UNDERSTANDING CONSUMERS' PERSPECTIVES ON NUTRITIOUS FOOD PRODUCTS

TESTING PHONE-BASED APPROACHES FOR COLLECTING CUSTOMER INSIGHTS



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ABOUT GAIN

The Global Alliance for Improved Nutrition (GAIN) is a Swiss-based foundation launched at the UN in 2002 to tackle the human suffering caused by malnutrition. Working with governments, businesses, and civil society, we aim to transform food systems so that they deliver more nutritious food for all people, especially the most vulnerable.

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The GAIN Working Paper Series provides informative updates on programme approaches and evaluations, research, and other topics relevant to helping reshape the food system to improve the consumption of nutritious, safe food for all people, especially the most vulnerable.

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SUMMARY

Safe, nutritious food is essential to optimal nutrition and wellbeing, and in low- and middleincome countries, much of it is produced or handled by small- and medium-sized enterprises (SMEs). GAIN has long supported SMEs to increase their production of safe and nutritious foods but has found it difficult to understand the impact of such activities on consumers. As food is a fast-moving consumer good, which travels in large volumes between diverse actors of a value chain, spanning wide areas, it can be hard to identify its end consumers, and collecting data from them can be resource intensive. GAIN thus worked with 60 Decibels to test their Lean Data approach to collect data from consumers and better understand the social impact of supporting food system SMEs.

This paper describes our process of remote collection of customer contact information (using radio ads and point-of-sale stickers) followed by phone-based surveying to gather both basic consumer demographic information and more nuanced insights on how customers perceived the supported products. Three SMEs in Rwanda and Kenya were identified and served as partners in the research.

Overall, we found that the approach worked well, particularly when both radio ads and stickers were used and with a participation incentive in place. About 617 customers responded to the survey. They provided insights that firms found useful, highlighting both the products' strengths and potential areas for improvement. All firms plan to act to apply the results to address customer challenges or to expand their business. Similar approaches should prove useful to collect actionable feedback from customers in the future.

KEY MESSAGES

- Understanding food consumers' profiles and perceptions is important for food system SMEs as well as for organisations that support them, but consumer data collection can be challenging.
- Lean Data approaches involving remote collection of customer contact information followed by phone surveys proved promising as a less-resource-intensive way to gather consumer insights.
- Radio ads significantly boosted the speed of contact collection and are a good complement to point-of-sale stickers.
- It is important to ensure solid understanding of partner companies' business models and get their buy-in from the beginning, since they need to be heavily involved in the process. This requires showing them how they will benefit from the results.

BACKGROUND AND OBJECTIVE

Nutrition is essential for achieving optimal health, child development, adult productivity, and wellbeing throughout the life course, and it is thus central to achieving many of the Sustainable Development Goals (1). However, poor diets are common throughout the world, particularly in low- and middle-income countries (LMICs). For example, about 70% of children in sub-Saharan Africa and South Asia do not consume a diet of minimally adequate diversity, about 30% of adolescents in these regions do not eat vegetables even once a day, and a similar share of adults are overweight or obese (2).

To improve diet quality, consumers must have access to safe, nutritious foods in desirable forms and at affordable prices. In many LMICs, this implies a large role for small and medium-sized enterprises (SMEs). Most consumers in LMICs source their food, either directly or indirectly, from a vast network of SMEs that produce, process, transport, store, and/or sell food. In a recent assessment, GAIN found that, in sub-Saharan Africa, 60 to 90% of nutritious foods like fruits, vegetables, and dairy products are produced, distributed, or sold by SMEs (3). SMEs thus play a vital role in ensuring safe, nutritious foods are accessible and available to consumers. They also help to create markets for farmers and are expected to play a central role in LMIC food systems over the next 10–20 years (4).

However, these SMEs often lack the technical know-how, financial capital, and market information that would enable them to profitably increase the accessibility, desirability, and quality of safe, nutritious foods to lower-income consumers (5–9). Such barriers can be particularly high for women-owned SMEs (10). While some domestic financing options are available, these may be out of reach of many (particularly smaller) firms (9), and quality business-development services are lacking in many LMIC settings (11,12).

Motivated by this need, GAIN has been supporting SMEs in the food and agriculture sector for more than 8 years. By supporting improved networking, technical capabilities, and financing, GAIN aims to improve the accessibility of nutritious foods across sub–Saharan Africa. GAIN programmes supporting SMEs have organised over 100 networking and knowledge-sharing workshops, which have provided learning and networking opportunities to about 5,000 agro-entrepreneurs, civil society members, development partners, and experts from research and academia. Over 250 businesses have been supported with tailored technical assistance on topics such as business modelling and planning, product formulation and development, market research, distribution strategy, and investment readiness support. Over 200 businesses received financial assistance to help scale up their production and operations. The supported SMEs have produced and sold an estimated over 50 million servings of nutritious foods over this period.

Marketplace for Nutritious Foods (MNF) is one of these programmes. With the support of the U.S. Agency for International Development and the Dutch Ministry of Foreign Affairs, it provided grants, technical assistance, and business development services to SMEs in the agriculture and nutritious food value chains from 2013 to 2021. The programme reached hundreds of companies in Kenya, Tanzania, Mozambique, and Rwanda, supporting them to increase production of nutritious foods – with the end goal of improving the diets of lower-income consumers in these countries. GAIN is now working to take this approach to a larger

scale, following a financially sustainable approach, via the Nutritious Foods Financing Facility (N3F), a platform that will provide greater financial support (via debt financing) and build technical capacity of nutritious-food-producing SMEs in sub-Saharan Africa (13).

One challenge GAIN faced with assessing the progress of the MNF programme was getting information on consumers – both basic demographic data and more nuanced insights on how they perceive the supported products and nutritious foods more broadly. Collecting customer insights is also useful for SMEs, as understanding and addressing customer needs is key to their success in marketing products (14). Prior approaches to collecting consumer data (e.g., conducting in-person surveys at retail locations or in the general population) have generally proven too time-consuming and costly to be feasible for an impact investment fund, such as the N3F, as opposed to a development project. In anticipation of launching this fund, GAIN thus examined its approach to monitoring social impact and sought to test new ways to collect data from consumers.

One of these was the Lean Data approach pioneered by Acumen and currently deployed by 60 Decibels – a tech-enabled social impact measurement company that spun out of Acumen in 2019. 60 Decibels' approach to impact measurement focuses on speed, repeatability, and comparability through the use of phone surveys. Lean Data provides benchmarks of impact performance, enabling organisations to understand impact relative to peers and set performance targets. 60 Decibels has worked on over 400 projects across various sectors and geographies, primarily through its network of over 800 Research Assistants in more than 60 countries who speak more than 150 languages.

60 Decibels' approach had been used widely by other impact investing initiatives, including those that support SMEs in Africa, to demonstrate the social impact of their interventions. However, it had never before been applied at this scale towards nutritious food products. As such, GAIN and 60 Decibels partnered to test how the approach could be adapted to the nutritious food context and to determine its feasibility for the needs of initiatives like MNF and the N3F. This paper reports on this work, which entailed conducting Lean Data surveys focusing on three food-processing firms in Kenya and Rwanda. The next section of this paper describes the methodology used for doing so, after which we highlight some key consumer insights gained through the work and the impact of the activity on companies. Before concluding, we offer some lessons learned in the process.

METHODOLOGY

There are two basic issues that have made prior attempts to assess consumer opinions on SME-supported food products challenging for GAIN: identifying who the consumers are and getting their insights. Food-producing SMEs very rarely have a list of their end consumers, and their products may pass through many hands (e.g., transporters, distributors, retailers, resellers) before reaching them. Food can reach consumers through diverse types of retail and non-retail channels, perhaps across large geographic areas (15), further complicating the process of finding consumers. Once the consumers are located, obtaining their insights requires taking the time to interview them – usually by meeting them where they are, entailing potentially high costs for staff time and transportation.

The GAIN – 60 Decibels collaboration sought to tackle both challenges. The activity lasted four months (from November 2020 to March 2021, see Figure 1) and began by making three key design decisions:

- 1. We did not anticipate the firms to be able to provide a list of their clients. Food is a fastmoving consumer good, often sold in large volumes to many customers, making such personal producer-consumer relationships rare, and some of the firms in question sell through intermediaries (e.g., retailers or wholesalers). As noted above, identifying consumers had been a key challenge in MNF work in the past, and a key goal of testing the present approach was to overcome it.
- 2. We chose firms that produced packaged and branded products, in the hopes that this would facilitate finding consumers (i.e., making it easier for them to remember and recognise the brand name). However, GAIN also supports other firms that produce fungible commodities (such as eggs)—for which a specific brand often cannot be established.
- 3. Given the ongoing Covid-19 pandemic, it was judged crucial to use approaches that could be done almost entirely by phone, with only a small amount of in-person contact if needed.

Phase 1	Phase 2	Phase 3	Phase 4
Kickoff & Onboarding	Survey Design & Prep	Contacts & Data Collection	Analysis & Reports
 60dB and GAIN team introductions and kickoff call Aligning on priorities and the studies' focus areas and methodology Company identification, kickoff calls, and onboarding 	 Survey design – made up of 60dB core metrics and custom nutrition specific questions Radio ad setup, stickers printing, incentive decisions and other logistical prep Final survey approval from GAIN and companies 	 Distribution of products with the stickers and running radio ads Calls to respondents made by local researchers in tandem with contacts collection 	 60dB team analyzed the data and created reports for the 3 SMEs 60dB and GAIN held results calls with each of the SMEs to explore the results
\longleftrightarrow	\leftarrow		
Aug-Sept 2020	Sept - Nov 2020	Dec 2020 – Mar 2021	Feb – Apr 2021

THE SELECTION OF SMEs

The SMEs that participated in this activity were chosen from the partners (grantees) of the 2018-2020 MNF programme in Rwanda and Kenya. Selection of SMEs from this group was based on achieving geographic diversity and product variety. A good working relationship with the firm was also thought to be essential for obtaining their buy-in and ensuring they did not lose interest partway through. We conducted two single-stakeholder studies (i.e., gathering data only from customers) and one multi-stakeholder study (reaching customers, retailers, and suppliers). For the multi-stakeholder study, it was important to identify a firm that had existing relationships with known suppliers (farmers).

Based on these criteria, three SMEs were identified: two processors of fortified porridge flour and one producer of bread made from Vitamin-A-rich orange-fleshed sweet potatoes (OFSP; see Table 1). Information on the firms is presented in anonymised form throughout this paper to preserve confidentiality. At the beginning of the collaboration, GAIN and 60 Decibels organised virtual calls with each firm to get them on board and agree on the workplan and strategies to be used, ensuring that the SME representative felt able to contribute, saw the work as relevant to them, and would benefit from the activity.

Table	1.	Summary	of	SME	characteristics
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	SME A	SME B	SME C
Stakeholders	235 customers	207 customers	175 customers
interviewed	19 retailers		
	17 farmers		
Country	Rwanda	Rwanda	Kenya
Product	Bread –	Porridge flour – fortified	Porridge flour –
	bread made from OFSP	porridge flour for infants	fortified infant/
		and young children (and	young child and
		adults), processed from	family porridge
		soya, sorghum, and	flours
		maize	
		maize	

INDENTIFYING CONSUMERS

Three different potential approaches for gathering consumer contact information were identified: placing ads in newspapers, placing ads on the radio, and placing stickers on the product packaging at (or before it reached) the point of sale. In each case, the ad/sticker would prompt the consumer to text a code to a phone number in order to register to be contacted for a survey.

The choice of which method to use depended on the nature of the local media context (e.g., readership of newspapers and listenership of radio) and the company's business (e.g., products, customers, suppliers, and stakeholders). It was soon decided to not pursue newspaper ads, due to limited levels of newspaper readership. Instead, stickers and radio ads were used. Table 2 summarises the key characteristics of these two methods.

Apart from these differences and similarities, the two approaches work in complement: radio ads can be used to increase the reach and thus obtain more contact details, while stickers can allow for contacting many consumers at a specific retail location. For example, the team encountered a shortage of contact details in the first five weeks for one SME in Rwanda, but when the radio ad was aired, the number of contacts increased considerably, by over 100%, in 2 weeks. Based on these considerations, as well as SME leaders' preferences, we developed radio adverts for the two companies in Rwanda and product stickers for all three companies.

Table 2. D	Differences	and simila	rities betwee	en radio	ads and	point-of-sale stickers	
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Sticker	Radio ad
 Simple and takes little time to design 	 Takes more time to develop
Quick review process	 Takes more time to review
No need for external designer	 Needs an external designer
Can be easily modified or removed	

٠	Multiple units need to be printed	• Once aired, it is hard to recall the			
•	Requires reading on the part of the	message			
	consumer	 Single advert need 			
٠	Budget is comparatively small	 Voice based (no reading needed) 			
•	Requires packaged food, plus free space	Requires radio listenership			
	on the packaging material.	 Budget is relatively high 			
• Requires permission from or informing of					
	retailers (if applicable)				
	Require all parties' reviews (i.e., SME, research team)				
 Needs a budget 					
	Must be in local language				

EXAMPLE STICKER:

Send the word "XXX" to 111 to enter a raffle and win YYY products of the TTT company.

SMS is free until [date]

The stickers used a white background and black font, with simple instructions to the purchaser in the common local language (see text to the left). After being printed, they were placed in a prominent place on the product's packaging before it was distributed to retail points of sale where customers would see the message.

The radio ads were developed to be 45 to 60 seconds long, with a message that would: cover the nutritional benefits of the food in question (10 sec.); introduce the campaign/survey (5 sec.); instruct listeners on how to purchase products to obtain the sticker with the registration code on it (10 sec.); announce the raffle and prizes (5 sec.); announce the deadline for registering and that it was free (10 sec.); and close with the company motto (5 sec.) It was crucial to ensure that the message did not reveal the code to which the SMS should be sent in order to register for the survey, as this could cause even people who did not usually consume the food to participate – whereas we wanted to reach only regular consumers. Radio ads were aired from local radio stations for 2 -3 weeks.

The timing of the two promotions is shown in Figure 2. Generally, we saw higher numbers of incoming contacts when we used radio ads and point-of-sale (POS) stickers in parallel.





MOTIVATING RESPONDENTS TO PARTICIPATE

To motivate customers to participate in the survey, both messages (on sticker and radio ad) mentioned that 10 winners, chosen at random, would be given SME products as reward for their participation. In addition to incentivising customer participation, these raffles benefited the SMEs. Since their costs for the prizes were reimbursed by GAIN, their sales increased (very slightly). More meaningfully, they were able to reach customers of one product with other products.

DETERMINING ELIGIBILITY AND CONDUCTING THE INTERVIEW

Once the consumer was provided with the information on how to register for the survey via radio ad or sticker, the enrolment and eligibility determination process consisted of four main steps. First, the customer texted a USSD code to a backend number. Next, 60 Decibels sent them a message confirming their entry into a raffle and requesting their consent to participate in the survey. Next, a 60 Decibels research assistant called the registered respondents, explaining to them that completing the survey had no bearing on their chances of winning a prize and screening them for eligibility to participate by asking them if they had consumed the product at least once in the last three months. If yes (and if meeting other eligibility criteria), the interviewer administered the survey questionnaire over the phone.

The survey questionnaire was developed by 60 Decibels in close collaboration with the GAIN team. The focus of this development was primarily to adapt existing 60 Decibels' questions to fit the 'nutritious foods' subject. The questionnaire covered themes such as purchase drivers, access to alternatives, consumption practices, perceptions of the product, and demographic characteristics. The adaptation for the 'nutritious foods' topic entailed adjusting questions to ensure key populations of interest for nutrition (e.g., infants and young children) were clearly captured; adding details to capture different food outlets; adjusting product traits to be relevant for foods; and including nutrition topics among the motivations for purchase and product perceptions.

During the interviews, the teams of locally based research assistants speaking local languages used an identical translated and vetted version of the survey for consistency. They took notes of each response in verbatim in the local language, which they later translated to English. Within the same day, the researchers uploaded the data to 60 Decibels preferred survey platform – Qualtrics – inputting respondents' verbatim answers into the system.

DATA CLEANING, ANALYSIS, AND REPORTING

The 60 Decibels team went through a quality check process throughout the data collection phase where the entire database was checked for consistency, errors, and biases to ensure high data quality and integrity. Once data collection and quality checks were done, the 60 Decibels team worked on a storyboarding session on how best to analyse and report on the data collected – this involved allocation of open-ended respondents to tags for ease of analysis. Throughout the analysis, the team worked on identifying any trends that would help the SMEs better understand their customers and obtain insights that they could use to improve their product and service delivery to their customers.

A key component of reporting was organising a video call with each firm's leadership to present to them the main insights and obtain their feedback on the process. This was essential both for validating the results and ensuring that they could be useful to the partner company.

CUSTOMERS' INSIGHTS

CUSTOMER DEMOGRAPHICS

The survey covered 617 customers across the three firms (175-235 per firm). In addition, the work with SME A covered 19 retailers and 17 farmers. As summarised in Table 3, the gender breakdown of consumer participants was fairly even overall, with 53% women; the percentage of women was lower for SME A, as bread in Rwanda is primarily bought by men on their way home from work, but higher for the two porridge firms (as women play a large role in purchasing this type of child- and family-focused food). The average respondent's age was 31, and the average household size was 5 members. The majority of respondents in Rwanda lived in cities (89% and 78%), while 51% of those in Kenya lived in a village or the countryside. This was as expected: the Rwandan SMEs were based in Kigali, with a large percentage of their products sold in the Kigali market, whereas the Kenyan firm primarily distributed to rural areas. Around 70% of the foods produced by SMEs in Rwanda were reported as being purchased from supermarkets, while 53% of the product produced by SME C was reported to be bought from kiosks and small shops. 69% and 85% of customers of SME A and SME C, respectively, reported purchasing the product at least once a week, while 63% of customers of SME B purchased its products once to twice a month. For the majority of customers of all firms, the product was consumed by the entire household.

Table 3: Customer demographics and consumption and purchase habits

	SME A	SME B	SME C
Firm description	Rwandan bread	Rwandan porridge	Kenyan porridge
	producer	producer	producer

Sample size	235	207	175
Percent female	32%	68%	59%
Average age (years)	30	31	33
Household size	5	5	5
Predominant	City (89%)	City (78%)	Village/countryside
residence			(51%)
Top product vendor	Supermarkets (72%)	Supermarkets (70%)	Small shop/kiosk
			(53%)
Top purchase	At least 1x /week	At most 1-2x/month	At least 1x /week
frequency	(69%)	(63%)	(85%)
Primary product	Entire household	Entire household	Entire household
consumers	(76%)	(55%)	(75%)

During the validation meeting with SME representatives, they were given time to react to these findings related to their customers' profile, and all agreed that these results were an accurate representation of what they understood about their customers. The paraphrased quotes on the next page capture some responses from SME representatives.



SME B

It is not a surprise that 68% of respondents are female because porridge is considered as food for babies and women. In Rwanda, it is hard to see a man drinking porridge. So, women are our customers.

SME A

32% being female customers is realistic. Men are responsible for bringing bread home after work. You will see men passing by supermarkets and shops to buy bread.

We have not started distribution in rural areas. Our product is still sold in Kigali, through supermarkets mostly. The 11% of rural customers are ones that bought bread from our stand at a national expo.

CUSTOMERS' FEEDBACK ON FOOD PRODUCTS

Customers generally heard about the products through word of mouth or through the product's placement in a shop; very few reported being influenced by marketing or advertising. Purchase motivations varied across the three products (Figure 3). Perceived tastiness was a driver for a large share of customers across all three firms, particularly SME 1 (71%), but word of mouth played an important role for SME 2 and SME 3, while the product's nutritious nature was the top motivator of purchase for SME 2's product. When asked to name the number one factor they considered when buying the product, nutrition/vitamin content was named by a plurality of consumers for both porridge producers (45-53%), followed by quality (30-41%). For the bread producer, quality was named first (54%), and comparatively few customers mentioned the nutritional value or vitamin content of this Vitamin-A-rich product. Packaging and price were not important drivers of the purchase decision for any product. For both porridges, nearly all customers were aware that they contained added vitamins and minerals and reported that this had strongly impacted their decision to buy; for the bread, however, only 58% of customers were aware of its Vitamin A content, and for 29% of them this did not have much influence on their decision to buy. The role of nutritional content in motivating purchase thus differed across the three firms.



Figure 3. Purchase motivations for the three products.

During the interviews, customers were asked about their perceptions of the products. The questions asked related to perceived nutritional impact, challenges, outcomes, suggestions, and access to alternatives. Table 4 summarises these answers.

Table 4.	Customer	feedback	on food	products	(impact,	challenges,	suggestions,	and
alternat	ives)							

SME A	SME B	SME C
Rwandan bread producer	Rwandan porridge producer	Kenyan porridge producer
 Self-reported positive outcomes: 23% mentioned improved health, 17% said improved household economy, 9% talk of increased strength or energy 24% reported a positive change in health of household members due to the product 47% reported not having access to alternatives 8% reported some challenges with the product Top suggestions: 59% suggested making the product more available, 19% said maintain product quality, 17% proposed a 	 Self-reported outcomes: 24% mentioned improved health, 17% said improved household economy, 17% talk of increased strength or energy 78% reported a positive change in health of household members due to the product 84% reported not having access to alternatives 8% reported some challenges with the product Top suggestions: 10% suggested making the product more available, 8% said maintain product quality, 3% proposed a larger package size 	 Self-reported outcomes: 35% mentioned improved health, 24% said improved household economy, 21% talk of increased strength or energy 91% reported a positive change in health of household members due to the product 86% reported not having access to alternatives 3% reported some challenges with the product Top suggestions: 14% suggested making the product more available, 12% said maintain product quality, 9% proposed a larger package size
larger package size		

While it can be debated how much a single food product alone can have a positive impact on health, and whether this could be accurately identified and attributed to the product by a consumer, it was encouraging to the firm representatives that many of their customers

reported positive outcomes they associated with the products. The fortified porridges, in particular, were associated in customers' minds with better health and increased strength and energy as well as changes like improved weight or growth (of children). Illustrative quotes from customers on their impressions of the products are given below.

"It is affordable, has nice milk taste, has appealing packaging, is nutritious, and no one rejects it in the house. The only problem is the small packaging sizes. I would like to see a 1 Kg pack." – Female, 38, on SME C's product	"I went to the supermarket, and I saw it was good quality bread. It had attractive packaging, and its price was affordable, so I decided to buy it." – Male, 38, on SME A's product	
"Previously no one in my house used to love porridge but after I discovered product X, we all started loving porridge. This makes me happy as a mother because it helps my children grow healthy." – Male, 32, on SME C's product	"I find their porridge flour very nice for children as my colleague told me, it has vitamins, and smells good. Moreover, it is well-packed and very clean." – Male, 30, on SME B's product	

"The only problem with their bread is that it is not available near us. Apart from this, the bread is delicious and has vitamins. It [the bread] is [also] responding to a government campaign [made in Rwanda] to promote local farmers who grow sweet potatoes."

Male, 29, on SME A's product

Challenges reported by SME A customers were mainly related to limited availability, quick product expiration, and lower value for money, partly due to a small package size compared to alternative breads. Only 47% reported having no alternatives – significantly below the levels for the two porridge products. While no other OFSP-based breads are widely available on the Kigali market, 53% of customers appeared to not appreciate that aspect of the bread, so they were ready to buy other breads as substitutes. For SMEs B and C, the 8% and 3%, respectively, of customers reporting challenges primarily mentioned unavailability. Both these firms have few competitors, thus most customers claimed to have no alternatives. Indeed, consumers of these products also reported that they had limited access to other options for blended / fortified porridge flours, suggesting that these products are filling an important gap in the household diet.

ACTIONABLE CUSTOMER INSIGHTS

The SMEs thus offer unique products to customers who are generally very satisfied and report no good alternatives, particularly for the fortified porridges. Most customers interviewed, across all three firms, were likely to recommend these products to others.

It was concluded, however, that the firms might be able to enhance their value proposition by emphasising more the products' nutritional content. SME A's bread was well liked by customers, particularly due to its taste, and many would be disappointed if they could no longer purchase it. However, about half of the customers were not aware of the bread's nutritional benefits, and customers complained about the product's limited availability and price. In addition to working on increasing availability, it was suggested that they might diversify their product line, reduce prices, and work to raise awareness of the bread's nutritional content, to increase its perceived value to consumers. Most SME B customers do not have access to a good alternative, and almost all would be very disappointed if they could no longer access their product. The product performed well relative to other companies in Rwanda and globally in terms of how likely customers were to recommend the product. However, about a quarter of the customers said that the product was poor value for money, and reducing the price was the top recommendation made by customers. Raising customers' awareness of the product's benefits, such as its nutritional content, could be another way to affect the perceived value.

SME C had a large share of customers likely to recommend its product to others (reflecting customer satisfaction and loyalty), comparing very well to other Kenyan and global companies. Almost all customers were aware of the product's health benefits, said this influenced their purchase decision, and reported positive health changes in the household because of the product. It was also generally seen as good value for money. Very few reported challenges, but 14% requested that the company work to increase product availability, suggesting potential for growth.

FARMER AND RETAILER FEEDBACK

For SME A, we also sought to interview farmer suppliers. Seventeen OFSP farmer-suppliers were interviewed out of a list of 96 contacts; most of the farmers contacted were deemed ineligible because they had limited or no direct contact with SME A. We also spoke to 16 retailers who stocked the firm's bread in their outlets, primarily supermarkets.

Farmers had an average age of 45 years and an average household size of six; 35% were female. Most had been working with SME A for about two years and had been recruited as a supplier directly by a company representative. Overall, farmers appreciated working with SME A and valued the market SME A was providing for their OFSP. They also felt their production volume and the quality of their production techniques had increased. At the same time, some complained about delayed payments and inconsistent purchases – leading to limited improvement in their overall earnings. The farmers' main recommendation to SME A was to increase their activities and buy more OFSP, more regularly.

Retailers skewed slightly male (56%) and had been working with SME A for an average of 9 months, originally choosing to stock the bread due to contact with the company representative (69%) or a desire to diversify their products (44%) or increase profits (44%). They reported generally positive experiences with SME A due to increased sales from stocking the firm's bread—both from sales of the bread and from customers coming in for the bread and buying other products at the same time. Most (69%) expected to stock more of the bread in the coming year, due to its growing popularity.

The multi-stakeholder study overall yielded three key insights across the retailers and farmersuppliers:

SME A is a better option for farmers than alternatives and contributed to greater profits for retailers.

Farmers reported that SME A was providing them with a market for their OFSP and offered them better prices than other buyers. Retailers reported increased profits since they started selling the firm's bread.

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SME A can deepen its relationship with farmers and retailers.

56 farmers with whom interviews were attempted did not recognise SME A, as they did not sell to them directly. Retailers noted that the bread was gaining popularity but there was a need to increase marketing to drive sales.



Farmers are frustrated by delayed payments and inconsistent purchase by SME A.

Farmers complained that SME A delayed their payment and did not buy all their produce or was inconsistent in their purchases.

SME REPRESENTATIVES' REACTIONS

From the beginning, this work sought to be useful for the partner SMEs involved. Upon seeing the final results, most SME representatives found them to be relevant and applicable, and all firms expected to apply the results to address customer challenges or to expand their business. The collaboration helped the SMEs to:

- Know their market: have a profile of who (and where) their current customers were, to better tailor services to them in the future.
- **Improve the customer experience**: acting to address challenges and top suggestions could help the SMEs to improve customers' value for money.
- Increase visibility: the radio ads helped to increase the SMEs' visibility to the public.
- Benchmark themselves against others: as the data included comparisons to other companies in the country, region, and world, the SMEs were able to better understand how they measured up.

REFLECTIONS AND LESSONS LEARNED

Overall, the collaboration worked well and enabled GAIN to test a new approach to collecting data from SME customers – and thus to learn more about the potential impact of its support to SMEs. In closing, we reflect on certain design considerations that need to be taken into account when undertaking such work in the future.

SME INVOLVEMENT

It was evident throughout this work that SMEs need to be key partners in the process: without their buy-in, we would not have achieved our targets. They participated in meetings, provided lists of retailers (and, for SME A, suppliers), and gave us essential information about their products. They also worked to decide on the best strategies for identifying customers, provided their inputs on the content of radio ads and stickers, and helped identify service providers to make them. Finally, during the validation and reporting phase, they provided the input needed to interpret the survey results and explained how the results could benefit their businesses.

To convince SMEs to allocate the time needed for this to happen, they must agree that the activity will help them in the future. This includes ensuring that the questions asked are meaningful to them and will provide them with actionable business-relevant insights – not just 'nutrition impact' metrics of relevance to a development organisation like GAIN. Understanding their needs and aspirations from the beginning, and adapting the research to fit those, is thus essential.

FACILITATING FACTORS FOR GATHERING CUSTOMER CONTACTS

Gathering sufficient numbers of customer contacts took longer than expected, particularly for SME A and SME C. Part of this variation is due to the nature of the product and firm. More actively engaged companies with strong stakeholder relationships facilitate smoother start-up of the work and faster collection of contact information. Having strong brand recognition also helps increase customer responsiveness to campaigns. SME B generated more contacts in a shorter period of time than the others, likely due to their popular, well-known products that have been on the market for more than 20 years and reach all parts of the country.

The nature of the product also affects the process of collection of contacts. For those products purchased regularly (e.g., bread), consumers are more rapidly exposed to the stickers than for those purchased less often. Sales cycles also matter: if a food is only produced or marketed periodically, this will slow the process of contact collection. For example, if a flour processor waits until the batch of flour on the market is sold out to release the following batch from their plant, there may be a delay of weeks or months before the products bearing the stickers reach consumers.

The method used to collect customer contact information also matters. While radio ads required more production effort and expense, they were often faster to roll out due to the aforementioned time lags with the stickers. Here, the two were complementary. The radio ads helped to boost reach, reinforcing the stickers by mobilising customers to participate in the survey – though in some cases the effect was not immediate, as some customers took time to think about their participation. Offering a prize draw also proved useful for incentivising participation.

AREAS FOR IMPROVEMENT AND EXPERIMENTATION

While the exercise was overall highly successful, there remain some areas for improvement in the future. One drawback of a phone survey is that it cannot reach customers who do not have access to phones or do not feel comfortable texting into a phone number. While about 70% of Rwandans have mobile phones (16), those who do not are likely significantly different than those who do (e.g., more likely to be lower income, female, and live in more remote areas). There is thus some bias in relying only on telephone-based data collection methods. Moreover, it is unknown whether there may be additional biases among those who choose to call in (e.g., being more educated and therefore more comfortable with interview questions, or lower-income and thus more motivated by the prize draw). It is possible that some non-customers heard of the prize draw and decided to participate just for that reason, though

survey participation was not required to enter the draw and attempts were made to screen such people out. Future work could compare the results for surveys conducted using this method and those conducted by in-person recruitment (e.g., at the point of sale) to validate their representativeness.

One drawback of the firms chosen for this study is that they produce fairly similar products, especially for the two porridge makers. In particular, we chose firms that produced packaged and branded products to facilitate finding consumers – but as a result did not examine any firms that produce generic commodities (such as eggs or fresh fruit). For these commodities, a specific brand often cannot be established by the consumer (i.e., they do not know which firm produced the egg they bought unlabelled and in bulk). The stickers, and particularly the radio ads, might not work as well to recruit customers for such products, and future work should develop and test creative new ways to feasibly reach them, as well.

More work can also be done in the future to develop improved metrics for consumer impact of nutritious foods. For other products, 'impact' is sometimes measured based on perceived changes to quality of life – i.e., a customer's response to the question "Has your or your family's quality of life changed because of Product X?" This likely works well as a simple metric for higher-ticket durable goods, like solar panels. But with a fast-moving, low-cost, and regularly purchased item like a food, which is but one addition to the diet, it is unclear how valid it is as a metric. Indeed, in response to this question, some customers expressed incredulity that a food might have such an outsized impact (as one customer noted, "We just bought [the product] to give our children nutritious food – we don't buy it to change our quality of life!") And while some consumers did self-report positive impacts of the products on their health and wellbeing, these were not always credible from a nutrition standpoint. Finally, as more data are collected from diverse types of firms in the future, it would be useful to benchmark results against other food firms (instead of, as done at present, against all types of firms, including those selling durable goods and services).

CONCLUSION

This paper has examined new, rapid, and non-resource-intensive approaches for collecting data from consumers of nutritious food products from SMEs in LMICs. The approach studied (remote collection of contact information via radio ads or point-of-sale product stickers, plus phone-based surveys) proved feasible and resulted in useful insights for all three companies involved, suggesting concrete actions they could take to address customer challenges or to expand their business. Leveraging such information can help these (and similar) firms improve their business operations, bolstering the critical role that SMEs currently play in supporting access to safe, nutritious foods for LMIC consumers. At the same time, this approach and the insights resulting from applying it can be useful to impact investors and development organisations such as GAIN, as it offers them greater insight into who their investments and programmes are reaching and how they may be impacting those consumers.

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