Whitepaper:
Credit Line with add-on Virtual Cards

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Executive Summary

Innovation requires an unrelenting attitude towards solving the problems we come across. We at Funding Societies have made a lot of progress in helping the underserved SMEs with their financing needs. However, we continue to come across areas which can be improved in our offerings. One example is the credit line offering where previously we were mainly able to serve larger SMEs who could be granted high limits. We felt that smaller SMEs could benefit from such an offering too but we realized that our existing product was not set up for that.

This paper summarizes the problem statement along with the Proof of Concept (POC) we undertook to make it into an opportunity. As part of the POC, we designed a solution that could enable smaller SMEs to access a credit line for their smaller and frequent expenses. Not only this, we set additional goals of doing this with good user experience as well as in a way that was scalable for our internal operations.

The following were the key components of the POC:
- A web application for easy and quick customer application journey
- An automated credit underwriting module to allow seamless credit decisioning
- A card management system to enable internal users to perform their roles
- Partner integration with a licenses card issuer to further add value for our customers
- A native mobile application for easy access to information and actions

The POC was quite successful and we believe we found an instant product-market fit given the number of applications we received and the initial customer feedback. While we believe there is a lot more for us to do to improve this offering, we believe the core offering itself solves previously unmet needs of our SME customers.

We hope the outcome of the POC and our whitepaper will inspire other firms to solve customer needs which others have not dared to take on.

1. The Problem and Opportunity

Funding Societies is the largest SME digital financing platform in Southeast Asia. Our mission is to improve financial inclusion in Singapore and Southeast Asia through financing SMEs. At our core, we want to enable SMEs with fast and effortless access to funds. Since 2015, we have helped a number of small & medium enterprises grow their businesses.

As a group, our largest product group is trade financing, whereby we provide credit facilities or lines of credit to SMEs to utilize and repay in a flexible manner. Such credit lines are commonly offered by banks to corporates, but rarely to SMEs. Thus, we have seen great demand and success in this product line.

Nonetheless, we recognised that despite our SME focus, our trade lines were suitable for larger SMEs but less so for smaller ones. We faced two main issues in extending our credit line products to some of these SMEs:

1) These businesses needed a high frequency product, where they would be able to make many small purchases with almost instantaneous payment, while the user journey was designed for a few large purchases that could take 1-2 days for payment.

2) These businesses required a tailored credit line, which would not be cost-effective for us unless we automated most of our processes, including customer acquisition and onboarding.

Almost 80% of our loans to SMEs have been under S$50,000. However, most of these have been in the form of term loans, which are disbursed upfront and which need to be repaid via monthly installments. In order to replicate our success with micro business in credit line products, we had to redesign the way we acquired customers, onboarded them, how easily and quickly they could use their available limits, and how they could keep track of all this.

To solve this problem, we came up with the following solution:

- Tailored credit lines suited for smaller SMEs and appropriate credit underwriting requirements and model.
- Digital customer acquisition and onboarding processes to enable not only quick turnaround times, but also one requiring minimal human intervention.
- A virtual card (in partnership with MatchMove Pay Pte Ltd) for our customers to easily and instantly utilize their credit line wherever Mastercard is accepted as a payment form.
- A mobile app to help our customers in not only utilizing their credit line, but also keeping track of their transactions, outstanding, repayments, and much more.

2. Overview: Solution and the Platform

2.1. Solution: Credit Line with Elevate Virtual Card

In order to cater to the high frequency and smaller transaction value requirements, we partnered with MatchMove Pay Pte Ltd to offer the Elevate Virtual Card along with our Credit Line offering. The product works as a just-in-time credit, to allow our users to instantly utilize their credit line for any quantum worth of purchases. This project re-engineers and streamlines a typically manual and slow process by building upon technology ecosystems (Mastercard) and partnerships to issue the virtual card, allowing usage of the credit line as per users' needs.

- The customer application is facilitated through a completely digital, paper-less, and mobile-optimized web application process using MyInfoBiz, which allows the SMEs and micro businesses to quickly apply for the credit line in a matter of minutes. Businesses can request for the credit line as per their need during the application itself.
- With an efficient, fast, and data-based Underwriting model in place, the businesses experience a fast turnaround time for approvals.
- The product partners with MatchMove Pay Pte Ltd to issue Virtual Cards to the SMEs and micro businesses.
- The onboarding and utilization is facilitated via the mobile app, where users can view virtual card details securely, manage their virtual cards, check transactions, their total limits and easily check their outstanding and repayments. This provides enhanced experience with better control of their expenses with the capability to request and issue additional virtual cards to their employees.
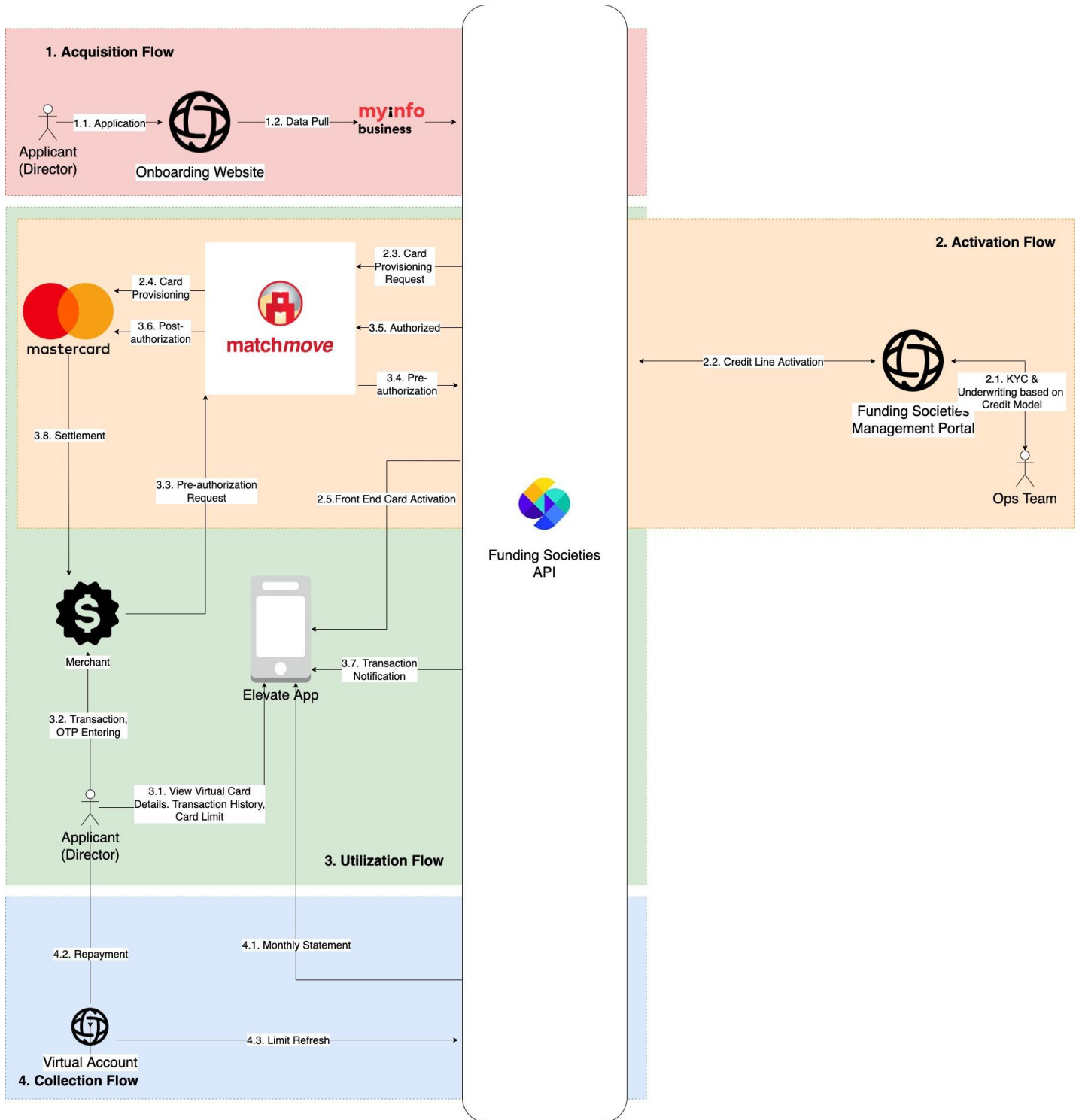
2.2. Product Architecture

Figure 1: Technical Architecture and Information Flow

2.2.1 **Web Application**:
Elevate onboarding is a mobile-optimized web application funnel which enables the SMEs and small businesses to apply for credit line and share the relevant information via MyInfoBiz or manually to do KYC check, followed by underwriting and subsequent offer.

2.2.2. **Automated Credit Underwriting module**:
Challenge with SMEs and micro businesses is the volume of applications to be processed and the challenges to underwrite them manually and in a timely manner. To overcome this challenge, we built an automated **alternative data-based underwriting** model to offer credit to the underserved SMEs in Singapore in a resource-efficient manner and within acceptable timelines.

2.2.3. **Card Management System:**
This is the interface for use by our Internal Teams to manage users and credit line related operations in a time-effective manner to provide fast turnaround times and enhanced experience to the businesses.

2.2.4. **Partner Integration**:
The integration with the partner (MatchMove) was done via APIs. The partner issues the card by leveraging their integrations with payment networks, like MasterCard, and subsequently connects to other payment rails (MasterCard, bank, etc.) to manage the operations around card and transactions. Here, we work on a Just-In-Time technology to issue credit facilities/lines to SMEs as per need.

2.2.5. **Native mobile application**:
This is the primary user interface that business users have for virtual card activation, utilization, and repayments activities. We offer mobile applications across Android and iOS platforms, to enable SMEs to view cards and keep track of transactions, due dates, statements, etc.

3. Scope & execution of proof of concept (POC)

3.1. Objectives of the POC

The POC was conducted in 2 phases - development of the Credit Line product along with Virtual Card and POC Pilot, where the SMEs start applying for Credit Line, alongwith the Elevate Virtual Card. They were implemented with the aim of meeting the following objectives:

- Demonstrate ability to generate demand and serve SMEs and micro businesses to avail small quantum of credit line suitable to their business needs.
- Showcase ability to run these operations in an effective and efficient manner by automating most of our processes, including customer acquisition and onboarding.
- Innovate to create a card-like offering for SMEs and micro businesses by partnering with a technology provider, such as Matchmove, and leveraging their integrations with payment networks, like MasterCard, in order to build payments infrastructure.
- Reach a significant amount of borrowers that are otherwise not serviceable through our traditional products, hence extending our revenue lines.
- Ensure good user experience, right from application through usage of the card.

3.2. Scope of the POC

To meet our objectives, the development of the product took into consideration our vision for a credit line which can be used seamlessly by approved SMEs and micro businesses for transactions/purchases on online merchants/platforms.

The POC entailed the following:

- Define the minimum viable product for the Card product in line with the POC objectives and mapping the solution against it.
- Develop and launch a web platform to provide a smooth and fast application process to the businesses utilizing MyInfoBiz to pre-fill company data or via manual application process.
- Enhancement of data-based underwriting models to conduct credit assessment.
- Build a card management system for internal users to track, conduct KYC, and manage cards.
- Develop a fully functional native mobile app across Android and iOS platforms to enable users to view cards and keep track of transactions, due dates, statements, etc.
- Partner integration with Matchmove to develop our solution to issue card and authorize/manage transactions on top of their infrastructure, enabling technology ecosystems to benefit SMEs.

- Leverage and build custom repayments infrastructure on top of our existing traditional lending products.
- Encrypt the relevant information and use state-of-the-art technologies to prevent data risks.
- Incorporate brand identity into the POC platform.

Physical cards and handling of repayment claims were kept out of scope from the POC.

3.3. Development and Deployment Phase

During this phase, the following work was done:

- Customized and functional product's frontend (web + mobile app, as described in scope).
- Partner integration, testing, and deployment to build payments infrastructure, enabling issuance of cards and transaction management.
- Security testing and partner approvals.
- Infrastructure setup, like deployment operations, Google Play Store and Apple App Store setup, etc.
- Cooperation with business proposition/training for understanding of product specifications.
- Legal approvals.
- Planning initiatives to make businesses aware of the proposition and bring them into the acquisition funnel.

3.4. POC Pilot

The user journey for both SMEs & businesses as well as internal users is as follows:
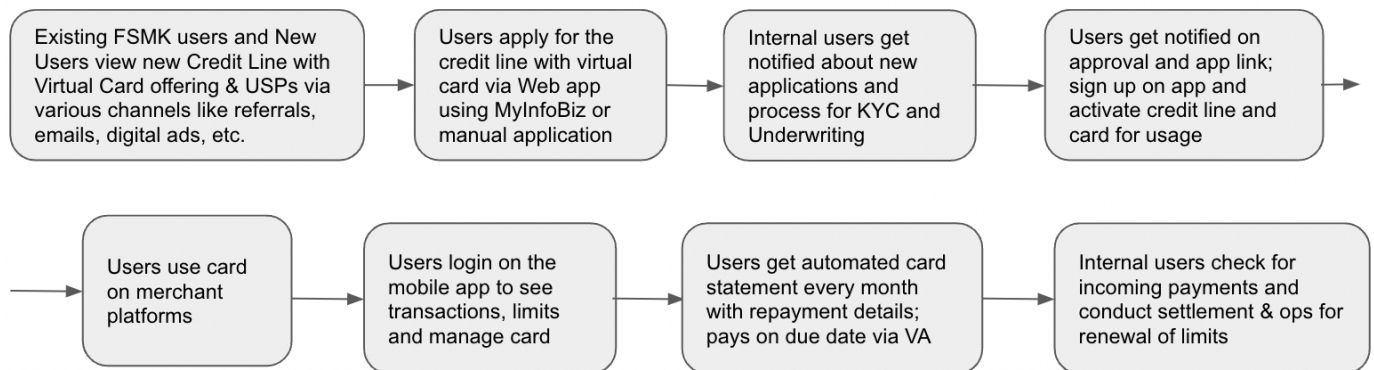

Figure 3: User Journey during POC

Concurrently, throughout this phase:

- Customer's interaction with the tool was tracked using analytics to reflect usage rate and drop-offs during the online web application.
- Communication channels with internal users and Customer Experience teams to provide updates, answer queries, resolve issues, and gather early market feedback.
- Weekly catch-up with business teams and internal users to take a measure of business and impact metrics.
- Identification of key challenges and ideation with respective teams.

3.5. POC Results

Basis the Qualitative and Quantitative feedback received (highlighted below), we were able to conclude the following:

- We established a Product-Market Fit for the product for the SMEs and Micro businesses with over 1350+ SMEs displaying interest in the offered product.
- We demonstrated innovation by launching a Virtual Credit Line with add-on Corporate Card product, which was built upon a partner's technology solution in a secured manner
- Streamlined our operations in a more effective and efficient manner with digital acquisition and activation, without human intervention.
- Achieved quick turnaround of under 1 business day on credit underwriting and KYC processes

3.6. POC Insights and Findings

- Observed that SMEs used our product to conduct their day-to-day business operations across 500+ online merchants, with average transaction value of about $600 across 20+ transactions per user in a quarter. This reflected that with this right offering, we could be the right partner for these small and medium businesses to solve their credit problem along with enhanced experience.
- Our early NPS surveys (with 40+ ratings) reflected user satisfaction and good experience with the mobile app product.
- Some customer feedback suggested the need for more features as shared in the next section.

Above results and insights were deduced from the following data collection and analysis. This

included:

- Conducting NPS surveys from our current users to understand their experiences and feedback on using and improving the product.
- Analyzing transactional & operational data to understand product impact metrics.
- Consolidating data from analytics tool to gather insights on customer interactions.
- Conducting interviews with our channel partners to understand market feedback.

4. Challenges & Our Learnings

Over the due course of the project, we faced a lot of challenges, primarily owing to the market creation efforts. The challenges spanned across the conversion funnel, inability to cater to other use cases like multiple directors and creating engagement.

4.1. Customer Onboarding funnel drop outs

Data received from the analytics tool on the customer's interaction showed significant drop-offs at the MyInfoBiz stage during the web application. On digging deeper and conducting user testing, we learnt that the users were skeptical of either sharing their company information via MyInfoBiz (citing security concerns) or did not understand the utility of filling in the application via this tool.

We also realized that the web page's interface was not optimized to allay these user concerns and highlight benefits appropriately. So, we had to work on redesigning the page and are currently studying these results.

4.2. Support to Multiple Director companies

Data suggested that almost 40% of our incoming applications were from SMEs with multiple directors. As per legal requirement, in case of multiple director operations, corporate cards need to be acknowledged by multiple directors.

Due to this high % and given that this could adversely lead to non-utilization of the issued credit line to these companies, leading to wastage of leads and resources, we had to prioritize and quickly iterate. We built a workflow within the mobile app to get acknowledgement from directors, other than the applicant, to allow for activation and utilization of the credit line.

4.3. Cashback (Rewards)

Post launch, one of the key metrics we wanted to boost was the utilization of the credit line, to build a sustainable business. However, we learnt from the market feedback that as users compare the product with other card or payment method offerings in the market, they expect some form of rewards as a key USP for choosing and spending via credit line for business expenses regularly.

In order to validate this, we ran a quick experiment offering limited cashback to our early transacting users.

The results gave us the key insight that offering cashback will have a direct impact on stickiness of accounts, utilization rates, and user experience. We had to quickly navigate and prioritize building a rewards system on top of our product.

4.4. Supporting offline transactions and non-cardable expenses

Our users wanted to use cards for offline business expenses and for more non-cardable expenses, such as rentals, bill payments, supplier payments, etc., given the key problem of these businesses is credit.

So, we worked with our partner, Matchmove, to enable usage of Elevate Virtual Card on Google Pay and Samsung Pay for offline transactions. Further, to enable other non-cardable expenses, we partnered with CardUp, to provide better prices to our users on transaction fees.

4.5. Engagement of Users with Mobile App

We realized that since the mobile app only provided transactions-related data, the engagement of the users with the app and in turn, with the product was very limited. This was evident from the mobile app metrics.

So, we had to work on the app to introduce heavily used merchants and top spend categories. This way, users could now use the app as a discovery platform, i.e, start their transaction journey from within the app itself to boost engagement.

4.6. Supporting & promoting timely repayments

Immediately after the launch, the repayments were slow and leading to concern initially. To keep a check and support timely repayments, we had to work on adequate educational content to promote timely repayment behavior within the app and in our regular reminders to the users, case basis.

5. Conclusion and Road Ahead

Through this POC, we aimed to demonstrate our ability to serve SMEs that required tailored credit lines optimized for high frequency and smaller value transactions. We believe we successfully achieved our goals and come out of the POC with confidence to scale up the product by offering it to a wider SME audience while being operationally efficient.

We were able to successfully achieve the following via this POC:

- Assess customer needs for a card solution for a credit line product for SMEs and deliver this successfully
- Achieve quick turnaround on credit underwriting and KYC processes
- Help customers apply for the offering via a digital flow on our web app
- Enable customers to accept terms and onboard product via mobile app
- Facilitate easy utilization of our credit line for large number of small transactions

Post the POC, we intend to continue the product innovation on a few fronts:

- Provide more flexibility to customers by introducing a desktop application
- Add additional features such as simplifying accounting reconciliation for SMEs
- Extend the offering to additional customer segments including larger SMEs and startups

This POC and the resultant offering has brought us closer to our mission to improve financial inclusion in Singapore.