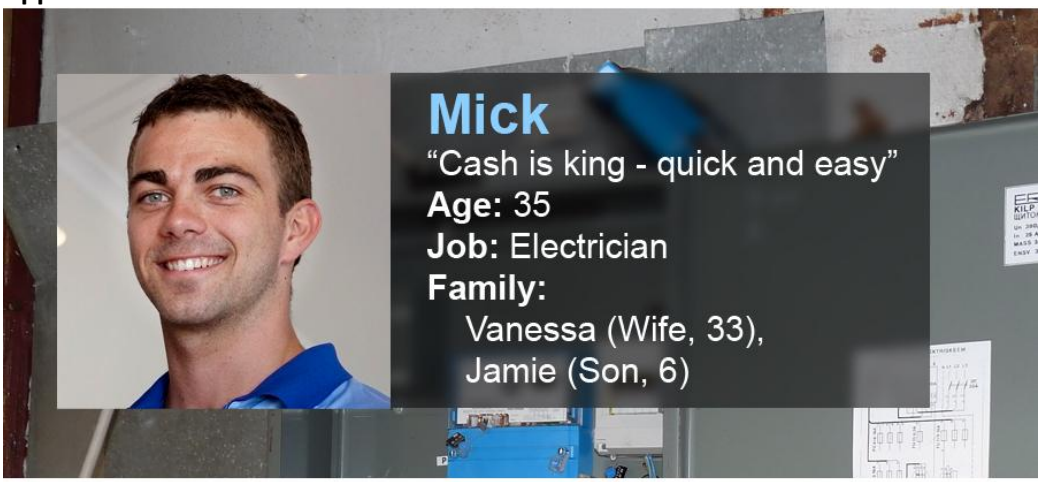
Before the design studio, we sent around some information gleaned from our research to get everyone (who had not been working on it) up to speed.

The design studio itself was structured thusly:

- Outline of the design problem to be solved (how might we facilitate payment for jobs with deposits?) and the scope of the design studio (no milestones, only the happy path)
- First round of sketching (divergent thinking): get as many alternatives as possible
- Sharing and feedback
- Iteration

The idea of the second round was to refine the ideas, and get somewhat of a group consensus on what ideas were worth pursuing (only strong ideas would survive to the end).

Appendix D



Attributes

Liquidity

Illiquid — Liquid

Tech Savviness

Technophobe — Technophile

Presence

Remote — In the Room

Devices

User Goals

How do they want to feel?

- Financially secure
- A sense of closure/finality about the job

What do they want to do?

- Get paid
- Minimise time spent doing admin and chasing people up
- Maximise his bank balance
- Go home (after the job)

Who do they want to be?

- Rich
- Have time to himself

Background

- Has his own invoicing system, Invoice2go that he’s been using for ages and has his external customers in it, as well as his expenses, etc.
- Has an accountant, who works well with invoice2go as well
- Will check his bank account every so often just to see who’s paid him (it’s like checking the fridge or Facebook)
- Prefers cash where possible but also accepts bank transfer
- Gets anxious about whether he’ll get paid