Streamlining Individual Lending Evaluations

Final Project Report

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Image Courtesy Jeremie Horowitz for Swadhaar FinServe Pvt. Lt

Swadhaar FinServe Pvt. Ltd.

unitus labs

1. EXECUTIVE SUMMARY

Swadhaar FinServe Pvt. Ltd. ("Swadhaar") is among the earliest initiatives aimed at providing financial services to the urban poor in India. Swadhaar currently offers two loan products: a Joint Liability Group (JLG) Loan given to economically active women in groups and an Individual Business Loan (IBL) given as a non-collateralized working capital loan to female and male micro-entrepreneurs.

As MFIs move from standardized group lending towards individual lending, they need a scalable and efficient model of capacity-based individual lending. However, the current delivery of individual loans remains time and resource-intensive because, as a non-collaterised loan, the IBL product is given after a detailed evaluation of an individual client's willingness and capacity to repay. As part of this project, Swadhaar, with support from Unitus Labs, aimed to build on its experience over the last four years to address some of individual lending's persistent challenges by streamlining the client evaluation process.

Key findings for the four parts of the project include:

1. Products Tailored for Different Business Types: Micro-enterprises in the target customer segment can be classified into six distinct business types. Products can be tailored to these business types based on a few important product parameters.

2. Standardization of Key Metric in Client Evaluation: Sales margins can be standardized based on business type and vary within a limited range based on business scale and location. Household expenses for food, clothing, transportation, health, utilities and education can be standardized based on location and number of household members.

3. Business Growth Indicators: Monthly sales and net business income show a continuous increase for repeat clients and seem to be good indicators of clients' business growth. Inventory levels and current assets show more variation and seem to be a less reliable indicator for business growth.

4. Credit Scoring Model: Swadhaar's client data over several cycles was deemed insufficient to validate a credit score for client selection at this point. However, Swadhaar has tested and implemented a scoring model for renewal clients.

Swadhaar hopes that this report will increase knowledge and acceptance of the individual lending model among microfinance institutions, funders and rating agencies. The results should encourage and enable other MFIs and funders to promote this type of individual capacity-based lending. The findings of this study should enable any financial institution with access to sufficient data on client businesses and household expenses to put in place similar process improvements and gain efficiencies in credit evaluation.

2. COMPANY OVERVIEW

Swadhaar FinServe Pvt. Ltd. ("Swadhaar") started operations as a Non-Banking Finance Company (NBFC) in Mumbai in 2008. Swadhaar's objective is to provide the urban poor with increased access to quality financial services, in an effort to improve their economic capacity and meet their aspirations for a better and more secure future. Swadhaar's inception was motivated by the large gap between the supply and demand for suitable financial services to low-income urban populations. Swadhaar's target clients are both women and men who have limited or no access to services from the formal financial sector. As on 31st March 2011, Swadhaar had 56,727 clients spread across 38 branches in Maharashtra and Gujarat.

2. COMPANY OVERVIEW Cont'd

When Swadhaar set out to lend to urban low-income communities, it realized that there was an important segment of the urban microfinance clients which was not well served by the Grameen-style lending methodology involving small and standardized loans sizes, a one-year tenor, group liability, large groups or centers, weekly group meetings etc. Many urban clients, in particular those running their own businesses, required differentiated loan amounts, tenors and disbursement timings, and were not willing to take loans in a group or sit in a weekly group meeting for repayments. While clients might have taken a Grameen-style loan when nothing else was available, this was not meeting their requirements. Realizing the gap between the demand of this urban segment and the available supply, Swadhaar partnered with ACCION International, leveraged ACCION's tried-and-tested urban individual lending methodology, and designed an uncollateralized individual business loan based on a willingness and capacity to pay evaluation of an individual micro-enterprise owner.

Swadhaar started delivering individual business loans in Mumbai in 2008. While there was a lot of positive feedback from clients, Swadhaar also met many challenges which needed to be overcome. The delivery of individual loans was time and resource-intensive. The product required well-educated loan officers and extensive training. The productivity of a loan officer was lower compared to a group loan officer, and the credit risk higher. Also, in a city like Mumbai, qualified loan officers had many alternative employment opportunities, leading to higher attrition rates. All these factors led to doubts from stakeholders such as funders and rating agencies regarding the viability of the individual lending methodology, mainly due to the lower efficiency and higher risk compared to the familiar Grameen-style group lending.

3. PROJECT OVERVIEW

Swadhaar aimed to address some of individual lending's persistent challenges by streamlining its products and loan evaluation process. The project involved collating client business and household data gathered in Swadhaar's individual lending evaluation process over the last four years, analysing this information with respect to clients' repayment behavior, and standardising and streamlining individual lending products and credit evaluation processes. The project team then developed tailored products by business type, standardized metrics for household expenses and profit margins to be used in IBL evaluations, and developed metrics for business growth as well as a credit score for renewal clients.

The six business types analysed here are:
1) Semi-mobile businesses (e.g. vegetable vendors);
2) Small businesses at fixed location – Traders (e.g. masala vendors);
3) Small businesses at fixed location – Services related (e.g. barbershop);
4) Small businesses at fixed location – Food related (e.g. tea/snacks shop);
5) Wholesalers/large retailers (e.g. kirana store);
6) Home-based manufacturing businesses/small factories (e.g. footwear manufacturer)

4. PROGRAM DESIGN

The project was organized into three phases:
Phase I: Development of Data Capture Model (sample size and socio-economic indicators to be captured)
Phase II: Capture of Client Data (scanning, data entry, validations, quality checks)
Phase III: Analysis of Data and Streamlining of Evaluation Process (development of standardized values for key metric, product outlines for different business types, metric for business growth, input for credit score).

5. KEY FINDINGS

The findings for each of the four key parts of the project are presented below:

1. Products Tailored to Business Types
This project aimed to develop outlines for products tailored to different business types. A few basic indicators can be defined to help loan officers quickly identify the category in which the business falls and tailor his/her sales speech and product offering to the client's needs. Based on the analysis of client data, client businesses were classified into six distinct business types, as shown in Table 1.

TABLE 01 : Definition of Six Distinct Business Types

	Business Type	Sector	Example of Businesses
1	Semi-mobile businesses	Trade and Service	· Selling vegetables, fish, flowers, toys, plastic items · Selling ice cream, candies, juices · Food/snack stalls
2	Small businesses at fixed location Traders	Trade	· Selling grocery items, footwear, masala, meat, cutlery items, sari
3	Small businesses at fixed location Services related	Service	· Services: beauty parlour, barber shops, service stations, repair shops, tailor, photography
4	Small businesses at fixed location Food related	Service	· Food outlets at fixed location: restaurants, tea shops, sweets shop
5	Wholesalers/ large retailers	Trade	· Selling clothes (cut pieces, materials, ready made garments, lingerie, socks, etc.), Kirana shops, footwear
6	Home-based manufacturing businesses/small factories	Manufacturing	· Manufacture of shoes, bangles, imitation jewellery

5. KEY FINDINGS Cont'd

Differentiation between these business types was based on sales, monthly cash flows, inventory rotation, business assets and number of employees, and can be closely linked to eligibility criteria, loan term and repayment frequency, as given in Table 2.

TABLE 02 : Characteristics of Different Business Types

	Business Type	Monthly Sales (INR)	Monthly Cash Flows		Inventory Rotation Cycles	Business Assets			Number of Employees
			On Cash	On Credit		Inventory	Furniture	Others	
1	Semi-mobile businesses	30,000 - 60,000	100%	0%	3 days - 1 week	80%	10%	10%	None (mostly family members)
2	Small businesses at fixed location: Traders	50,000 - 1,00,000	~80%	<20%	1 week - 3 weeks	70%	20%	10%	One to two employee + family members
3	Small businesses at fixed location: Services related	30,000 - 50,000	~90%	<10%	Own Inventory: negligible	10%	80%	10%	None
4	Small businesses at fixed location: Food related	50,000 - 1,00,000	~80%	<20%	1 week - 3 weeks	60%	30%	10%	None
5	Wholesaler/ large retailer	1,00,000 - 3,00,000	~60%	<40%	4 week - 6 weeks	90%	10%	NA	One to three employee
6	Home-based manufacturing businesses /small factories	50,000 - 3,00,000	<10%	~90%	4 week - 6 weeks	80%	10%	10%	Many workers paid on per piece basis

5. KEY FINDINGS Cont'd

We found that it is important that the product definition is not over-complicated. Simpler products allow for easy marketing by the loan officer and are simple for clients to grasp. With this aspect in mind, the product differences were reduced to a few important but simple parameters viz. loan purpose, amount, term, seasonality adjustment / moratorium, repayment frequency & method, and cosigner/collateral. Based on a detailed analysis of business cash flows, and using Swadhaar's current experience in individual lending, standardized product features were developed for each business type as shown in Table 3.

TABLE 03 : Product Outlines for Different Business Types

	Business Type	Loan Purpose	Loan Amount (in INR)	Loan Term (months)	Seasonality Adjustment/ Moratorium	Repayment Frequency / Method	Cosigner / Collateral
1	Semi-mobile Businesses	Working capital	10,000 to 20,000	6-12	None	Daily or weekly / Cash	Cosigner
2	Small businesses at fixed location: Traders	Working capital or business assets	15,000 to 25,000	6-12	None	Weekly or fortnightly / Cash	Cosigner
3	Small businesses at fixed location: services related	Working capital Business assets	15,000 to 25,000 20,000 to 30,000	6-12 9-18	None	Weekly or fortnightly / Cash	Cosigner
4	Small businesses at fixed location; food related	Working capital Business assets	15,000 to 25,000 20,000 to 30,000	6-12 9-18	None	Weekly or fortnightly / Cash	Cosigner
5	Wholesalers / large retailers	Working capital	30,000 to 100,000	6-12	None	Monthly / Cash, cheque, ECS	10% up front margin
6	Home-based manufac-turing businesses/ small factories	Working capital Business assets	30,000 to 100,000 50,000 to 100,000	6-12 6-18	Moratorium up to 3 months	Monthly / Cash, cheque, ECS	10% up front margin

2. Standardization of Key Metric in Client Evaluation

Based on a review of the existing capacity evaluation process and data values, gross sales margins and household expenses were two metric prioritized for standardization. These two metric are critical components in creating the client's cash flow during the loan evaluation process and need significant time / skill in data collection.

Sales Margins: Gross sales margins could be standardized based on business type and varied within limited range based on business location, product variety, scale of business, etc. Based on analysis of the available data, sales margins for the 15 most common business activities were standardized, see Table 4.

TABLE 04 : Standardised Sales Margin by Business Activity

	Business Activity	Gross Sales Margin*
1	General Store	15-30%
2	Kirana Store	12-20%
3	Cloth Merchant/ Garment Seller/ Sari Seller	20-40%
4	Footwear Store	30-40%
5	Electric/Hardware Store	35-55%
6	Imitation Jewellery/Cosmetic Items Store	40-50%
7	Vegetable Vendor	20-35%
8	Mess/Tiffin Service/ Food Stall	45-60%
9	Restaurant	30-50%
10	Garage/ Automobile Repair	60-80%
11	Saloon/Beauty Parlour	70-90%
12	Tailoring	55-80%
13	Laundry	45-65%
14	Fabrication	30-60%
15	Handwork	45-60%

**The variations in margin are caused due to shop location (home based/residential area/market area) or product range offered and similar factors.*

Household expenses: The household expense standardization is developed based on expenditure per household member, depending on the location. Only specific household expenses (food, clothing, transportation, health, utilities, education) could be standardized, as shown in Table 5. Other expenses such as insurance payments, monthly saving deposits, debt repayments, showed large variations between clients and are not included in the household expense standardization.

Table 05: Standardized Household Expenses per Household Member

Expense Category	Range of Values* (INR)
Food, clothing, utilities, health, transportation – 1st HH member	4,000 – 8,000
Food, clothing, utilities, health, transportation – Additional HH member	500 – 1,000 / member
Rent	1,500 – 4,000
Education – Private School	500 – 1,000 / student
Education – College	500 – 1,000 / student
Education – Government School	300 – 600 / student
Savings, debt payments, insurance payments	Vary significantly, have to be captured on actual basis

**The variations in expenses are due to location.*

3. Business Growth Indicators

This part of the project aimed at identifying key growth indicators for clients' businesses that show a significant change over several loan cycles. Please note that the data available for analysis of business growth over several cycles was very limited and for the most part not statistically significant. It is essential to revalidate these findings with a larger data set over a longer time scale, when available.

Increases in monthly sales and net business income were found to be good indicators of client's business growth, especially in the trading sector. These metric begin showing a significant increase after client has completed at least 2 loan cycles. On an average, there is a 5-10% increase in the client's sales per loan cycle. Net business income also shows a steady increase over cycles, however the growth is 1.5 times slower than the growth in sales. Inventory levels and current assets did not show a very significant increase in the first 3-4 cycles.

4. Credit Scoring Model

This part of the project focused on the analysis of Swadhaar's client data to identify an appropriate credit-scoring methodology for future implementation. A scoring model would help to categorize clients based on their socio-economic characteristics and/or past performance. Based on the client score, Swadhaar could decide which product, loan terms, priority of visit and level of service to offer a client. Swadhaar's client data was deemed insufficient to validate a Credit Scoring model for client selection at this point; however, Swadhaar has tested and implemented a scoring model for client renewals. This renewal segmentation score puts clients into several risk categories such as: (1) AA – Low Risk or Best Clients (no new evaluation required), (2) A – Low to Medium Risk Clients (simplified evaluation), (3) B – Medium Risk Clients (complete evaluation) or (4) C – High Risk Clients (client renewal loan application is rejected).

6. PROJECT BENEFITS

Through the findings of this project, Swadhaar can gain efficiencies and cut costs in the areas highlighted below:

Streamlining of Individual Lending Evaluations – By streamlining the individual loan evaluations, Swadhaar can reduce the cost of processing each loan. Each loan appraisal can be completed faster as fewer pieces of information will need to be collected, leading to higher loan officer productivity, faster growth, larger portfolios per loan officer, and ultimately higher revenues.

Reduced Staff Skill and Training Requirements – Once standardized parameters are put in place for evaluations, the need for detailed data collection and constant validation is reduced. Staff training can be streamlined, thus reducing the cost of trainings. This would also help to reduce the overall skill profile required for an IBL loan officer, allowing the company to recruit a lower skill profile and reducing the cost of human resources.

Risk Mitigation – This project can assist with risk mitigation by providing data about clients' specific risk profile (based on socio-demographic or behavioral information), allowing Swadhaar to structure its portfolio accordingly. It would eventually help with reducing the cost of loan loss provisions and write-offs.

7. KEY CHALLENGES

Phase I: Development of Data Capture Model.
The key challenge was to ensure that an adequate sample size and selection of socio-economic variables were covered for the analysis, while keeping the number of data points to a manageable size. The database needed to be designed well from the beginning.

Phase II: Capture of Client Data.
The use of an out sourced vendor for data capture meant a high degree of reliance on the vendor's understanding, resources, quality management processes and infrastructure to meet deadlines. A lot of time went into provider management, monitoring and feedback.

Phase III: Analysis of Data and Streamlining of Evaluation Process.
Considerable effort was required to clean the data set and remove errors. Certain aspects of the data, such as 'business type', were captured in the loan application form but had not been standardized. Hence it was a significant challenge to sort through the data and group clients by business type. For the validation of a credit-scoring model for client selection, a large enough database of clients who have completed several cycles was not yet available. Variations in business growth indicators across cycles may have been due to various factors other than actual changes in the business activity – it was difficult to isolate these variables.

8. CONCLUSION

Individual lending outside of the group lending setting (i.e. lending to clients which have not graduated from a group) is in a nascent stage of evolution in the Indian microfinance sector. While there is tremendous potential and demand for scaling up, this product is considerably more complex to deliver and manage than the standard Grameen-style group loan product and requires a higher degree of institutional capabilities. Institutions looking at offering individual lending must take into account a large amount of up front expense and resource allocation towards capacity building.

8. CONCLUSION Cont'd

Swadhaar's aim through this project was to streamline and simplify individual lending evaluations. Swadhaar and other institutions can work on further improving the individual lending methodology and demonstrating its potential and viability to various stakeholders such as the regulator, investors, funders and rating agencies. One of the longstanding challenges that Swadhaar has faced with its individual lending program is the lack of funding from banks, many of whom are not yet familiar and comfortable with this product. Swadhaar hopes that this report will increase the knowledge about this type of product and encourage bankers to get involved and fund this type of portfolio. Swadhaar also hopes that its experience will encourage other institutions to consider offering individual loans to its clients. The findings presented in this study should inform and enable any institution with access to sufficient data on client businesses and household economics to introduce similar process improvements and gain similar efficiencies.

9. APPENDICES

Appendix 1 - Background Note on Individual Lending
Appendix 2 - Presentation of Analysis: Streamlining Individual Lending Evaluations at Swadhaar

10. CONTACT

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11. INFORMATION DISSEMINATION

Swadhaar will disseminate the findings of this project through publication on Swadhaar's website and distribution of reports with Swadhaar's Annual Report. Swadhaar will also make efforts for presentation of the findings to different industry associations and multipliers, as well as distribution of reports at industry events.

12. ACKNOWLEDGEMENTS

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