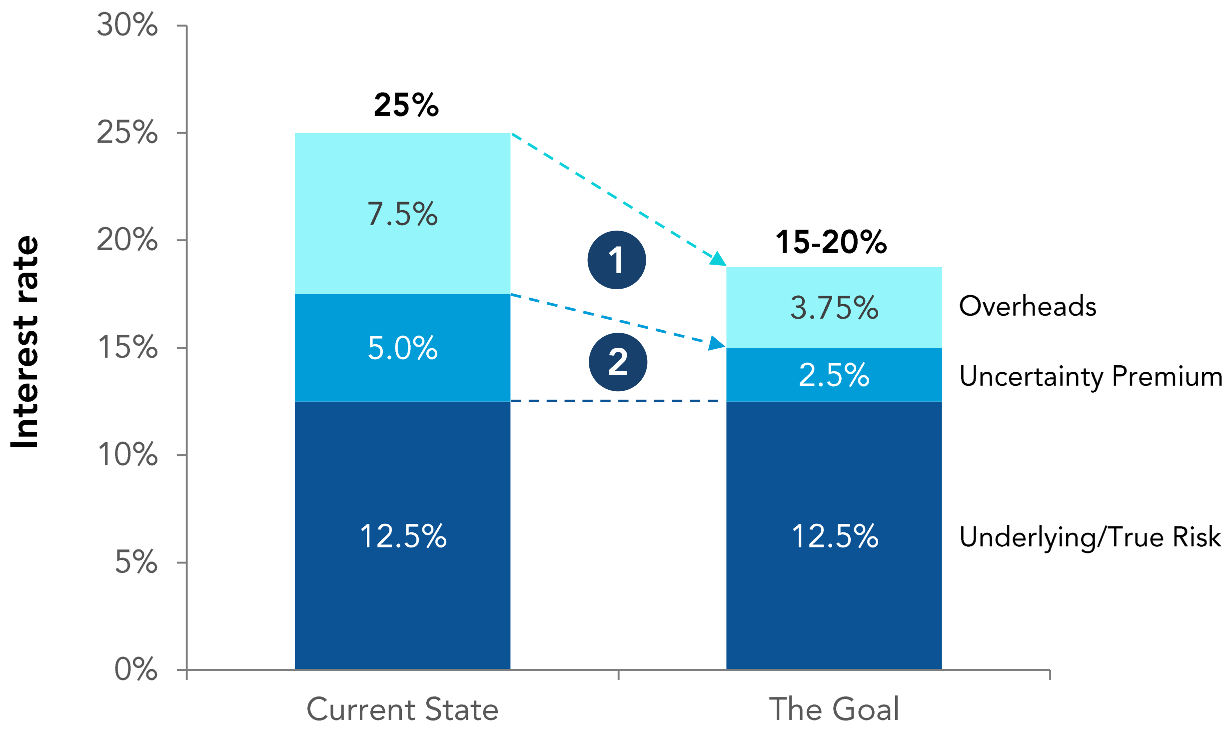
# How can we lower finance rates for customers?

Currently, microfinance institutions **charge 20+%** on their loans, which limit the potential social impact that these loans can have.




1. Many institutions have high overhead costs, often due to not having a digital focus. For example, loan officers are commonly deployed to assess applicants' risks, which is timely and costly.

   By moving digital, we can pass on cost savings to our consumers, and amplify the social impact that these loans can have.

2. Institutions also have a hard time assessing each individual's risk. With low data availability and quality, lenders cover their margins by incorporating a risk premium to the loan.

   By identifying and securing access to data sources that accurately reflect consumer behaviour and risk, we can model credit risk more accurately than loan officers.

# Good Debt vs. Bad Debt

By understanding the difference between 'good debt' and 'bad debt', we can guide consumers to purchase **assets**, which will help increase their wealth while reducing repayment risk.

## Good Debt = Investment

**Investments in assets which generate value.**

This can occur in two ways:
1) The asset becomes more valuable over time, or
2) The asset generates income

**E.g.** a chicken is an investment. It lays eggs which can be sold as income, or be eaten. The eggs can hatch to create more chickens. The chicken can also be sold in a market, or eaten

## Bad Debt = Consumption

**Buying goods that quickly lose value and/or do not generate long-term income.**

If you can't afford it, don't need it or the asset won't pay for itself…then don't buy it.

**E.g.** a car loan is bad debt. The value of a new car decreases by 30+% once you drive it and it becomes second-hand. The car does not generate any income.

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# Case Study: branch

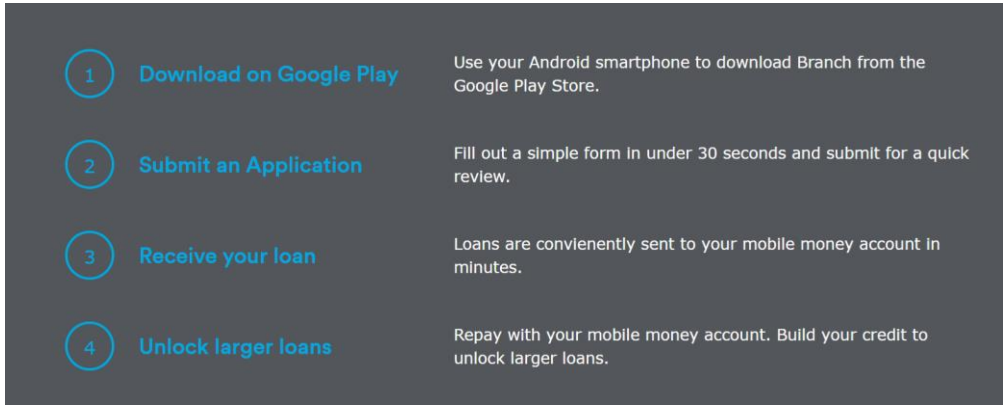
**Branch**, a microfinance institution operating in Kenya and Nigeria, offer **$2 loans** to help customer build **credit history**

### The More You Use Branch, the Better it Gets

As you build your credit history with Branch, fees decrease and you **unlock larger loans** with more flexible terms.

New customers borrow from Branch **20 times** on average in the first year after they have downloaded the app.

By offering small loans to start with, they have reduced the need to gather other sources of data to model credit risk.



| | | |
|---|---|---|
| 1 | Download on Google Play | Use your Android smartphone to download Branch from the Google Play Store. |
| 2 | Submit an Application | Fill out a simple form in under 30 seconds and submit for a quick review. |
| 3 | Receive your loan | Loans are convienently sent to your mobile money account in minutes. |
| 4 | Unlock larger loans | Repay with your mobile money account. Build your credit to unlock larger loans. |

### Lending Decisions Powered by Machine Learning

Algorithms process thousands of data points to assess your credit profile and create tailored loan products

Data collection occurs by accessing information on users' phones, including: Handset details, GPS data, SMS and Call logs, Social network data and Contact lists

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# Customer Journey – Questions to Answer

## 1 Marketing & Data Collection

In order to understand different risk sources in more detail, and target different customers more effectively, what **sources of data** do we need to obtain?

How do we **secure ongoing access** to those data sources?

How do we **reach potential customers** and gauge their interest?

## 2 Loan Application & Credit Risk Modelling

What **information** do we **need** from consumers to be able to approve them for a loan?

Conversely, what **information** do they **have** at their disposal to provide to us?

Through which channels or technologies can consumers provide that information to us?

How do we build an effective **credit risk model**, and how can we continually refine it?

## 3 Loan Provision

How do we provide the actual loan to successful applicants?

What kind of **money transfer systems** exist?

If not monetary, how might we provide things that store value as a **substitute** for cash?

How do we effectively **control for spending** as opposed to investing?

## 4 Payment Collection & Monitoring

How will our customers pay the loan back to us?

How long do they have before they make their **first payment**?

How long is the **full term** of the loan?

How will we **monitor** their repayment?

If they are late on their repayments, how will we **recover** them?

How might we **nudge** them so that we can **mitigate** poor repayment rates?

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# Things to Find Out & Set Up

## 1 Front End – Customer Focus

Product needs

Availability and access to productive assets

Sources of income

Financial information available

Sources of capital

Current technologies available

## 2 Data Collection & Analysis

Identify relevant data sources

Secure ongoing access to those data sources

Build an effective credit risk model

## 3 Back End – Systems Focus

Payments Technology

USSD Survey Coding

USSD Survey Hosting

Bulk SMS Service

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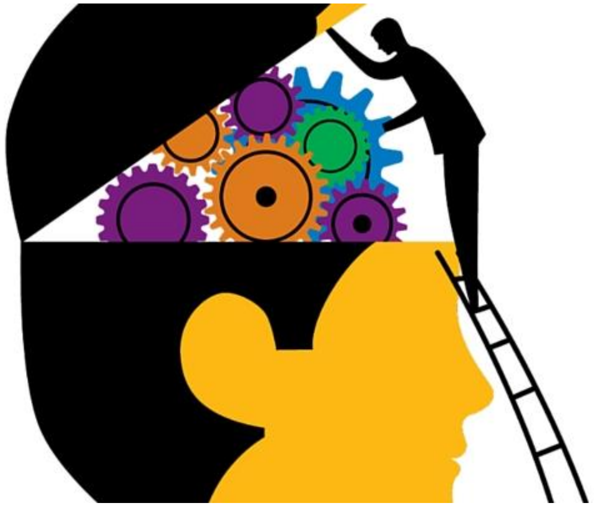
# Garbage In, Garbage Out: Good Data is Key

To build an effective credit model, we need **highly relevant information** with **strong data quality**. Airtel's data provides critical insight to the economic behaviours of Malawian consumers.




### Airtime Purchase Data

How much Airtime credit do consumers purchase?

How often do consumers recharge their Airtime credit?

Does this vary seasonally?

Can we get time series data to see how spending patterns develop for different consumers?

### Geographical Analysis

Can Airtel track which cell tower each SMS or call is made through?

If so, what do people in different regions do differently?

How often do people SMS or call?

### Demographic Data

How does behaviour differ between people of different age, gender, occupation or income?

Is this data available through Airtel Money account information?

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# How can we find out more?

By using USSD, bulk SMS and small introductory loans, we can gather insights into consumer behaviour beyond people's interaction with telecommunications.

### USSD as a Survey Medium

We want to understand how consumers interact with finance, both formal and informal.

By using USSD, we can reach more consumers and understand the market more holistically.

This, combined with Airtel's transactional and locational data can build a clearer picture of a consumer's credit risk.

### Bulk SMS

We want to send this out to as many consumers as possible.

This will allow us to:
1) Get a strong sample size to analyse the market, and
2) Promote our services to potential customers, with the ability to trial our service with a few early adopters

Consumers who fit our criteria may then be fast tracked to being approved for an introductory loan.

### Small Introductory Loans

Very few Malawians have credit history to be approved for loans.

So, why not build one alongside them?

By providing small loans to people who qualify for our trial, we can see if they have the ability and willingness to repay.

Once you repay the initial amount, you become qualified for larger loan amounts.

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# Removing access barriers for consumers

How can we leverage Airtel's wide distribution network to provide secure access to microfinance to as many people as possible?

## 1 Cash

Cash is king. It is the most commonly used medium for value exchange.

However, cash loses value in real terms, incurs storage costs/risks and is very hard for high value exchanges due to the small denominations.

## 2 Airtel Money

Airtel Money has solved many of these issues by helping people transfer money via mobile accounts.

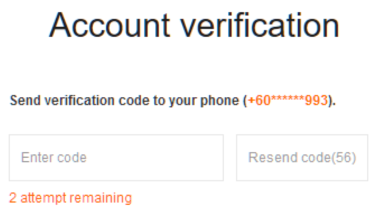
Providing loans and collecting repayments on this system will provide greater reach to those who need it most.


## 3 Tokens

But how can we ensure that the money is being used for the right things?

Instead of money, we can send tokens for customers to exchange at a shop to verify the good they are purchasing.

To do this, we will need a SMS verification system.

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