

# GIZ FINANCING INTERVENTION

Final Report



## Consumer Financing

### Overview

In the current Dharma Life model, consumer credit was being given on an informal basis across Uttar Pradesh. In the Dharma Life model, entrepreneurs were providing informal credit period to their consumers, with the understanding the consumer will repay the full in the near future. However, there was no formal structure in place, therefore the cash flow was erratic back to the entrepreneur, as a result to Dharma Life. Dharma Life developed a systematic and formal process which would create a better cash flow from the field to Dharma Life.

Dharma Life ran the consumer credit pilot with 19 DLEs, across 11 districts. The pilot began in the first week of September 2018. Through the systematic process, Dharma Life was able to address the issue of affordability and increase the penetration of sales.

### Consumer Credit Process

1. Screening: The potential consumer undergoes credit assessment screening by the DLE or the CDO, followed by KYC submission and signing an agreement.
2. Down Payment: Token amount collected as a down payment on the day of the product delivery by the DLE or CDO.
3. Dharma Life to provide a payment card and Induction cooktop to the customer; first instalment amount and date to be noted on the card and same is to be recorded by DLE and CDO.
4. CDO and/or DLE to visit the customer on the 8th day following product delivery to collect the first instalment. Customer to be given the date of paying their next instalment, which will be the 15th day post product delivery.
5. The second instalment to be collected on the 16th day. The amount paid and date to be noted

on Dharma Life tracker and payment card of the customer. After the making the second instalment payment, customer to be given the date of their next instalment, i.e. 21st day.

6. The third instalment to be collected on the 24th day. The amount paid and date to be noted on Dharma Life tracker and payment card of the customer

### Consumer Assessment Framework:

Dharma Life designed a simple consumer assessment framework given the time constraint to complete the target of 4,000 assessments. The first section of the assessment entailed capturing the KYC details, credit information from the consumer and social referencing data. Dharma Life kept the number of questions for the second and third section to a minimum, 6 questions in the credit information section and 8 in the social referencing section.

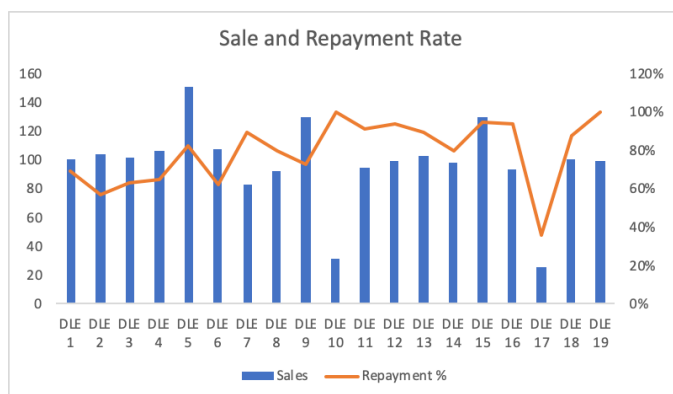
In the credit information section, Dharma Life assessed the family size, the education levels and their current credit and credit history. In the social referencing section, Dharma Life field team identified a neighbor or someone who has previously lent to the potential consumer. The family reputation and their ability to complete payments are accounted for. The second sections are given weightage to identify the best consumers to whom consumer credit should be provided.

The table below shows the instalment cycle. The repayment scheme for the credit product has been designed to recover the majority of the 'DLE price' of the induction cooktop within the first two instalments:

Payment Number	Day #	Amount deposited	Outstanding credit amount
1	0	400 (token amount)	1800
2	8	800	1000
3	16	800	200
4	24	200	-

## DLE Sales, Income and Consumer Assessment

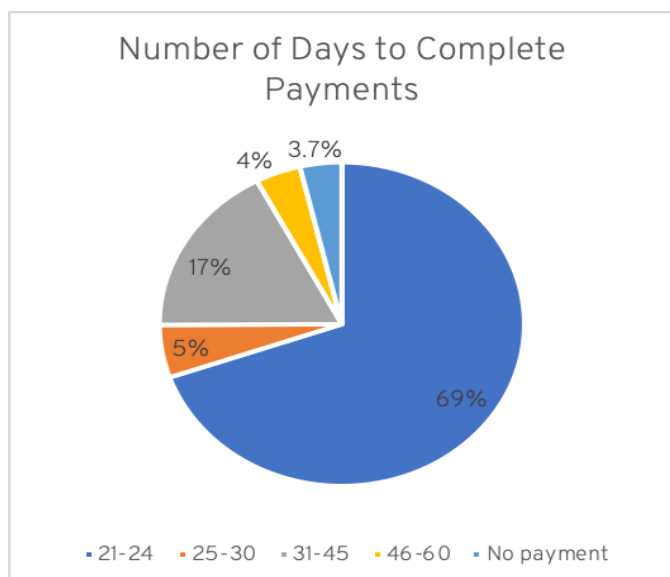
The total number of inductions sold are 2,002 till date, with the average sale of 105 per DLE. The average sales revenue made by the DLEs is INR 21,000. The average repayment rate is currently at



Our Dharma Life field team has conducted 4,000 consumer assessments for potential consumers. The assessment data is being recorded on Dharma Life’s dltrac application. By recording the details of these potential consumers, we have identified consumers to whom to sell induction cookstoves. This data will be useful for future sales for various SKUs in Dharma Life’s basket.

## Consumer Repayments

Since most of the consumers have been assessed before selling inductions to them, they have managed to adhere to the given 21-24-day credit cycle. Furthermore, the documentation process of recording the consumer’s KYC details and signing agreement with them has given the process credibility in the eyes of the consumer. Dharma Life also provided a payment card to the consumer, for their reference to maintain transparency around payments. There have also been over eager cases where the consumer has made a payment of INR 1000 instead of INR 800, because it was easier to make a payment of 1000 with two INR 500 notes.



Dharma Life recorded the average number of days it took to complete full payment. From the data, 69% of the consumers took 21-24 days to complete all instalments. This was the agreed time frame to complete all instalments with the consumers. Due to consumer screening, Dharma Life was able to identify consumers who would largely adhere to the set instalment dates. 5% consumers took 6 extra days to complete all instalments and 17% took 30-45 days to complete all instalments. Generally, instalments spill over one month, as the wage earners will receive their income at the start of every month. This has resulted in a significant number of consumers taking 30-45 days to complete the payments. 4% of the consumers took 46-60 days to repay the full amount. These could be farmers who were waiting for income through sales of their crop, in the crop season gone by.

Till date, only 3.7% consumers have not paid any instalments post the first deposit payment they made when purchasing the induction. These consumers have not paid for more than 3 months. Dharma Life can categorise these consumers as defaulters and will ask these consumers to return the inductions. Majority of these defaulters are from 1 anomaly DLE in Faizabad, who is struggling with the repayment. All the defaulters have only paid the deposit amount of INR 400. The remaining amount has yet to be paid. This totals to INR 64,800

## Challenges

**Exhaustion of Potential Consumers:** The Dharma Life field team is currently carrying out consumer assessments, hence collecting data for potential consumers. However not all consumers are interested in buying an induction cookstove. Furthermore, each DLE has a target of 100 cookstove. This is a large target even in the given 4 villages of the DLE, therefore they are having to look outside of their villages. These new villages are further away which has increased travel time for our field team. DLEs generally do not travel further than their 4 villages, as it may be difficult for them due to safety reasons and transport issues. Please note, this is not the case for all DLEs. Certain areas, such as Western UP who face this issue. Western UP is notoriously known to have less electricity during the day in comparison to central and eastern UP. The stated issue above is a reaction to the electricity circumstances.

**Time Consumption:** The DLEs have found it time consuming to continuously go collect payments from consumers.

## Learnings and Way Forward

**Credit Process for Development for multiple products:** There have been instances where a person has wanted to buy two inductions, however as per our current credit process, he had to provide another KYC detail to purchase the second induction. It is an inconvenience in terms of documentation. Dharma Life is looking to develop a tier-system for credit which will include:

- Two or more inductions bought,
- Induction with a Build Your Kitchen (BYK) set
- Induction with a Pressure Cooker.

Dharma Life will look to include this tier system moving forward into this project post the economic analysis of all the tiers. If suitable, Dharma Life will look to sustain this tier system post the conclusion of this project.

**Marketing Collateral:** The consumer credit process has picked up pace during September, there is now a need for DLEs to have some collateral that will help her to explain the credit flow and instalments. Furthermore, when Dharma Life introduces the tier system, the DLE will need to have this information on her to hand out to potential consumers as a reminder of the various schemes available.

**Repayment Monitoring:** In the scale up, Dharma Life will implement its in house developed application to monitor in depth the number of days a repayment gets delayed. The DLE/CDO will input the sales date and the initial down payment made by the consumer. The application will automatically calculate the next 3 payment dates. This will help monitor delay in each payment. This will allow Dharma Life to receive real-time data on repayment rates and change

## Entrepreneur Financing – Phase 1

### Establishing the Alternative Framework Model - For Entrepreneurs

In the face of affordability challenges in the Indian market outlined above, the demand for important products and services remains low. Equally concerning is that small-scale entrepreneurs in these markets, who are in a position to facilitate last-mile access to socially-beneficial products for populations at the base of the pyramid, also lack the capital to maintain the necessary inventory of products for further selling. In this situation, the need for affordable credit among these entrepreneurs and consumers emerges strongly. However, even while financial institutions such as Microfinance Institutions have made an entry into rural and low-income markets, a large portion of the population remains underserved.

Additionally, credit assessment of prospective borrowers in the rural context is difficult. Borrowers in rural markets characteristically possess limited formal recorded information about their financial histories, complicating the process of assessing

creditworthiness. This problem of information asymmetry limits the outreach of micro-lending. Further, high transaction costs linked to small ticket size loans deter lenders from extending product loans to rural consumers. Product loans are mainly provided as top-up loans to existing members of MFIs with a credit history, therefore excluding non-MFI members. While credit assessment is a potential solution to these challenges, existing tools and methodologies to assess creditworthiness are riddled with their own challenges.

Given the limited financial footprint of individuals among rural and low-income groups, alternative models for credit assessment present a possible solution towards extending credit to previously underserved sections. Dharma Life, the Department for International Development of Government of UK (DfID), London Business School, The London School of Economics and Political Science, and Shell Foundation have come together to address this need by designing and testing a low-cost and easy-to-administer alternative credit assessment tool, especially developed for deployment in rural and developing markets. This report highlights the process of testing and developing this tool, and the learnings along the way. The plan for further testing and refinement of the tool through subsequent studies is also discussed here.

## Part 1: The Study

### Study Objective

To test credit behaviour among entrepreneurs, a basket of products was distributed on credit among village-level Dharma Life Entrepreneurs. This product basket served as the inventory necessary to support entrepreneur sales operations. Simultaneously, the prototyped credit assessment tool was administered among the entrepreneurs as a means of capturing the input variables unique to each of the entrepreneurs participating in the study. The prototyped alternative credit assessment tool drew from and integrate

constructs and dimensions currently being used by existing entrepreneurial screening and assessment models, to result in a comprehensive and multidimensional tool.

Entrepreneurs conducted their sales and service operations through the study period while managing their credit repayment commitments. At the end of study, entrepreneurial performance, credit repayment and other relevant outcomes were captured for these entrepreneurs. It is expected that through multiple rounds of testing, the tool would progressively evolve into a high-accuracy methodology for entrepreneur screening and assessment.

The loan basket comprised diverse social impact products, including solar lights, induction cooktops, water purifiers etc., as well as other consumer goods and electronics. This product basket were loaned to DLEs as part of a Deferred Payment arrangement: this entails that DLEs proceed to pay for those products after generating money through the sale of those products in their respective markets.

### Study Process

The credit assessment tool saw refinements through increasing applications and iterations across diverse contexts. Our study tested the tool through prototyping and trials across diverse contexts. The preliminary phase of the study involved creating a prototype of the tool by incorporating dimensions currently in use by other entrepreneurial assessment frameworks. This prototype was then tested within a small entrepreneur population to detect associations between entrepreneur-specific parameters and credit and sales performance. The tool was then refined using the learnings of these initial field trials and modified to include indicators that demonstrated highest predictive power over credit and sales performance. The revised tool was then prepared to undergo further testing across different geographies and entrepreneur contexts, mainly through two studies.

## Study Design

Field Trials to gather data for the credit assessment framework

A randomized controlled trial was conducted to compare a range of outcome for potential entrepreneurs who fall within the following 3 groups:

**Group 1:** Selected, on boarded as Dharma Life entrepreneurs (DLEs) and extended a deferred credit facility (i.e. the DLEs are given a product bundle on an interest free loan for a fixed period with equal monthly instalments)

**Group 2:** Selected, on boarded as DLEs and not extended the deferred credit facility

Control group: Selected but not on boarded as DLEs and not extended the deferred credit facility

## Selection of DLEs

A sample of ~2000 entrepreneurs were screened from the population of potential entrepreneurs that Dharma Life seeks to target. The entrepreneur selection was based on a combination of basic socio-economic and demographic attributes, scenario-based questions that test aptitude for sales, and psychometric questions that assessed the personality of the potential entrepreneurs.

The interviews were planned in the 2 states of UP and Rajasthan in a staggered way.

Out of the 2,000 entrepreneurs, ~900 entrepreneurs were selected in the states of Uttar Pradesh and Rajasthan, out of which 400 were given the deferred credit facility.

State	Number of DLE
Rajasthan	200
UP	200
Total	400

## Extension of deferred credit facility

Credit facility was extended based on an initial appraisal and credit history check of the interested applicants and based on the market potential for the product bundles in the locations where the DLEs are selected.

## Deferred credit facility features

The product bundles extended to the entrepreneur on credit included a mix of social impact products such as clean cooking solutions, water purifiers, solar lights and female hygiene products among others. Two bundles were envisaged for INR 10,000 with a tenure of 5 months and for INR 20,000 with a tenure of 6 months.

In the first cycle, only the INR 10,000 bundle were given to the entrepreneurs. The credit extended for the product will be revolved over a period of 1 year, based on the repayment of EMIs. Based on the sales performance of the entrepreneurs, higher value bundles will be extended in subsequent loan cycles.

## Learnings and Challenges

Payment collections till fourth were regular across all entrepreneurs across the two states, with minimal instances of default or delayed payments. However, the period of the fifth instalments saw delayed payments from 20 entrepreneurs out of the 400 entrepreneurs who were provided the deferred product credit.

The delay in payment was attributed to two reasons:

### Exhaustion of potential customers

some of the DLEs found it hard to sell solar lanterns, especially in Uttar Pradesh as the electricity availability via grid improved considerably post elections. In Rajasthan, a few DLEs struggled to sell induction cookstoves as they had already exhausted their respective cookstoves installation targets in their territories.



## Delay in collection

Given the limited availability of field staff, there were delays in collection of instalments especially in remote villages.

## Entrepreneur Financing- Phase 2

### Background:

The Entrepreneur credit model evolved to the current version with 1,000 DLEs across 6 states. All 1,000 entrepreneurs recruited for this entrepreneur financing were first time entrepreneurs without any prior work experience.

The following process was established for the new entrepreneur credit model:

- 1. Training:** The potential entrepreneurs are provided training on social causes such as clean energy, indoor air pollution and menstrual hygiene. The entrepreneurs were also provided training on products related to the cause, such as solar lights, induction cooktop and sanitary napkins.
- 2. Down Payment:** Token amount of INR 1,500 against the product basket to be collected as down payment on the day of product delivery by the CDO/DLE.
- 3. Product Basket Handover:** Dharma Life to provide a product basket of worth INR 5,000 which includes 2 Induction cooktops (INR 1950-2000), 2 solar lights (INR 425) and 4 sanitary pads (INR 20)
- 4. Repayment cycle:** Each entrepreneur is provided with a 21 days credit period for repayment of remaining ₹ 3,500 of the product basket
- 5. Reorder:** Post receiving payment for first basket, next basket of products in demand by each DLE is provided on reordering

The break of the 1,000 entrepreneurs is given in table 1.0.

State	Number of DLE
Bihar	250
Jharkhand	100
Maharashtra	200
Odisha	150
Rajasthan	100
UP	200
<b>Total</b>	<b>1000</b>

### ENTREPRENEUR CREDIT PERFORMANCE

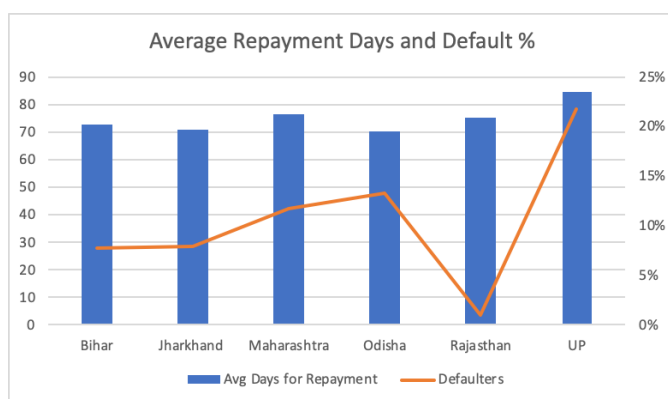


Figure 1.0 shows the average repayment rate per state and the percentage of defaulters per state. The least number of days taken for repayment were in Odisha while UP DLEs took the longest to complete their payment, taking on average of 85 days. In UP, on average 22% of the DLEs who defaulted, which is the highest amongst the 6 states.

800 DLEs have done repayment of first basket and have not reordered for second basket. 193 DLEs have reordered induction second basket after making payment for the first basket. In UP, all DLEs have completed at least 2 cycles of their induction product basket, with 2 DLEs having completed over 50 cycles.

In Bihar, all DLEs completed their first cycle, however due to electricity issues in the state, 141 DLEs had 11 rotations of Solar Lights. All remaining DLEs

completed 1 rotation cycle. Jharkhand, Maharashtra and Odisha have all completed 1 rotation of their product basket.

## **Learnings and Challenges**

### **Down Payment Issue**

As per the project mandate, DLEs had to be first time entrepreneurs with no previous experience. As a result, the DLEs would come from relatively low socio-economic backgrounds, which hampered their ability to make the full down payment in one instalment. The family and the DLE would be hesitant to invest INR 1,500, as they may not have the confidence in recuperating the money.

### **Burden of Repayment**

The burden of repayment of the remaining amount of the basket, meant the DLE was less confident in her sales pitch. This increased the time take to complete 1 rotation.

### **Money Mismanagement**

A CDO has a beat plan for the month and every month, he will meet all his DLEs at least 4 times. In between each meeting, there is an average gap of 1 week. During this time, some DLEs would sell products, they would end up using the money earned through the sales for other immediate concerns of the household. When the CDO would return for the next visit, the DLE would not be able to pay the amount of the induction and request extra credit period to recuperate the money. This would increase the time taken to complete the repayment of the INR 5,000 basket given.

### **Way Forward**

Based on the learnings from the two phases of the entrepreneur financing, the entrepreneur assessment framework will be further updated and tested at scale with the support of partner organizations.