USING CREDIT TO GROW SAVINGS

RESULTS FROM A MOBILE PILOT IN KENYA

APRIL 2012

JIPANGE KUSAVE
SECURE YOUR FUTURE THROUGH YOUR PHONE

CGAP

FSD Kenya
Financial Sector Deepening

We are grateful to the Steering Committee members, JKS staff in Nairobi and JKS customers for the information and assistance provided to prepare this review. The views herein are ours and do not necessarily represent the views of others unless explicitly stated.

This report was commissioned by FSD Kenya and the Consultative Group to Assist the Poor (CGAP). The findings, interpretations and conclusions are those of the authors and do not necessarily represent those of CGAP, FSD Kenya, its Trustees and partner development agencies.

The Kenya Financial Sector Deepening (FSD) programme was established in early 2005 to support the development of financial markets in Kenya as a means to stimulate wealth creation and reduce poverty. Working in partnership with the financial services industry, the programme's goal is to expand access to financial services among lower income households and smaller enterprises. It operates as an independent trust under the supervision of professional trustees, KPMG Kenya, with policy guidance from a Programme Investment Committee (PIC). In addition to the Government of Kenya, funders include the UK's Department for International Development (DFID), the World Bank, the Swedish International Development Agency (SIDA), Agence Française de Développement (AFD) and the Bill and Melinda Gates Foundation.

Table of Contents

Tables and Figures

TABLES

FIGURES

Abbreviations

APR	Annual Percentage Rate
BMGF	Bill and Melinda Gates Foundation
CBA	Commercial Bank of Africa
CBK	Central Bank of Kenya
CBO	Community Based Organisation
CGAP	Consultative Group to Assist the Poor
CRM	Customer Relationship Management
CSR	Customer Service Representative
DFID	UK Department for International Development
F	Female
FSD	Financial Sector Deepening Trust Kenya
IT	Information Technology
JKS	Jipange KuSave (referred to originally as "EasySave")
KCB	Kenya Commercial Bank
KSh	Kenya Schillings
KWFT	Kenya Women's Financial Trust
M	Male
MFI	Microfinance Institution
MIS	Management Information System
MVK	Mobile Ventures Kenya Limited
SACCO	Savings and Credit Co-operative
SIDA	Swedish International Development Assistance
USD	United States Dollar

KENYAN TERMS

Jipange KuSave	Plan or organise yourself to save
Jinusuru	To save yourself in the nick of time
Chama	Association
Merry-Go-Round	A Rotational Savings and Credit Association
Matatu	Minibus

EXECUTIVE SUMMARY

THE TERMS OF REFERENCE

In November 2009 the Consultative Group to Assist the Poor (CGAP) and the Financial Sector Deepening Trust Kenya (FSD Kenya) provided a total of USD 540,000 to Mobile Ventures Kenya Limited (MVK) to enable MVK to pilot an innovative savings product delivered through the mobile channel. The product is Jipange KuSave (meaning "plan or organise yourself to save") or JKS.

This report provides a detailed review of JKS over 18 months from the inception of the project. It responds to the terms of reference which sets out our findings covering:

- an outline of the state of the industry for mobile banking in Kenya;
- a review of the motivations and expectation of the parties to the project;
- an overview of what has been delivered by the project; a description of the main changes to the product and operations over 18 months of operation; and a summary of how donor funds have been used;
- an analysis of the current and potential commercial viability of Jipange KuSave (JKS);
- a description of customers and customer perspectives of how JKS fits into the portfolio of financial services they use and customer case studies;
- a summary of lessons learned; evaluation of the hypothesis that financial services could be sold with little or no human contact; an analysis of other hypotheses, assumptions and identified risks and how these played out over the lifetime of the project; and an assessment of whether the project represented a good use of donor funding.

SUMMARY OF FINDINGS

1. Mobile banking in Kenya

M-PESA was launched in July 2007. By September 2010 it had 9 million registered customers (60% of Safaricom's customer base, 23% of the population, and 40% of Kenyan adults). Safaricom was able to grow M-PESA rapidly to gain a dominant market position. The market has responded to M-PESA's success, and Equity Bank, Family Bank, Kenya Commercial Bank (KCB), Musoni and the Kenya Women's Financial Trust (KWFT) all now offer M-PESA as a mechanism for customers to either repay loans or withdraw funds. Equity Bank has also formed a joint venture with Safaricom, marketing the jointly branded product M-Kesho, a bank account which can be accessed through a menu loaded onto the SIM card menu. Orange (Telkom Kenya), yu (Essar Telcom) and Airtel (Bharti Airtel) have all introduced mobile money services. By early 2011 almost 90 formal financial institutions had integrated their operations with mobile money (primarily M-PESA) with few providers that did not have mobile money integrations completed or underway.

The market is crowded with products, although none yet closely resemble JKS. Some competitors are greater threats than others to the JKS proposition, particularly the larger commercial banks and some MFIs.[1]

2. Motivations and expectations of the parties

MVK's primary expectation of the pilot was to test a combined savings and loan product delivered through the mobile channel, ready for commercial roll out; a good understanding of the dynamics of all of the revenue and cost drivers; and a proposition attractive to private investors. FSD's expectation was that there would be a convincing basis for creating a viable business using the product developed by the project. CGAP's expectation was to achieve understanding of customer behaviour and the commercial viability of the model to enable broader lesson learning for the wider industry.

At the time of the review all of these expectations have been substantially but not fully met. A product has been evolved through a series of phases that tested different customer cohorts, product configurations, pricing structures, and customer acquisition models. Various hypotheses around customer behaviour have been tested. At the same time the business process and back-office systems have been developed ready for scaling-up and a core staff have acquired a good level of capability. A banking partner has been found to enable JKS to take deposits and to add strength to the brand. In our view these are excellent achievements with the time and budget available and in a developing world operating environment.

Evidencing sustainable profitability is a task for the next phase. This requires more customers to understand behaviour through several loan cycles in numbers that yield statistically valid predictions of behaviour, and to allow business modelling based on that behaviour. The original target of 2,000 customers would have yielded greater insights during the pilot phase. The reduction of the target for budgetary reasons is the main causal factor for not growing the customer base to this scale. In addition, the P3 customer acquisition model through field officers and ambassadors, which has yet to be implemented at any scale, needs to be tested. Finally, it remains to see how well placed competitors with substantial customer bases will respond as they lose customers to the JKS scale-up.

3. Project history and use of donor funds

The project has had three phases: Phase 1 November 2009 to June 2010; Phase 2 from July 2010 to March 2011; and Phase 3 from April 2011, running until the end of September 2011.

Phase 1 was intended to gauge customer response to the JKS core proposition in a range of target populations, to prove that sufficient customers would repay and to test the initial operational procedures and systems. Phase 2 aimed to

1 See section 6 for further assessment.

test for an economically viable product and a sustainable customer acquisition model and used four variations of the Phase 1 product. Phase 3, still in progress at the review date, aims to prove the profitability and scalability of the product evolved through Phases 1 and 2, and to gear up for commercial launch by cementing relationships with partners. Table 1 summarises the evolution of the JKS product.

4. Use of donor funds

The grants provided were USD 280,000 from FSD Kenya and USD 260,000 from CGAP. Table 2 summarises the projected outcome to the end of September 2011, based on actuals to end April 2011 and projected figures for the remaining five months.

Table 1: JKS products and variations phase 1, phase 2 & phase 3

	Phase 1	Phase 2	Phase 3
Fees and Features			
Starting loan size	3,000 KSh	3,000 KSh / 4,000 KSh	2000 KSh
Loan increments	3,4,5,6,8,10,12,15	3,4,5,6,8,12,15,18,21,25 / 4,6,8,12,15,18,21,25	Varies based on savings target
Saved proportion	33.33%	33.33% / 50%	50%
Savings target	30,000 KSh	30,000 KSh / 60,000 KSh	Tiered from 15,000-100,000 KSh
Activation fee	150 KSh	150 KSh	450 KSh
Loan disbursement fee	2%	2 %, 3%,5%	5%
Paybill cost to customer	0	0 / 10 / 20 KSh	10 KSh
Loan top-up	Not mentioned at outset	Not mentioned at outset	Yes – 10% disbursement of loan amount (- savings)
Early withdrawal	5% of total value withdrawn	5% of total value withdrawn	5% of total value withdrawn
Monthly savings bonus	None	None	10-100 KSh
Screening Criteria			
Mobile owner/SFC user	> 3 months	> 6 months	> 6 months
M-PESA user	> 3 months	> 6 months	> 6 months
M-PESA usage	> 4 send/receive transactions per month	> 4 send/receive transactions per month	> 4 send/receive transactions per month
Pre-deposit requirement	200 KSh (applied to 30% of P1 customers)	None	None
Defined purposes for savings and source of repayments	None	None	Savings Plan Call
Customer Interaction			
Regular / Slow Repayer	2 SMS 1 call per week / 3 SMS 1 call per week	50% fewer repayment reminder calls	Distribution Method
Agent Model	Field workers/MVK representatives	M-PESA agents, shop-keepers, field officers and referrals	Field officers, partners and ambas-sadors
Referral incentives	None	None	Customer Bonus Match Customer Completion Bonus (140-400KSh)

Table 2: Budget and expected outcome

Budget item actual	Actual	Actual and projected		Total
	Phase 1	Phase 2	Phase 3 Actuals to end April 2011 plus projected to end September 2011	
Loan Capital	1,040	2,636	4,806	8,483
Customer Interactions	4,217	9,394	7,513	21,124
Marcoms and distribution	4,210	10,797	17,724	32,731
Research and CRM	7,633	20,638	26,504	54,774
IT and Tech	64,128	40,560	5,234	109,922
Project Manager	50,394	52,761	37,114	140,268
Start-up business costs	10,279	68	19	10,366
Ongoing business costs	36,158	17,353	39,808	93,318
Travel	27,537	10,890	8,168	46,595
Total	205,596	165,096	146,890	517,582

These projections indicate the project will be completed within budget.

5. Commercial viability of JKS

Explicitly there was not an expectation that JKS would reach sustainable commercial viability in the pilot. In terms of demonstrating there is a viable business, JKS has shown that the P3 product and price points are acceptable to customers, and potentially commercially viable under certain assumptions. Most unit costs have been established. However, it remains to prove the product at scale, and in particular: to understand customer behaviour with a much larger sample, through several loan cycles; and to understand the dynamics and costs at scale of the field officer and ambassador customer acquisition model. This understanding needs to be gained during the next phase - the "alpha" phase - that will involve commercial roll-out in one region, and scaling sufficiently to prove or disprove commercial viability.

Related to this, the current financial model of the business allows for the independent variation of all key revenue and cost drivers in any particular combination. The complexity of the product, and the sensitivity of profitability to the speed and timing of repayments across different customer segments and to the performance of the customer acquisition channels make JKS a good candidate for simulation modelling. Once the distributions of customer behaviour and acquisition performance are know, a simulation model will provide a better perspective on future outcomes, and one from which investors will be able to take more comfort than the current scenario-based model.

JKS appears to overcome any regulatory hurdles through a partnership with the Commercial Bank of Africa (CBA), under which arrangement JKS will act as agent for CBA and therefore the partnership will be able to take deposits. It is expected that a legal agreement cementing the partnership and written no objection of the Central Bank of Kenya (CBK) will be concluded by end September 2011. Conclusion of this agreement is a precondition for being able to proceed with the alpha phase.

Our view is that there will be a commercial threat from substitute products and perhaps to a lesser extent from new entrants. The evolution of mobile money in Kenya has been rapid and there are now many market participants and many products. Products are still predominantly payment based, but the ubiquity of M-PESA makes the market easy to enter. It should be anticipated that all serious market players will roll-out or continue to roll-out mobile money solutions and that these will include savings solutions. JKS recognises this threat.

The main competition is likely to come from commercial banks, particularly since the premise that JKS's customers would be unbanked rural people does not hold for the pilot.[2] In fact, JKS customers are likely to be predominantly urban, banked (or multi-banked) and financially aware. Of the small sample of P3 customers' data available for the review, 43% had accounts with Equity

2 This does mean not that JKS customers are not poor. With the small number of customers we interviewed, we asked the ten questions used in the Progress Out of Poverty Index for Kenya. These questions are a subset of the questions used in the national household survey and give rise to a weighted score that gives a probability of an individual being below a particular poverty line. On aggregate for our small sample, the probability of being below a poverty line of USD 2.50 per day in 2005 PPP was 41%. This is not a statistically valid finding, but we found that JKS were comfortable answering the ten questions, and as the project moves to scale it would be useful for CGAP and FSD to understand the impact on poor people. Collecting the information should be low cost and straightforward. A sample size of just under 2,000 is required for a 95% confidence level +- 2%.

Bank, 22% with Cooperative Bank, and 16% with KCB.[3] 63% were urban. As JKS acquires scale, and its business becomes visible to these banks, it should be expected that they will enter the mobile savings product market. Some have already stated their intent to do so. It is recommended that JSK evolve a contingency plan to respond to spoiler products.

6. Customers and their perspectives

Using data available from the 183 P3 customers that had signed up at the time of the review, some descriptive statistics were prepared. Inferential analysis is outside the scope of the review. The sample comprises approximately one-third rural and two-thirds urban customers, approximately equally male and female. Customers are mainly between the ages of 25 and 54, have on average 3.4 children, and are predominantly in retail or other "business" activities (70%). Employees account for 12% and artisans for 9%.

Customers had multiple means of saving and multiple reasons for saving. During Savings Planning Calls when asked about current savings methods, more than 85% of customers stated they were banked, about 30% saved in a ROSCA, 14% in an MFI and 11% said they used their M-PESA account to save. Two categories dominated customers' reasons for savings. Overall 75% said they were saving for business expansion, mostly to purchase stock. 58% percent said they need to save for school fees. 15% said they were savings to start a business. Only small percentages of customers cited other reasons for saving.

Customers expressed "savings challenges" in terms of things they feel inhibit their ability to save. The regular payment of school fees topped the list for 26% of customers. Lack of savings discipline, medical expenses and other family expenses were other important inhibitors.

With regard to loans, more than two-thirds of customers said they would repay from business income. 6% said they would repay from salary, and 5% from restructuring their existing savings habits (to channel money into JKS). About 7% said they would repay from better savings discipline or reduced consumption. 4% gave no source, 4% said they would repay from their chama drawdown and 1% said they had no plan. This latter group are risky.

On use of loans, nearly half of all customers said they would buy stock for resale and 17% said they would use the money to buy raw materials. 14% said they would use the funds for other business expenses. About 13% of customers said they would keep the loan (ie not spend it) and repay. For some customers this is a means of getting to higher loan cycles because the amount of the first two loans is too small to be useful to them. It is still too early to reliably interpret information about repayment. At the time of the review, about 30% of customers were on loan cycle 1, 23% on loan cycle 2, 25% on loan cycle 3, 17% on loan cycle 4, less than 4% on cycle 6, less than 2% on cycle 7 and less than 1% on cycle 8.[4] In addition, the jinusuru feature that allows customer to top-up their loans before a cycle is completed had only just been introduced, and only two customers had availed of the top-up.

The review interviewed ten customers in the field. Two customers said for them JKS loans were more important than savings. One gave savings and loans equal weight. The other said that savings was more important for them. Nine out of the ten had saved previously, and nine out of ten had used their loans to support their businesses. Seven said they thought JKS pricing was fair, two thought it cheap and one though it expensive. Things about JKS they particularly liked were the follow on nature of the loan cycles and that JKS kept their savings secure in a way that prevented them from spending it until they reached their target. Six of the customers expressed a wish to borrow larger amounts, particularly after they had completed their first set of loan cycles.

7. Hypothesis testing and lessons learned

The pilot has demonstrated that the mobile channel can be used for a combined savings and loan product that poor people can use. All JKS customers are required to be prior M-PESA users, which self-selects for people familiar with the technology. Human contact has been minimised, but not eliminated. The initial recruitment and sign-up process involves some face-to-face contact, although part of the screening process can be conducted by telephone. Subsequently, SMS and phone calls are the main means of contact. In sum, JKS has demonstrated a working product, with substantive elements of P9 and with substantively less human contact than conventional products.

The hypothesis that customers would walk away with the first uncollateralised loan has not been substantiated. It remains a risk at scale. There is no evidence that customer usage suffers from lack of face-to-face interaction. Although trust is an issue until JKS gains scale and benefits from association with the CBA brand, customers have identified clear benefits in terms of privacy, certainty of loan disbursement, and time savings that are advantages over traditional products. Customers have shown themselves willing to pay and price points have been established. The fact that JKS shares the transaction charges with customers means that from the customer perspective JKS charges are cheaper than their normal M-PESA transactions. Customers understand the product. It takes between 15 and 30 minutes to explain in the first instance.

3 The Finscope 2009 Financial Inclusion Survey shows 67.3% of the Kenyan population are financially included, 22.6% have a bank account, 17.9% use MFIs/SACCOs and 27% use informal products. 32% are excluded. Based on the small sample analysed, JKS customers are nearly four-times more likely to be banked than the population overall. Of the sample evaluated about 2/3rds of customers were urban. JKS analysis through phases 1 and 2 indicated better performance from urban customers. High population density in cities and greater concentration of M-PESA useage also point to a commercial venture concentrating on the urban population.

4 There were no customers on loan cycle 5 at the date of the sample.

It remains to prove the profitability of P3 at scale. The pilot had an initial target of 2,000 customers, but the need for three product cycles and budget constraints mean that this scale has not been achieved and customer behaviour through several cycles of the final product is not yet understood.

The pilot reflects the way in which microfinance transactions are likely to evolve globally, and the project is consistent the CGAP and FSD mandates and justifiable use of grant funds to test the concept in an arena where savings propositions for the poor are few, as yet. The learning from this project is sufficient for implementations in other countries to go faster and potentially catalytic of earlier stage private investment. Learning can be improved further if the analysis of the product at scale is later available.

The pilot has achieved much in the time available. With hindsight, testing the assumptions upon which the initial financial model was based (particularly on securing preferential rates and fees from Safricom) would have indicated a need to start with higher price points. As a result, there might have been less need for experimentation and a longer P3 phase which garnered more customers. It would be helpful as a general principle to ensure that future pilots do amass sufficient customers for valid statistical analysis of behaviour, and to have a definition of the data needed about customers and transactions from the outset. Although the product is a savings product for customers, it is also a loan product and the management of the product needs to incorporate well proven elements of retail banking technology, specifically credit scoring and aged analysis of debt. The introduction of a robust scoring system, to avoid subjectivity in customer screening at scale is recommended.

Finally, although the portfolio of savings products launched in partnership with CBA is scheduled to expand, with two new pipeline products (M-Chama as a group savings product, and M-TotoGoals as a savings product for new mothers), there is no follow-on product for users of P3 who have reached their savings targets. There is strong customer interest in this, and it is recommended that a follow-on product, or at least a strategy for customer retention in the JKS CBA partnership, is developed rapidly.

Chapter 1

BANKING OUTREACH IN KENYA

An Equity Bank mobile banking unit in Wajir, north eastern region of Kenya.

1.1 HISTORY

From early 2000, at a time when the mainstream banks had withdrawn from rural Kenya, leaving the population with a high demand for banking services and limited access, Equity bank sought to regain this territory by building out a network of satellite branches through its Cell Distributed Banking strategy.

This strategy made use of a fleet of "mobile banking units" connected to the bank's back-office via a GSM connection. The mobile banking units were primarily used to transport staff and equipment to Equity's rural "satellite" branches, but were also enabled to undertake road-side banking. The "mobile" element of the strategy was helpful in so far as it build brand awareness in the population surrounding each satellite branch, but had very limited functional utility.

The step-change in the provision of branchless banking services came as a result of the development of M-PESA by Vodafone and Safaricom. With support from a DFID grant (through the Financial Deepening Challenge Fund), Vodafone initially envisaged the development of a mobile phone based transaction ("Mobile Micro-Finance") system that would enable financial deepening, ultimately increasing access to financial services for people on relatively low incomes. A number of individual banks and/or MFI's had been pioneering the use of new technology to facilitate the development of discreet financial products/services. However, significant opportunity and transaction costs had been incurred, with only limited learning taking place outside the individual institutions. In the light of these experiences, the Vodafone project represented a step-change opportunity on account of the leveraged technical capacity/capability that it would bring to bear upon the development of the necessary technology.

Through the pilot testing stage (based on perceived customer requirements) the initial Mobile Micro-Finance model was adjusted to become a person-to-person cash transfer service, or "M-PESA". M-PESA was launched into the market in July 2007 and by September 2010 had 9 million registered customers (60 percent of Safaricom's customer base, 23 percent of the Kenyan population, and 40 percent of Kenyan adults).[5]

The events that led to the rapid uptake of M-PESA have been described as representing a "perfect storm"[6] of supporting conditions. These included: available risk capital from DFID; a comparatively benign regulatory environment with regulators comfortable to develop "appropriate" regulation; and a mobile operator with dominant market-share. These favourable conditions enabled Safaricom to grow M-PESA rapidly, and develop a dominant position in the market. Meanwhile, the banks and other financial institutions were comparatively slow to recognise the potential for a mobile network operator to enter and initially capture the mobile financial services market.

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5 The 2009 FinAccess survey (FSDT [2009a], p. 16) confirmed that 40% of adults had used M-PESA.

6 Nick Hughes. Personal comment.

1.2 RECENT DEVELOPMENTS

The market has responded to M-PESA's success and Mas and Radcliffe[7] state that by January 2010 at least two banks, Family Bank and Kenya Commercial Bank (KCB) were using M-PESA as a mechanism for customers to either repay loans or withdraw funds from their banks accounts. By the end of 2010 Orange (Telkom Kenya), yu (Essar Telcom) and Airtel (Bharti Airtel) had all introduced mobile money services.

The Kenyan market continued to evolve rapidly and a "brutal price war"[8] for voice data services has been underway since Bharti Airtel acquired Zain's property in Kenya with prices for voice data services being cut by as much as 80 percent - leading one Safaricom representative to declare "voice is dead".[9]

In this context, the addition of value added services (now including mobile financial services) is considered to be an essential element of mobile network operator's business models, while a number of financial institutions are seeking to enter the market. The most recent entry is that of the Kenya Women's Finance Trust (KWFT) - originally a potential partner for Vodafone's Mobile Micro-Finance pilot – which in June 2011 announced its intention to roll out mobile banking (ultimately) for its 450,000 clients who will be able to save and withdraw from the "comfort of their businesses and homes".[10] KWFT has been seeking to boost deposits since CBK awarded it a deposit taking licence in 2010.

A 2011 study identified that over 300 formal businesses that are integrated with M-PESA and other mobile money services;[11] and almost 90 formal financial institutions that had integrated their operations with mobile money (primarily M-PESA) with few providers that did not have mobile money integrations completed or underway.

Safaricom itself suggests there are more than 600 products and services currently associated with M-PESA[12] and banks and other non-bank financial institutions have been entering the market in a number of forms. The 2011 study suggested that *"an ecosystem of firms has sprung up to facilitate the technical integration of existing financial institutions back end systems with the new mobile money platform.... a number of innovative new businesses and 'pure play' start-ups which operate solely over the mobile money platform."*

A selection of the services currently available in the market is shown in Box 1. The market is crowded with products, although none yet closely resemble JKS. Some competitors are greater threats than others to the JKS proposition, particularly the larger commercial banks and some MFIs.[13]

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7 *Mobile Payments Go Viral: M-PESA in Kenya*, Mas I and Radcliffe D, in *Yes Africa Can: Success Stories from a Dynamic Continent*, World Bank, 2010.

8 TechCentral, January 2011.

9 Personal communication.

10 *KWFT to roll out mobile banking*, Capital FM Kenya, reporting on 21 June 2011.

11 Emerging Platform: From Money Transfer System to Mobile Money Ecosystem. Kendall, J. Et al. Legal Studies Research Paper Series No. 2011-14.

12 Personal communication.

13 See section 6.1.4 for further assessment.

Box 1: Mobile banking services in Kenya

- Airtel Money: The second largest mobile money system in Kenya offering person-to-person transfer, bill payment, and point of sale functionality.
- Beyonic Gift Box launched in December 2009 in Uganda, allows its users to purchase and send gifts, airtime, store, restaurant and ticket vouchers to Kenya using M-PESA or Airtel.
- Cellulant offers a range of mobile banking services. For example Cellulant's service Lipuka enabled DStv customers in Kenya to pay their monthly bills via Safaricom M-PESA. CoreTEC offers a suite of M-PESA integration services for savings and cooperative credit organizations (SACCOs) and MFIs in Kenya.
- ePAY KENYA markets itself as "your gateway to global payment" and leverages Moneybookers, M-PESA, and Airtel Money to enable users to send and receive e-payments globally.
- Essar Telecom (yu) launched yuCash, a mobile money service in December 2009. yuCash recently partnered with Equity Bank to enable its customers to link their yuCash wallet to their Equity Bank account.
- MobiPay partners with banks, operators, credit cards, and other financial service providers to enable delivery of mobile payments across all network operators.
- Orange Telecom launched Orange Money in 2010 in association with Equity Bank offering a front-end for Equity Bank accounts, allowing it to exceed regular transaction and m-wallet balance thresholds.
- Paynet's PesaPoint provides cardless transactions at their ATMs for both M-PESA and Airtel Money users as well as provides an aggregator service to enable other banks' ATMs with the same.
- PesaPal lets online merchants collect payments via M-PESA, Zap, Google Checkout, and a range of common credit cards.
- Equity Bank M-Kesho enables customers to move funds to and from an interest-bearing account with Equity Bank.
- Tangaza enables both local and international money transfer as well as services like utility bill payment and remote airtime purchase.
- Tangazoletu's Spot Cash enables MFI and SACCO customers to withdraw money from and deposit money to their savings account via a simple text message to the MFI or SACCO. The money is transferred to the member's M-PESA mobile wallet.
- Tristar's Nilipe Project allows merchants to accept online payments – both mobile money transfer and airtime – on their websites, including from M-PESA and Airtel in Kenya.
- JamboPay is an "Online Checkout and Micro-Payment Service" which enables merchants to accept online payments via M-PESA, Zap, yuCash, and Visa credit or debit cards.
- Zege Technologies' M-Payer banks, SACCOs, insurance companies, microfinance institutions and other service providers to both deposit and withdraw money via the mobile channel.

Chapter 2

STAKEHOLDERS' MOTIVATIONS AND EXPECTATIONS

2.1 MOBILE VENTURES KENYA LIMITED (MVK)

MVK is a new, for-profit organisation formed in 2009 to build innovative mobile commerce businesses in Kenya and the region.

MVK's mission is to test and scale new mobile services tailored to the needs and habits of low income and poorly served customers. MVK aims to leverage the high level of mobile phone penetration in Kenya and the recent rapid uptake of low cost mobile phone payment services, with more than 9 million people in Kenya using the M-PESA mobile payment service.

MVK's expectations of the pilot are to have a tested combined loan and savings product modelled on P9[14], but delivered through the mobile channel, ready for commercial roll-out; a good understanding of the dynamics of all of the revenue and cost drivers; and a proposition that is attractive to private investors.

2.2 CGAP

The CGAP Technology Program is co-funded by the Bill and Melinda Gates Foundation (BMGF) and the UK Department for International Development (DFID). It aims to improve the lives of millions of poor people by informing and advising financial institutions and other actors to help them expand access to financial services in a sustainable way through the innovative application of technology.

CGAP's Technology Program experiments with unproven technologies and new business models to understand how they will expand access to finance for the poor in different contexts. CGAP operates by conducting research, co-funding projects, and working with regulators to develop a conducive regulatory environment. In this instance CGAP has co-funded the support to MVK with the Financial Sector Deepening Trust of Kenya (FSD Kenya).

CGAP's expectation of the project was to understand customer behaviour and the commercial viability of the model to enable broader lesson learning for the wider industry.

2.3 FSD

FSD Kenya is an independent trust established in 2005 to support the development of financial markets in Kenya as a means to stimulate wealth creation and reduce poverty. Working in partnership with the financial services industry it aims to expand access to financial services among lower income households and smaller enterprises. It is funded by DFID, BMGF, SIDA, The World Bank and the Kenyan Ministry of Trade and Industry.

FSD's state focus is developing the financial services industry by working with a diverse range of financial institutions, business service providers and support institutions. In doing so it aims to complement other initiatives such as reforms in the enabling environment and other programmes.

FSD's stated objective for the project was the development of a commercial savings and loan scheme targeting low income rural people. FSD regarded the project as an action research project and did not expect MVK to reach commercial sustainability within the project period. Rather, the aim was to convincingly demonstrate that there is a basis for creating a viable business using the product developed by the project.

2.4 SAFESAVE

P9 is a product conceived by Stuart Rutherford and implemented in SafeSave, Bangladesh. The product helps the poor to manage liquidity in the face of low and irregular incomes by taking deposits but at the same time offering liquidity in the form interest free loans (with a commitment fee). The P9 concept underpins the entire project. SafeSave is interested in the potential for using the mobile channel in the future.

14 See SafeSave.

Chapter 3

PROJECT HISTORY AND USE OF DONOR FUNDS[15]

3.1 PHASE 1: NOVEMBER 2009 - JUNE 2010

3.1.1 Objective

The first phase of JKS launched its initial product (P1), a flexible combined loan and savings product modelled on P9, but delivered through mobile phone technology. The main objectives during Phase 1, as documented by JKS for the steering committee, were to gauge customer response to JKS' core proposition in a range of target populations, prove that sufficient customers would repay and test the initial operational procedures and systems developed.

3.1.2 Summary of activity

Preparations for Phase 1 began in November 2009 and included building a business model; developing required legal, regulatory and partnership agreements; mapping technical functional requirements; and designing the pilot process and approach. During this time, key parameters and deliverables were agreed by the Steering Committee and the gateway testing for each of three phases was outlined. Jonathon Petrides was recruited to manage JKS and the grants from CGAP and FSD Kenya.

The P1 product was launched in February 2010, targeting up to 150 customers across three pilot sites (two urban sites and one rural site). This product closely resembled P9. It offered customers a series of loans of increasing sizes (of which 33 percent was automatically set aside for savings) delivered through M-PESA. Customers' willingness to pay for this product was tested through an activation fee of 150 KSh and a commitment fee of 2 percent of the loan. The P9 option to top-up the loan during the loan cycle was not offered to JKS customers at this time. An additional component, a requirement for a pre-deposit payment of 200 KSh, was piloted at one urban site during Phase 1.

Customers were recruited through the use of trained field officers. Criteria to qualify for JKS were established. These and included: being a Safaricom user for more than three months; using M-PESA for more than three months; and having M-PESA transactions at least 1-4 times per month.

By March 2010 JKS had 145 active customers. An initial assessment of customer behaviour showed: customers were readily interested in the JKS product, when properly explained could understand the product in about 15 minutes; were interested in introducing the product to others (and in whether or not JKS could pay a commission for introductions); and accepted the fee levels.

The possibility that customers would default on mass on the first loan, because it is only partially collateralised by the activation fees, did not materialise.

Early insights from P1 showed that there was no notable difference between customers that had paid the pre-deposit and those that had not. Since a lower conversion rate of applicants to active customers was experienced with the pre-deposit customers, the pre-deposit requirement was dropped for Phase 2.

A telephone survey was carried out with 50 percent of the customer base to obtain information about customers, their experience, their views about JKS and plans for savings and loans. In addition, financial modelling indicated that the P1 product was not commercially viable. This resulted in a series of changes for the P2 product.

3.2 PHASE 2: JULY 2010 – MARCH 2011

3.2.1 Objective

The objective of Phase 2 was to build and test an economically viable product and a sustainable customer acquisition model, which entailed launching four variations of the original P1 product, and to further assess customer repayment behaviour.

3.2.2 Summary of activity and changes

In March 2010 JKS began to redesign the product and operational processes. From March to May 2010, JKS designed four variations of its initial product to test and considered a range of customer acquisition models to pilot.

During this start-up of Phase 2, JKS also redesigned its management information system (MIS), switching from an excel-based tracking system to an Azure platform for managing customer information. This MIS was built in configurable, secure code with a fully scalable database supporting a user-friendly interface for back office staff.

In July 2010, JKS launched P2, with a target of 450-500 customers across six sites (three rural and three urban sites). In each pilot site, one of four product variations was offered. These variations altered the main drivers of the JKS business model – commitment fees (2/3/5 percent), transaction fees (0/10/20 KSh) and saved proportion of the loan (33/50 percent).

To decide on a scalable customer acquisition model, JKS tested a range of models: M-PESA agents, shopkeepers, loan officers, and customer referrals. Over the course of Phase 2, recruitment through M-PESA agents and shopkeepers did not prove successful. Agents and shop-keepers were found to be pre-occupied with their business and would not find the time to explain the product. This finding was reflected in the customer acquisition model for Phase 3.

During Phase 2 JKS also began to carefully consider the appropriate levels of customer interaction, as labour costs were a significant element of JKS' operational costs.

[15] See Appendix 1 for further details on product evolution and hypothesis testing.

In August 2011, a focus group with customers in Tala showed that some customers were "planners" while others were "happy-go-lucky", and that the planners understood the product and its benefits much more than the "happy-go-lucky" ones. Another observation was that other organisations put on more pressure to repay than JKS, and so their debt was prioritised. The issue of trust in a new product, given that many Kenyans have had bad experience in the past with microfinance schemes, was identified as still being a challenge. Some customers felt that the lack of a JKS physical presence made trust more difficult. Some suggested engaging with teachers or CBOs would help if these people endorsed JKS. Customers generally valued the privacy of transactions so that chamas, bank tellers and family and friends are not aware they have funds and do not make calls on them.

As one of the key responses to this, mid-way through Phase 2, the "Savings Plan Call" was added as an additional step of the customer screening process. The purpose of the call is to enable customer service representatives (CSRs) to assess whether customers understand the JKS product, whether they have a clear purpose for the loans and savings, and to provide information on their previous savings behaviour. The Savings Plan Call then enables CSRs to suggest an appropriate savings target, based on customer responses.

As customers began completing their loan cycles, JKS considered the possibility of a follow-on loan product for customers that reached the 100,000 KSh savings target. In November-December JKS investigated the feasibility and interest in a larger loan product. At that time, JKS decided to focus on the core product, and not to work on a follow-on product.

The last area of work for JKS during Phase 2 was to explore partnership options for a commercial scale-up. These included partnering with large and small banks, Safaricom, and MFIs, as well as proceeding as an independent organisation. Equity Bank and CBA or another large bank seemed the best prospects at this stage.

It also became apparent during Phase 2 that budget constraints were going to impact on the achievable size of the customer base for Phase 2 and the target of 2,000 customers for the end of Phase 2 was reduced to 1,200 in agreement with the Steering Committee.

Further analysis of P1 data during the Phase 2 showed that customers tended to increase the size of their repayments as they progress to larger loans, but that there were wide ranging differences between customers. The data also showed some consistency around the average number of payments needed to complete each loan cycle. Amendments were made to the financial model accordingly.

3.3 PHASE 3: APRIL 2011 – JULY 2011

3.3.1 Objective

During Phase 3 JKS has aimed to prove the profitability of its product through sustainable repayment rates,[16] demonstrate the scalability through its acquisition channel strategy and improved efficiency, and to cement the relationships with partners for a commercial scale-up.

3.3.2 Summary of activity and changes

The Phase 3 design reflects the cumulative learning and insights gained through the operation and management of Phases 1 and 2. It has been focused on finalising the product, processes and partnerships required for a commercial scale-up of JKS. The process of identifying investors was commenced.

The product offered in Phase 3, P3, was altered to improve the commercial viability of JKS by increasing its cost to the customer and by providing incentives for customers to repay more quickly. The P3 product increased the loan costs to customers – setting the commitment fee to 5 percent, raising the activation fee to 450 KSh and introducing transaction charges at 10 KSh. The saved proportion of the loan is increased to 50 percent, and customers are now able to personalise their savings target. In Phase 3 the initial loan was lowered to 2,000 KSh to further screen for customers that are interested the long-term benefits of JKS. A monthly savings bonus was added to the JKS offering to incentivise customers to meet their monthly savings target.

The customer acquisition model was finalised to include: field officers, customer referrals through the Ambassador Program (good customers who are rewarded for introductions of other good customers), and partnering organisations. This reflects outcomes from Phase 2. The application form and Savings Plan Call constitute the customer screening process.

JKS customer servicing processes were also altered to improve efficiency and lower operating costs. Customer interaction intensity was reduced, with repayment reminder calls reduced by >50%, but SMS content was enhanced to improve relevancy and focus on the attainment of monthly personal targets. The MIS enables CSRs to send and monitor communications more efficiently. Customers were also passed on a share of the M-PESA transaction charge at 10 KSh per repayment and a higher activation fee of 450 KSh was introduced.

In March 2011, JKS made the decision to partner with Commercial Bank of Africa (CBA). In Phase 3 JKS began negotiations with CBA. The MVK team has been working with CBA and CBK to define an organisational structure that accords with new legislation and guidelines. The lead JKS product requires the maintenance of both a deposit and credit balance for each customer. These accounts will be legally held by CBA, but in the commercial roll-out will be serviced and maintained by a "NewCo", under an agency contract which will include a subcontracting of banking systems to the NewCo.

16 Repayment analysis for P1 showed 7% non-repayers for loan 1. P2 had a higher rate of non-repayers at 29% for loan 1 on aggregate. Three locations: Eastleigh (53%), Tala (44%) and Kambu (35%) pushed up the aggregate level. Proving a high level of repayment is achievable is important for P3.

During Phase 3 JKS also made the decision, following feedback from commercial investors, not to proceed immediately with a national roll-out but instead launch a regional commercial scale-up with CBA. This will enable JKS to test its Phase 3 product and its profitability on a larger scale before seeking the significant investment required for a national or international product. Finally, the regional commercial scale-up will also allow JKS to test the development and impact of creating and marketing its brand.

Overall Phase 3 had to test three remaining variables for JKS: repayment rates across a significant cohort of customers on a single JKS product, customer acceptance of an activation fee of 450 KSh, and a cost-effective ratio of field officers to number of enrolling customers. Customers have accepted the 450 KSh activation fee, but at the time of this review operations had yet to reach a scale[17] or running time to make an assessment of repayment rates and the cost effectiveness of the field officers. JKS will continue to collect and analyse the data emerging from P3 customers.

3.4 USE OF DONOR FUNDS

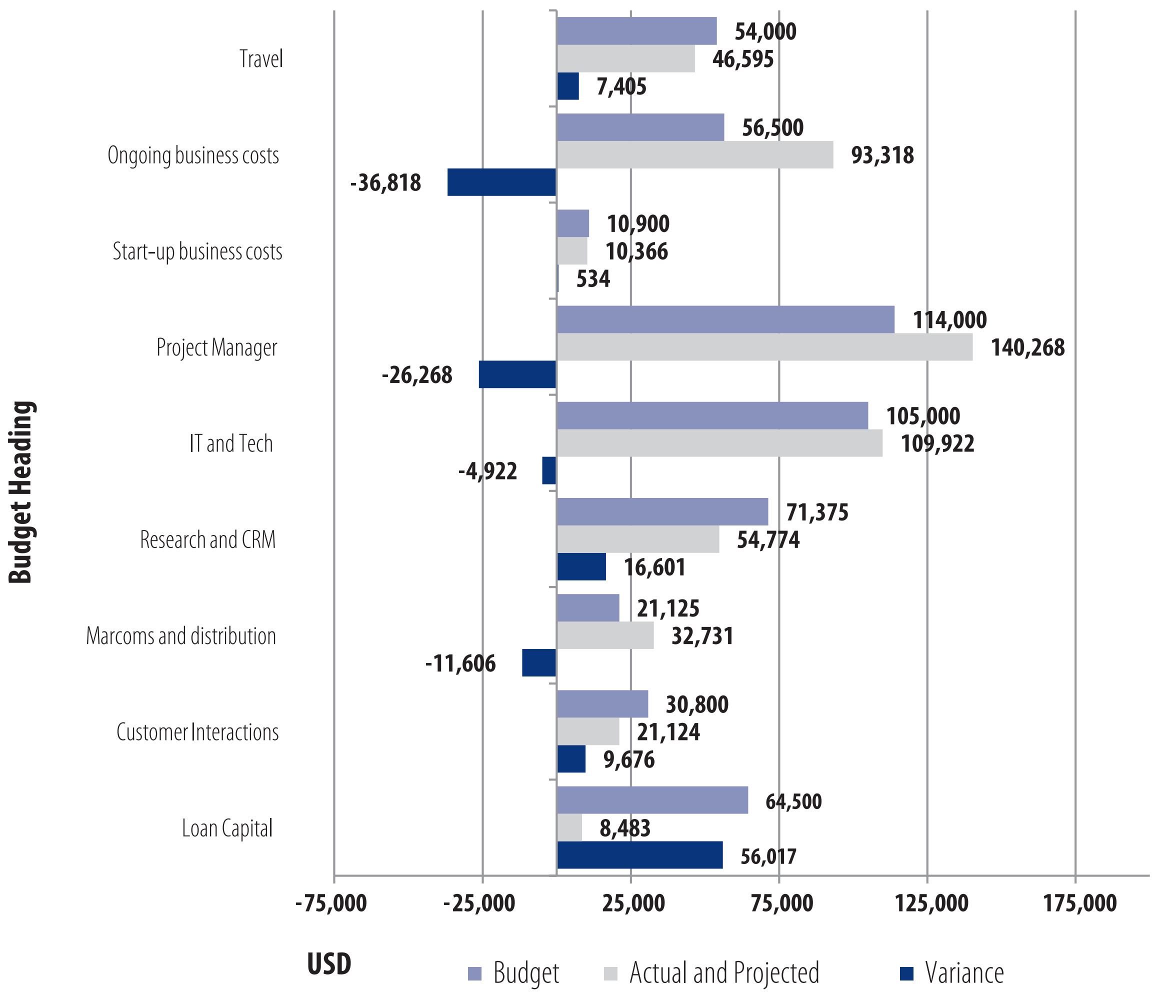
3.4.1 Budgets, sse of funds and variance

The project has been funded by two grants, one from FSD Kenya for USD 262,200 and one from CGAP for USD 260,000. Figure 1 shows the budgets, actual and projected expenditure for each main budget line.

At the date of review there were anticipated savings against loan capital costs. These arise because loan repayments are credits back to the budget line and because the original expectation was that 2,000 loans would be made. Otherwise, on-going business costs, project management costs, and marketing communications have significant variance over budget. There are small variations over budget for IT and Tech and small variances under budget for travel and customer interactions. There has been no budget revision since inception and given the action research nature of the project and the significant changes with product and delivery as a result of findings, significant variances between budget lines are to be expected. The review is not required to carry out any audit activities and the commentary here relies on figures provided by JKS.

[17] JKS had 183 P3 customers at the time of the review.

Figure 1: Project budgets, actual and projected expenditure and projected variances at project completion



Chapter 4

CASE STUDIES

Juice vendor "Peter" with JKS customer service representative Ciiru.

4.1 PETER

Peter works as a fruit juice vendor in a market in Nairobi, a small business he has managed for eight years. To supplement his income from his main business, Peter also makes occasional trips to Tanzania, where he buys textiles and handbags that he can then sell to friends and family members back in Nairobi. Through these two jobs, Peter supports his wife and four children.

Peter joined Jipange KuSave in May 2011, setting a savings target of 15,000 KSh. When he heard about JKS from another customer, Peter was drawn to the way that Jipange KuSave would help him to build up his savings. When he reaches his savings target, Peter has some specific business investments he would like to make, including buying a popcorn machine and investing in a refrigerator to improve his fruit juice business.

Although Peter is only on his third loan, he has already seen the benefits of JKS. With his first loan, he bought a set of glasses to serve customers. His second loan was spent on buying cakes to serve with the juice, which proved a popular item with customers.

In the past, Peter had used a savings account through a local bank. Recently, when he tried to apply for a loan to support his business, he was told that he didn't qualify. After that experience, Peter started to use Jipange KuSave.

4.1.1 "Straight and fast"

Peter says that the application and eligibility criteria for JKS are straightforward. He thinks that saving is more important than loans, but he appreciates that the process of receiving loans is transparent from the beginning. He likes that you qualify for your next JKS loan as soon as you complete the previous loan cycle. According to Peter, compared to a bank, Jipange KuSave is much more convenient.

4.1.2 Saving for the future

"Without Jipange KuSave, I would find it difficult to save. I would have to go back to my life before Jipange KuSave - I couldn't expand my business", Peter says.

Jipange KuSave helps Peter to meet his immediate business needs while saving for larger investments in his business in the future.

4.2 MOHAMED

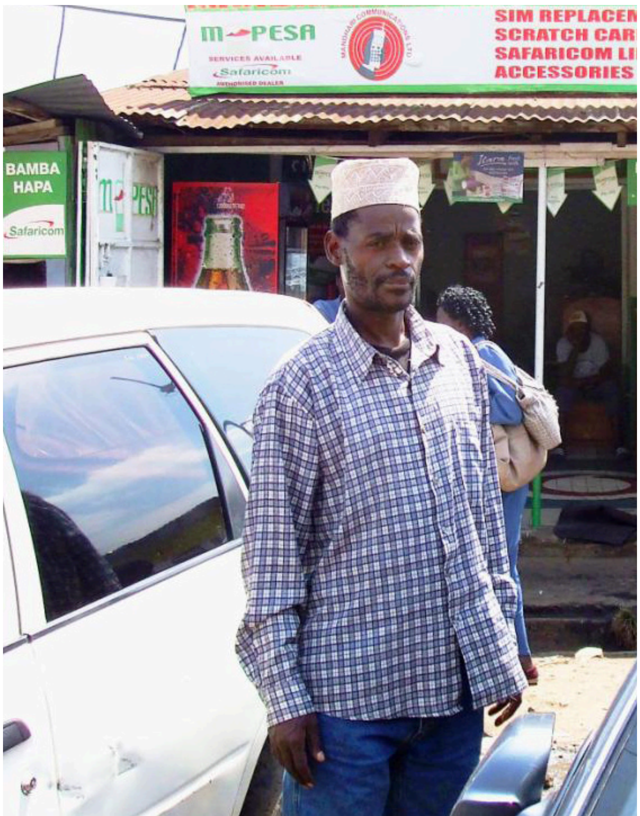
Mohamed has been working as a taxi driver for 15 years, basing his business in a market area in Nairobi. Every week Mohammed hires a car to use, mainly picking up passengers with their purchases around the market. Sometimes business is slow, and Mohamed struggles to make the payment to hire the car for the following week.

In the past, Mohamed has used banks and chamas to save and borrow money. He previously had a savings account with a local bank, but had to close it when he withdrew money for school fees for his four children. Mohamed also joined a scheme, where members are able to get a loan for up to 4,000 KSh and pay it back in small instalments every day, but he sometimes had trouble making the payments.

Mohamed joined Jipange KuSave in November 2010 and has a current savings target of 25,000 KSh. When he reaches his savings target, Mohamed wants to put it towards two main things. Firstly, he plans to use it for school fees for his children. Secondly, he hopes to use it to leverage a larger loan in the future, so that he can buy his own car. Although savings are important, Mohamed says the loans from JKS are the thing that helps him the most.

4.2.1 Providing support in difficult times

In the meantime, Jipange KuSave has helped Mohamed smooth out his income stream when his taxi business is not good. He has used his loans for his children's' school fees, for food for his family and for his weekly car hire fee. Mohamed likes that Jipange KuSave has a minimum monthly payment requirement, rather than the daily requirements set by another informal scheme he belonged to, as it gives him more flexibility in repayment.



Taxi Driver "Mohammed".

Mohamed sees Jipange KuSave as having a big impact on his business. Since his Jipange KuSave loans at times are used for his weekly car hire fee, JKS helps to ensure that Mohamed can continue to hire a car and earn income when business is slow.

4.3 ROSE

Rose is a wholesale green grocer in a busy urban market. Each evening she calls her suppliers and orders stock for the next day, paying them through M-PESA. By seven in the morning, Rose has sold her stock to the retail green grocers in the market. Through her wholesale business, Rose supports herself and contributes to the cost of her children's' university education.

In the past Rose has been part of merry-go-rounds to save and borrow money. With a group of ten people, Rose saved increasing amounts of money each cycle, but she fell sick and was not able to continue with payments. She also has an account with local bank to save money.

Wholesale Green Grocer, "Rose" (right) in conversation with JKS Customer Service Representative, Ciiru.

Rose first heard about Jipange KuSave from a JKS Ambassador, who is also one of her customers in the market. She was interested in JKS because it would help her keep a separate savings account, while providing her with loans to buy bigger purchases for her business and to help her to pay off her merry-go-round. When she signed up to JKS, Rose set herself a savings target of 100,000 KSh.

4.3.1 Securing her savings

Rose has saved before, but she says she finds it difficult when the money is easily accessible. When her savings are in her bank or M-PESA accounts, she often finds herself withdrawing her money and spending it on non-essential items. Rose appreciates that Jipange KuSave keeps her savings secure, and now she only thinks about withdrawing when she reaches her target. Rose is still deciding what to do when she reaches her target – she may continue to build up her savings and contribute towards university fees for her son.

Wholesale Green Grocer, "Rose" (right) in conversation with JKS Customer Service Representative, Ciiru

4.3.2 Expanding her business

In the market, Rose has often told her friends that one of the benefits of Jipange KuSave is that you can take your first loan without having to build a large amount of savings. Rose has been able to use her loans to successfully increase her business by expanding the amount of stock she buys daily.

4.3.3 Catering for the unexpected

Rose also appreciates the Jinusuru feature in the JKS product. Recently she experienced some unplanned cash flow and had to send money quickly. Jinusuru allowed her to draw out a small part of her savings to cover the emergency.

4.4 TIMOTHY

Timothy manages a firewood selling business in slum area of Nairobi. He has managed this business for five years and previously operated a kiosk in another market for seven years.

Saving has proved difficult for Timothy in the past. When business is slow, he is unable to sell his stock and putting away extra money for savings is challenging. He has tried to save on his M-PESA account, but finds that the money is too accessible. Eventually he will end up withdrawing it.

4.4.1 Supporting an expanding business

When Timothy first heard about Jipange KuSave from a friend, he was attracted to the availability of loans to use for stock for his business. He decided to join and has set a savings target of 15,000 KSh. With his savings, Timothy plans to expand his business and sell wood used to make furniture, as well as pay school fees for his three children.

Timothy has used the loans for both business and personal items. He has bought firewood to sell in his shop. In addition, Timothy has used part of the loans to buy food and a few personal items.

Timothy has used a Savings and Credit Co-operative (SACCO) and a commercial bank to obtain loans in the past. He prefers JKS to using a SACCO – JKS allows him to save faster and provides him with continual loans as he saves. Getting a loan from a bank can also be difficult and slow, and

Timothy says he would only be able to get one loan per year. JKS on the other hand provides Timothy with small loans throughout the twelve month period. He likes that as soon as he completes one loan cycle, he immediately qualifies for the next.

"I hope that with Jipange KuSave I can expand my business and better my life", Timothy said. If JKS didn't exist, he doubts that he would be able to grow his business.

4.5 JAMES

James is a second-hand clothes dealer in a poor area of Nairobi and has managed his business for the past ten years. He lives in a one-room house with his wife and son.

James has used a range of products to save, manage and borrow money. He is a member of three different merry-go-rounds, has bank accounts with two commercial banks, and has used a microfinance institution to obtain a loan with a group. He uses M-PESA for his business, allowing customers to pay him for clothing purchases via M-PESA if they don't have cash with them.

4.5.1 Secure savings

A friend and JKS customer first told James about Jipange KuSave. James registered with JKS because it provided him an opportunity and encouragement to save. "With Jipange KuSave, my savings are more secure. If they were in a bank, I might withdraw them", he says. James has set a savings target of 15,000 KSh for himself. When he reaches his target, he plans to either keep it for emergencies or combine with other savings and loans to build a house.

4.5.2 A better loan product

James still uses his three merry-go-rounds to save money, but he likes Jipange KuSave because it allows him to access loans quickly as he is saving. Receiving his next loan automatically after the completion of the previous loan is convenient and predictable. He also prefers JKS to group loan products. Previously, with his group loan from and MFI, one member failed to repay his share, and James as a guarantor is still is unable to withdraw the money he invested.

James appreciates that JKS provides him with access to loans quickly and has used them to purchase additional stock for his business in his first two loan cycles.

4.6 LILLIAN

Lillian is a green grocer in Nairobi, where she has been selling vegetables for the past year. Prior to that, she used to sell second hand clothes in a nearby market. Lillian has six children.

When her daughter was in a car accident last year, Lillian realised how important it was to build savings for emergency situations. At the time, she belonged to a chama, paying in 200 KSh a day. In February 2010 Lillian decided to join Jipange KuSave instead so she could save for school fees and emergencies in the future.

Lillian has a savings target of 15,000 KSh and is currently on her fourth JKS loan cycle. Since joining JKS, Lillian has used her loans to pay for school fees and rent. In addition, she has used small amounts to expand her business by buying more stock.

4.6.1 An opportunity to borrow and save

Before joining Jipange KuSave, Lillian was an unbanked customer. She didn't have a bank account and had never borrowed from a bank or microfinance institution before. Lillian feels that Jipange KuSave has provided her with an important opportunity. *"Without Jipange KuSave, I don't know what I would do. I have no education and no other way of borrowing or saving money"*, Lillian says.

After a few months of being a JKS customer, Lillian became a JKS Ambassador. Now she spends her free time at the market explaining the JKS product to friends and customers that come to her stall. She uses the JKS booklet to help her explain the product to potential JKS customers and provides them a first-hand account of how Jipange KuSave helped her. To date, Lillian has signed up three Jipange KuSave customers, and believes she'll be able to sign up many more people in the future.

Lillian: A Jipange KuSave ambassador

4.7 JOHN

John has been a driver of his own matatu (minibus) in Nairobi for eleven years and also manages a small kiosk business on the side. He lives in a two-room house with his wife and two children.

A friend and JKS customer/agent first told John about the Jipange KuSave product. He was interested in the fact that JKS would help him to save and accumulate significant funds for his future plans.

When John signed up for JKS, he set himself a savings target of 60,000 KSh. When he reaches his target, he plans to use the savings with his kiosk profit and other savings to buy a piece of land. John also has smaller savings goals: to pay for repairs and fuel for his matatu.

4.7.1 Supporting his business

John is currently on his fourth loan cycle with JKS and his loans have helped provide needed liquidity for his businesses. He has used them to buy fuel for his matatu and also to pay for stock for his kiosk.

4.7.2 Providing saving incentives

In the past John saved money through a commercial bank and a merry-go-round, and he has found that Jipange KuSave has advantages. When he saved with a commercial bank, he was not able to easily use M-PESA account to transfer money. The costs to transfer were high, and there would sometimes be a delay in confirmation of the deposit of the money in the bank. He likes that Jipange KuSave has helped him to set a savings target on a weekly basis, which encourages him to save regularly.

John currently belongs to a merry-go-round, which has forty members. While it is a good way to build up savings, it can take up to two years to get his savings due to the number of members. Jipange KuSave is faster and he is sure that he'll be able to access his savings after he reaches his one year target.

4.8 CHRISTINE

Christine owns a shop in a rural town, where she sells spare parts for bicycles. Previously she sold clothes in her shop, but over the past three years, food shortages and drought in her area have reduced the amount of money people were willing to spend on clothes. Christine has since found that selling parts for bicycles is a more regular and lucrative business in her town.

Christine has experience of using a range of financial products. She has an account with a local bank branch, she belongs to two merry-go-rounds and she has taken out loans from a popular MFI. Christine was able to borrow larger sums of money from the MFI to help pay for her daughter's university fees. However, she found that the process for obtaining the loan was difficult and she became frustrated when the

Christine at her bicycle spare parts and clothing retail shop.

MFI failed to follow her specific request for directing the loan into her own bank account. Christine had to borrow money from another person in order to ensure that her daughter was able to secure student housing. As a result, Christine is not interested in using the MFI again.

When Christine heard about Jipange KuSave, she decided to give it a try because it would help her to save, while providing her with small loans.

Christine set a savings target of 15,000 KSh. When she reaches her target, Christine will use her savings to invest in more stock for her business and send money to her daughter who is currently in university in Nairobi.

Christine is on her fourth loan cycle with Jipange KuSave. Sometimes, she uses the loans to send money to her daughter and sometimes she uses the money for personal items. Without Jipange KuSave, Christine would find it difficult to borrow money as she has no credit history with the banks.

Christine has recommended Jipange KuSave to both of her daughters, and she thinks that JKS could help them to build their savings as well.

4.9 ELIZABETH

Elizabeth is a trader in a Nairobi market, where she has been selling vegetables for the past twenty years. She has five children, and lives in small house nearby.

Green grocer Elizabeth.

Elizabeth belongs to a merry-go-round, as well as being a Jipange KuSave customer. Both products are important to her financial plans for the future.

4.9.1 Building trust in Jipange KuSave

While Elizabeth is part of a merry-go-round, she does not have a bank account and has never taken a loan out from a bank or microfinance institution.

Elizabeth first heard about Jipange KuSave when a JKS staff member was explaining the product to people in market. Initially, she was scared of signing up to JKS. *"I've lost my money three times before through loans schemes"*, she said. After some time, Elizabeth decided to try Jipange KuSave because it would help her to save. When she received her first loan immediately after being accepted as a JKS customer, Elizabeth gained trust in using Jipange KuSave. Now she recommends the product to other friends and family.

4.9.2 Long-Term Savings, Business Boost

Elizabeth was attracted to how Jipange KuSave would help her to build up her savings. With a JKS target of 100,000 KSh, Elizabeth plans to use her savings to buy a house. She is also saving for her children's school fees and to eventually buy a piece of land for farming. Jipange KuSave helps Elizabeth get closer to reaching all savings goals by keeping her money secure until she reaches her target. So far she has completed five loan cycles and built up her savings accordingly. "All my savings plans are with Jipange KuSave now", Elizabeth said.

In addition, Jipange KuSave has enabled Elizabeth to support her business operations. She is able to use her JKS loans to buy stock from other areas and sell it in her stall.

4.10 HENRY

Henry is an M-PESA agent and mobile phone accessories dealer in a rural town. During the week, Henry stays in at his agency. On the weekend, Henry travels to Nairobi where his wife and son live in a two-room house. His weekend trips also serve as an opportunity to buy supplies for his shop.

When Henry first heard about Jipange KuSave from a JKS staff member, he understood that JKS provided a good way to build up savings.

"Your savings are not easily accessible until you reach your savings target and you are encouraged to continually save", he observes.

As an M-PESA agent, Henry understands why using M-PESA is more convenient than using a bank. M-PESA provides quick service and allows customers to avoid the queues in banks. In addition, M-PESA branches are local, and almost everywhere. Finding a local bank branch, on the other hand, can be difficult.

Henry joined Jipange KuSave and set his savings target at 25,000 KSh. He plans to use this savings to pay school fees for his son. In addition to JKS, Henry also saves with a local bank branch. He finds that each organisation has its own advantages. In the future, Henry would like to accumulate enough savings to open another M-PESA agency.

Currently, Henry is on his third loan cycle and has used the loans to expand his business. He has bought phone accessories in Nairobi, which he can sell to customers alongside the services offered at his M-PESA outlet.

M-PESA Agent Henry (right) and JKS Distribution and Marketing Manager Denis

4.11 OBSERVATIONS

4.11.1 Attributes and perceptions

- Out of ten customers interviewed, two said that the most important part of Jipange KuSave was that loans are available. One thought loans and savings were equally important. Seven reported that the fact that it helped you save was more important.
- Nine out of ten customers had saved in the past.
- Customers reported that they liked how quickly their JKS loans were disbursed and that the qualified for the next loan as soon as they completed the previous loan cycle.
- Almost all customers mentioned that a benefit of JKS is that it keeps their savings secure until they reach their target and prevents them from spending it.
- Seven customers said the price of JKS was fair; two reported that it was cheap; and one reported that it was expensive.
- Nine out of ten customers used their loans to su pport their business.

4.11.2 Things to consider

- Three customers said that they would like to be able to borrow larger amounts after they reached the 100,000 KSh target.

- Three customers said that they wished JKS offered larger loan sizes.
- One customer said that he would like to have more flexibility about the monthly end date in case of emergencies (his house had burned down and he needed more time to make his monthly payment).
- One customer said that emergency loans were important, and that he only recently found out about Jinusuru.
- One customer said that he would like to be able to choose what loan cycle he started at.

The customers interviewed, for the most part, were financially aware and recognised the value of savings. These customers were discerning enough to identify where JKS had advantages over the competition: specifically, it helps them to save in a way other products do not; and the automatic sequencing of the loans saves them time and effort. Some customers, generally those who appeared to more established in business, also recognised that JKS serves some but not all of their needs and in particular were specific about loan sizes not being large enough for all business needs.

There was no explicit expectation that the JKS product would reach a sustainable commercially viable level during the project period. As an action research initiative the expected outcome was the convincing demonstration that there is a basis for creating a viable business using the product developed through the project.

Pilot testing of the P3 go-to-market product will be completed at the end of July 2011. A regional launch will commence preparation in August 2011 (with a targeted launch in January 2012), subject to funding available which rests on a licence being secured to permit commercial operations. This is referred to as the alpha phase, which will last 6 months and aim to build to scale in the target region. The region will be selected for population density, channel partnerships (CBA and Safricom presence) and operational efficiency.

Bridging debt finance from FSD is being sought for the alpha phase, a situation anticipated by FSD from the outset given the aim of the grant finance phase. The debt finance will be contingent on:

- A formal agreement between CBA and MVK to develop mSavings products commercially;
- Submission of an application to the Central Bank of Kenya for MVK to act as agent for CBA; and
- Firm evidence of interest from incoming investors.

If the alpha phase is successful, MVK in partnership with CBA will commence full scale national roll out, requiring additional investment of USD 2-3 million. MVK and CBA will collaboratively seek and assess external investors. No commitment to include external investors is currently agreed.

MKV believe that the first two of the bridging finance requirements are likely to be met in the near future, and given the commercial and regulatory sensitivities the review team has not held discussions with CBA and the Central Bank.

A business model based on the findings of the P3 product is not yet available.

Chapter 5

COMMERCIAL VIABILITY OF JKS

5.1 EXTERNAL FACTORS IMPACTING ON COMMERCIAL VIABILITY

5.1.1 Safricom/M-PESA

Use of the Safricom / M-PESA platform is essential. Safricom's dominant position as a mobile operator, and the lack of any alternative payment platforms to M-PESA at scale, mean JKS cannot function without this payment platform. Current plans do not involve Safaricom in closer partnership, which could assist in building trust and in credit risk management. However, the M-PESA platform and CBA are trusted service providers and JKS can further develop alternative means of credit risk assessment.

JKS has modelled its business projections using standard Safricom third party charges for use of the M-PESA platform and passing part of these charges to customers. The model is marginally sensitive to unit changes in these charges and price increases will either have to be passed on to customers or absorbed, reducing profitability.

A future partnership with Safricom that afforded significant reductions in charges, particularly a low bulk pay tariff for disbursements could substantially improve profitability.

5.1.2 Commercial Bank of Africa

CBA has been the partner of choice for holding JKS customers savings from the outset. This relationship has been maintained and strengthened during the pilot phase, to the extent that CBA will now be the MVK partner for the commercial phase.

Any deposit taker could fulfil the role of savings custodian, but CBA has emerged as the preferred candidate. Although Equity Bank has more extensive geographic outreach and a large base of poor customers, its own parallel development of m-products has made it a competitor rather than a partner.

- Commercial Viability of JKS
- Coffey International Development 24
- Review of CGAP and FSD Support to Mobile Ventures Kenya
- July 2011

CBA will bring a well-known name with a reputation for reliability and trust. CBAS's lack of a large branch network and outreach to the poor mean that other channels will be used for most customer acquisition.

5.1.3 Central Bank of Kenya

The Central Bank of Kenya (CBK) decides who can and who cannot take deposits. MVK have kept CBK informed throughout the pilot and have operated without obstruction from CBK. However, at scale there is a clear risk that MVK would not be viewed as an acceptable deposit taker. The partnership with CBA will overcome this risk, and provided CBK clearance is obtained for MVK to act as an agent for CBA, the risk will be mitigated.

5.1.4 Competitors

The evolution of mobile money in Kenya has been rapid. There are now many market participants and many products. Products are still largely payment based, with many financial service providers signed up to M-PESA. M-PESA makes it very easy for the market to have new entrants, and the single barrier to offering savings products generally is the need for a deposit taking licence. It should be anticipated that all serious market players will roll-out or continue to roll-out mobile money solutions. While the market generally seems to be focussed on payments and loans, there are clearly those with ambition to enter the savings product arena.

> *"Family Bank believes that the integration between mobile financial services and the personal account is opening a new horizon in the banking landscape," said Mr Kihara. "The winners will be those who embrace innovation and go beyond mere integration to develop solutions that give Kenyans real convenience, utility and the ability to transact first, then save."*
> [Kevin Kihara, Manager of Innovation and Strategic Partnerships, Family Bank]

The main threats from substitute products come from Equity Bank, with the potential evolution of the M-Kesho product, which already offers an emergency overdraft after proof of savings (similar in concept to JKS's jinusuru); Family Bank with the evolution of its Pesa Pap product and a clear intention to move into savings products; the MFI Jamii Bora that offers customers the opportunity to borrow twice what they save, which with its recent acquisition of bank is now a deposit-taker and focussed on building savings; and the MFI Musoni, which is intent on becoming a deposit-taker and already offers group loan products delivered through the mobile channel (which will compete with m-chama).

From the modest information available from P3 customers at the date of the review, the aggregate picture identifying JKS customer current savings relationships with financial institutions as reported in the Savings Plan Call is shown in Figure 2.

JKS appears to be drawing its customers predominantly from the Equity Bank (43% had or have had an account), local chamas with none predominating (40% of customers), Co-operative Bank (22 % of customers), various MFIs with none predominating (21% of customers), KCB (16% of customers), M-PESA (12% of customers) and various SACCOs with none predominating (11% of customers). This pattern was broadly borne out by the field interviews with most respondents describing how they have restructured their savings behaviour to include JKS.[18]

[18] See case studies.

Numbers of customers are insignificant at present, but this pattern will become visible to the commercial banks as JKS moves to scale-up. If the above relationship holds, and the roll-out reaches 300,000 as targeted, the implication is that this the customer base will include approaching 130,000 Equity Bank customers, about 68,000 Co-operative Bank customers and 50,000 KCB customers.

At present the premise that the JKS customer base is differentiated from the commercial banks does not appear to hold; rather it appears to be a subset of existing customers (who may be poorly served, but who nevertheless are competitors' customers). It remains to be seen if this is the case at scale.

The ubiquity of M-PESA use means that products like JKS can be easily launched, particularly by deposit takers. Speed to market and building scale quickly are essential if JKS is to realise its potential. JKS recognises this, and it should anticipate competition.

5.2 INTERNAL FACTORS IMPACTING ON COMMERCIAL VIABILITY

5.2.1 Commitment fees

The main revenue driver is the commitment fee. Price point acceptance has been established at 5% of the loan value, equivalent to about 11% of the amount of the loan actually disbursed. The commercial viability is very sensitive to the rate at which customers repay and the average size of repayment. Table 3 shows the variation in APR for customers assuming equal payments made at the end of each month. Variation shows charging off of the activation fee against loan 1 and with and without the M-PESA transaction charges. The calculations take into account the saved portion of the loan.

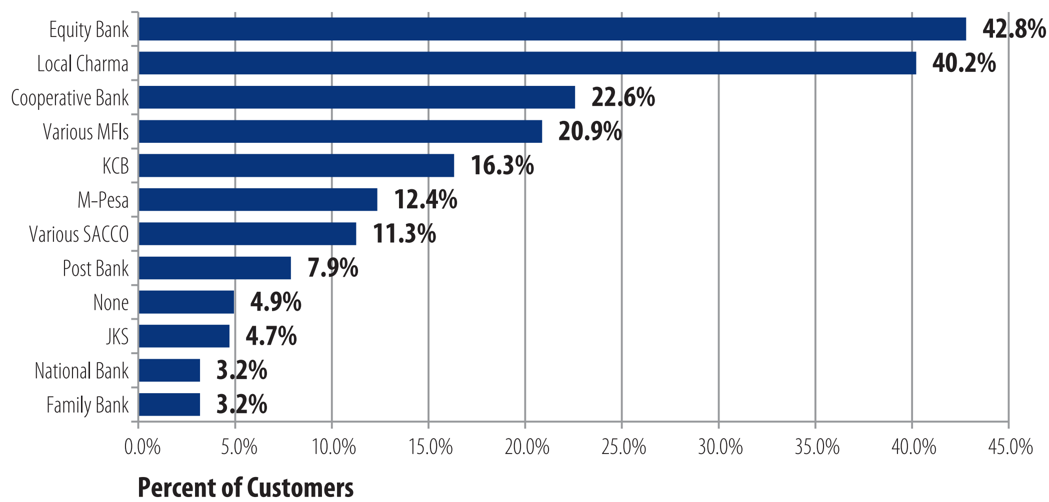
It is in the interests of JKS to encourage rapid repayment in large instalments. It is in the interests of customers to defer payment to the last possible date, but there is a trade off for customers who need larger loans sizes for the loan to be truly useful to them. It should be anticipated that customers on high loan cycles where the amount borrowed is sufficient, for example, to fund their day-to-day business needs, will recognise this. In addition, since there are no fixed repayment schedules and no sanctions for delaying payment, smart customers who reach the top loan cycle may opt to pay off at the end of the 12 months in one lump sum. Incentives for reaching savings targets may offset this behaviour.

Although customer acceptance of the price point seems to have been established, the introduction of a spoiler product that discounts the price for long enough to squeeze JKS out of the market is a possibility. This is a normal commercial risk.

5.2.2 Activation fees

The one time activation fee of 450 KSh will be an important driver of revenue through the sign-up period. However, this is a one time fee associated largely with one time costs for JKS, and as the product cycle matures it will become less important as a component of total revenue.

Figure 2: JKS Customers' with savings by institution



5.2.3 Portfolio performance

Loss on default is a potentially small problem for JKS unless it becomes viral with the first loan, when in theory customers can walk away with an uncollateralised amount of 450 KSh. Customer screening should minimise this problem.

Late payment against target is a greater risk. It drives up the operational costs in terms of calls and SMSs and drives down the APR. JKS's focus on inculcating a savings rather than a borrowing culture is the main means by which late payments are addressed. In the fieldwork for the review, a minority of customers indicated that loans were more important to them,[19] and it may be useful to include this question in the screening.

5.2.4 Customer acquisition costs

JKS intends to use multiple channels for customer acquisition in the alpha phase. The most significant fixed cost will be the field officer basic salary. The performance of field officers has not been tested in the pilot so the impact of field officer costs on commercial performance remains to be seen.

5.2.5 Foundations for assessing commercial viability

At the time of review, there was insufficient information on P3 to assess commercial viability. In sum:

- There are insufficient customers to establish repayment and default behaviour (timing and amounts by loan cycle and by customer attributes). The MIS has the means to collect and analyse this data; however, the current impediment to modelling this is the small number of customers.
- Price points are established for the regional roll-out. Potential future issues are changes in Safricom charges and price competition from spoiler products.
- Unit costs of calls and SMSs in the business process from sign-up to reaching target savings amount are established. Projected costs require more information on customer behaviour as CSR costs vary with repayment behaviour. CSR productivity at scale is not yet understood.
- Field officer costs are not yet understood as the achievement of sign-up targets and costs through attrition of field officers are not yet known. Ambassador sign-up performance is also not yet understood.

JKS has built an Excel financial model that incorporates all of these parameters and allows for different assumptions to be tested. As the quality of information on the above issues improves, the model will be better able to assess the outcomes. The customer profiling and analysis in this section is based on 183 customers signed up for the P3 product at 6th June 201120. P3 will be the product in the regional commercial launch and therefore is the most appropriate to analyse. This section relies on base data provided by JKS, which has not been verified. Cross-checks on the data were carried out with the small sample of customers interviewed for the case studies.

Table 3: APRs for different repayment patterns

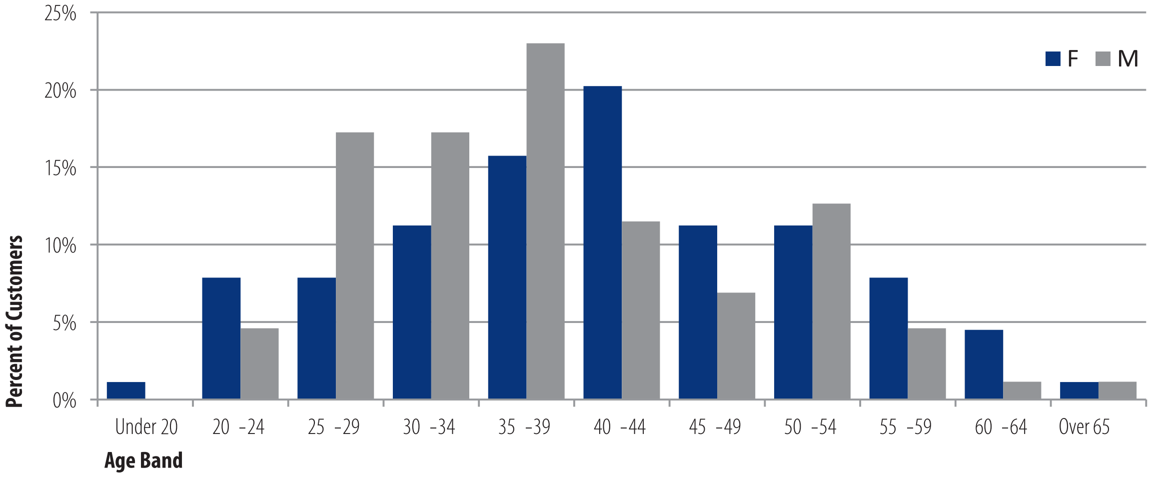
APR Calculation	Months to Repay				
	1	3	6	9	12
1st loan including activation fee of 450 KSh plus 10 KSh per repayment (2,000 KSh)	4,641	699.0	252.1	152.1	110.3
1st and subsequent loans excluding activation fee and repayment charges	85.1	36.2	19.4	13.2	10.0
1st loan excluding activation fee but including 10 KSh per repayment (2,000 KSh)	96.5	49.1	32.3	26.1	22.8
2nd loan including 10 KSh per repayment (4,000 KSh)	90.7	42.5	25.7	19.5	16.3
3rd loan including 10 KSh per repayment (6,000 KSh)	88.8	40.4	23.6	17.4	14.2
9th loan including 10 KSh per repayment (80,000 KSh)	85.3	36.5	19.7	13.5	10.3

19 The fieldwork involved interviews with 10 customers, of whom two said loans were more important than savings and one placed equal weight on loans and savings. The other seven said savings was more important. This small number of interviews does not necessarily represent the JKS customer base at large.

Chapter 6

JKS CUSTOMERS

Figure 3: JKS customers' age groups



6.1 DEMOGRAPHICS AND EMPLOYMENT

About 86% of the customers are from three areas: Makina (27.3%), Simba (24.0%), Gikomba (17.5%), Eastleigh (9.3 %) and Kibwezi (8.2%). There are small numbers of customers from Kibera, Tala, Family, Kambu and Kawangware. 95 (52%) of the customers studied are women and 88 (48%) are men.

Based on earlier learning, JKS has screened customers for P3, targeting people between the ages of 25 and 54. The distribution of customers' ages is shown in Figure 3.

The distributions of male and female customers are concentrated in the target range, but there are more male customers between 25 and 39 years of age, and more female customers between 40 and 54 years old. Male customers have an average age of 38 years; female customers have an average age of 41 years.

JKS has recognised that people with large numbers of dependants are a greater risk and has screened customers for the number of children. On average, customers have 3.36 children, with female customers having a slightly higher average of 3.38 and male customers a slightly lower average of 3.32. The distribution of number of children for JKS customers is shown in Figure 4

Figure 4: JKS JKS customers' numbers of children

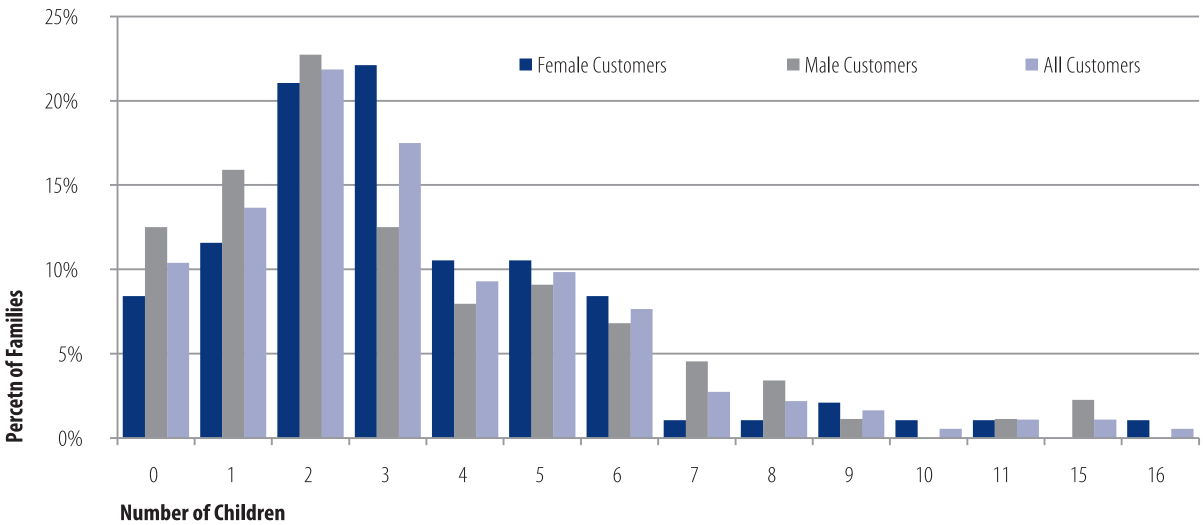
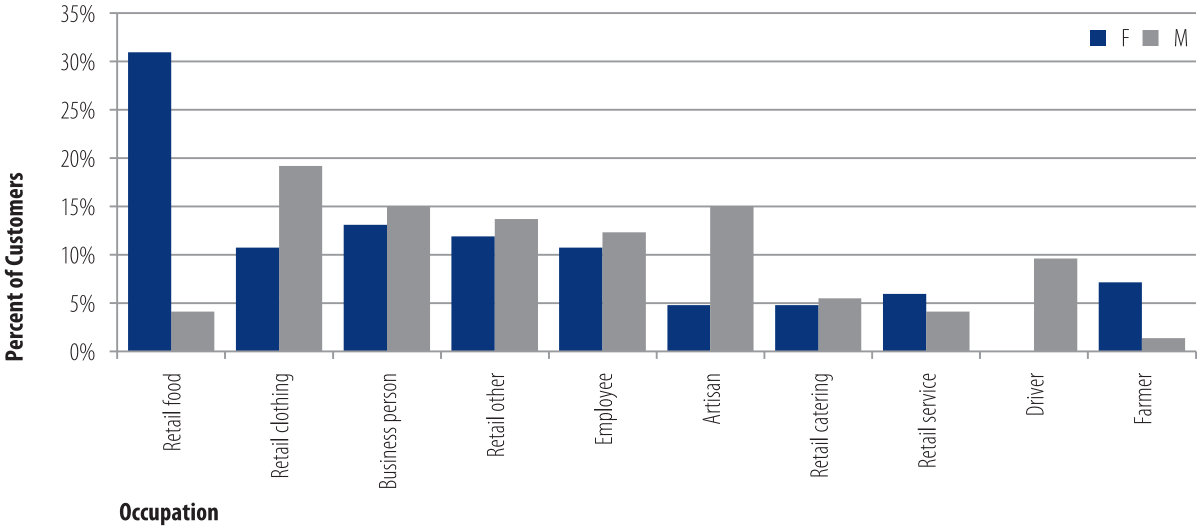


Figure 5: JKS customers' main occupations



Overall, male customers are slightly younger and have slightly fewer children.

The JKS database records occupation in a verbatim form as provided by customers. For the review we have categorised these into standard occupational groups. Figure 5 shows the top ten occupations for JKS customers. Six occupational categories account for 80 percent of customers. These are: retail food business (18.5%), retail clothing business (14.7%), "business" people[21] (14.0%), general retailing (12.7%), employed persons[22] (11.5%) and artisans[23] (9.6%).

Female customers are much more likely then male customers to be in food retailing and farming and much less likely to be in retail clothing or to work as artisans. Female customers are slightly more likely to be in retail service businesses (hair and beauty salons, for example) than male customers, while male customers are slightly more likely to be in general retailing, paid employment, retail catering or to be drivers.

6.2 STATUS OF RELATIONSHIP WITH P3

In June 2011, 172 of the 183 customers were still signed up for P3. Nine customers had withdrawn their savings. Of these 7 were migrated customers and two were new customers who had reaches the 15,000 KSh target. Overall 78 (43%) of the customers were migrated from previous products to P3 with an incentive payment of 100 KSh to change products, while 105 (57%) were new customers since the launch of P3.

The first P3 customer received the first P3 loan on 17th February 2011. Of the 78 customers migrated, all but one had received their first P3 loan in March 2011. New customers began to get their first cycle loans in March 2011. New customers were continuing to get their first loans up to and through the review period.

More than 90 percent of customers have chosen a 12 month period to reach their savings target, so the eventual outcome in terms of customers' achievement of savings targets cannot be determined now. It will be important to monitor the drop out rate and factor this into the business model.

Of the 172 active signed up customers, 51 (30%) were on loan cycle 1, 39 (23%) on cycle 2, 43 (25%) on cycle 3, 29 (17%) on cycle 4, 6 (3%) on cycle 5, with 3 customers on cycle 6 and 1 customer on cycle 9. The small numbers in higher loan cycles mean that behavioural characteristics cannot be regarded as indicative of all customers who will eventually reach those cycles.

6.3 SAVINGS BEHAVIOUR

The majority of JKS customers have current savings experience, and during the fieldwork a high degree of financial awareness about institutions and products was noted. JKS customers are asked for information on current savings methods during the sign-up process. They have the opportunity to cite up to two savings methods. These are recorded verbatim in the database. For the purposes of review they have been categorised. Figure 6 shows the

21 Some customers have simply described themselves as "business" people, making it unclear what their primary occupation is.

22 The majority of employed persons are shop assistants, guards, cleaners and messengers, although there is small number of clerical and professional people.

23 Artisans include carpenters, electricians, mechanics, painters, welders and tailors.

percentage of customers mentioning an institutional type as one of their prior methods of saving.

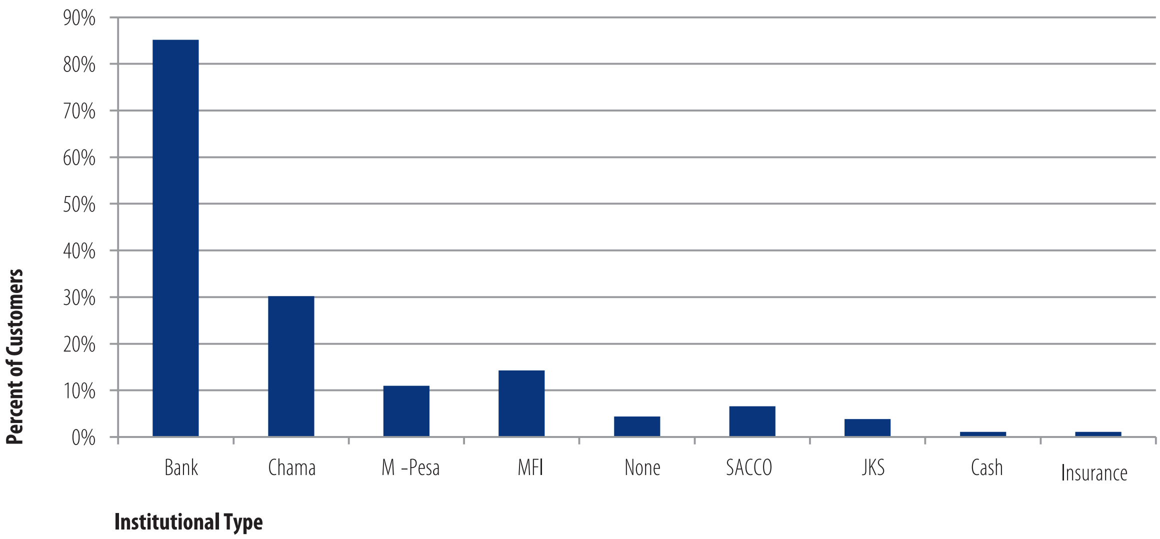
More than 85% of JKS customers say they have saved in a bank. About 30% say they have saved in a chama or merry-go-round. Just over 14% had saved in an MFI and 11% said they had used their M-Pesa account to save. Some 58 percent of customers mentioned more than one type of savings method. In the sample reviewed, only 15 percent were unbanked.

JKS customers are asked for up to two reasons for saving during the sign-up process. These are recorded verbatim in the database. For the purposes of the review we have categorised these. Figure 6 shows the percentage of all customers' reasons for saving (as either a first or second purposes).

Business expansion (almost universally meaning the purchase of stock for resale or raw materials) is by far the most common reason. It was cited by 80% of women and 73% of men (overall 75% of customers). To pay school fees was the second most important reason, mentioned by 64% of women and 54% of men (58% of customers on aggregate). Business start-up was a little over twice as popular as a reason for men (19%) than for women (9%). Land purchase was about twice as popular as a reason for women (12%) compared to men (6%). More men (8%) than women (4%) said they would hold the savings in reserve for emergencies or to simply keep and repay[24]. In general less than 5% percent of people cited other reasons. Only one customer cited the purchase of consumer goods as the purpose of saving.

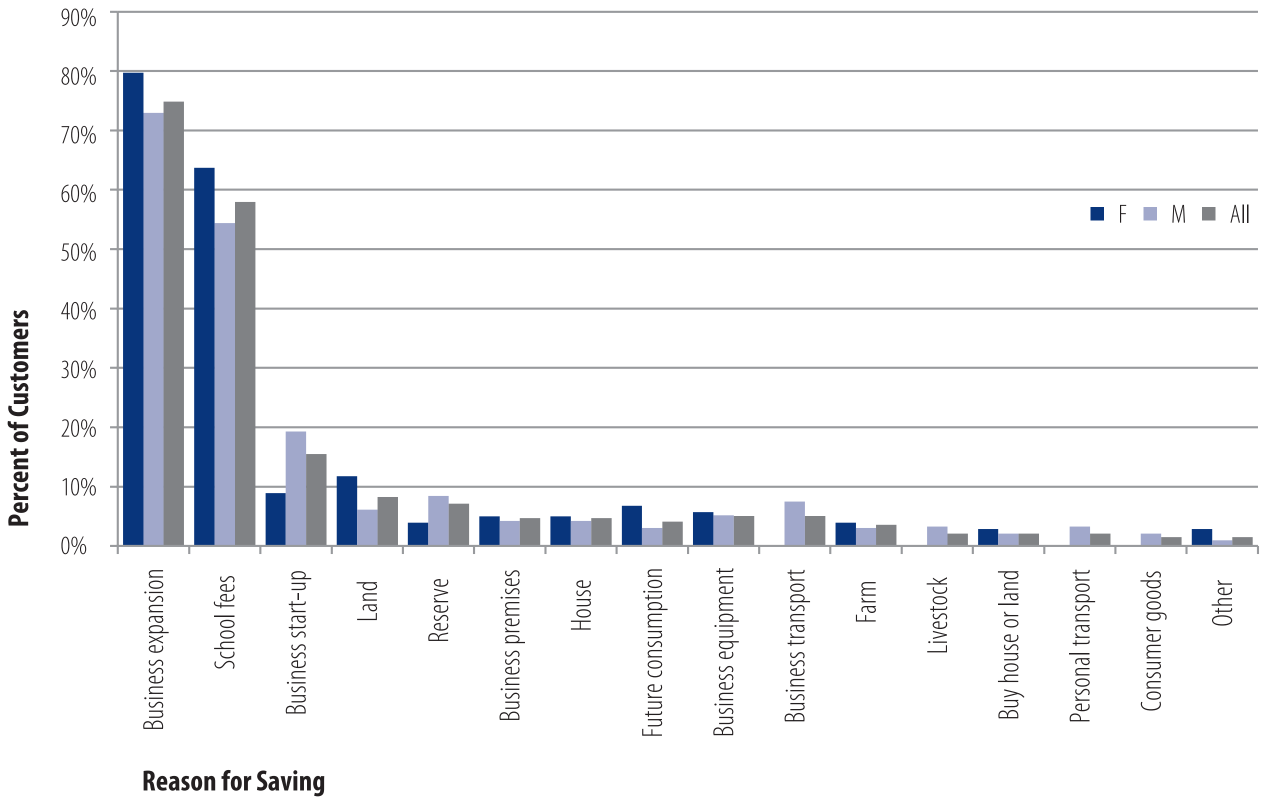
JKS customers are also asked at sign up to identify their "savings challenges": the things they feel inhibit their ability to save. Multiple answers are recorded in the database in sentence style. For the purpose of review we have categorised these. Challenges are expressed in terms of behaviour (lack of savings discipline), attitude (lack of trust in the savings mechanism), present financial situation (too little money to save or being in debt), access to financial services (for example inability to get a bank account), regular expenditure (school or other educational fees, food, rent and utility bills), and unforeseen events (family demand for money, medical expenses, death in the family and crop loss). Other challenges commonly faced by the poor, such as loss of livestock or money for weddings, were not mentioned in this sample but would fall into the above categorisation. Figure 7 summarises the savings challenges of JKS customers.

Figure 6: JKS customers' savings methods by institutional type



[24] We observed during the field work that several customers did not regard the first two loans as sufficiently large amounts of money, and accordingly they said they would keep the loan money, top it up, and repay in order to get a larger loan which they would then use in their business.

Figure 7: JKS customers' reasons for savings



The periodic but regular call on household finances for school or other educational fees was the most important challenge for women. 34% of women cited this challenge. 17% of men said this was a challenge. Overall 26% of customers said this was challenge for them.

Savings discipline was the next biggest challenge expressed by customers. Borne out by the field work where many of the respondents mentioned that if they had money they spent it, this was a bigger challenge for men than for women. About 13% of women and 29% percent of men cited this as a challenge for them. Overall 21% percent of customers said this was a challenge.

The next most important challenge mentioned was medical expenses. 17% of men and 23% of women cited this.

These three items are the most significant challenges for JKS customers. About 5% of customers said they had no challenges.

6.4 LOAN BEHAVIOUR

JKS customers are asked at sign-up how they will pay down their loans and reach their savings targets. Figure 8 summarises stated intentions about the source of payment to JKS.

Overall, two-thirds of customers said they would save and repay out of business income. There was little difference between men and women. This was overwhelmingly the most important source of repayment.

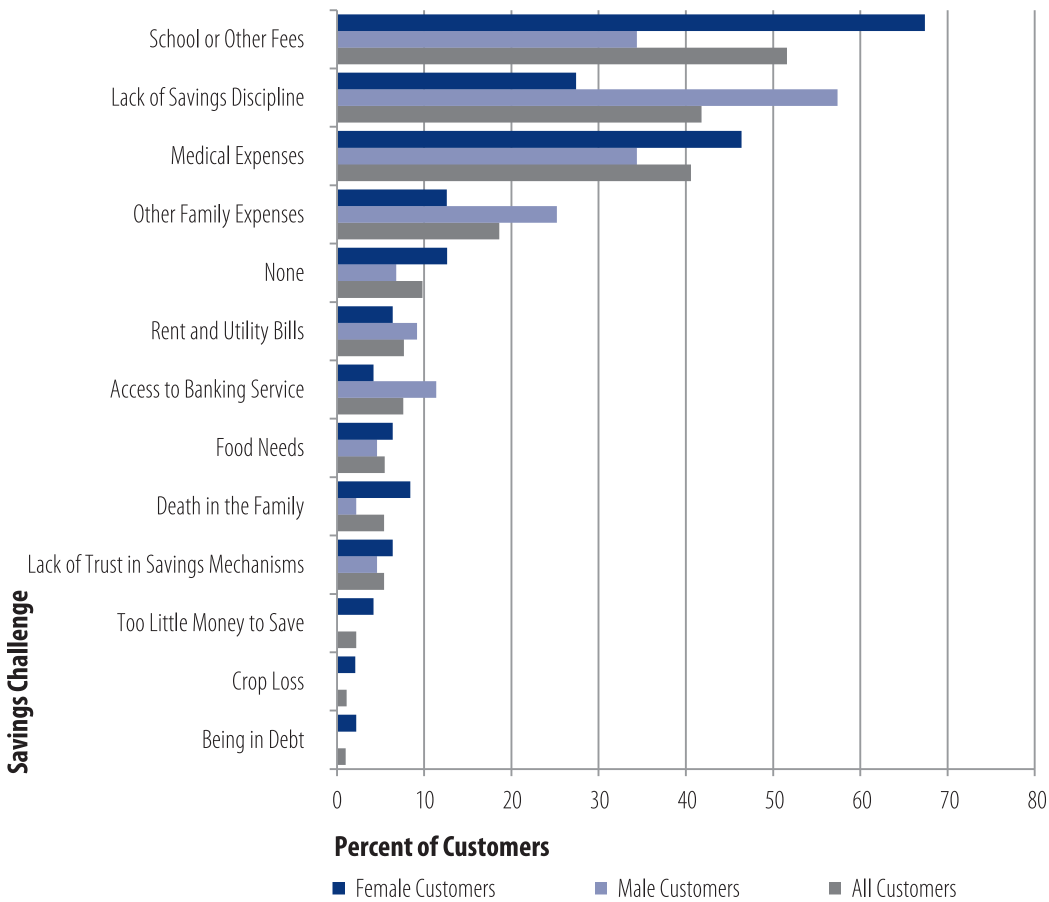
About 6% of customers said they would pay by restructuring their savings (putting less in existing channels and rerouting it to JKS), 5% said they would repay from salary. Slightly over 4% said they would repay from better discipline (reducing impulsive spending), and slightly over 3% from reduced consumption (by moderating their household budget), though women were five times more likely to state this than men.

Just over 4% gave no reason. About 4% said they would repay from their chama drawdown, and about 1% said they had no plan. About three-quarters of the latter group were behind on target payments at the time of the review.

Customers are also asked about the use of early loans. Early loans are chosen because JKS is at risk during the first two loan cycles. For the purposes of review the verbatim answers in the database have been categorised. The categorised summary is shown in Figure 9.

Slightly over half of all women and 44% of men state that they intend to purchase stock for resale – predominantly at the retail level. About 17% state

Figure 8: JKS customers' savings challenges



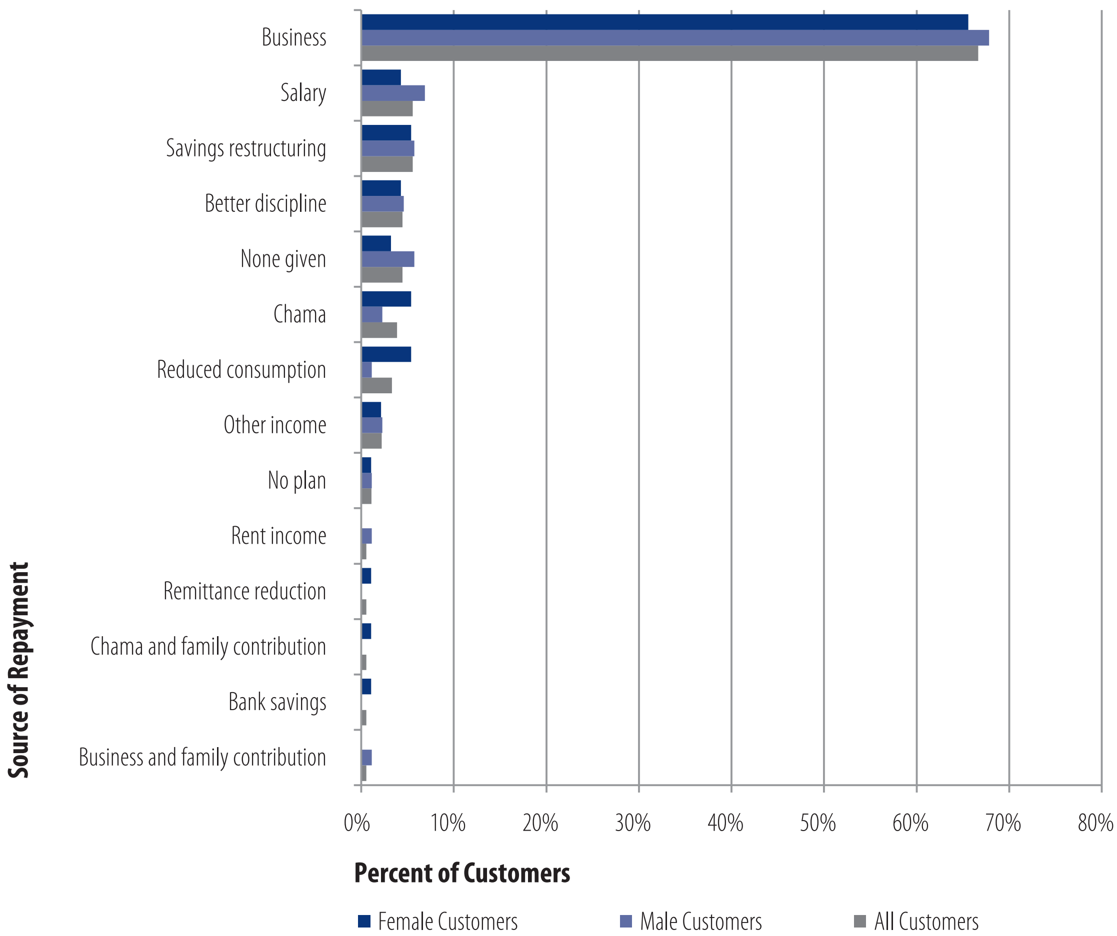
that they will use the loans for raw materials to make goods for sale or to use in the provision of services or artisanal work. About 14% of customers said they would use the funds for other business expenses, generally other components of working capital or equipment.

Over 8% of women and 18% of men said they would keep the loan money and repay. The fieldwork indicated that some of these customers will pay down the first two loans a quickly as possible in order to avail of a larger sum that will be more useful in their business. However, some of these customers also had no plan and therefore were higher risk.

It is still early to say how loan repayment behaviour will evolve. Figures 10, 11 and 12 show the average days to repay, average frequency of repayments in days, and the average amount of each instalment by loan cycle and by gender. The analysis for loan cycle 4 and above should be treated with much caution and the sample sizes are very small.

In addition, the jinusuru product feature, which allows customers to draw out some of their savings in emergencies, has just been introduced. At the time of the review, only two customers have availed of this facility and no conclusions can be drawn about future patterns of customer behaviour. The observations that can be made at this stage are that in general women take longer to pay

Figure 9: JKS customers' sources of repayment



down their loans than men, they pay less frequently, and that they pay in similar or smaller amounts per instalment over the first three loan cycles.

6.4.1 Payments against savings plan

Customers choose a target savings amount and a time in months to reach the target at the outset. As a result there is an implied monthly savings target. There is very wide variation from target in the present customer base. This is illustrated in Figure 14. About one-sixth of customers are more than 2,500 KSh below target.

6.5 CUSTOMER SCREENING

JKS uses a screening process for new customers. The process is currently subjective although a "score" of three characteristics is determined. The score may influence but is not used to make the decision on whether or not to sign up a customer. During the review, for illustrative purposes only we combined the subjective score with scores on other parameters around number of dependants, age, previous savings history, sources of repayment, gender and the chosen size of obligation. Although prior credit history is the single most important determinant of all scoring systems, it is generally other parameters

Figure 10: JKS customers' early loan purpose

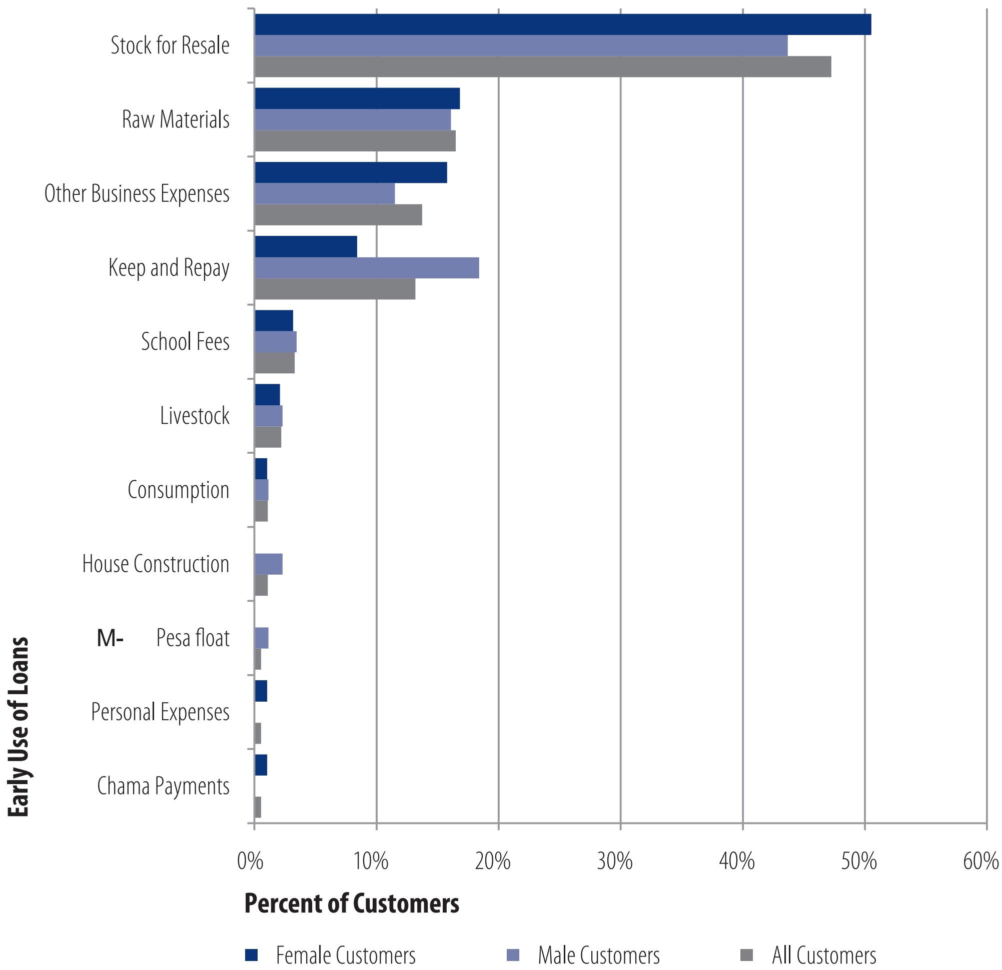


Figure 11: Average days to repay

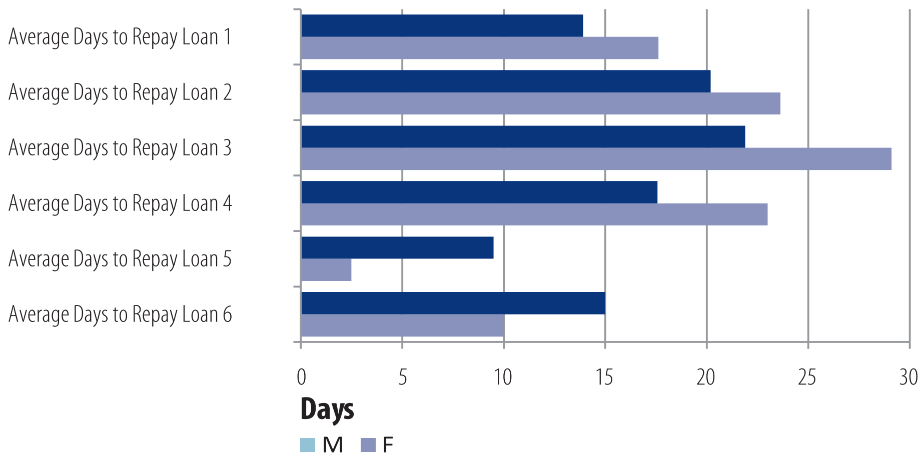


Figure 12: Average repayment frequency (days)

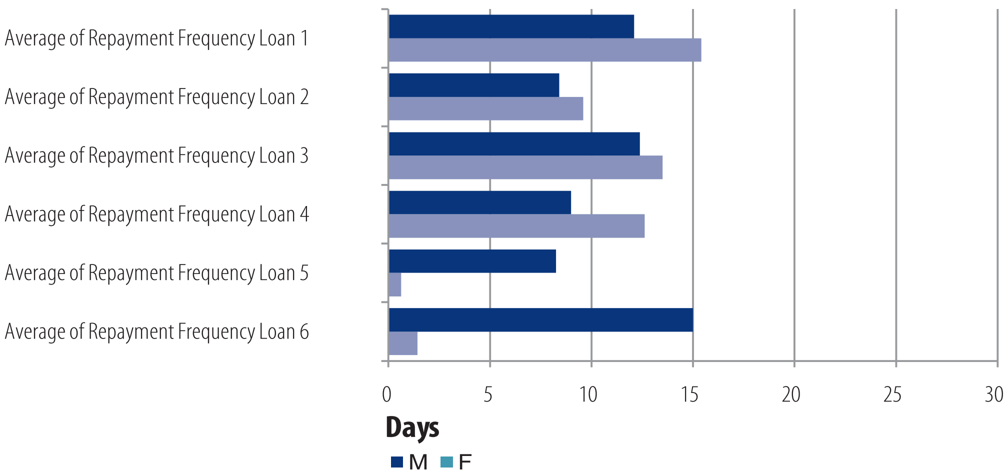


Figure 13: Average repayment amount

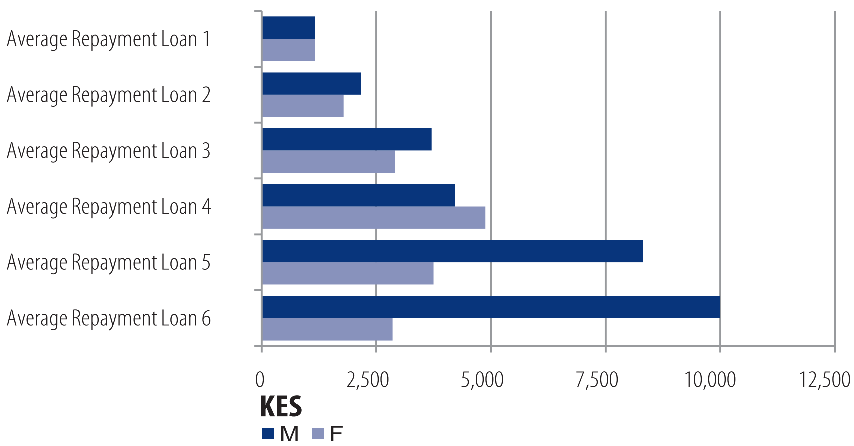
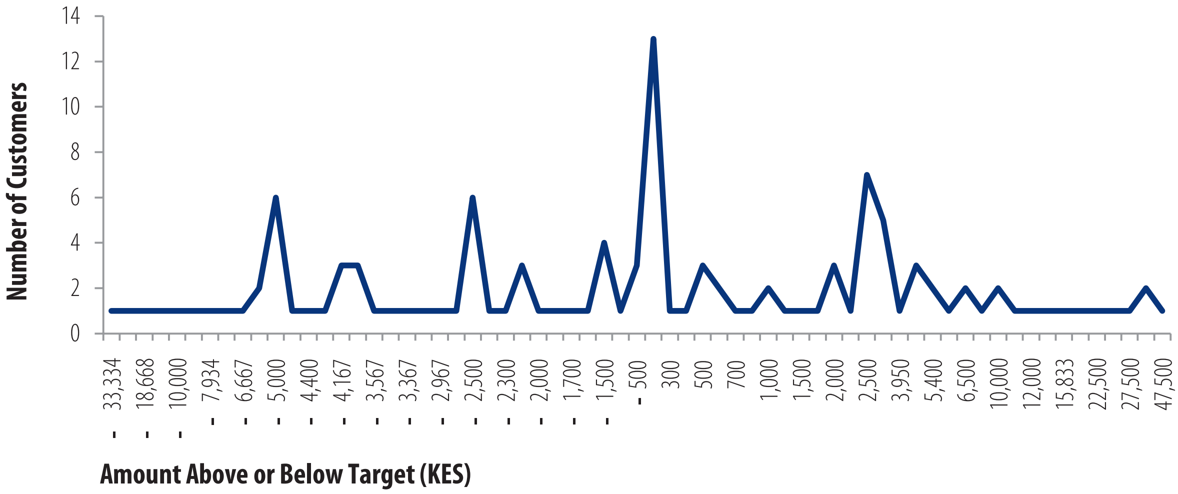


Figure 14: average days to repay



that separate the "goods" from the "bads" among people with good prior credit history.

This overlay of further criteria achieved a greater separation of "goods" and "bads" and indicates that a statically based weighed scoring system could be derived to help remove the subjective elements of the customer screening.

Table 4 shows the impact of an illustrative scoring system. From the original population of customers, 54.5% are "good" and 45.5% are "bad". Using a cut off score, results in the rejection of 63 out of the 121 (52%) of customers who should be in repayment. Although this halves the number of customers, the illustrative scoring system rejected 38 out of 55 "bads" and 25 out of 66 "goods". The result is that "goods" constitute over 70 percent of the customers accepted by the scoring system.

Table 4: Illustrative test of simple scoring system

Status	Number Late > 30 days	Number Late < 30 days, on time or better	Total	Percent Late > 30 days	Percent Late < 30 days, on time or better	Percent of Originally Accepted
Revised Accepted	17	41	58	29.3	70.7	47.9
Revised Rejected	38	25	63	60.3	39.7	52.1
Original Accepted	55	66	121	45.5	54.5	100.0

Chapter 7

EVALUATION

7.1 OUTCOME REGARDING THE MAIN HYPOTHESIS

The main hypothesis was that financial services could be sold and serviced with little or no human contact. The pilot has demonstrated that the mobile channel can be used for a combined savings and loan product for poor people, and that use of the mobile channel in Kenya where the M-PESA platform for payments is so common amongst all strata of society has posed no difficulty. The precondition for accessing the product of being a regular user of M-PESA self-selects customers who already familiar with the technology, and in many case already using it for business transactions.

Human contact has been minimised, but not to the extent that there is no contact. The pilot has found that there needs to be contact at the outset to recruit, screen and sign-up customers, but that the screening process can be substantively conducted by telephone. The pilot has pursued a strategy of encouraging customers to repay and save through periodic SMS reminders (cost of 1 KSh per SMS), reminder calls (cost of about 5 KSh per call), and occasionally through visits (cost approaching 300 KSh per hour) although the strategy is to minimise the latter. P3 aims to maximise SMSs communications, trigger calls only when there are arrears and encouragement is needed, and to minimise visits.

The pilot identified trust in new products as an issue for customers, and human contact through the sign-up process has been important in building trust. During the alpha phase and with the backing of the CBA brand it can be reasonably expected that the need for human contact will decline from the customer's perspective, but the need to interview customers will continue to apply for JKS, and until there is a well proven and mature auto-screening process in place, some initial human contact is going to be necessary. On balance JKS has demonstrated a working savings product, with substantive elements of P9, and with substantively less human contact that with conventional products.

7.2 OTHER OUTCOMES

The outcomes of the pilot regarding other main hypotheses, assumptions and risks are summarised below.

- **Customers walking away with the unsecured Loan 1:** This behaviour has not manifested itself, but remains a risk. Scoring and increased knowledge of customer behaviour will be important in mitigating it at scale.
- **Customer usage will suffer from substitution of daily face-to-face interactions with lower frequency phone calls and SMS** There is no evidence of this. Although there is still a trust issue, which can be mitigated through good marketing communications and use of the CBA brand, customers have identified clear benefits in terms of privacy, certainty of loan disbursement, and time savings that are advantages over the traditional customer interface.
- **Customers are not willing to pay for depositing, withdrawing and use of savings services.** There is no evidence of this. Willingness to pay and price points have been tested. All but one of the customers interviewed during the review stated that the charges were fair. M-PESA customers already understand transaction charges and they have to pay to move money around. The P3 product shares these between MVK and the customer, and customers pay less than they do for other M-PESA transactions.
- **Customers will not understand a combined savings and loan product.** There is no evidence of this. Customers interviewed indicated clear understanding of the steps, the timing, and the savings and loan aspects of the product. Customers, agents and JKS staff independently indicated that the product takes between 15 and 30 minutes to explain clearly to a new customer.

It remains to prove sustainable profitability from a large P3 customer base. The current number of customers at just fewer than 200 is not sufficient for this and it will only be evidenced during the alpha phase. It also remains to prove the acquisition channel strategy and that costs can be contained at scale. It will be preferable in future pilots to evaluate the complete product cycle. In particular, while early customer behaviour may be good, the savings challenges can intervene at any time and it remains to be seen how these impact on the aggregate outcome. The assessment of profitability should still be done for P3 and, of course, in the alpha phase.

7.3 ASSESSMENT OF THE USE OF DONOR FUNDING

The pilot reflects the way that microfinance transactions are like to evolve globally, especially as voice profitability for network operators declines and network operators actively encourage others to bring value added products on stream to supplement income. Both CGAP and FSD have a pioneering mandate, the project is consistent with this and grant financing is justified where there is no private sector alternative.

The learning from this project is sufficient for other implementations in other countries to go faster and is potentially catalytic of earlier stage private sector investment supported by donor learning and advice. However, MVK, CGAP and FSD need to agree on a balance of disclosure that makes the learning transferable (central to CGAP's mandate) while protecting the IP and commercial in confidence information of MVK.

FSD's indication that further funding will be in the form of bridging debt finance is appropriate, as JKS is now close to a position where the risks are close to normal commercial risks, and has potential investors interested.

The pilot has achieved much in the time, the capable, professional and enthusiastic JKS team having substantively met FSD and CGAP expectations. With hindsight, and in our view, there are a few things that could have been approached differently.

- P9 customers are characterised by making small payments at high frequency, often daily, and minimal transactions costs. From the outset, JKS was going to be fundamentally different because of the lack of daily face-to-face contact, transaction charges for savers, and the commercial reality that profitability is affected by the speed and size of repayment – the faster and larger the repayments, the higher the profitability. It was [or could have been] apparent a priori that the P9 savings to loan ratio and the low levels of charging in P9 would not be financially viable. Building a robust model at the outset might have led to early determination of price points and given the opportunity to garner more customers.
- Related to this, the number of P3 customers at less than 200 at the time of the review is sufficient to determine many customer attributes (most attributes show a few dominant categories), but it is not sufficient to predict customer behaviour at scale. The original target of 2,000 customers would have allowed this. As customer behaviour in terms of loan drawdown and therefore payment of commitment fees is the most important driver of commercial sustainability, future pilot exercises need to be structured to have a sufficient customer base for valid statistical analysis of behaviour.
- The microfinance concepts from P9 have been hugely valuable, and the transformation of the concept to a mobile platform has been proven. However, a commercial venture that will attract private investment needs much greater scale than P9, and the pilot would have benefited from some early retail banking technology input. The pilot has evolved a rudimentary customer screening system, which has yet to be proven as a means of separating good and bad customers. In our view, the early definition, categorisation and collection of parameters likely to be of use in credit scoring would have been valuable.

7.4 RECOMMENDATIONS

At the time of the review, JKS is ahead of the trend, but all main competitors are considering expansion of mobile money offerings, and some will offer savings products. However, JKS already.

has certain strategic advantages that it needs to capitalise and build on in the alpha phase. Specifically, JKS has:

- invested in the technology and operational systems to be able to launch at scale,
- privileged and proprietary insights into the customer base both in terms of attributes and savings and repayment behaviour,
- core staff capacity.

At present JKS does not have any geographic advantage. This will require rapid recruitment and training of agents. There are uncertainties here related to the ability to recruit a sufficient number of calibre agents, and the attrition rate that will result from agents resigning their employment and non-performing agents. The alpha phase will need to model this closely for future business planning.

In addition, JKS will need to massively strengthen presence. Radio, fixed advertising, agents and a call centre included in the business plan will help. Consideration could be given to mobile units deploying to high footfall areas such as the entrance to markets, bringing physical presence closer to potential customers than some competitors are able to, and encouraging walk-in enquiry.

7.4.1 Follow-on products

A weakness with JKS is that there is no follow-on product and no clear customer retention strategy after the first loan cycle is completed. P3 and the field work for the review have evidenced that customers who reach and complete the higher savings targets are interested to continue but are less interested to go back to the first savings cycle. At present JKS is in danger of losing its best customers once one savings target is achieved. Customers have expressed the wish to be able to start the second cycle at a higher entry level. This makes sense because:

- customers wishing to continue can get to higher loan cycles very quickly simply by paying money, but this process involves transaction costs for the customer and JKS;
- customers who have completed their savings plan have established their creditworthiness and have collateral in their savings;
- customers already understand the product.

Customer use and behaviour with the Jinusuru feature of JKS are not yet understood, but an "overdraft" type product for the best performing business customers, fully collateralised by savings, merits consideration.

7.4.2 Simulation Modelling

It would be prudent for JKS to consider developing simulation modelling rather than the current user-assumption driven financial modelling. This should give greater comfort to investors than the current scenario based business model.

The model should be regularly updated from data on field officer and ambassador behaviour through the alpha phase and should allow a degree of certainty to be established about financial outcomes. This will provide more comfort to investors than the scenario-based model because it essentially covers all outcomes rather a set of outcomes from arbitrary combinations of assumptions.

It would also allow stress testing for risk appetite (if a scoring system is in place), for crisis management (for example a viral outbreak of non-payment), and for price point management in the event of price attack by spoiler products.

It will also help with granularity in targeting customers.

This is one way in which JKS can improve its proprietary advantage of privileged insights over competitors, particularly those who have more data on customers (Safaricom, Equity Bank, KCB and Family Bank in particular).

7.4.3 Customer screening

From our experience of similar customer bases, the JKS customer base appears to be amenable to credit scoring using conventional criteria. At scale there will be many field officers and many CSRs and there is likelihood that there will be significant subjective variation in assessments of customers.

Accordingly, we recommend JKS consider engaging advisory services to develop a more robust scoring system. The probable advantage is more good customers resulting in lower costs of collection, and the potential to make the product more difficulty to copy successfully because of the proprietary insight gained.

There are trade-offs. Customer acquisition costs may be decreased by time savings on making subjective judgements, but will be increased because a lower portion of applicants will be accepted and field officer costs per signed up applicant will increase. In addition, a high rejection rate may weaken emerging brand value associated with flexibility. Equally, customer longevity may be increased because more customers will make it to higher loan cycles and follow-on products. In addition, if JKS is quick to market, it has the opportunity to leave the less good customers for its competitors. Whatever the strategy, a scoring system that can predict outcomes is valuable.

Related to this, JKS already collects much of the data required for scoring, but does not yet categorise that data into a useful form. From the review of the existing data base, we have the following suggestions that will be useful for scoring.

- Collect details of actual primary occupation. Occupations should be categorised. Descriptions such as "businessman" or "business lady" are less helpful for scoring than a more accurate description of activity.
- The institutional form in which customers have prior savings experience should be categorised, particularly to indentify customers who are previously banked and unbanked.
- Savings reasons should be categorised. This is likely to be important for scoring.

To be eligible customers must be able to state a clear repayment plan. Customers who cannot give a plan, explicitly have no plan or who are intending to borrow form elsewhere in order to save with JKS should be regarded as high risk and in our view should be declined.

In the event a scoring system is adopted, the scoring criteria and the weights should not be known to CSRs or to field officers and should be available within JKS on a need to know basis only.

7.4.4 Contingency planning

More than 40 percent of JKS's customers are or have been Equity Bank customers. The very small nature of the JKS pilot will not impact on Equity Bank and may be "under the radar". However, if JKS build to scale, to say 300,000 customers, and the relationship observed in the pilot holds, Equity Bank stand to lose the accounts or suffer reduced business from around 128,000 of its account holders.

Equity Bank is the best equipped bank in Kenya to enter the market with a spoiler product. Although it has been observed by JKS and FSD staff that the relationship between Equity Bank and Safricom is poor, there does not appear to be anything preventing Equity Bank going it alone on the M-PESA backbone in the same fashion as JKS. Other competitors, KCB, Musoni and Jamie Bora, may also respond.

In our view this remains a potential threat to the commercial success of JKS. We think that potential investors would find comfort in the articulation of a plan in the event spoiler products enter the market before JKS achieves scale. It would be useful to differentiate responses to different competitors.

7.4.5 Marketing and branding

JKS may want to use the categorised data on savings purposes, savings challenges and loan purposes to help guide marketing communications. The database can be further interrogated to identify the characteristics of "good" customers, male and female customers, urban and rural customers and so on. The data should be tested for statistically significant differences.

The four diagrams on the following page summarise by elements of branding how the JKS brand is perceived by the customers we met. It reflects the views expressed in discussions with customers.

The branding is currently focused on rational benefits, which customers can easily recognise, articulate and relay to potential customers. This makes for straightforward marketing by field officers and ambassadors who will be able to feel very confident about their product description.

JKS has the opportunity to strengthen the other areas of branding during the alpha phase. It will be important that it demonstrates that it is responsive to customer feedback, for example by developing follow-on products, and that it is flexible, for example by rolling out the jinusuru feature.

At this stage the brand is weakest, by definition, around presence, but increases in the number of agents and ambassadors will improve this. However, to have the daily visibility – which Safaricom and Equity Bank have – without physical infrastructure will mean a substantial marketing communication effort, which is in preparation.

The other area of branding that needs to be strengthened during the alpha phase is intangible associations. JKS should exploit being a trusted and non-discriminatory product, and may want to emphasise other associations such as "better life" or "educational advancement".

Figure 15: Evaluation

Appendix 1

PROJECT BACKGROUND

Table 5: Project history - phase 1 to 3

Period	Phase 1	Phase 2	Phase 3
November – December 2009	Pre-pilot phase: Developed commercial plan, completed legal and regulatory requirements, developed procedures, recruited staff (how many?) Agreed key parameters and deliverables for Phase 1 with Steering Committee, outlined gateway testing for each phase		
February 2010	Launched Phase I to target up to 150 customers across three sites (two urban and one rural) with the following objectives: ▪ Gauge customer response to core proposition in a range of target populations ▪ Prove that sufficient customers repay ▪ Test operations/technical processes and systems		
March 2010	145 active customers across three sites. Early customer insights from Phase I customers: ▪ New applicants can understand JKS in 10-15 minutes ▪ Customers are eager to introduce the product to people they know. ▪ No repayment behaviour is highest in rural pilot site. ▪ Average transaction is small but more than the minimum. ▪ Top 10% of customers are rapid repayers – completing loan 1 in 1-3 weeks.	Adjustments on terms and conditions for customers are made and new terms and conditions for agents in the JKS dealer network are developed. Phase II distribution process and pilot protocol under	

Period	Phase 1	Phase 2	Phase 3
April – May 2010		Redesign of JKS product to understand customer repayment behaviour, build and test a scalable distribution/customer acquisition model, and ensure the product's economic viability. Development of an MIS using an Azure platform to manage JKS customer information.	
July 2010		Launch of Phase II with a total target customer population of 450-500 customers across six sites (three urban, three rural). The following variables were altered: ▪ Higher proportion of savings and higher savings target ▪ Higher loan fees ▪ Transaction cost shared with customers ▪ Loan top-up for phase I customers ▪ Repayment rewards for phase I customers ▪ Distribution models (agents and referrals) ▪ Test no customer screening criteria	
August 2010	Customer insights from Phase I customers in Tala (rural pilot site): ▪ Customers increase repayment sizes over time and over loans ▪ Preferable customers are those that are "planners"; otherwise, disincentive for many customers to repay quickly. ▪ Gaining trust is still a challenge without a physical location for JKS. ▪ Speed of loan delivery is important to customers. ▪ Personal secrecy of receiving loans through a mobile phone is valued.	Consideration of bank partners for commercial scale-up of JKS. Potential partners considered include: Safaricom, Equity Bank, CBA, other large or small banks and a microfinance institution.	

Period	Phase 1	Phase 2	Phase 3
October 2010		400 customers acquired between July and October. MIS is enhanced to: include a repayment calculator; enable a segmented customer care approach, depending on customers' repayment behaviour; add a comment box to track further behaviour and ambitions, suggests a savings plan and allows the CSR to rate the customer's engagement and purpose for the loan.	
February 2011		Selected Phase II customers are migrated to Phase III product.	Phase III designed, with a number of alterations: ▪ Customer acquisition through field officers, ambassadors and partners ▪ Higher activation fee ▪ New screening criteria at application form stage ▪ Savings Plan Call used ▪ Tiered savings targets ▪ Monthly savings bonus ▪ 50% fewer repayment reminder calls ▪ Share repayment charge cost with customers ▪ Possible for customers to fail to qualify for loan 2. April 2011
August 2010			Phase III product finalised. Savings plan call further structured, with CSRs rating customers on their engagement, "planner-ness" and purpose for using the loans. Field officer recruitment, training and management process were under development. JKS in the process of developing a partnership with CBA. Platform prepared for scaling up JKS operations; all operational and risk processes mapped and audited.

Table 6: JKS products and varitions

	Phase 1	Phase 2	Phase 3
Fees and features			
Starting loan size	3,000 KSh	3,000 KSh / 4,000 KSh	2000 KSh
Loan increments	3,4,5,6,8,10,12,15	3,4,5,6,8,12,15,18,21,25 / 4,6,8,12,15,18,21,25	Varies based on savings target
Saved proportion	33.33%	33.33% / 50%	50%
Savings target	30,000 KSh	30,000 KSh / 60,000 KSh	Tiered from 15,000-100,000 KSh
Activation fee	150 KSh	150 KSh	450 KSh
Loan disbursement fee	2%	2 %, 3%,5%	5%
Paybill cost to customer	0	0 / 10 / 20 KSh	10 KSh
Loan top-up	Not mentioned at outset	Not mentioned at outset	Yes – 10% disbursement of loan amount (- savings)
Early withdrawal	5% of total value withdrawn	5% of total value withdrawn	5% of total value withdrawn
Monthly savings bonus	None	None	10-100 KSh
Screening criteria			
Mobile owner/SFC user	> 3 months	> 6 months	> 6 months
M-PESA user	> 3 months	> 6 months	> 6 months
M-PESA usage	> 4 send/receive transactions per month	> 4 send/receive transactions per month	> 4 send/receive transactions per month
Pre-deposit requirement	200 KSh (applied to 30% of P1 customers)	None	None
Defined purposes for savings and source of repayments	None	None	Savings Plan Call
Customer interaction			
Regular / Slow Repayer	2 SMS 1 call per week / 3 SMS 1 call per week	50% fewer repayment reminder calls	Distribution Method
Distribution method			
Agent Model	Field workers/MVK representatives	M-PESA agents, shop-keepers, field officers and referrals	Field officers, partners and ambas-sadors
Referral incentives	None	None	Customer Bonus Match Customer Completion Bonus (140-400KSh)

Appendix 2

CUSTOMER INFORMATION

Table 7: JKS customer locations

Site	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
Makina	26	27.37%	24	27.27%	50	27.32%
Simba	23	24.21%	21	23.86%	44	24.04%
Gikomba	18	18.95%	14	15.91%	32	17.49%
Eastleigh	8	8.42%	9	10.23%	17	9.29%
Kibwezi	6	6.32%	9	10.23%	15	8.20%
Kibera	5	5.26%	3	3.41%	8	4.37%
Tala II	5	5.26%	2	2.27%	7	3.83%
Family	4	4.21%		0.00%	4	2.19%
Kambu		0.00%	3	3.41%	3	1.64%
Kawangware		0.00%	2	2.27%	2	1.09%
Tala I		0.00%	1	1.14%	1	0.55%
Total	**95**	**100.00%**	**88**	**100.00%**	**183**	**100.00%**

Table 8: JKS gender split of customers

F		M		Total number	Total percent
Number	Percent	Number	Percent		
95	51.91%	88	48.09%	183	100.00%

Table 9: JKS account status of P3 customers

Customer Status	Number	Percent
Current	172	93.99%
Withdrawn	11	6.01%
Total	**183**	**100.00%**

Table 10: JKS origin of P3 customers

Origin	Number		Percent		Total Number	Total Percent
	F	M	F	M		
Migrated	41	37	43.16%	42.05%	78	42.62%
New	54	51	56.84%	57.95%	105	57.38%
Total	**95**	**88**	**100.00%**	**100.00%**	**183**	**100.00%**

Table 11: JKS customers' age groups

Age Band	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
Under 20	1	1.12%		0.00%	1	0.57%
20-24	7	7.87%	4	4.60%	11	6.25%
25-29	7	7.87%	15	17.24%	22	12.50%
30-34	10	11.24%	15	17.24%	25	14.20%
35-39	14	15.73%	20	22.99%	34	19.32%
40-44	18	20.22%	10	11.49%	28	15.91%
45-49	10	11.24%	6	6.90%	16	9.09%
50-54	10	11.24%	11	12.64%	21	11.93%
55-59	7	7.87%	4	4.60%	11	6.25%
60-64	4	4.49%	1	1.15%	5	2.84%
Over 65	1	1.12%	1	1.15%	2	1.14%
Total	**89**	**100.00%**	**87**	**100.00%**	**176**	**100.00%**

Table 12: JKS customers' numbers of children

Children	F		M		Total families	Total percent
	Number	Percent	Number	Percent		
0	8	8.42%	11	12.50%	19	10.38%
1	11	11.58%	14	15.91%	25	13.66%
2	20	21.05%	20	22.73%	40	21.86%
3	21	22.11%	11	12.50%	32	17.49%
4	10	10.53%	7	7.95%	17	9.29%
5	10	10.53%	8	9.09%	18	9.84%
6	8	8.42%	6	6.82%	14	7.65%
7	1	1.05%	4	4.55%	5	2.73%
8	1	1.05%	3	3.41%	4	2.19%
9	2	2.11%	1	1.14%	3	1.64%
10	1	1.05%		0.00%	1	0.55%
11	1	1.05%	1	1.14%	2	1.09%
15		0.00%	2	2.27%	2	1.09%
16	1	1.05%	1	0.00%	1	0.55%
Total	**95**	**100.00%**	**88**	**100.00%**	**183**	**100.00%**

Table 13: JKS customers' occupations -top 10

Occupation	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
Retail food	26	30.95%	3	4.11%	29	18.47%
Retail clothing	9	10.71%	14	19.18%	23	14.65%
Business person	11	13.10%	11	15.07%	22	14.01%
Retail other	10	11.90%	10	13.70%	20	12.74%
Employee	9	10.71%	9	12.33%	18	11.46%
Artisan	4	4.76%	11	15.07%	15	9.55%
Retail catering	4	4.76%	4	5.48%	8	5.10%
Retail service	5	5.95%	3	4.11%	8	5.10%
Driver		0.00%	7	9.59%	7	4.46%
Farmer	6	7.14%	1	1.37%	7	4.46%
Total	**84**	**100.00%**	**73**	**100.00%**	**157**	**100.00%**

Table 14: JKS active customers by loan cycle

Children	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
1	25	27.47%	26	32.10%	51	29.65%
2	24	26.37%	15	18.52%	39	22.67%
3	22	24.18%	21	25.93%	43	25.00%
4	13	14.29%	16	19.75%	29	16.86%
5	5	5.49%	1	1.23%	6	3.49%
6	1	1.10%	2	2.47%	3	1.74%
9	1	1.10%		0.00%	1	0.58%
Total	**91**	**100.00%**	**81**	**100.00%**	**172**	**100.00%**

Table 15: JKS date of 1st disbursement

Date	Customer Origin		
	Migrated	New	Total
17/02/2011	3		3
18/02/2011	5		5
21/02/2011	6		6
22/02/2011	18		18
23/02/2011	6		6
24/02/2011	1		1
25/02/2011	8		8
28/02/2011	6		6
01/03/2011	5		5
02/03/2011	1		1
03/03/2011	1		1
04/03/2011		1	1
07/03/2011	9	2	11
08/03/2011	2	2	4
10/03/2011	2	1	3
11/03/2011	2	1	3
14/03/2011	2		2
15/03/2011		1	1
16/03/2011		1	1
29/03/2011		1	1
30/03/2011		2	2
31/03/2011		2	2
01/04/2011		8	8
02/04/2011	1		1
04/04/2011		1	1
05/04/2011		3	3
06/04/2011		4	4
07/04/2011		3	3
08/04/2011		3	3

Date	Customer origin		
	Migrated	New	Total
11/04/2011		3	3
12/04/2011		4	4
13/04/2011		3	3
14/04/2011		1	1
15/04/2011		1	1
18/04/2011		4	4
20/04/2011		2	2
26/04/2011		1	1
27/04/2011		1	1
29/04/2011		1	1
04/05/2011		4	4
05/05/2011		2	2
06/05/2011		1	1
09/05/2011		4	4
11/05/2011		4	4
12/05/2011		2	2
13/05/2011		1	1
16/05/2011		11	11
17/05/2011		2	2
18/05/2011		2	2
19/05/2011		2	2
20/05/2011		3	3
23/05/2011		3	3
24/05/2011		1	1
27/05/2011		1	1
31/05/2011		2	2
01/06/2011		1	1
06/06/2011		2	2
Total	**78**	**105**	**183**

Table 16: JKS customers' reasons for saving

Reason	First reason		Second reason		Percent first reason (%)		Percent second reason (%)		Total first reason	Total second reason	Total percent first reason (%)	Total percent second reason (%)
	F	M	F	M	F	M	F	M				
Business expansion	38	32	22	16	40.43	36.78	39.29	32.65	70	38	38.67	36.19
School fees	28	20	19	14	29.79	22.99	33.93	28.57	48	33	26.52	31.43
Business start-up	5	11	2	5	5.32	12.64	3.57	10.20	16	7	8.84	6.67
Land	6	2	3	1	6.38	2.30	5.36	2.04	8	4	4.42	3.81
Reserve	2	4	1	3	2.13	4.60	1.79	6.12	6	4	3.31	3.81
Business premises	3	2	1	1	3.19	2.30	1.79	2.04	5	2	2.76	1.90
House	3	2	1	1	3.19	2.30	1.79	2.04	5	2	2.76	1.90
Future consumption	3	1	2		3.19	1.15	3.57	0.00	4	2	2.21	1.90
Business equipment	2	2	2	1	2.13	2.30	3.57	2.04	4	3	2.21	2.86
Business transport		4		3	0.00	4.60	0.00	6.12	4	3	2.21	2.86
Farm	2	1	1	1	2.13	1.15	1.79	2.04	3	2	1.66	1.90
Livestock		2		1	0.00	2.30	0.00	2.04	2	1	1.10	0.95
Buy house or land	1	1		1	1.06	1.15	1.79	0.00	2	1	01.10	0.95
Personal transport		2		1	0.00	2.30	0.00	2.04	2	1	1.10	0.95
Consumer goods		1		1	0.00	1.15	0.00	2.04	1	1	0.55	0.95
Other	1		1		1.06	0.00	1.79	0.00	1	1	0.55	0.95
Total	**94**	**87**	**56**	**49**	**100.00**	**100.00**	**100.00**	**100.00**	**181**	**105**	**100.00**	**100.00**

Table 17: JKS customers' target savings by savings total and time to reach target

Target savings	Months										Total number	Total percent
	6		8		9		10		12			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
15,000	6	3.30%	3	1.65%	2	1.10%	2	1.10%	112	61.54%	125	68.68%
25,000		0.00%		0.00%		0.00%	1	0.55%	27	14.84%	28	15.38%
40,000		0.00%		0.00%		0.00%	1	0.55%	15	8.24%	16	8.79%
60,000		0.00%	1	0.55%		0.00%		0.00%	4	2.20%	5	2.75%
100,000		0.00%		0.00%		0.00%	2	1.10%	6	3.30%	8	4.40%
Total	**6**	**3.30%**	**4**	**2.20%**	**2**	**1.10%**	**6**	**3.30%**	**164**	**90.11%**	**182**	**100.00%**

Table 18: JKS customers' prior primary savings institution type

Institutional type	Number	Percent
Bank	110	60.44%
Chama	28	15.38%
M-Pesa	11	6.04%
MFI	11	6.04%
None	8	4.40%
SACCO	6	3.30%
JKS	4	2.20%
Cash	2	1.10%
Insurance	2	1.10%
Total	**182**	**100.00%**

Table 19: JKS Customers' prior secondary savings institution type

Institutional type	Percent	Number
None	77	42.31%
Bank	45	24.73%
Chama	27	14.84%
MFI	15	8.24%
M-Pesa	9	4.95%
SACCO	6	3.30%
JKS	3	1.65%
Total	**182**	**100.00%**

Table 20: JKS customers' primary prior savings behaviour by institution

Institution	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
Equity Bank	23	24.21%	21	24.14%	44	24.18%
Local Charma	18	18.95%	7	8.05%	25	13.74%
Co-operative Bank	13	13.68%	10	11.49%	23	12.64%
KCB	5	5.26%	14	16.09%	19	10.44%
Various MFIs	8	8.42%	5	5.75%	13	7.14%
M-Pesa	4	4.21%	6	6.90%	10	5.49%
Post Bank	5	5.26%	4	4.60%	9	4.95%
None	5	5.26%	4	4.60%	9	4.95%
SACCO	3	3.16%	5	5.75%	8	4.40%
JKS	2	2.11%	3	3.45%	5	2.75%
Family Bank	2	2.11%	2	2.30%	4	2.20%
National Bank	2	2.11%		0.00%	2	1.10%
Cooperative Bank		0.00%	2	2.30%	2	1.10%
Insurance Company	1	1.05%	1	1.15%	2	1.10%
Cash	1	1.05%	1	1.15%	2	1.10%
Standard Chartered Bank	1	1.05%		0.00%	1	0.55%
CFC Stanbic Bank	1	1.05%		0.00%	1	0.55%
Consolidated Bank		0.00%	1	1.15%	1	0.55%
FSA Bank		0.00%	1	1.15%	1	0.55%
Jamii Bora	1	1.05%		0.00%	1	0.55%
Total	**95**	**100.00%**	**87**	**100.00%**	**182**	**100.00%**

Table 21: JKS customers' secondary prior savings behaviour by institution

Institution	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
Local Charma	18	31.58%	9	20.00%	27	26.47%
Equity Bank	10	17.54%	9	20.00%	19	18.63%
MFI	9	15.79%	5	11.11%	14	13.73%
Co-operative Bank	4	7.02%	6	13.33%	10	9.80%
M-Pesa	3	5.26%	4	8.89%	7	6.86%
SACCO	3	5.26%	4	8.89%	7	6.86%
KCB	3	5.26%	3	6.67%	6	5.88%
Post Bank	2	3.51%	1	2.22%	3	2.94%
JKS	2	3.51%		0.00%	2	1.96%
Consolidated Bank	1	1.75%		0.00%	1	0.98%
Barclays Bank		0.00%	1	2.22%	1	0.98%
Pan African Bank		0.00%	1	2.22%	1	0.98%
Family Bank		0.00%	1	2.22%	1	0.98%
CFC Stanbic Bank	1	1.75%		0.00%	1	0.98%
Home Bank	1	1.75%		0.00%	1	0.98%
National Bank		0.00%	1	2.22%	1	0.98%
Total	**57**	**100.00%**	**45**	**100.00%**	**102**	**100.00%**

Table 22: JKS customers' citing savings challenges

Challenge	Number			Percent		
	F	M	Total	F	M	Total
School or Other Fees	32	15	47	33.7	17.2	25.8
Lack of Savings Discipline	13	25	38	13.7	28.7	20.9
Medical Expenses	22	15	37	23.2	17.2	20.3
Other Family Expenses	6	11	17	6.3	12.6	9.3
None	6	3	9	6.3	3.4	4.9
Rent and Utility Bills	2	5	7	2.1	5.7	3.8
Access to Savings Services	3	4	7	3.2	4.6	3.8
Food Needs	3	2	5	3.2	2.3	2.7
Death in Family	4	1	5	4.2	1.1	2.7
Lack of trust in Savings Mechanisms	3	2	5	3.2	2.3	2.7
Too Little Money to Save	2	2	2.1	0.0	1.1	
Crop Loss	1	1	1.1	0.0	0.5	
Being in Debt	1	1	0.0	1.1	0.5	

Table 23: JKS customers' source of loan repayment by gender

Main source of repayment	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
Business	61	65.59%	59	67.82%	120	66.67%
Savings restructuring	5	5.38%	5	5.75%	10	5.56%
Salary	4	4.30%	6	6.90%	10	5.56%
None given	3	3.23%	5	5.75%	8	4.44%
Better discipline	4	4.30%	4	4.60%	8	4.44%
Chama	5	5.38%	2	2.30%	7	3.89%
Reduced consumption	5	5.38%	1	1.15%	6	3.33%
Other income	2	2.15%	2	2.30%	4	2.22%
No plan	1	1.08%	1	1.15%	2	1.11%
Business and family contribution		0.00%	1	1.15%	1	0.56%
Bank savings	1			0.00%	1	0.56%
Chama and family contribution	1	1.08%		0.00%	1	0.56%
Remittance reduction	1	1.08%		0.00%	1	0.56%
Rent income		0.00%	1	1.15%	1	0.56%
Total	**93**	**100%**	**87**	**100%**	**180**	**100.00%**

Table 24: JKS customers' intended use of early loans

Loan purpose	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
Stock for Resale	48	50.53%	38	43.68%	86	47.25%
Raw Materials	16	16.84%	14	16.09%	30	16.48%
Other Business Expenses	15	15.79%	10	11.49%	25	13.74%
Keep and Repay	8	8.42%	16	18.39%	24	13.19%
School Fees	3	3.16%	3	3.45%	6	3.30%
Livestock	2	2.11%	2	2.30%	4	2.20%
House Construction		0.00%	2	2.30%	2	1.10%
Consumption	1	1.05%	1	1.15%	2	1.10%
Chama Payments	1	1.05%		0.00%	1	0.55%
Personal Expenses	1	1.05%		0.00%	1	0.55%
M-Pesa float		0.00%	1	1.15%	1	0.55%
Total	**95**	**100.00%**	**87**	**100.00%**	**182**	**100.00%**

Table 25: JKS customer performance against plan to date by gender

Performance	F		M		Total number	Total percent
	Number	Percent	Number	Percent		
Late >30 days	36	60.00%	19	31.15%	55	45.45%
Late < 30 days, on time or better	24	40.00%	42	68.85%	66	54.55%
Total	**60**	**100.00%**	**61**	**100.00%**	**121**	**100.00%**

Table 26: JKS customer performance against plan to date by customer status

Performance	Migrated		New		Total number	Total percent
	Number	Percent	Number	Percent		
Late > 30 days	46	58.97%	9	20.93%	55	45.45%
Late <30 days, on time or better	32	41.03%	34	79.07%	66	54.55%
Total	**78**	**100.00%**	**43**	**100.00%**	**121**	**100.00%**

Table 27: JKS customers' average time to repay loans by cycle (days)

Loan cycle	Days		
	F	M	Overall
Average Days to Repay Loan 6	10.0	15.0	12.5
Average Days to Repay Loan 5	2.5	9.5	7.8
Average Days to Repay Loan 4	23.0	17.6	19.2
Average Days to Repay Loan 3	29.1	21.9	25.2
Average Days to Repay Loan 2	23.6	20.2	21.9
Average Days to Repay Loan 1	17.6	13.9	15.9

Table 28: JKS customers' average frequency of repayments by cycle (days)

Loan Cycle	Days		
	F	M	Overall
Average of Repayment Frequency Loan 6	1.43	15.00	8.21
Average of Repayment Frequency Loan 5	0.63	8.25	6.34
Average of Repayment Frequency Loan 4	12.61	9.00	10.08
Average of Repayment Frequency Loan 3	13.50	12.38	12.90
Average of Repayment Frequency Loan 2	9.59	8.41	9.01
Average of Repayment Frequency Loan 1	15.40	12.10	13.83

Table 29: JKS customers' average amount of repayments by cycle (KSh)

Loan Cycle	Days		
	F	M	Overall
Average Repayment Loan 6	2,856	10,000	7,619
Average Repayment Loan 5	3,750	8,316	7,174
Average Repayment Loan 4	4,880	4,213	4,435
Average Repayment Loan 3	2,911	3,709	3,340
Average Repayment Loan 2	1,791	2,175	1,980
Average Repayment Loan 1	1,160	1,157	1,158

Table 30: Illustrative test of simple scoring system

Status	Late > 30 days	Late < 30 days, on time or better	Total	Late > 30 days	Late < 30 days, on time or better	Percent of Originally Accepted
Revised Accepted	17	41	58	29.3	70.7	47.9
Revised Rejected	38	25	63	60.3	39.7	52.1
Original Accepted	55	66	121	45.5	54.5	100.0

Appendix 3

HYPOTHESIS

Hypothesis	Phase	Trigger?	Developments	Location
Customers are interested in a flexible savings/loan product (P9) delivered via M-PESA.	P1-3			All sites
Levels of repayment are sufficient to ensure the product's viability.	P1-3			All sites
Using upfront payment requirements for loan 1 ("pre-deposit") will screen for preferable clients.	P1		Assessment showed that after 7 weeks of borrowing, customers who paid the pre-deposit did not exhibit a noticeable different in loan repayment rates.	Urban B
Customers are willing to share the Paybill cost incurred repaying JKS loan.	P2-3	Full cost of Paybill to JKS impacted the economic viability of the product.	In P2 customers demonstrated a willingness to share the cost.	2 urban and 2 rural sites in P2
Customers are willing to set aside 50% of their loan as savings.	P2-3	Increasing the proportion set aside for savings would significantly impact the profitability of JKS.	In P2 customers demonstrated a willingness to accept 50% saved proportion of their loan.	Urban and rural sites
Customers are not highly sensitive to the loan processing fee increasing to 5%.	P2-3	Increasing the loan processing fee has a smaller but significant impact on the profitability of JKS.	In P2 customers demonstrated they were not highly sensitive to increasing the loan processing fee from 2 to 5%	Urban and rural sites
Customers that express an understanding of the JKS product and have clear plans for the loan and savings are more likely to meet or exceed their monthly repayment targets.	P2-3	Following P1 and the first half of P2, an additional customer screening process was seen as necessary to identify "planners" among potential customers.	Currently being tested with finalised script of Savings Plan Call in Phase 3.	All sites

Hypothesis	Phase	Trigger?	Developments	Location
Dealers provide an effective modality for acquiring customers.	P2	In Phase I JKS acquired customers through field workers. This was seen as not economically viable if scaled up.	In P2 this hypothesis was proved untrue. In P3 a combination of field officers, ambassadors and partnering organisations was tested as an alternative hypothesis.	All sites
Top customers will refer JKS to potential customers if provided with financial incentives.	P3	In Phase 1 and 2 customers were eager to introduce the JKS product to others. Customer referral bonuses were seen as a way to increase the number of good customers and increase positive engagement with top customers.	The Ambassador programme will test this hypothesis.	All sites
Customers' repayment behaviour will remain constant if call/SMS intensity is reduced.	P3	Labour costs for the call centre significantly impact the economic viability of JKS	Phase 3 results will test this hypothesis.	All sites

Appendix 4

PERSONS CONTACTED

1. Chris Bold — Microfinance Specialist, Technology Program, CGAP
2. David Ferrand — Director, FSD Kenya
3. Stuart Rutherford — Founder, SafeSave
4. Nick Hughes — Managing Director, Signal Point Partners
5. Jonathan Petrides — Project Manager, Mobile Ventures Kenya
6. Dennis Onono — Manager, Distribution and Marketing, Mobile Ventures Kenya
7. Ciiru Waikwa — Associate, Customer Relationship Management and R and D, Mobile Ventures Kenya
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9. Customers of Jipange KuSave in Kenya

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