

Nigeria Off-Grid Market Acceleration Program

# ANNUAL IMPACT REPORT

YEAR ONE



**NoMAP**

Nigeria Off-Grid Market Acceleration Program



## IMPACT HIGHLIGHTS SO FAR



**1,000 +**

TA Hours to SHS companies



**3,000 +**

Identified off-grid communities viable for mini-grid deployment across 10 states



**6,000 +**

Identified locations viable for SHS shared to hundreds of stakeholders



**5**

Supported REA with energy audits in five markets in Kano and Kaduna States as part of the EEI



**150 +**

Viable mini-grid communities surveyed with field enumerators to collect granular information and load assessment across 10 states



**40k +**

Mini-grid field survey responses collected in viable mini-grid communities across 10 states



**50**

Interactions (beyond core initiatives)



**6**

SHS companies successfully integrated into SWIFTA's 20,000+ agent network



**1,000 +**

Viewings and insights from newsletters and media publications

*"Customers in close proximity to Omnibranches agents now make payment with ease, our follow up calls to these customers have reduced due to easy access to these payment points."*

- Management, SHS Company

*"We were able to expand to two new states, Anambra and Enugu which were on our expansion plans for end of 2019."*

- Management, SHS Company

*"As we get more customers the system will make payments much easier"*

- Installer Agent

## INTRODUCTION

The Nigeria Off-Grid Market Acceleration Program (NOMAP) is an independent market accelerator with the primary objective of tackling inadequately addressed barriers limiting the growth of the off-grid energy sector in Nigeria. The Program is jointly funded by Shell Foundation and the United States Agency for International Development (USAID)

NOMAP in its first year, focused on two high-impact initiatives that address market barriers around market intelligence/data and payment collection for SHS Companies.

### **Initiative 1: Pilot an Off-Grid Payment System for Last Mile Collection for Pay-As-You-Go (PAYGO) SHS Company.**

Nigeria's low mobile money penetration (about 1% of the population) makes it difficult for PAYGO companies to expand into the last mile and collect payment from customers. The goal of the pilot was to develop a "work-around" that will address the current difficulties faced by SHS companies in collecting payment from their unbanked customers. The workaround also facilitated the aggregation of payment channels - Agent Networks (cash collection agents).

### **Initiative 2: Build Market Intelligence/Data for Mini-grids development and SHS Deployment.**

Companies, investors and policy makers face challenges making informed decisions in the off-grid sector due to insufficient market data. Existing data sets are limited in scope, outdated and often unreliable. NOMAP supported the sector with data on off-grid communities that are viable for mini-grid development and deployment of solar home systems. NOMAP also supported the Rural Energy Agency with two market audits as part of its Energizing Economies Program.

## PROGRESS ACROSS INITIATIVES



### Initiative 1: Pilot an off-grid payment collection system for SHS companies

The Central Bank of Nigeria’s regulatory framework allows both bank-led and non-bank-led models of mobile financial services. However, mobile network operators, unlike in East Africa, were until recently, excluded from providing mobile financial services. These restrictions coupled with the limited reach of current mobile money providers, constrains the opportunity for pay as you go DRE models to achieve the much-needed scale. In the absence of mobile money, SHS companies still face a huge challenge in collecting payment from last mile customers. As SHS companies expanded into unbanked rural areas, collection for PAYGO subscription became highly dependent on company staff/agents travelling to these communities to coordinate cash collections weekly or monthly. This resulted in increased cost to the company, growing default rates and reduced the penetration of Solar Home Systems (SHS) into last mile communities.

NOMAP sought to ease the challenges associated with payment collection from unbanked SHS customers by financing the integration of the billing systems of SHS companies’ payment platforms and SWIFTA’s agent networks. To accomplish this, NOMAP identified six SHS companies to undertake the pilot and financed their integration.

#### Pre-integration Engagement with Solar Home Systems

In September 2018, NOMAP invited seven (SHS) companies (indigenous and international) to a meeting with SWIFTA Systems, a financial technology company with a 20,000+ strong agent network operating under the brand name “OMNIBRANCHES”.

The NOMAP team discussed its plan to pilot a payment system with interested SHS companies. It expressed interest in financing the integration into an agent network and collect data after the integration to access the impact on payment collection on

unbanked customers. During the meeting, various payment options- mobile money payments, USSD codes and agent networks-for last mile payment were reviewed. After extensive deliberation, five SHS companies expressed their interest to participate in the pilot. A Memorandum of Understanding (MOU) was drafted and signed between NOMAP and five SHS companies and an additional sixth SHS company.

### **Pre-integration Data**

Following the signing of the MOU between the Six SHS companies and NOMAP, and Service Level Agreements (SLAs) between SWIFTA and the companies, SWIFTA commenced Application Programming Interface (API) integration of Angaza, Lumiter and its OMNIBRANCHES platforms. For PAYGO business models to run seamlessly, SHS companies either develop their own proprietary systems or subscribe to third party companies such as Angaza, Lumiter and Omni-voltaic which provide access to PAYGO platforms as a service. Application Programming Interface (API) is a messenger that processes request and ensures seamless functioning of enterprise systems . It has been identified by EFINA as the most employed technology in the Nigerian financial technology segment.

### **Integration**

NOMAP provided project management support to SWIFTA and the SHS companies. The team also ensured that the companies responded to all the requests in a timely manner and was on hand to ensure that the cost of the integration was within the budget and completed on time. There were weekly check-in calls with the technical teams of ANGAZA and Lumiter to resolve issues encountered during the integration process. The integration of five SHS companies was completed on 10th December 2018. Following the completion of the integration, a User Acceptance Test (UAT) was carried out and issues that came up during the UAT and field tests were resolved. Overall, five companies were integrated in December 2018. Azuri, Asolar, Smarter Grid International (SGI), Sosai, Oolu Solar. A4& T was integrated in July 2019.

### **Post Integration: Strategic Communication Planning and Agents Training**

NOMAP organised a press conference in January 2019 to draw the attention of the public to the new payment channel for Solar Home Systems (SHS). Executives of the SHS companies, representatives from SWIFTA and journalists were present at the event. The Executives from the companies and SWIFTA fielded questions from the journalists present at the event.

To support the companies' marketing and communications efforts, NOMAP organised a marketing meeting between the SHS companies and the SWIFTA Team. SWIFTA highlighted some of the challenges identified during the User Acceptance Test.

During the session, the SWIFTA team also simulated how transactions are processed by agents using the OMNIBRANCHES application. The SHS companies resolved to send relevant details and pictures of their products to assist SWIFTA in developing a training manual for its field agents; arrange a train-the-trainer session for the SWIFTA team; provide their FAQ documents; develop a detailed plan of incorporating the OMNIBRANCHES payment option into their communication to new and existing customers. SWIFTA had taken steps to sensitise its agents on the introduction of Solar companies to its bouquet of billers at agents end of year meeting in December 2018.

The train-the-trainer and communications meetings which NOMAP facilitated allowed the SHS companies explain the details of how their systems work, installation guidelines, care of products and proposed communication plan.



*Photos of the press conference and Marketing meetings in Lagos, Nigeria Jan. 2019*

# Timeline for Initiative 1

**2018**  
September

## Pre-integration Engagement with Solar Home Systems

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## Pre-integration Data

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## Integration

Overall, five companies were integrated in **December 2018**. Azuri, Asolar, Smarter Grid International (SGI), Sosai, Oolu Solar. A4& T was integrated in **July 2019**.

## Post Integration: Strategic Communication Planning and Agents Training

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**2019**  
September

## Impact of the Intervention on Last Mile Payment

### **Increased Efficiency in Collections**

According to Installer-agents who were in charge of cash collections from customers before the integration into SWIFTA's platform, the fulfilment process (top up) was cumbersome. The time between customer payment and receipt of top-up token by the customer ranged between 40 minutes to 4 hours.

After integration, NOMAP administered questionnaires to the agents. They noted the following:

- The time between when payment is made and when top up token is received has reduced significantly (less than 5 minutes), SMS text messages to customers preferred phone numbers were immediately received
- Agents are now able to better manage their exposure, as they now inform customers that top up is strictly by upfront cash payment model. Post integration, agents are now unable to generate top up codes without the receipt of upfront payment. Prior to the integration, legacy agents of the SHS companies would often give our top up token to customers on credit.

### **Organic Demand and Expansion to New Regions**

As part of its go-live activities, SWIFTA printed simple promotional banners with the companies' logos and distributed them to over 300 agent locations, alerting customers that they could pay for their Solar Home Systems at the agent location. What was observed was an organic demand from customers to purchase the systems from the agents, enabling companies to increase their sales figures and expand into new regions.



*We were able to expand to two new states Anambra and Enugu, which were on our expansion plans for end of 2019*

- Middle Management of Participating Company



*As we get more customers the system will make payments much easier.*

- Installer-Agent

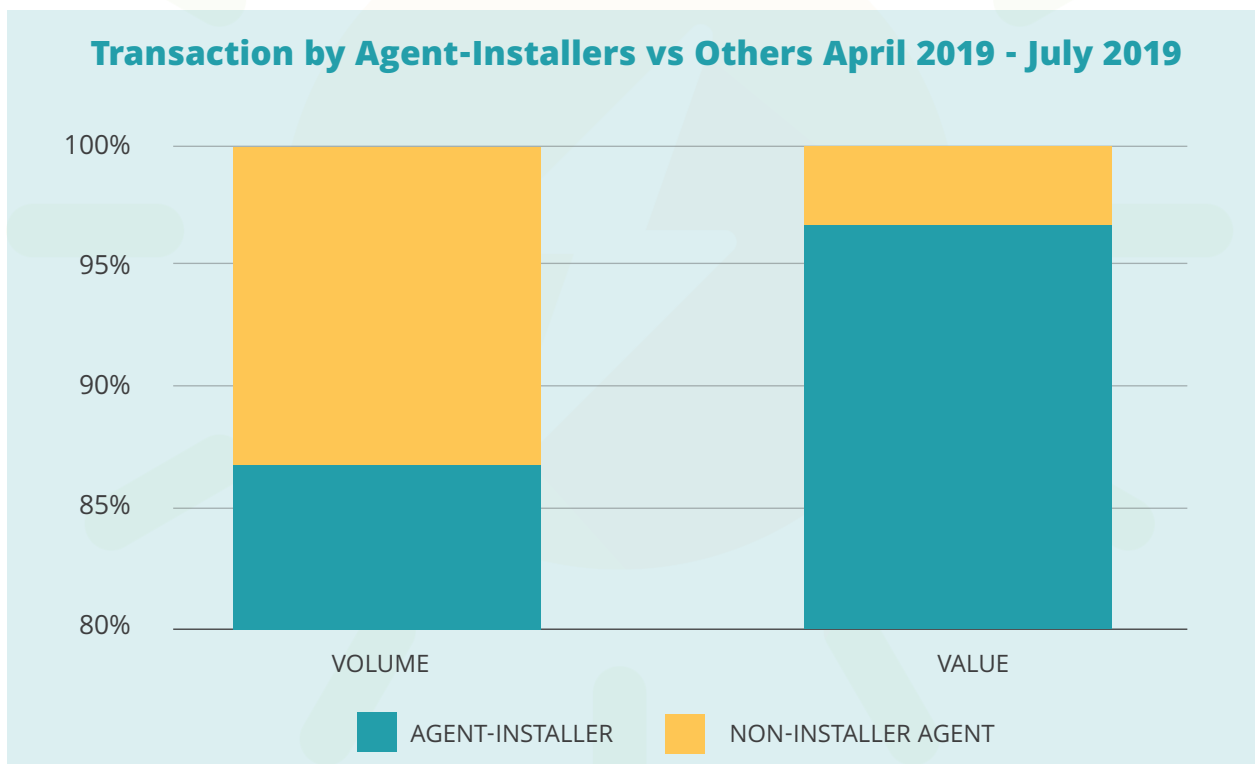


### **Jobs created**

Between April 2019- July 2019 utilisation of the payment channel significantly increased. The uptick in utilisation was ascribable to onboarding of the installer-agents. These group was most efficient in collections as they had the advantages of;

- Being itinerant, and close to the communities
- Acquaintance with customers’ location.

SHS installers set up the SHS systems for customers in these communities and they go on to become SWIFTA agents. These offers them opportunities to earn commissions on collections from customers. These agent-installers are also able to refer customers to the nearest static OMNIBRANCHES agent for which they also earn a commission on payments at the static agent location.



### **Increased Transparency**

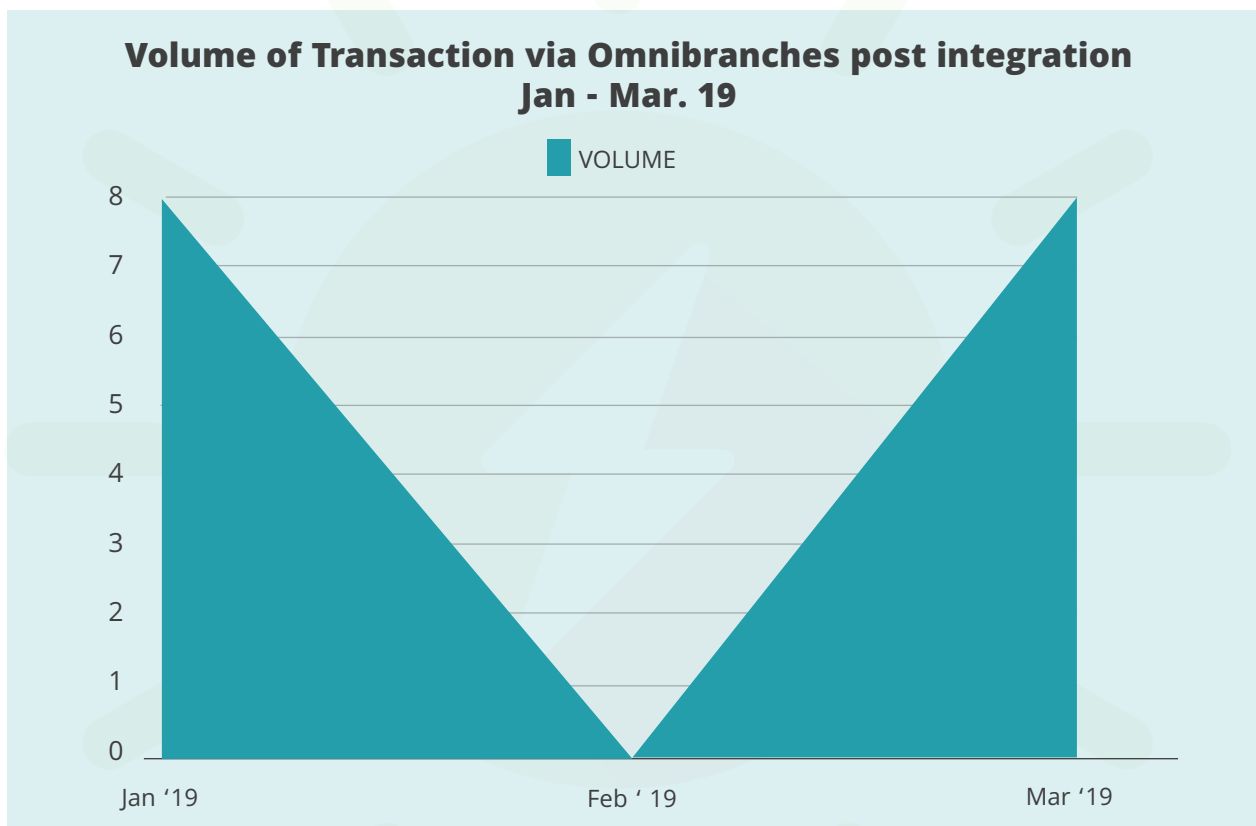
Integration to SWIFTA’s platform now allows SHS companies to easily keep track of receivables and reconcile with their account departments as against with other payment options such as cash deposit into bank accounts.

The companies have also found it useful as a mitigation for fraud. As companies onboard their installers as agents on the Omnibranches platform, they gave instructions to divert all cash collections via the platform for ease of reconciliation.

### **Post Integration Data, lesson learned and Recommendations**

The NOMAP team had access to a back-end portal granting access to the transaction volumes and values for each company and each region. The platform monitored weekly showed a trend of low payment volumes between the period of January 2019 March 2019 (13 transactions, USD171.11).

The reason adduced for the poor uptake during this period was poor visibility of SWIFTA's agents.



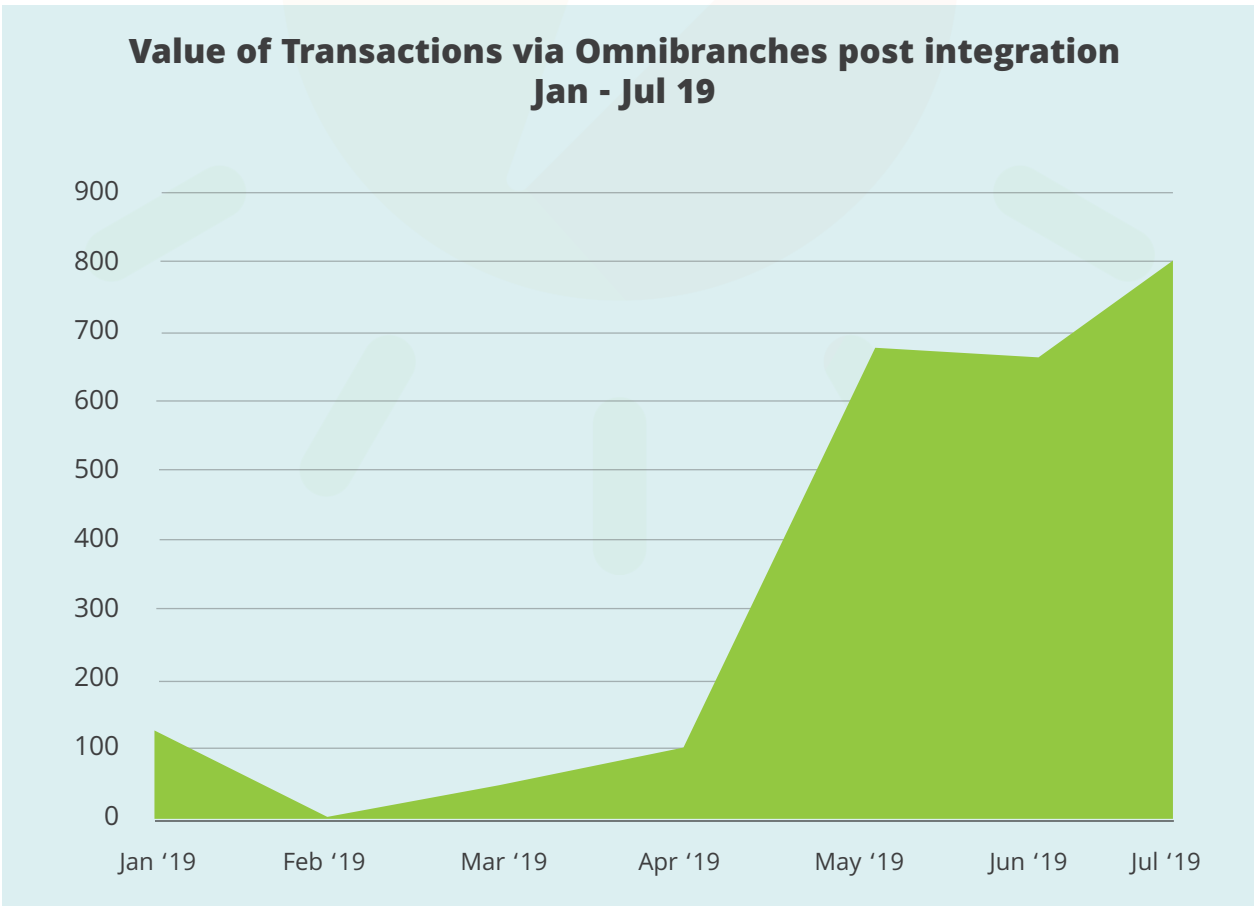
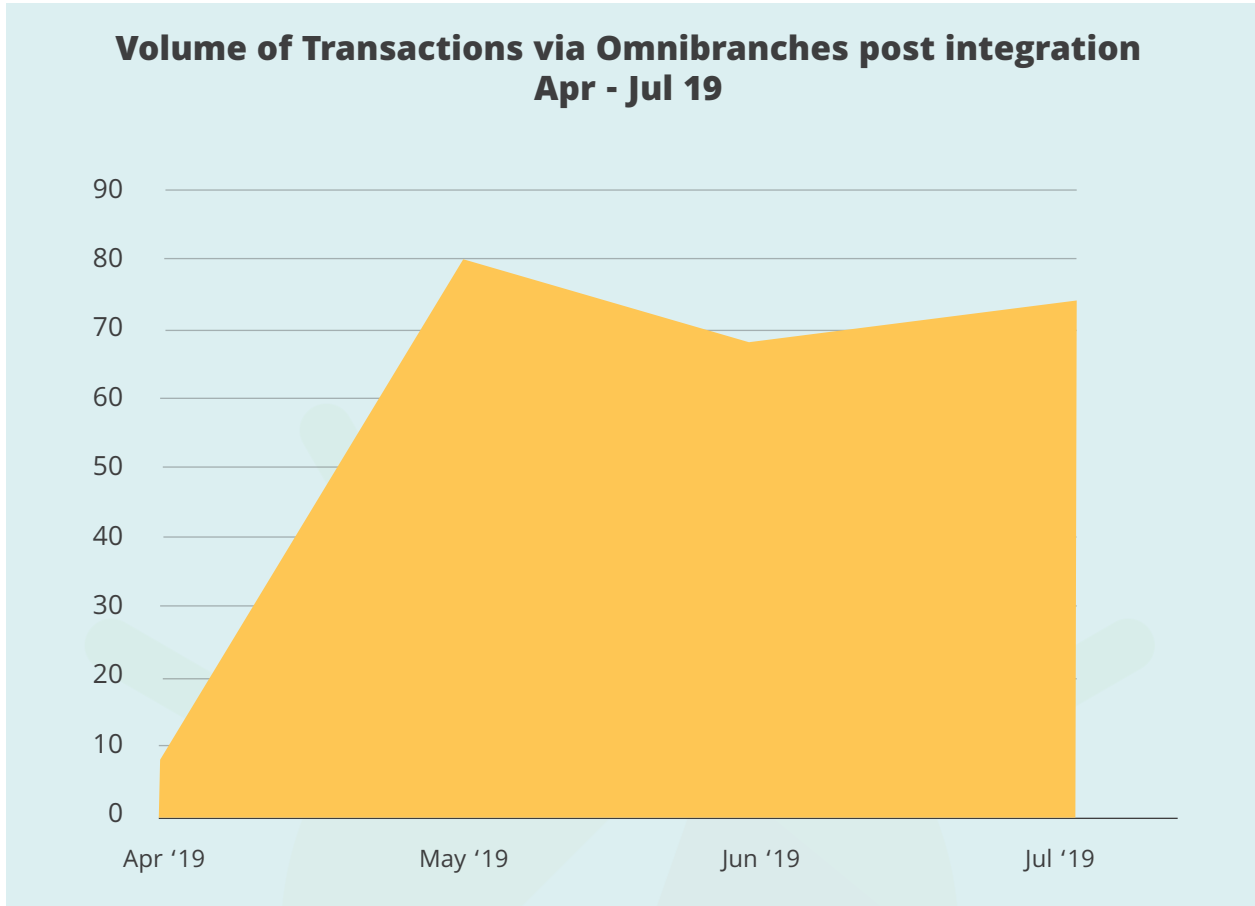
As companies began implementing these steps and with consistent follow up with SWIFTA teams and SHS companies' senior management, there was a consistent increase in the utilisation of the platform. By July 31st, 271 transactions with a total value of USD 2,708.93 had been processed on the platform.

**By July 31st**

**271 transactions**

**USD 2,708.93**

**processed on  
platform**

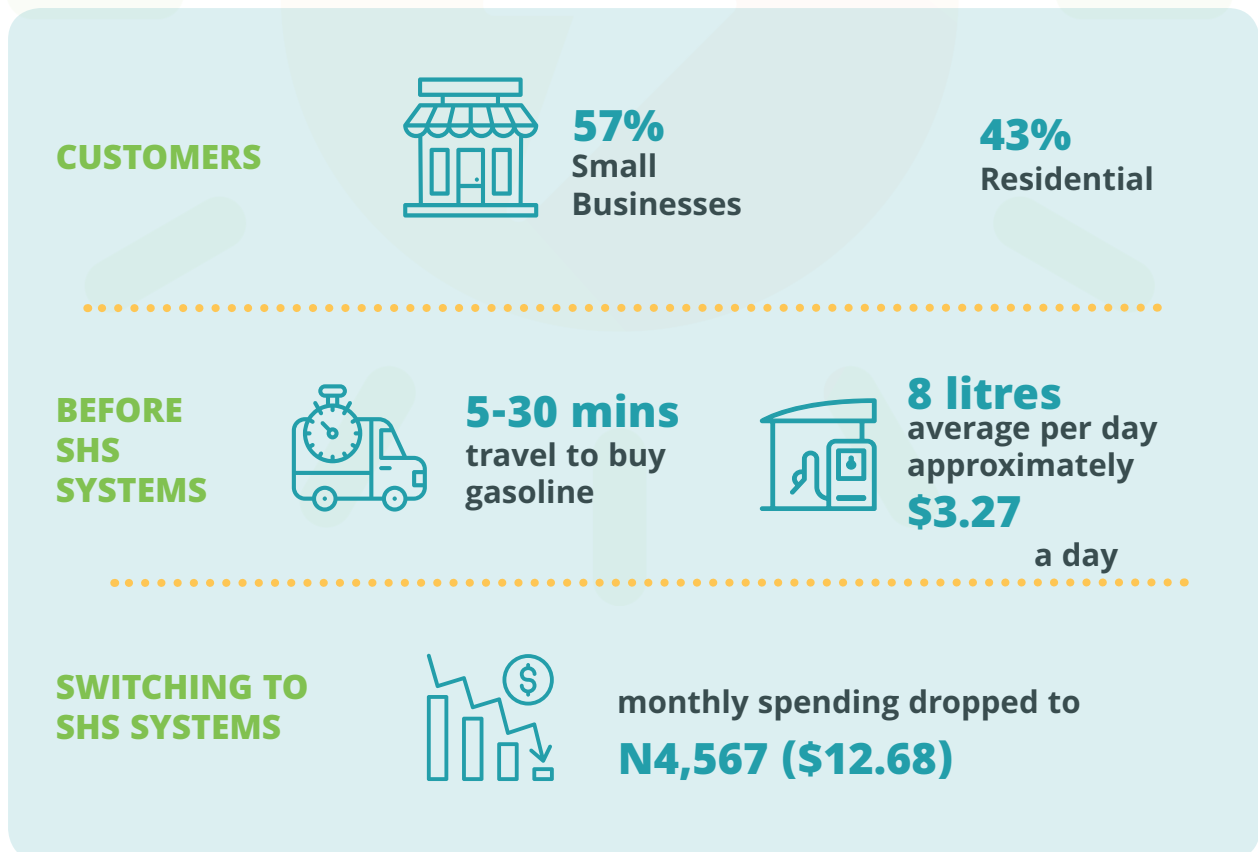


Questionnaires were also administered post-integration to customers, agents, middle management and senior management.

Results showed that 57% of customers were small businesses and 43% that were residential. The surveyed customers reported to have used petrol generators before switching to SHS systems.

The surveyed respondents spent between of 5mins to 30mins travelling to buy gasoline (longer periods for customers in the North) costing them N145 - N150 per litre excluding transport costs for an average of 8 litres per day (~ \$3.27 a day).

Switching to SHS systems saw their monthly spend drop to an average of N4,567 /\$12.68. With the OMNIBRANCHES agent network, 75% of the agents surveyed reported an increase in customer satisfaction as there was a significant reduction in the time it took to receive top-up codes for customers from an average of 30mins to 2hrs to less than 2 minutes. The platform also allowed the agents to reduce their exposure as they no longer issued tokens without upfront payment.



However, customers in the North of the country still continue to have issues with paying via agent networks as the travel time to the nearest agent averages 25 minutes. There is thus no significant reduction in travel time in paying for solar home systems as compared to buying gasoline for generators. Customers in these areas have indicated they prefer itinerant agents that visit them periodically to collect payment (75% of agents interviewed were static). Senior management of companies present in the North also indicated issues with low coverage of agent network and distance from communities where their systems were located, significantly impacting the ease of payment for their customers.

Senior management of the solar home system companies have expressed concerns about the paucity of agents in some areas where the customers are present and the implication of this for their expansion plans. All partner SHS companies have approached other payment platforms in the country but encountered issues with integration cost, poor coverage and mismatched agent criteria.

While all companies have indicated plans to leverage the OMNIBRANCHES platform in their expansion efforts into new regions and direct cash collection payment via the channel, there needs to be the coordinated system between the companies and the SWIFTA team to ensure itinerant or static agents are set up in new regions the companies expand into.

There is a need to support more itinerant agents in Northern Nigeria to address the issue of distance associated with paying via agent networks. It is also important to increase the participation of women in agent banking (100% of agent respondents were male, indicating low gender inclusion in the sector).

Agents that participated in the survey strongly indicated a need to increase commission rates which SHS companies have currently pegged between 6%-8.5%. This is below SWIFTA's recommended 10% commission rate.



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## Lessons Learned

**1**

SHS customers are still not widely spread across the country. At the moment, they exist as small clusters in communities. The business case for planting new agents in every community is not compelling enough for SWIFTA and other agent services providers especially when the number of SHS customers are below 100 in the community.

**2**

When used optimally, agent networks are a strong asset for companies struggling to develop an internal sales force, enabling them to penetrate the market quickly. However, inventory management must be structured and automated.

**3**

Agents are profit-seeking and are incentivised by commission rates, feedback from agent-distributor indicated that the low commission rates were a deterrent, as commission rates previously offered on cash collections were higher. Although a number of agents operate on more than one payment platform, exact agent location is information payment companies are unwilling to share due to its proprietary nature.

**4**

Field agents can be best optimised by companies developing maps of client locations showing the concentration of customers. This allows the agents to operate regionally and reduce travel cost. Technicians and installers are key stakeholders in the process.

**5**

Companies must understand their target audience, actively drive customer attention to an agent location, and when expanding into a region where the payment partner does not have coverage, be willing to partner to onboard new agents in that communities.

**6**

Collections in northern Nigeria could be improved with detailed coordination of roaming agents.

## **Recommendations**

More engagement is needed with the financial services industry especially payment companies to keep them updated on opportunities in the off-grid energy space as well as credible off-grid energy companies to partner with.

In addition to inventory financing that SHS companies need, further support is needed on demand planning and inventory management. This support will greatly help reduce periodic stock out and inability to meet customer demands for SHS.

Increase the participation of women as payment agents and super agents, by encouraging payment companies to engage women associations in rural communities, as part of efforts to increase financial and gender inclusion.

Through our pilot with six SHS companies, NOMAP has been able to validate that agent networks holds great prospect for addressing the challenges with payment collection from unbanked SHS customers. Relative to the size of the country, more cash collection agents are needed to support the expansion drive of SHS companies. More importantly, there is a growing need to develop a single Point of Integration (POI) for all SHS companies to connect to networks of cash collection agents, financial institutions providing agent banking services as well as Payment Service Banks (PSB) (when they become licensed and operational).





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