Business Case Analysis for POWER/PROFIR Africa Linkage Project:

UMUTANGUHA FINANCE, VISION FUND AND ADVANS

Presented to: CARE International

Submitted by: Advisem Services Inc.

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ACRONYMNS

FCFA	Franc Communauté Financière Africaine
FSPs	Financial Service Providers
MIS	Management Information System
MOU	Memorandum of Understanding
MNO	Mobile Network Operator
RoI	Return on Investment
RWF	Rwandan Franc
SG	Savings Groups
ToRs	Terms of Reference
USD	United States Dollars

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1. Introduction

In 2014, CARE International (CARE) launched POWER Africa (Promoting Opportunities for Women's Economic Empowerment in Rural Africa). This project aimed to boost financial inclusion in Africa through the formation of Village Savings Savings and Loans Associations (VSLAs), delivery of financial education, and linkage of mature groups to formal financial institutions. This initiative has succeeded in reaching close to 400,000 VSLA members throughout four African countries: Burundi, Cote d'Ivoire, Ethiopia, and Rwanda.

In order to develop and scale models for financial inclusion of VSLAs, CARE partnered with several financial services providers (FSPs) to link VSLAs to formal financial services. Linkage takes place initially through group savings account and later, for eligible VSLAs, to group loans. In some cases, VSLA members can access individual savings and loan products. In implementing this project, CARE identified a need to determine whether or not the linkage of VSLAs to FSPs is a viable business proposition. To answer this question, CARE partnered with Accenture Development Partners to design a business modelling process that estimated the profitability of the product and its return on investment (ROI). In 2016, CARE engaged a team of business management students from the Carnegie Mellon University to conduct analyses for POWER financial services partners Advans and Vision Fund.

Building on this work, CARE tasked Advisem Services Inc. (Advisem for short) to conduct an updated financial analysis of the linkage products provided by three FSPs: Umutanguha Finance and Vision Fund in Rwanda, and Advans in Cote d'Ivoire. To this end, Advisem used the CARE FSP Linkages Business Modeling Toolkit as a basis to analyze the profitability potential of offering financial products to VSLAs. This report describes this analysis, supplemented by information on the motivation and perspective of FSPs for engaging with this target market.

1.1 Methodology

The Advisem team conducted a profitability analysis of the formal savings and loan products provided to VSLA members based on quantitative financial data and qualitative information obtained from the three FSPs from December 2017 through April 2018. CARE also provided additional information related to the VSLAs linked to the FSPs. Advisem used the existing business model as a template but made some key modifications to give a clear picture of the financial viability for these products at each implementing FSP.

The financial data provided by the FSPs and CARE covered the period from 2015 to 2017. With this data, Advisem updated the initial profitability analysis developed for Vision Fund and Advans through 2017. Since Umutanguha Finance joined the POWER Project at a later stage, there is no initial modeling to use as a baseline. Advisem then developed a new set of financial projections for all three institutions for the period from 2018 through 2020.

Since the analysis of quantitative data might not be enough to interpret the financial sustainability prospects of the current financial linkage model promoted by CARE, Advisem collected direct feedback from FSP managers, key FSP business partners (mainly MTN in the case of Advans in Cote d'Ivoire) and CARE staff in charge of the project. To this end, one Advisem consultant traveled to Rwanda and Côte d'Ivoire to interview FSP managers and CARE staff to discuss:

- FSP motivation for engagement with this customer segment;
- Institutional changes over the duration of their partnership with CARE; and

- Perspectives on the potential service provision and scalability to this segment once the project ends.

1.2 Notes and Limitations

VSLAs are also commonly referred to as *savings groups*. In this report, we utilize both terms interchangeably.

Throughout the report we provide actual amounts in local currency, with the corresponding figures in US dollars. However, we utilize only *current exchange rates* as of the April 20, 2018[1] meaning that the US figures should be taken with caution, as they might not accurately reflect fluctuations in exchange rates over the 2015-2017 period.

For this analysis, we obtained VSLA performance figures from CARE and financial data from the FSPs on the savings and loan products offered to the linked VSLA members. It is important to note that the data from the FSPs is self-reported and was not verified for accuracy in this analysis.

There were also a few data discrepancies between the financial information obtained from CARE and the FSPs (with the exception of Advans), mainly in the amount of savings and loan products for the VSLA groups. One potential reason for this discrepancy is that the FSPs sometimes mix VSLAs with other group products or omit certain VSLAs from the report because VSLAs have repaid their loans in full.[2] In some cases, when different staff extracted the data, we obtained diferent figures (also as a result of an inadequate MIS for tracking the financial performance for this type of product). Thus, we relied on the data provided by the FSPs to ensure consistency in the analysis, but utilized the CARE data to supplement any gaps.

In several cases, the data provided was missing figures on revenues and expenses. In order to obtain this missing information, the Advisem team had to reach out to the FSPs on multiple occasions as the FSPs did not always respond promptly. While the data gaps were eventually resolved, some of the data was revised multiple times. Thus, some of the more recent figures provided by the FSPs were combined with a previous set of data.

Overall, Advisem observed that the management information systems (MIS) of some of the FSPs are not sufficiently robust for tracking the financial performance of products for the desired unit of analysis. Similary, the FSPs do not have a system in place to adequately track costs (either directly or on an allocation basis) of specific products. Thus, the FSPs had to estimate some of data figures. For any missing data, the Advisem team calculated its own estimates based on assumptions about the FSPs and the linked products.

One major source of data missing from some of the FSPs (with the exception of Advans) is the investment made to launch the products. This is simply due to the fact that the FSPs (again, except for Advans) did not devote signicant funds to recruit VSLAs, relying instead on CARE and/or Village Agent Networks (VANs) for the outreach to the VSLAs. Given that the level of investment is necessary to conduct an adequate ROI analysis, the Advisem team decided to focus only on the profitability analysis for the periods covering 2015-2017 and 2018-2020.

[1] Exchange rates as of April 20, 2018: $1 US Dollar = 543 FCFA; $1 US Dollar = 860 RWF.

[2] Email, Jean Francois Mutsinzi Regis, February 2, 2018

One of the reasons for the difficulty in obtaining adequate data is that the field mission to the selected FSPs took place before the consulting team could do a more extensive analysis of each FSP. In retrospect, it would have been more efficient to conduct the field missions once initial data from the FSPs had been obtained and analyzed. This would have also allowed an opportunity to discuss at length the model and data gaps, and also validate preliminary findings.

2. Business Case Analysis

2.1 Umutanguha Finance

2.1.1 Institutional Overview

Umutanguha (meaning "*a friend who never deceives*" in the local Kinyarwanda language) Finance has its main office located in Kigali, Rwanda. In July 2013, Umutanguha Finance registered as a limited liability company called 'Umutanguha Finance Company LTD'. This FSP was established with a mission "to facilitate access to financial services and accompanying non-financial services to all excluded populations, especially those living in rural areas with a particular focus on widows, orphans, youth and women, in order to enable them to save and to create income generating activities through loans". Women represent 53% of the active borrowers.

To achieve its goals, Umutanguha Finance offers a range of financial services, mainly in the Western and Southern Provinces of Rwanda. As of 2017, the institution had 9,315 active borrowers and 80,602 depositors; its gross loan portfolio was $5.1 million USD and its deposits added up to $3.4 million USD.

Financial services provided by Umutanguha Finance include loans, savings accounts, leasing machinery and equipment.[3] Among the array of non-financial services provided to communities, Umutanguha Finance offers trainings on the importance of savings, loan management, digital finance, entreprenurship and marketing.

2.1.2 POWER Linkage Project at Umutanguha Finance

Umutanguha Finance was motivated to join the Power Linkage Project because the institution is commited to serve low-income clients. The institution considers VLSAs to have a very strong internal organization and recognizes group members have built their financial capability through the training received in financial management of their group.

CARE and Umutanguha Finance signed a memorandum of understanding (MOU) in 2014 to open group accounts at the FSP for VSLAs. This partnership enabled CARE's VSLAs to access formal financial services from Umutanguha Finance. For this project, Umutanguha Finance offered VSLAs an existing group product. Table 1 summarizes the group savings and group loan characteristics.

Table 1. Umutanguha Finance Savings and Loan Product Features	
Group Savings	
Product Features	

[3] For more information about Umutanguha Finance, please visite the folowing website at http://mixmarket.org/mfi/umutanguha and http://www.amir.org.rw

Opening Fee	1,000 RWF ($1.17 USD)
Maintenance Fee	0
Minimum Balance	1,000 RWF ($1.17 USD)
Minimum Opening Balance	2,500 RWF ($2.92 USD)
Interest on Savings	0%
Passbook	1,500 RWF ($1.75 USD)
Channel Mechanism	Branch only (but exploring mobile access option)
Product Performance	
Total Number of Savings Accounts (2017)	1,237
Average Balance of Active Group Accounts (2016/2017)	26,543 Rwanda Francs ($31 USD).
Average Dormancy Rate	9%
Group Loan	
Product Features	
Annual Interest Rate	22.8%
Penalties	0.2% (per day)
Terms	6-12 months
Compulsory Savings	0% (decreased from 20%)
Product Performance	
Total Number of Group Loans (2017)	549
Average Loan Balance	1,434,679 RWF ($1,668 USD).
PAR	2.34% (2017); 1.35 (2018)
Average % of VSLA Groups Taking Loans	23.9%

To show its commitment to this segment, Umutanguha Finance dedicated specific loan officers, paid by the FSP, to work with the VSLA products. However, the FSP relied on the Village Agent Networks (VAN) – set up and trained by CARE – for the *identification and client acquisition* of the VSLAs that showed readiness for utilizing formal financial services. The VAN is comprised of village volunteers that were paid for by CARE during the project. After the project ended, VANs were expected to be independent from CARE and able to engage directly with FSPs.

The number of VSLA accounts grew from 560 in 2015 to 1,237 by the end of 2017, an annual growth rate of 48.6% for the 3-year period.[4] During that period, Umutanguha Finance disbursed a total of 549 loans to savings groups for a total amount of 787,638,940 RWF ($915,859 USD).

Interviews with Umutanguha Finance staff indicate that it will increase its operational resources by hiring an additional loan officer dedicated to *processing* the VSLA products. However, the FSP will continue relying exclusively on the VAN for client acquisition. Yet, the partnership with VANs is unclear, because the VANs might require a financial compensation for conducting the outreach, but the FSP might not be willing to pay this compensation.

> *"The project has set up the Village Agent Network to play an intermediary role in the linkage between the relationship with our institution and the clients… with a limited involvement of the CARE project staff. And as long as we see the linkage project as a viable business, the project will continue"*
>
> – Director of Operations, Umutanguha Finance

[4] Compounded Annual Growth Rate (CAGR).

Thus, our analysis examines two scenarios: one where Umutanguha Finance reaches an agreement with the VANs to continue facilitating client acquisition (assumes same rate of growth as in 2017, approximately 30% - see Figure 1); and two where the partnership with VAN ends, resulting in Umutanguha Finance acquiring clients only through word of mouth or possibly limited to very simple below-the-line marketing strategies, such as flyers posted at branches (slower growth of only 10%, see Figure 2).

Figure 1. VSLA Account Opening Umutanguha (30% Growth)

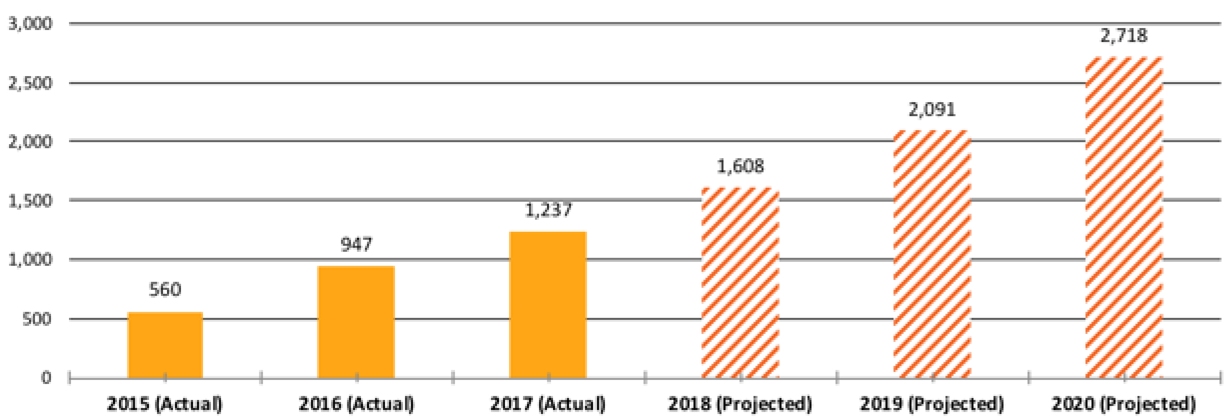
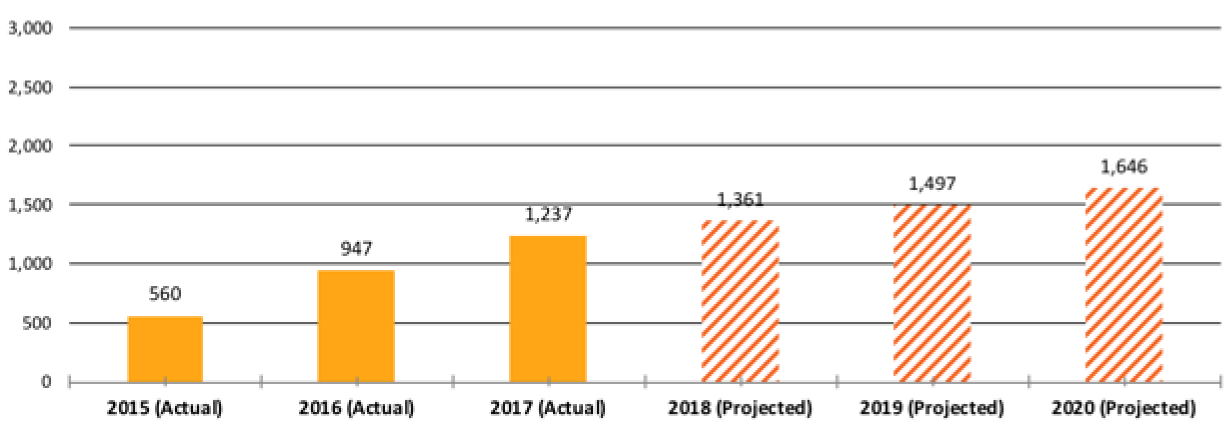


Figure 2. VSLA Account Opening Umutanguha (10% Growth)



2.1.3 Profitability Analysis

Umutanguha Finance provided an estimate on actual costs related to the provision and management of the savings and loans linked to the VSLAs, calculated on an allocation basis by the number of VSLA groups. These figures were utilized for the financial analysis from 2015-2017, and as a basis for projecting costs for 2018-2020. According to these figures, the operating expense-to-income ratio was very low during the first year (14%), but the percentage increased to 60% in 2016, and dropped again to 25% by 2017. These fluctuations are in line with the changes in the number of clients, that is, a substantial growth in clients (69%) in 2016 and then a decrease in growth (31%) in 2017. Based on discussions with the Umutanguha Finance staff, we expect the 2017 operating expense-to-income ratio to increase slightly (to 30%) as a new credit officer is hired.

In both scenarios, we estimate that Umutanguha Finance's VSLA savings and loan products are profitable already and will continue being profitable through the projection period, due largely to a low operating expense-to-income ratio.

Table 2. Profitability Analysis (30% Growth Rate in VSLA Account Opening)

Summary (RWF x 1000)	2015 (Actual)	2016 (Actual)	2017 (Actual)	2018 (Projected)	2019 (Projected)	2020 (Projected)
Total Revenue	38,903	16,711	49,480	88,502	141,347	226,684
Total Costs	19,700	15,241	29,991	58,929	95,265	154,309
Costs / Revenue	51%	91%	61%	67%	67%	68%
Net Cash Flow	19,203	1,470	19,489	29,573	46,082	72,375
VSLA Groups Linked	560	947	1,237	1,608	2,091	2,718
VSLA Individual Members Linked	0	0	395	514	668	868
Growth Rate		69%	31%	30%	30%	30%
Net Present Value as of 2015	124,609					

Table 3. Profitability Analysis (10% Growth Rate in VSLA Account Opening)

Summary (RWF x 1000)	2015 (Actual)	2016 (Actual)	2017 (Actual)	2018 (Projected)	2019 (Projected)	2020 (Projected)
Total Revenue	38,903	16,711	49,480	74,635	100,925	137,027
Total Costs	19,702	15,245	29,878	49,787	68,124	93,393
Costs / Revenue	51%	91%	60%	67%	67%	68%
Net Cash Flow	19,201	1,467	19,602	24,848	32,801	43,634
VSLA Groups Linked	560	947	1,237	1,361	1,497	1,646
VSLA Individual Members Linked	0	0	395	435	478	526
Growth Rate		69%	31%	10%	10%	10%
Net Present Value as of 2015	96,530					

It is worth noting that in 2016, when the number of accounts increased significantly, the net cash flow was at its lowest point because there was a drop in the number of loans taken out (Table 4). This case highlights the importance of VSLAs taking on formal loans as well as promoting the growth in savings accounts to increase the profitability of the group products.

Table 4. Umutanguha Finance VSLA Accounts Opened & Number of Loans

Year	2015	2016	2017
Number of VSLA Accounts	560	947	1,237
Annual Growth in Number of VSLA Accounts	-	69%	31%
Number of VSLA Loans Disbursed	258	87	204
Annual Growth in Number of Loans Disbursed	-	-66.3%	134.5%
Net Cash Flow	19,203	1,470	19,489
Costs/Revenues	51%	91%	60%

2.2Vision Fund Rwanda

2.2.1 Institutional Overview

Vision Fund Rwanda (VFR), formerly known as Vision Finance Company, is a microfinance institution (MFI) created in 1997 by World Vision. VFR was regulated in 2004 and became one of the biggest deposit-taking MFIs in the country, reaching 200% growth in both outreach and portfolio. As of 2017, VFR has 16,220 borrowers and 54,807 depositors; its gross loan portfolio was $3.2 million USD and its deposits added up to $544,259 USD.

VFR operates across Rwanda, with headquarters in the capital city of Kigali. VFR's branches are located in Muhanga, Gicumbi, Nyamagabe, Kabarore, Musanze, Kabuga, Byamba, Ngenda and Nyarugura, representing the main urban areas of the country. The loan officers travel to remote rural communities to provide financial services to disadvantaged groups and individuals.

VFR has more that 25,000 clients across the national territory. Approximately 70% of its clients are women. Since its creation, VFR has been extending primarily loans to micro and small entrepreneurs who lack the necessary funds to enhance the size and the revenue of their businesses. These entrepreneurs are between 18 and 65 years old.

To meet the needs of its customers, VFR offers an array of loan and savings products. Loan amounts generally range between $10 and $2,000 USD. VFR does not charge either an account opening fee nor a transaction fee for its savings account.

VFR products include the Urunana group loan, Ubwizerane group loan, Koramuhinzi farmer loan, Uyambere individual loan and child school loan. Savings products offered by the institution include a voluntary savings account, a fixed-deposit account and a flexible account. VFR is planning to introduce in the near future branchless channels and mobile banking to increase its reach in remote rural areas.

2.2.2 POWER Linkage Project at VFR

The partnership between CARE and VFR for the POWER Linkage Project is centered on acquiring VSLA clients through the participation of a Village Agent Network (VAN). With this project, VFR wanted to achieve a dual purpose: to facilitate access for VSLAs to formal financial services, while also improving its ability to achieve its mission of serving low-income and underprivileged groups living in remote rural areas. The majority of VSLA members are women whose main income-generating activities consist of small farms and trading.

> *"CARE is doing a good job, it is empowering people and changing their mind. Even after CARE's project, the service will continue through VAN; the agents are role models in the community"*
>
> - Financial Director, VFR

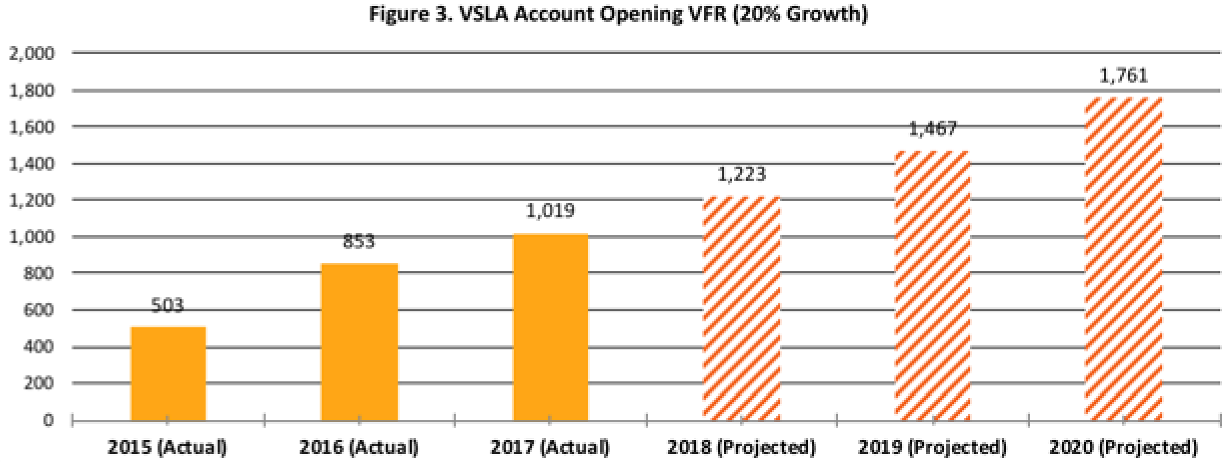
VFR serves VSLA members and other self-help groups in remote areas across Rwanda through the SAFI Group Loan and a group savings product. Table 5 shows the main features of these products.

Table 5. VFR Savings and Loan Product Features	
Group Savings	

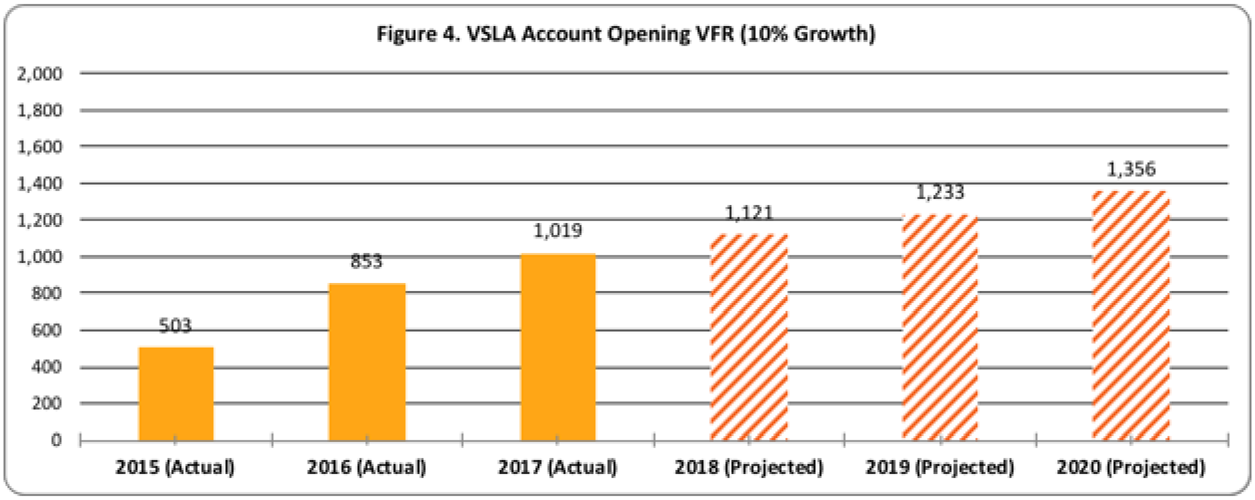
Product Features	
Opening Fee	0
Maintenance Fee	0
Minimum Balance	0
Minimum Opening Balance	0
Interest on Savings	0%
Passbook	NA
Channel Mechanism	Branch only (but exploring mobile access option)
Product Performance	
Total Number of Group Savings Accounts	1,019
Average Balance of Active Group Accounts (2017)	85,183 RWF ($99 USD)
Dormancy Rate Estimate (2016/2017)	0%
Group Loan Product	
Product Features	
Annual Interest Rate	30%
Loan Processing Fee	3%
Penalties	Calculated on total arrears (min. 500 RWF)
Terms	4 -10 months
Compulsory Savings	10%
Product Performance	
Total Number of Group Loans	715
Average Loan Balance	1,305,607 RWF ($1,518 USD)
PAR 30 (2017)	12%
Average % of VSLA Groups Taking Loans	35%

As of 2017, 1,019 VSLAs opened accounts with VFR, with an average member of 18 persons per savings group. VFR expects to achieve a growth rate of 20% (growth rate from 2016 to 2017 is 19%), with the number of VSLAs opening accounts increasing to 1,761 by 2020 (Figure 3).

Figure 3. VSLA Account Opening VFR (20% Growth)



However, the growth of account openings decreased substantially in the past year when compared to the first year (70% growth from end of 2015 to end of 2016). There's also some uncertainty on how likely VFR is to maintain the higher growth rate once the partnership with CARE ends, as the outreach will be primarily conducted through the VAN. Thus, we provide an alternate scenario where a slower growth of 10% is achieved through 2020 (Figure 4).



Along with a slowdown in the number of accounts opened, VFR also experienced a drop in the number of VSLA loans and the average balance on the savings accounts, as well as a slight decrease in the average loan balance (Table 6).

Table 6. Loans and Savings			
	2015	2016	2017
Number of VSLA Groups	503	853	1,019
Number of VSLA Loans[a]	292	283	140
Average Loan Balance	1,361,988	1,073,170	1,305,607
Average Savings Balance	114,885	102,808	85,183

a: The report "Preliminary Rwanda Performance Summary" Report provided by CARE shows an increase of VSLA loans during this period of 124 by end of 2016 and 395 by end of 2017, but we opted to analyze the figures provided by VFR.

This decrease in the loan portfolio is a result of an increase in the 30-day portfolio at-risk (PAR30) of the VSLA loans, which reached 12 % in 2017, an increase from 4% in 2016.[5] In fact, according to discussions with VFR management, this increase in PAR was an institutional-wide concern. With the increase in PAR the VFR management decided to exercise greater caution in issuing loans.

2.2.3 Profitability Analysis

The profitability analysis indicates that in both cases (with VFR's expected growth rate of 20% and a second scenario with a slower growth rate of 10%) VFR does not achieve profitability through the projection period (Table 7 and 8). The profitability of the VSLA loans is constrained by the operating expense-to-income ratio (OPEX) of 77.7%. In these scenarios, we assumed a constant level of OPEX assuming there will not be any major changes to the way that VFR processes and manages the VLSA products.

It is important to note that VFR calculated the operating costs of the project on an allocation basis by the total outstanding portfolio. In this cost allocation the cost driver is the size of the loan – in essence, the larger the loan, the greater the operating expenses associated to processing, managing, and monitoring the loan. This assumes that a larger loan requires more time and effort to process presumably because there's greater due diligence with larger loans.

[5] PAR figures obtained from VFR.

Table 7. Scenario 1 (VFR's Expected Growth Rate of 20%)

Summary (RWF x 1000)	2015 (Actual)	2016 (Actual)	2017 (Actual)	2018 (Projected)	2019 (Projected)	2020 (Projected)
Total Revenue	97,669	85,886	64,336	138,101	166,410	200,560
Total Costs	133,242	105,124	75,147	153,338	184,541	222,124
Costs / Revenue	136%	122%	117%	111%	111%	111%
Net Cash Flow	-35,573	-19,238	-10,811	-15,237	-18,131	-21,564
VSLA Groups Linked	503	853	1,019	1,223	1,467	1,761
VSLA Individual Members Linked	0	14	2	11	13	16
VSLA Growth Rate		70%	19%	20%	20%	20%
Net Present Value as of 2015 (RWF x 1000)	-65,334					

Table 8. Scenario 2 (Slower Growth Rate of 10%)

Summary (RWF x 1000)	2015 (Actual)	2016 (Actual)	2017 (Actual)	2018 (Projected)	2019 (Projected)	2020 (Projected)
Total Revenue	97,669	85,886	64,336	126,593	139,831	154,483
Total Costs	133,242	105,124	75,147	140,560	155,066	171,092
Costs / Revenue	136%	122%	117%	111%	111%	111%
Net Cash Flow	-35,573	-19,238	-10,811	-13,967	-15,235	-16,610
VSLA Groups Linked	503	853	1,019	1,121	1,233	1,356
VSLA Individual Members Linked	0	14	2	10	11	12
VSLA Growth Rate		70%	19%	10%	10%	10%
Net Present Value as of 2015 (RWF x 1000)	-63,473					

However, we also examined a case where the OPEX ratio is decreased slightly by 5% every year for the next 3 years in the projection period (Figure 8). In that scenario, VFR achieves profitability by 2020. This scenario is viable because VFR has been able to lower its OPEX ratio from 136.5% (in 2015) to 77.7% (in 2017). But such scenario would require that the partnership with VAN is successful in continuing to attract new VSLA clients and that VFR continues to achieve operational efficiencies as it becomes more familiar with processing VLSA products. It would also require that VFR gain greater control over its PAR at an institutional level as well as at the VSLA level.

Table 9. Scenario 3 – Lower Operating Expense-to-Income Ratio

Summary (RWF x 1000)	2015 (Actual)	2016 (Actual)	2017 (Actual)	2018 (Projected)	2019 (Projected)	2020 (Projected)
Total Revenue	97,669	85,886	64,336	138,101	166,410	200,560
Total Costs	133,242	105,124	75,147	147,971	171,929	199,890
Costs / Revenue	136%	122%	117%	107%	103%	100%
Net Cash Flow	-35,573	-19,238	-10,811	-9,870	-5,519	671
VSLA Groups Linked	503	853	1,019	1,223	1,467	1,761
VSLA Individual Members Linked	0	14	2	11	13	16
VSLA Growth Rate		70%	19%	20%	20%	20%
Net Present Value as of 2015 (RWF x 1000)	-57,310					

2.3 Advans

2.3.1 Institutional Overview

ADVANS Cote d'Ivoire is a subsidiary of the International Microfinance Group ADVANS. This microfinance institution was set up in 2012 and it currently operates 15 branches throughout Cote d'Ivoire. Currently, it is the top MFI in the country in terms of deposits as well as loan portofio size and quality. As of 2017, Advans Cote d'Ivoire had an outstanding loan portfolio of 60 billion FCFA ($110 million USD) and 32 billion FCFA ($59 million USD) in deposits.

Advans has more than 14,000 active borrowers and 90,000 depositors. It serves a wide range of clients, including micro, small and medium enterprises, traders and cacao producers. Advans has an average PAR 30 as of 2017 of 3.7%. Approximately 99% of its clientele are micro-enterprises. However, while small and medium enterprises represent only 1% of Advans clientele, they hold more than 60% of its loan portfolio. Each year, the MFI opens news branches across the country to reach new segments of the population.

To meet the needs of its diverse clientele, the institution offers a variety of financial services. In terms of deposits, Advans offers savings and current accounts as well as term deposits. Regarding loans, Advans offers the products *Progrès*, *Croissance*, *Joker* and *Evolution*, which range in amounts from 150,000 to 300 million FCFA (approximately $276 to $553,000 USD).

2.3.2 POWER Linkage Project at Advans

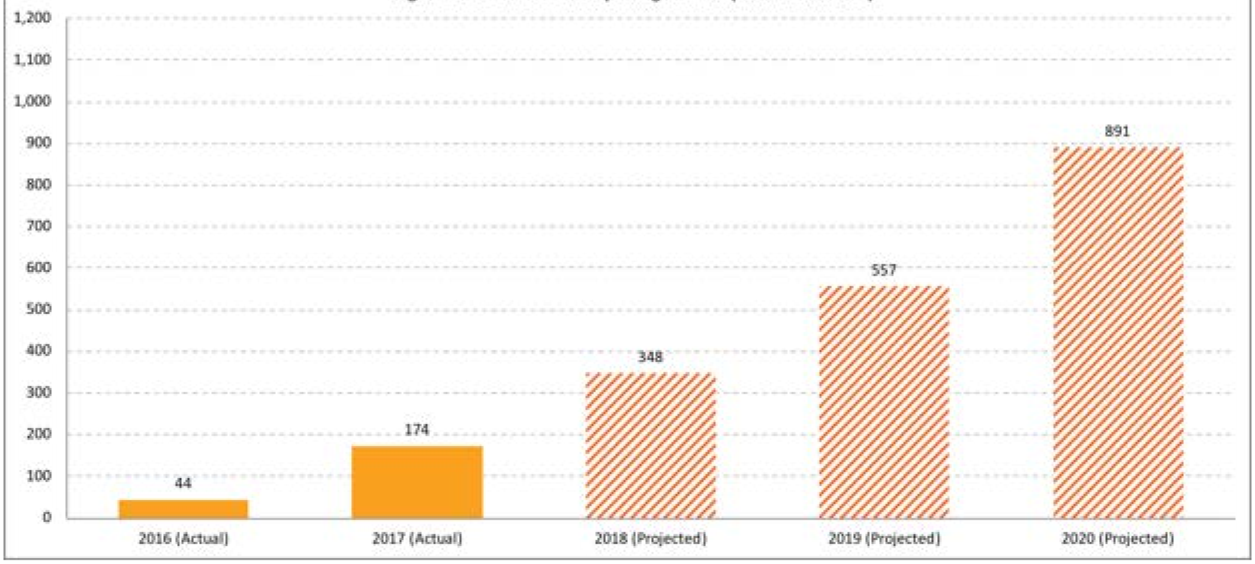
After a pilot project that enabled 21 groups to open savings accounts in 2015, a MOU was signed between CARE and ADVANS in 2016. Advans offers VSLAs groups the *Serenity* savings product and a group loan product (Table 10).

Table 10. VFR Savings and Loan Product Features	
Group Savings Product	
Product Features	
Opening Fee	2500 ($5 USD)
Maintenance Fee	2500 ($5 USD) (to be eliminated in 2018)
Minimum Balance	5000 RWF ($10 USD)
Minimum Opening Balance	5000 RWF ($10 USD)
Interest on Savings	3.5%
Passbook	NA
Channel Mechanism	Mobile wallet-to-bank and bank-to-wallet - MTN
Product Performance (2017)	
Total Number of Group Savings Accounts	174
Average Balance of Active Group Accounts	40,961 FCFA ($75 USD)
Dormancy Rate Estimate	8%
Group Loan Product	
Product Features	
Annual Interest Rate	19.20%
Processing Fees	0%
Penalties	2% of the amount due, per day
Terms	3 to 11 months
Collateral	1/3 of the capital as a deposit guarantee
Product Performance (2017)	

Total Number of Group Loans	12
Average Loan Balance	1,154,692 FCFA ($2,126.50 USD)
PAR (March 2018)	0 %
Average % of VSLA Groups Taking Loans	6.9%

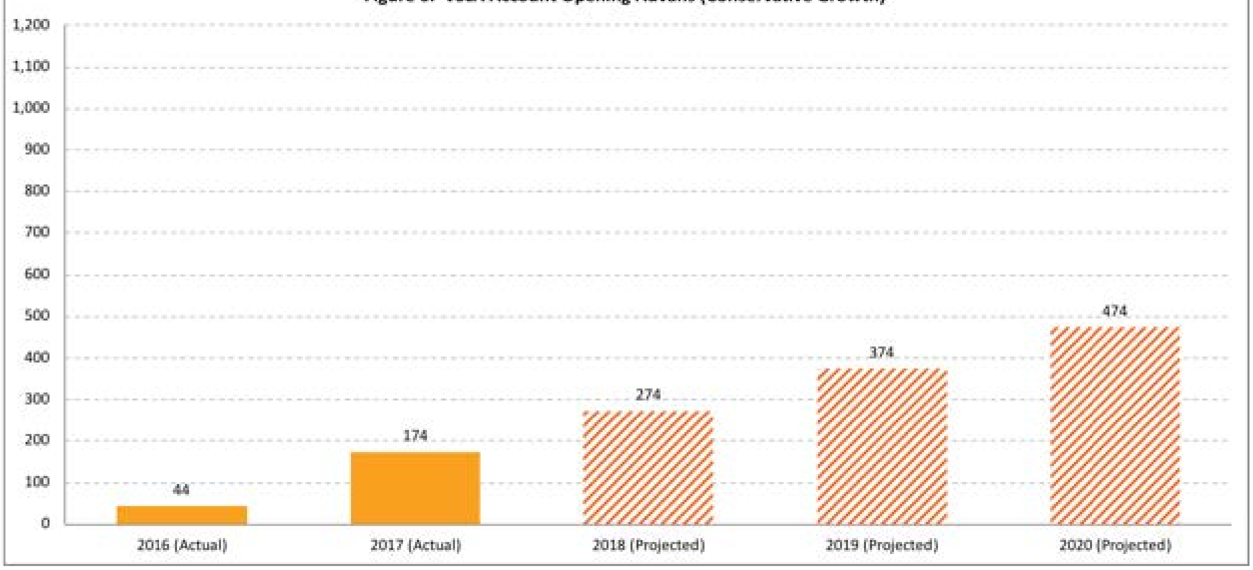
Since then, the number of VSLAs opening accounts at the institution have grown rapidly from 44 in 2016 to 174 in 2017. The original growth estimates of Advans indicate that the number of VSLAs could grow to 1,114 by 2020 (Figure 5).

Figure 5. VSLA Account Opening Advans (Initial Estimates)



However, after further analysis, Advans estimated a more conservative growth, of approximately 100 new VSLA groups with accounts per year for the next 3 years (Figure 6).

Figure 6. VSLA Account Opening Advans (Conservative Growth)



Post-project, Advans plans to acquire new VSLA clients throught two channels:

1) Continue working with the VAN – The VAN is in charge of account "pre-opening", which includes training the groups; obtaining all required documentation and signatures in the field; transmitting documentation between Advans and the VSLAs, and following-up and communicating with the VSLAs. Nevetheless, the engagement model post-project with the VAN is not completely defined yet.
2) Reach out to VSLAs through Advans' own banking agents – These agents are already facilitating account opening for cocoa farmersin the field. In this scenario, banking agents would be in charge of account "pre-opening", but the local VAN would still be required to facilitate the meetings and communication with the VSLAs.

Advans launched in October 2017 a pilot which enabled to disburse 12 loans, for a total amount of almost 14 million FCFA ($25,518 USD). The outcomes of the pilot will enable the FSP to define a future model for the deployment of the loan activity.

2.3.3 Partnership with MTN

Advans offers a mobile banking option to VSLAs client, with mainly wallet-to-bank (deposits) and bank-to-wallet (withdrawals) services through MTN, a Mobile Network Operator (MNO). These services between e-wallet accounts and bank accounts allow transfers between MTN and any partner account. Other MTN products and services for VSLA groups include money transfers and bill payments. The maximum balance for a standard mobile money is 1,5 million FCFA ($2,762 USD).

The partnership with MTN involves costs and revenues. For wallet-to-bank transactions, Advans pays MTN 0.5% of the amount, whereas for bank-to-wallet transactions, MTN pays Advans 0.5%. In addition, Advans incurs an additional cost of 22 FCFA ($0.04 USD) per SMS sent to confirm mobile transactions.

2.3.4 Profitability Analysis

Our analysis suggests that the VSLA savings and loan products at Advans do turn a small profit early on, even with just 12 loans disbursed in 2017 (Table 11). The profitability is largely due to a small OPEX ratio of 43%. But the revenues generated are largely driven by the individual savings account and corresponding balances, which grew substantially in the first two years (139%) compared to the small growth in the group savings accounts balances (only 2% growth). There were also more deposits on average for individual accounts (1.5 per year) compared to group savings accounts (1.3 per year).

Given the use of mobile money available at Advans, the number of deposits and withdrawals have implciations on the revenues and costs. Because of the cost structure with Advans, withdrawals (cash out) generate a revenue for Advans, but deposits represent a cost. Currently, VSLA groups and individual members deposit at a greater rate than withdraw. This could be positive for the overall balance of the accounts, but it results in greater mobile channel costs than mobile channel revenues.

In the first scenario, the analysis is based on original VSLA growth projections from Advans, which estimated a growth of 100% in year 2018, and 60% growth in years 2019-2020.

Table 11. Scenario 1 – Original Growth Estimate (100% for 2018, 60% for 2019-2020)

Summary (FCFA x 1000)	2016 (Actual)	2017 (Actual)	2018 (Projected)	2019 (Projected)	2020 (Projected)
Total Revenue	503	2,652	5,628	12,001	28,187
Total Costs	338	2,136	4,909	10,940	27,260
Costs / Revenue	67%	81%	87%	91%	97%
Initial Investments	1,574	6,000	6,000	750	0
Net Cash Flow	166	516	719	1,060	927
VSLA Groups Linked	44	174	348	557	891
VSLA Individual Members Linked	83	134	268	429	686
Growth Rate	N/A	295%	100%	60%	60%
Net Present Value as of 2016	2,313				

After reviewing this scenario, Advans revised its projections and estimated a more conservative growth of just 100 new VSLA accounts per year. Scenario 2 shows the financial analysis with this more conservative estimate, which still results in profit, though smaller in scale (Table 12).

Table 12. Scenario 2 – Conservative Growth Estimate

Summary (FCFA x 1000)	2016 (Actual)	2017 (Actual)	2018 (Projected)	2019 (Projected)	2020 (Projected)
Total Revenue	503	2,652	4,431	8,061	14,997
Total Costs	338	2,136	3,865	7,349	14,504
Costs / Revenue	67%	81%	87%	91%	97%
Initial Investments	1,574	6,000	6,000	750	0
Net Cash Flow	166	516	566	712	493
VSLA Groups Linked	44	174	274	374	474
VSLA Individual Members Linked	83	134	211	288	365
Growth Rate	110%	295%	57%	36%	36%
Net Present Value as of 2016	1,724				

In both scenarios, the VSLA products show profitability. However, the profitability margins decrease over time, as the OPEX ratio stays the same and everything else increases (loan revenues as well as capital costs). Thus, unless Advans is able to figure out economies of scale as it processes the VSLA products, the profit margins will continue decreasing over time.

These projections maintain the 2017 ratio on the uptake of loans by VSLAs (6.9%, which is based on the 12 loans taken by the 174 groups). This is a significantly lower percentage than for the other institutions (24% for Umutanguha Finance and 35% for VFR), which greatly limits the potential profitability. In our final analysis, we examine an uptake of loans by VSLAs of 25%, similar to the rate of the other FSPs. This results in a much larger profit margin, even with the more conservative growth estimates.

Table 13. Scenario 3 – Higher Uptake of Loans by VSLAs

Summary (FCFA x 1000)	2016 (Actual)	2017 (Actual)	2018 (Projected)	2019 (Projected)	2020 (Projected)
Total Revenue	503	2,652	11,305	19,788	33,575
Total Costs	338	2,136	9,506	16,973	29,751
Costs / Revenue	67%	81%	84%	86%	89%
Initial Investments	1,574	6,000	6,000	750	0
Net Cash Flow	166	516	1,798	2,815	3,824
VSLA Groups Linked	44	174	274	374	474
VSLA Individual Members Linked	83	134	211	288	365
Growth Rate	110%	295%	57%	36%	36%
Net Present Value as of 2016	5,922				

3. Conclusions

The business case analysis of the three FSPs suggests that the VSLA linked products require a high level of operational efficiency to reach profitability as well as an adequate uptake of loans by the VSLAs.

The different scenarios for VFR highlighted the first point, with the driving factor in reaching profitability being a lower operating expense-to-income (OPEX) ratio. As the FSPs become more familiar with processing loan and savings products for VSLAs, we would expect them to become more operationally efficient. However, the data obtained so far from the FSPs is not adequate enough to examine the validity of this supposition.

The scenarios for Advans highlighted the way the uptake of loans affects the financial bottom line of the FSP. However, as noted in the case of VFR, approving loans for VSLAs still require appropriate diligence and risk assessment so as to maintain an adequate level of risk.

It is worth nothing that deposits from the VSLAs have the potential to lower the cost of funds for the FSP, thereby increasing their profitability, by providing a cheap source of capital. The lower the amounts of deposits, the more the FSP has to rely on external funds. Annual cost of funds for the FSPs range from 10% to 19%. If the FSPs were to have a higher level of deposits, they could decrease their capital costs and increase their profit margins. The amount of deposits from VSLAs, however, are generally much lower than the amounts disbursed, so we estimate that the FSPs have to rely significantly on external funds to fully fund the loans for VSLAs. Table 14 shows the credit-to-savings ratio (average loan balance to average savings balance per group) for the VSLA groups (Table 14).[6] We need to note that the average savings

[6] CARE advises in its principles of VLSA linkages that loan-to-savings ratio be maintained at 3:1, however, this ratio is for individual groups, whereas the data presented in this analysis is for all the groups on average, which includes groups that did not borrow.

might not reflect the total savings available to the group, which are often deposited at other financial institutions.[7]

Table 14. Credit-to-Savings Ratios			
	Average Loan Balance per VSLA 2015-2017	Average Savings Balance per VSLA 2015-2017	Ratio
Umutanguha Finance	636,733	26,766	24:1
Vision Fund Rwanda	867,706	100,959	9:1
Advans	79,634	40,961	2:1

The challenges encountered in obtaining the financial data and verifying the findings in this study suggest that, in general, the FSPs need to strengthen their systems and internal capacity to fully analyze the profitability of new products with such distinct characteristics. FSPs would benefit from conducting a closer analysis of the revenues and costs associated to these products. But such monitoring would need to be incorporated into the MIS of the FSPs from the start of a project to fully capture actual expenses and revenues at this unit level. FSPs would likely require capacity building to conduct a more extensive financial analysis and implement a more robust MIS.

There is a general consensus among partners (FSPs, VAN and CARE) on working together to achieve profitability and sustainability of the VSLA linked products. All three FSPs are interested in continuing their engagement with the VAN acting as an intermediary for linking groups. But there's uncertainty on whether this relationship will prove to be equally beneficial. FSPs would likely need to provide a commission to VANs to increase client acquisition. This would further increase the operational expenses. Financial incentives, though, could be structured around reaching an adequate level of deposits and loans from the VSLAs.

Discussions with the FSPs indicate that they generally view the linked VSLAs as a way to strengthen the quality of the loan portfolio, and offer a lower cost of funds. But they need to monitor more closely the revenue and cost drivers of this product line to make appropriate operational and strategic decisions.

All of the FSPs also mentioned the possibility that the implementation of digital payments could lower the transaction costs incurred by the linkage of VSLAs. If wallet-to-bank were to increase deposits, this could increase the operational efficiency of the products. Advans is currently offering mobile banking, but the figures provided are too small (roughly only one deposit and one withdrawal on average per year) at this point to make an adequate analysis on the financial impact of this evolving technology.

[7] Based on discussion with Karen Vandergaag, April 23, 2018.