



MARKET AND CONSUMER EVALUATION OF THE MARKETPLACE FOR NUTRITIOUS FOODS PROGRAM: A CASE STUDY APPROACH

ALVES CASE STUDY – MAPUTO, MOZAMBIQUE

Prepared by Altai Consulting for GAIN – September 2017



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ABBREVIATIONS

BoP	<i>Bottom of the Pyramid</i>
COGS	<i>Cost of goods sold</i>
FGD	<i>Focus Group Discussion</i>
FSE	<i>Food Service Equipment</i>
g	<i>Gram</i>
GAIN	<i>Global Alliance for Improved Nutrition</i>
GDP	<i>Gross Domestic Product</i>
h	<i>Hour</i>
itv	<i>Interview</i>
kg	<i>Kilogram</i>
KII	<i>Key Informant Interview</i>
km	<i>Kilometer</i>
L	<i>Liter</i>
MDM	<i>Mechanically Deboned Meat</i>
MNF	<i>Marketplace for Nutritious Foods</i>
MNFP	<i>Marketplace for Nutritious Foods Program</i>
MZN	<i>Mozambican New Metical</i>
NGO	<i>Non-governmental organization</i>
POS	<i>Point of Sale</i>
SA	<i>South Africa</i>
TA	<i>Technical assistance</i>
TOC	<i>Theory of Change</i>
USAID	<i>United States Agency for International Development</i>
USD	<i>United States Dollar</i>
Vs	<i>Versus</i>
WS	<i>Wholesale</i>
ZAR	<i>South African Rand</i>

EXECUTIVE SUMMARY

Under GAIN's Agriculture for Nutrition Initiative and with support from the United States Agency for International Development (USAID), the Marketplace for Nutritious Foods (MNF) program was established to promote innovation and catalyze private sector engagement in producing and marketing more nutritious foods for lower income households in Sub-Saharan Africa. This is a case study assessment of the Alves & Companhia Ltda. (Alves) meat processing company.

Objectives

The purpose of the project is to assess to what extent GAIN's inputs via the MNF program have helped improve Alves's contribution on availability, affordability, ease of access, convenience and desirability of nutritious food products (in this case, meat products, with a specific focus on hamburgers and sausages) on local food markets.

Methods

Having faced delays in the procurement of an ethical clearance from the Government to conduct quantitative and qualitative surveys with consumers, the fieldwork shifted to key informant interviews with stakeholders of the meat value chains (over 50 interviews), markets visits (eight markets, several supermarkets, and several other types of meat vendors, including burundese shops, A Panela shops, take-aways etc.), price checks (over 50 data points collected) and a trip to South Africa with muqueristas. The fieldwork focused on:

- Mapping the distribution of Alves;
- Determining value chains for Alves products, in particular a type of sausage nicknamed "rachel" or "Russian" in Mozambique and hamburgers, depending on the distribution channel used;
- Analyzing the reach of Alves products;
- Understanding the local meat (and more specifically sausage and hamburger) markets in the Maputo area.

Findings

Alves is a small meat processing company based in the Matola suburb of Maputo which sells a variety of meat products (some 70 referenced products), including "Russian sausages" (a type of sausage popular in the streets of Maputo) and hamburgers:

- The company, which was created in 2008, targets bottom-of-the-pyramid (BoP) consumers, originally distributing its products through a chain of 36 self-owned stores named "A Panela";
- Alves started getting support from GAIN in 2015 to buy equipment which helped it increase its production capacity (up to 60 tons per month);
- Alves's sales vary greatly by month, averaging 8 tons per month over 2016, with peaks at 15 tons and, in 2016, it made approximately 12 million MZN (approx. 219,000 USD) in total revenues;
- Most of its sales and gross profit come from hams (44% of sales and 65% of gross profit) while hamburgers represent 24% of its sales and Russian sausages 7%;
- Alves has been significantly affected by the deep economic crisis that hit Mozambique in 2015-16 and the ensuing devaluation of the MZN, given that many of its ingredients and equipment come from South Africa and have to be bought with foreign currencies (ZAR or USD);

- Partly in response to the crisis, Alves sold its A Panela stores to its ex-employees and franchised them; however, most of the stores closed since then and there are only 5 left as of September 2017;
- Alves also experimented with its product recipes to reduce costs but this seems to have had a negative effect on taste.

Meat consumption in Mozambique is low and strongly linked to the informal economy for both sourcing and distribution:

- With around half of the population living in poverty, consumption of meat products in Mozambique is very low, with a per capita annual expense for meat of around 15.1 USD in 2010 (in addition, this is likely to have considerably decreased since then following the economic crisis and devaluation);
- Consumption of meat preparations such as sausages, salami and pâté-like cooked sausages is calculated by the World Bank to be higher than that of unprocessed and fresh meat products (likely because of their cheaper prices and greater ability to withstand disruptions in the cold chain);
- As it is the case for many other products, a considerable share – possibly up to 50% – of the meat sold in formal markets in Mozambique is imported from South Africa;
- Many muqueristas (illegal cross-border smugglers), especially in the area of Maputo which is 2 hours from the border, purchase goods in South Africa where prices are lower, and resell them in Mozambique.

Distribution channels for consumer goods and in particular meat (and meat products) remain very informal in Mozambique:

- Hamburgers and Russian sausages are sold both uncooked (by different types of vendors) or cooked, mostly by mamas (ladies who cook basic foods in the street) and take-aways (small shacks that sell hamburgers);
- Of the numerous distribution channels that exist, some (like burundese shops, dumba nengues or mamas¹) are more adapted to BoP customers (smaller shops, close to residential areas, smaller unit sizes, cheaper prices, possibilities of credit) than others (supermarkets or, to a lesser extent, take-aways²);
- Market observations show that prices vary depending on the (type of) vendors and location of the markets; certain markets are cheaper thanks to the higher presence of muqueristas (smugglers); and there are many vendors selling fish and meat products (among other products).

Alves's combined distribution and pricing strategy does not enable it to make its products easily accessible and affordable to BoP consumers:

- Alves's products tend to go through several levels of intermediaries, thus becoming more expensive with margins at each step;
- 85% of Alves's sales are to supermarkets and cash & carry stores which, although the latter target low end consumers, tend to reach middle-income consumers and retailers rather than the BoP;
- Alves's margins are higher either when selling to supermarkets or when selling hamburgers to Reginaldo, thus the company's interest in pushing this product;
- Supermarkets are a profitable distribution channel for Alves but the package size and the location and customer base of the supermarkets is a disincentive for BoP customers;

¹ "Burundeses" are small stores in and around markets which sell a variety of food products, including meat in freezers; "dumba nengue" are informal vendors outside markets who sell goods on the floor and often sell some types of meats; "mamas" are ladies who cook basic foods such as grilled or fried sausages and fish in the street.

² "Take-aways" are small shacks that sell almost exclusively hamburgers and mostly cater to youths.

- Smaller shops like the burundeses sell (mostly sausages) by the unit which allows them to sell greater volumes and make higher margins per unit and appeal to poorer consumers (but burundeses get most of their products from muqueristas);
- Further processing the product (cooking it, like take-aways or mamas do) is a way to increase margins considerably, but the vendors do not differentiate and buy the cheapest product available (often from muqueristas or burundeses);
- Alves's products are predominantly sold in the city of Maputo and its suburb Matola, except for some products sent by Shoprite to one supermarket each in Boane (50km from Maputo), Manhiça (90km) and Nampula (2,000km);
- Alves's reach is estimated at around 27,000 consumers (or some 6,000 households) since 2015, about 1% of the population of the cities of Maputo and Matola, through some 15 supermarkets and 20 small neighborhood shops (A Panela and burundeses) and take-aways.

1. INTRODUCTION

The Marketplace for Nutritious Food Program (MNFP) was launched by the Global Alliance for Improved Nutrition (GAIN) in 2013 to promote innovation and catalyze private sector engagement in producing and marketing more nutritious foods for low-income households in sub-Saharan Africa, adopting a two-pronged approach: i) a community of practice, with a network open to entrepreneurs, businesses, universities, regulatory bodies, NGOs, etc. interested in knowing more about running a business that helps transform agricultural potential into safe nutritious food and; ii) an innovation accelerator / grant making component, where the most promising proposals are selected to be eligible for Technical Assistance to support the development of feasible business plans, which, upon completion are reviewed by a Marketplace Investment Committee which selects the most investible and impactful concepts to receive grant funding as well as further technical assistance to support business plan implementation.

The program is operating in three countries: Mozambique, Kenya and Rwanda and as of today, 34 businesses have been supported. GAIN received funding from USAID to conduct a series of cross-sectional case study evaluations to assess how the MNF program and its business awardees have affected market-level availability and consumer-level access to nutritious foods.

Within the scope of this research, five case study evaluations were conducted across Kenya (two businesses), Mozambique (two businesses) and Rwanda (one business).

Table 1 – Table of studied businesses

Country	Mozambique		Kenya		Rwanda
Location	Chimoio	Maputo	Eldoret	Kisumu	Kigali
Project	KoBen / Vegman fresh vegetables	Alves & Companhia Ltda. meat products	Tarakwo Dairies pasteurized milk	Pioneer fish farm	TRABAC egg production

In Mozambique, the ethical approval to conduct quantitative and qualitative fieldwork with consumers and vendors was not received in time to complete the project. As a result, GAIN and Altai Consulting decided to change the methodology of the case study and concentrate the study on the Road to Market aspects, which include a detailed mapping of the distribution, value chain and reach analysis of the studied businesses as well as market observations, for which no ethical clearance was required.

This report covers the mapping of the distribution, value chain and reach analysis of Alves & Companhia Ltda. (“Alves”), a meat processing company based in Matola, in the suburbs of Maputo, Mozambique, and includes inputs taken from observations on local markets and at local stores, price checks and interviews done with participants at all levels of the meat processing production and distribution value chain. In addition, since one focus group was conducted at the beginning of the project to help develop the tools, its main findings have been included in the report.

2. DESCRIPTION OF THE BUSINESS

KEY TAKEAWAYS

- Alves is a small meat processing company based in the Matola suburb of Maputo, which sells a variety of meat products (some 70 referenced products), including “Russian sausages” (a type of sausage popular in the streets of Maputo) and hamburgers;
- The company, which was created in 2008, targets bottom-of-the-pyramid (BoP) consumers, originally distributing its products through a chain of 36 self-owned stores named “A Panela”;
- Alves started getting support from GAIN in 2015 to buy equipment which helped it increase its production capacity (up to 60 tons per month);
- Alves’s sales vary greatly by month, averaging 8 tons per month over 2016, with peaks at 15 tons and, in 2016, it made approximately 12 million MZN (approx. 219,000 USD) in total revenues;
- Most of its sales and gross profit come from hams (44% of sales and 65% of gross profit) while hamburgers represent 24% of its sales and Russian sausages 7%;
- Alves has been significantly affected by the deep economic crisis that hit Mozambique in 2015-16 and the ensuing devaluation of the MZN, given that many of its ingredients and equipment come from South Africa and have to be bought with foreign currencies (ZAR or USD);
- Partly in response to the crisis, Alves sold its A Panela stores to its ex-employees and franchised them, but most of the stores closed since then and there are only 5 left as of September 2017;
- Alves also experimented with its product recipes to reduce costs but this seems to have had a negative effect on taste.

2.1. OVERVIEW

Alves & Companhia Ltda. (“Alves”) is a small meat processing company based in Matola, the largest suburb of Maputo, in southern Mozambique, which makes products targeted at bottom-of-the-pyramid (BoP) consumers.

It was established in 2008 by Jorge Correa and Antonio Melo Freitas, the latter having previously worked for a very similar business called Finage Mar, which runs a chain of shops called “O Peixe da Mamã” and sells both fish and meat products aimed at BoP consumers in Mozambique.

Alves produces a variety of meat products, including several types of sausages, hams, and more recently, it started commercializing hamburgers as well, all under their “Do Chefe” brand.

Figure 1 – A Panela brand of shops (left) and Do Chefe brand for Alves’s meat products (right)



Most of their products are chicken or beef-based to appeal to the growing “halal” market in Mozambique but they also sell products made of pork or turkey and traditional Portuguese recipes.

They note, however, that the Mozambican “taste” is moving away from Portuguese flavors towards more South-African products.

In its business plan, developed with GAIN’s support and finalized in December 2014, Alves proposed to produce a new line of goat-based sausages and hamburgers aimed at BoP consumers and to distribute them through their 36 A Panela-branded shops which were spread out through Matola and parts of Maputo.

Alves received support from GAIN in 2015 for purchasing and installing equipment to make sausages and hamburgers (or patties), training and advertising.

According to Jorge and Antonio, this allowed their production capacity to double by 2016, reaching a maximum capacity of 60 tons per month. They, however, did not do any advertising.

Given that the GAIN input was mostly directed at – and had the most impact on – the production of sausages and hamburgers, it was decided, together with GAIN, to focus this report on one of their best-selling sausages, “Russian sausages”, and on hamburgers.

- “Russians”, also called “Russian sausages” or “rachels”, are sausages now made from chicken Mechanically Deboned Meat (MDM)³ from South Africa⁴. They are usually sold in packs of 12 (approximately 1kg) or 6 (approximately 500g);
- Hamburgers, typically sold in packs 10x50g, 4x75g or 10x80g, are made mostly from Mozambican beef⁵.

Figure 2 – Alves “Russians” (left) and hamburgers (right)



³ MDM or “Mechanically Deboned Meat” is produced by “mechanically separating remaining muscle tissue from the chicken carcass after removing the wings, legs, breast, meat and skin. Chicken necks are also used [...] The meat produced is then frozen in a plate freezer to give frozen blocks of MDM.” Sources: <http://www.chickenmdm.com/>.

^{4,5} Source: interview with Jorge Correa and Antonio Melo Freitas.

Focus box 1 – The South African influence and Russian sausages

Although Mozambican food was originally greatly impacted by Portuguese cuisine, in later years, especially since the end of the civil war, South Africa's influence has grown significantly, partly because most consumer goods – including processed food – are imported from there. This includes all types of sausages, the so-called Vienna, Bologna (called “polony” in Mozambique), Boerewors (“wors” in Mozambique), and the Russian sausages, called “Russians” or even “Russian sausages” in Mozambique, which are said to be loosely based on a Polish or Russian recipe and are generally made with pork or increasingly beef. The mix of spices that are used for the different types of sausages and in particular the Russian sausages is an important distinctive feature. According to Jorge, the spice mix makes the whole difference and the recipes are very closely guarded by producers, which has led Alves to spend much energy on “trial and error” in order to arrive at a taste that is acceptable to consumers.

2.2. EVOLUTION AND ECONOMIC CRISIS

Since the business plan was finalized and the agreement with GAIN made in 2015, Alves's business model has changed significantly. Goat meat turned out to be too expensive and hard to source, so Alves turned to MDM for its Russian sausages, in this case chicken-based and imported from South Africa, and to beef, mostly Mozambican, for its hamburgers. In addition, Alves has to import casings and seasonings for its sausages from South Africa, making it extremely vulnerable to currency fluctuations.

Towards the end of 2015 and faced with difficult financial conditions, Alves sold off all of its A Panela shops and licensed them to their ex-employees, which led them to decrease their number of employees from 147 in 2015 to 33 in April 2017⁶. Their yearly revenues also dropped from some 68 million MZN in 2015 (equal to around 1,8 million USD at the end of 2015) to close to 12 million MZN in 2016 (equal to 219,000 USD).

2016 also saw the explosion of a massive financial scandal and debt crisis in Mozambique which led to a significant devaluation of its currency compared to the South African Rand (70% in 6 months in 2016) and USD and to an inflation of 25% in 2016. This had a major impact on all small and medium enterprises and particularly on Alves, given how much of their ingredients (and equipment) come from South Africa.

At the same time, Alves started experimenting with its recipes for both hamburgers and sausages in order to decrease costs and try to maintain an acceptable price for its BoP clientele.

For the Russian sausages, Alves added locally-bought rice in the mix (with rice at 40 MZN/kg compared to MDM at 157 MZN/kg⁷) to cut costs. They also experimented with different spices from South Africa to achieve the desired “south African taste” so popular with consumers.

For the hamburgers, Alves sourced its beef mainly from Mozambique so it was less affected by the currency devaluation. They did, however, start to replace some of the beef meat in the patties with vegetables, including cow peas which they could buy on the local market at a cost of 50 MZN/kg compared to 300 MZN/kg for beef⁸. They went up to 5 to 7% beans in the burgers but, faced with very negative reactions from customers, had to continue changing the recipe, bringing the proportion of beans back down until the taste was acceptable again. They were, however, careful not to include beans or rice on the products' labels so as not to scare the consumers away⁹. At the same time, Alves

⁶ Source: Interview with Antonio and Jorge in April 2017.

⁷ Ibid.

⁸ Ibid.

⁹ Source: Interview with Antonio and Jorge in April 2017.

also added soy to some of their products (and that does appear on the ingredient list, for instance, of their hamburgers and their polony)¹⁰. It should be noted that they did manage to keep the prices of their products from skyrocketing despite the massive increase in their COGS due to the devaluation.

Focus box 2 – Effect of changes in recipes on taste, July 2017

“My customers tell me that Alves hamburgers taste strange, they taste like flour.”

Edson, Manager of 4 take-aways, Maputo

“I used to buy A Panela racheles, but their quality is not good. Even children don’t like the taste. Try both [Do Chefe and South Africans] and you’ll notice the difference.”

Mamana in Patrice Lumumba market, Matola

Meanwhile, the licensed A Panela shops struggled under the ownership of unskilled, untrained former employees who were hit particularly hard by the crisis, and most of them closed. By July 2017, only five A Panela shops remained, four of which are owned and managed by Reginaldo, a former Alves employee and now its main distributor/wholesaler outside the supermarket channel.

Focus box 3 – Economic crisis in Mozambique¹¹

Between 2012 and 2015, buoyed by years of economic growth and one of Africa’s largest natural gas reserves in development, Mozambique’s leaders secretly borrowed 1.4 billion USD in commercial debt or about 10% of Mozambique’s GDP, in addition to 850 million USD also borrowed in September 2013 to finance a tuna fishing fleet and which apparently was spent on naval vessels and security equipment rather than tuna. When the hidden debts were finally acknowledged in April 2016, the IMF and other investors such as the World Bank suspended all aid to the country. The country’s credit rating was downgraded, investors fled, its currency fell by more than 70% against the South African Rand (ZAR) and almost 50% against the USD between January and August 2016 and inflation reached 25% for the year 2016. Repercussions from the currency devaluation were particularly strong given that most consumer goods (and other products: Mozambique had a trade deficit of almost 3 billion USD in 2015) are imported, many of them from South Africa. The overall economic deterioration has acutely affected small and medium enterprises and the overall population, more than half of whom were already living below the poverty line. In fact, Mozambique’s GDP per capita in 2016 ranked it 187 out of 190 countries.

¹⁰ Although additional information was requested about the ingredients of Alves sausages and hamburgers, the information was not communicated to Altai as it was considered confidential.

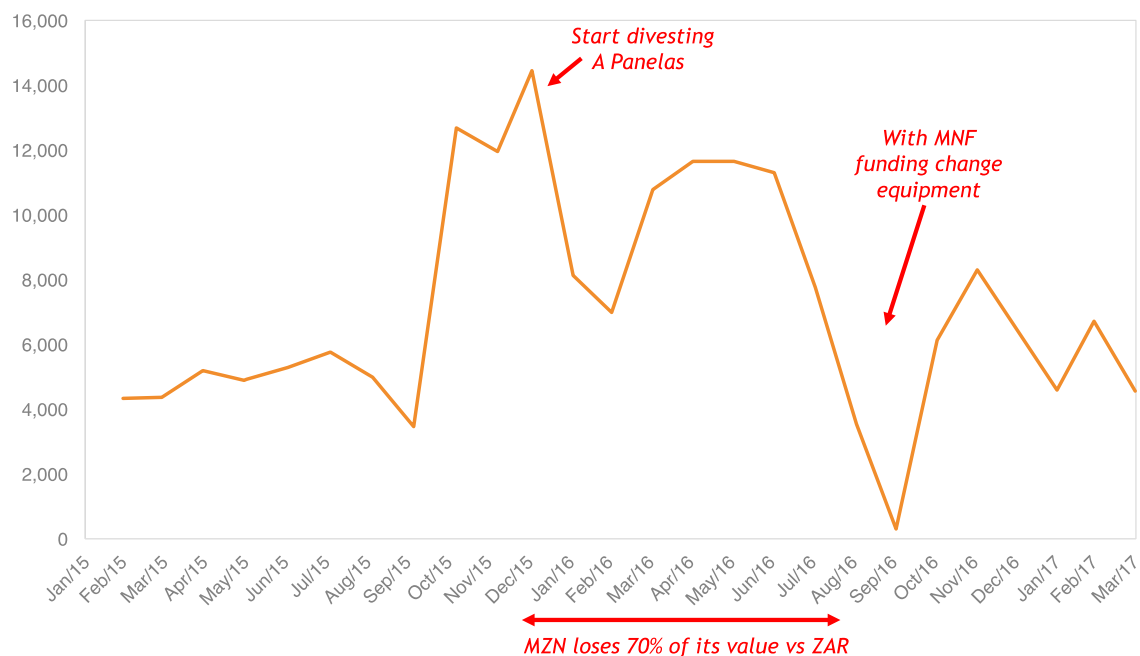
¹¹ Sources: “Mozambique’s severe financial and economic problems”, <http://hsf.org.za/resource-centre/hsf-briefs/mozambique2019s-severe-financial-and-economic-problems>; Mozambique fell prey to the promise of fabulous wealth – now it can’t pay nurses, The Guardian, 27 January 2017; “Metical depreciation worsens Mozambique’s economic situation – EIU analyst, <http://clubofmozambique.com/news/metical-depreciation-worsens-mozambiques-economic-situation-eiu-analyst/>; <http://statisticstimes.com/economy/countries-by-projected-gdp-capita.php>

2.3. SALES

Despite a production capacity of 60 tons per month, Alves's sales generally amount to an average of 8 tons per month, with peaks approaching 15 tons per month, and fluctuate significantly. Some of the largest fluctuations can be explained by a series of events: for instance, Alves started divesting itself of the A Panela shops towards the end of 2015. In their interview, they noted that their monthly revenues were divided by ten after the sale of the A Panela shops. Clearly, their costs (including personnel) also went down significantly although it was not made clear to what extent.

Following this, the economic crisis hit throughout 2016, with the MZN losing much of its value in 2016. The devaluation of the MZN caused Alves to experiment with its Russian sausage's formula as most of that product's ingredients come from South Africa (the meat, the casings and the spices), with varying degrees of success. Jorge himself explained that some batches did not sell at all as customers strongly disliked the new formulas. Finally, in September 2016, production was fully stopped while Alves replaced some of its machinery with new equipment obtained thanks to GAIN.

Figure 3 – Alves total monthly sales from January 2015 to March 2017 (in kg)¹²



While there are explanations for some of the fluctuations, the reality remains that wavering production leads to complaints from vendors, and to a certain degree consumers, about long rotations and stock shortages.

“Last Saturday we ran out of stock [of hamburgers from Alves]. We had to wait until the next supply on Monday.”

A Panela vendor in Maputo

Over 2016, according to Alves's accounts, the company's total revenues reached over 12 million MZN (or approximately 219,000 USD), with an average of approximately 1 million MZN per month, although, as discussed above, with great monthly variations (in September, sales were close to zero as production stopped while March to June (before the worst of the crisis hit) saw peak sales.

¹² Source: Sales information supplied to Altai by Alves.

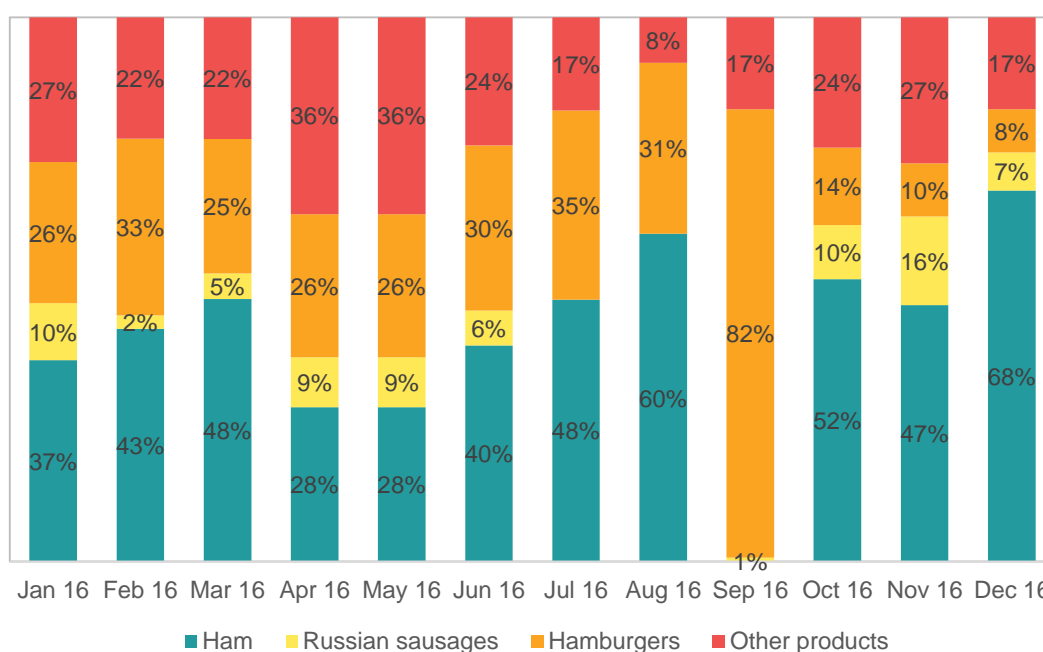
Importantly, while November sales in MZN were close to the March peak sales, at this point the MZN had lost 50% of its value thus considerably affecting the sales in USD.

Table 2 – Alves total sales revenue for 2016 (in 000s MZN and 000s USD), July 2017¹³

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
000s MZN	1,056	886	1,432	1,299	1,299	1,410	1,062	577	43	1,171	1,349	1,034	12,618
000s USD	22	19	29	26	25	24	17	9	1	15	18	14	219

By far, the main products in terms of sales are the hams (or “fiambres”) which account for almost half of Alves’s revenues in 2016 (44%), followed by hamburgers (24% of sales in 2016), while Russian sausages represent 7% of sales.

Figure 4 – Alves sales revenue by types of products (in % of sales revenue), September 2017



While hams and sausages are considered more traditional products (or at least have been around since the end of the civil war in 1992), Jorge and Antonio explain that hamburgers were more of a gamble and that they had started importing them while still working for Finage Mar expecting a “boom” of the hamburger thanks to urbanization and the growth of a Mozambican middle class, and especially the youth, who are more likely to eat out at fast foods.

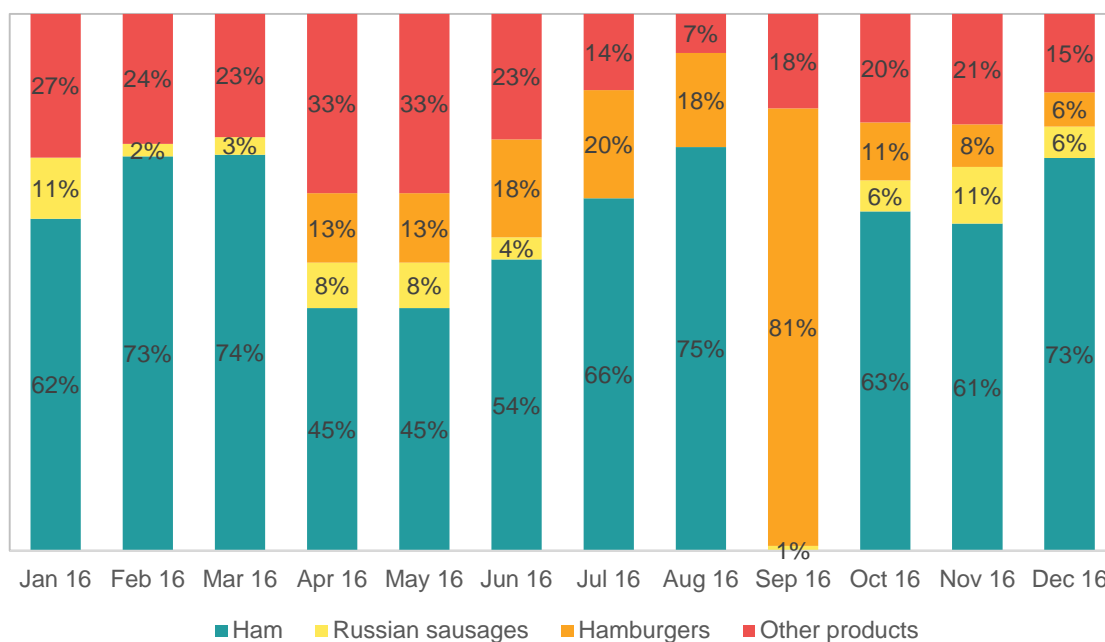
In terms of gross profits, ham dominates Alves’s accounts even more, representing 65% of the company’s gross profit in 2016. As Jorge mentioned it, this is due to the fact that ham is “50% water”¹⁴ thus very profitable. The share of gross profits of other products, including Russian sausages, tend to be in line with their shares of revenues, except for hamburgers, for which Alves seems to have

¹³ Source: Alves monthly sales report in MZN. Sales value in USD was calculated taking the average MZN/USD exchange rate for each month from <http://www.xe.com/>.

¹⁴ Source: Interview with Jorge Correa in April 2017.

struggled to master costs until the last months of 2016, when their share of gross profit finally aligned itself with their share of revenues.

Figure 5 – Alves gross profit by types of products (in % of gross profit), September 2017



The company lists almost 70 different products (see list of product references in Annex), including various formats and packaging sizes of the same product, but only 10 were produced every month between January 2015 and March 2017 and a total of 17 were produced more than 75% of the months. In fact, only 16 product references make up more than 80% of Alves' sales over that period.

Focus box 4 – Qualitative insights from FGD in Matola, Russian sausages, April 2017

During the field visit in April 2017, a first Focus Group Discussion was held in Maputo to develop and test the tools that would be used should the ethical approval be received in time. Nine consumers, including eight women and one man, aged 24 to 45, participated in the FGD. Some relevant themes emerged from this FGD which support some of the observations and analysis comprised in the rest of this report. For more details on the participants, see annex.

Russian sausages (nick-named “rachels” by consumers)

Russian sausages were never mentioned spontaneously. When asked, most participants said they eat them, mostly as an ingredient in feijoada¹⁵ and occasionally (on week-ends for instance). None of the participants mentioned eating sausages from the mamans¹⁶ who cook them in the streets.

“I eat fried rachels on Sundays.” (Fatima)

“I eat rachels at home.” (Edmundo)

“I include rachels in my monthly household purchases but not always. I like to eat them on weekends.” (Natalia)

“I don't eat rachels and burgers, but my family eats rachels twice a week.” (Sandra)

¹⁵ Traditional Portuguese stew of beans with beef or pork, also commonly prepared in Mozambique.

¹⁶ Ladies who cook basic food like sausages, chicken or fish on charcoal stoves in the street near markets and bus stops.

"I always fry them." (Fatima)

"I fry rachels and sometimes I put them in feijoada." (Marcia)

"I put them in feijoada." (Luisa)

When asked when they started to consume Russian sausages:

"It is very difficult to explain because I did not eat burgers for a long time but I eat rachels very often because they are available in several stores." (Natalia)

"I do not like rachels, but at home, my family have been eating them for 4 or 5 years." (Sandra)

When asked what they ate before rachels:

"We used to eat eggs, badjia (bean cakes) and butter, jam, tocossado of magumba¹⁷." (Natalia)

"I used to eat badjia in the same way I eats Rachel today." (Luisa)

2.4. MAIN CHALLENGES

Alves have certainly been faced with many challenges since 2016, including the deep and prolonged economic crisis which hit Mozambique and caused its currency to massively devalue. Given Alves's reliance on foreign goods, like most other Mozambican economic actors, this devaluation made its costs increase significantly on one hand and its demand drop on the other hand as consumers lost a large part of their purchasing power and re-focused their priorities towards only the most essential and cheapest goods such as cereals, and starches, for example.

With the situation slowly returning to normal, Alves's main challenge as its owners see it, is to return to stability and "recuperate" after a couple of very difficult years.

Their next challenge will be their distribution network. For instance, they would like to get into the "mamana channel", i.e. sell to the ladies who cook food (often Russian sausages) on the sides of the road and, who, according to Alves, represent a market of easily 60 tons per month.

At the same time, they acknowledge that the closure of the A Panela shops is a problem for them as it cut them off from their traditional low-income customer base. While they would not want to own stores again, they would like to partner with similar shops in peri-urban areas where their products would have a place. They also talk of starting some pork production farm in the longer term to improve and control their supply of pork.

While they do not mention it, some issues that will remain crucial for them will be: the unending competition from South African products through both legal and illegal channels as well as the continuing fight to get the "right taste"; Mozambique's continuing poor economic situation and its ramifications, especially with regards to consumers' capacity to purchase food products; and the overall difficult market environment that makes it hard to do business, borrow money and expand one's activities in Mozambique (the country is ranked 137 out of 190 on the World Bank's Doing Business index, for instance).

¹⁷ Traditional Mozambican fish-based dish, made with tomatoes and onions.

3. METHODOLOGY

3.1. OBJECTIVES

The general objective of this case study is to evaluate whether and how GAIN's support to Alves via the MNF program has helped improve availability, affordability, ease of access, convenience and desirability of nutritious food products (in this case, meat, with a specific focus on a certain type of sausages and hamburgers) on local food markets.

Given the high number of products referenced by Alves (almost 70), Altai Consulting and GAIN decided to focus on a specific type of sausages nick-named "Russians" or "Russian sausages" in Mozambique and, to a lesser degree on hamburgers, as the main study subjects due to: their overall non-negligible sales volumes and the fact that the GAIN grant had been used to support their specific production and had been perceived by Alves to most affect them.

More specifically, this report aims at:

- Mapping the distribution of Alves products;
- Determining value chains for Alves products depending on the distribution channel used;
- Analyzing the reach of Alves products;
- Understanding the local meat (and more specifically sausage and hamburger) markets in the greater Maputo area.

3.2. ANALYTICAL FRAMEWORK

Depending on the complexity of the industry and the distribution model of the studied business, it is estimated that 20 to 30 interviews with various stakeholders are necessary to get substantial results for value chains analyses.

By definition, such fieldwork is unpredictable (a precise mapping of the distribution and stakeholders involved must be established before the exact number of necessary interviewees can be identified) and needs to be conducted as "paper chase" game of sorts, starting with the studied business as a first interview and then following the value chain until end consumers are reached for each of the identified distribution channels.

A similar questionnaire structure can be used with all the interviewed stakeholders:

Table 3 – Value chain questionnaire structure

Objective	Key Questions	Rationale
Mapping reach and distribution	Who are your customers? (name, contact person, phone number, email address, physical address/location)	Identify other stakeholders of the value chain and obtain their contact details to contact them and request an interview. Analyze the reach of products (where do they physically go?)
	What is the profile of your customers? (end consumers, retailers, wholesalers, traders, etc.)	Determine the number of intermediaries involved for each channel
	What percentage of your sales (in volume and/or value) does each customer represent?	Understand what volume/value of products flows through each channel
Determining value chains	What is your buying price?	Cross-check with the selling price given by the previous stakeholder
	What is your selling price?	Cross-check with the buying price given by the next stakeholder
	What are your costs? (breakdown of fixed and variable costs)	Calculate the margin taken at each step of the value chain by the interviewed stakeholders
Other contextual information	Do you have other suppliers?	Understand to what extent the stakeholder is dependent on one supplier (or buyer)
	Why do you buy from [studied supplier] specifically?	Collect information on the strengths of the previous interviewed stakeholder
	How has your business evolved recently?	Understand the general business context

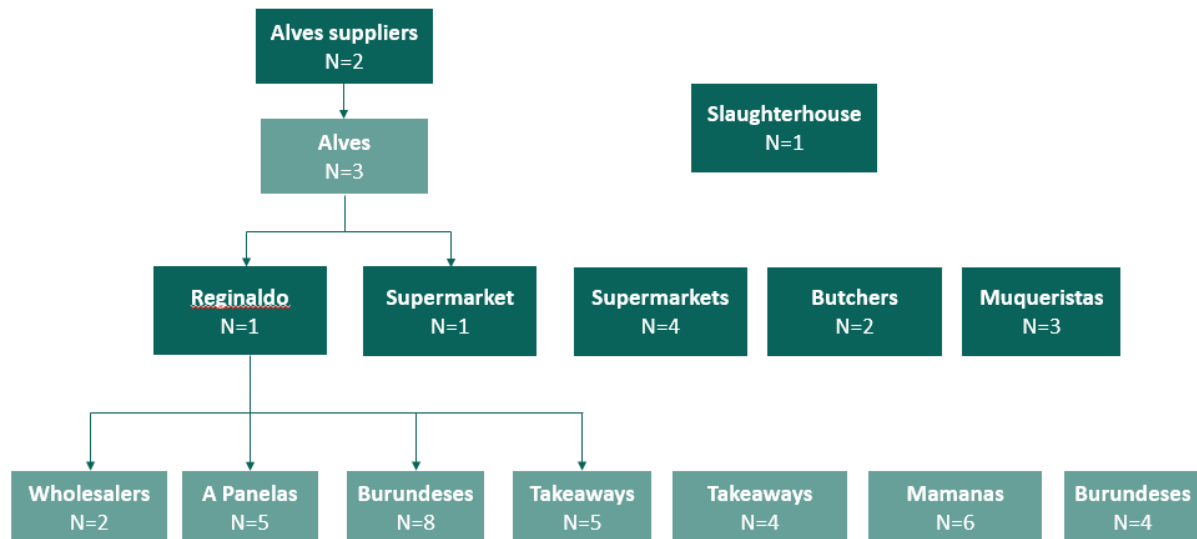
Once all distribution channels have been identified and at least one stakeholder at each distribution stage of each identified channel has been interviewed, the fieldwork can be considered as completed.

3.3. INTERVIEWS CONDUCTED AND VISITED MARKETS / STORES

Some 52 interviews were conducted between April and July. Several interviews were conducted with Alves employees: two with the owners, Antonio and Jorge, and two with Alves merchandisers. Reginaldo, who distributes Alves products to several customers and who owns four of the five remaining A Panela shops was also interviewed. He is not an Alves employee but, as an ex-employee and a successful distributor, he has a privileged relationship with the company. Several of Reginaldo's customers were in turn interviewed including two wholesalers, ten take-aways and eight burundese shops as well as his salesmen at the four A Panela shops he does not run directly.

Two Alves suppliers were interviewed, one who turned out to be a past supplier and the other who claimed that he had never been one of their suppliers. Additional interviews were conducted with other relevant actors of the meat value chain who did not source their products from Alves: several supermarkets, take-aways, butchers, burundeses, mamas and muqueristas. A day-trip to South Africa was conducted with a muquerista in order to better observe and understand this important part of the meat economy in southern Mozambique.

Figure 6 – Interviews conducted between April and July 2017



The below map shows the main markets that were visited during the study.

Figure 7 – Markets used in the study, September 2017



3.4. REACH CALCULATION

The calculation of the reach of Alves's Russian sausages and hamburgers is based on the sales revenues provided by Alves and an assumption on the average expenditure of consumers.

As noted in the report, 85% of Alves production is sold to supermarkets, where the minimum price for an Alves product is around 100 MZN. For the remaining 15% of sales, Alves products are mostly consumed per unit at a cost of around 20 MZN per piece. The average expense of a customer is therefore considered to be the weighted average of both or 88 MZN.

For the monthly turnover rate, it is assumed that 85% of Alves consumers buying at supermarkets are the same from one month to the other, based on the assumption that supermarket customers have regular purchasing habits. On the other hand, consumers at A Panelas, burundeses and take-aways are assumed to change every month, since consumption in this kind of shops tends to be more occasional and products are in most cases not branded. Given the above, 15% is taken as the average turnover rate of customers.

The calculations for the reach take into consideration monthly sales starting in January 2015 until March 2017 (i.e. the data given by Alves to Altai). The table below shows the calculation for the first 6 months of 2015. The sum of the sales revenue of Russian sausages and hamburgers is divided by the average expenditure of a customer, which gives as a result the number of people reached in each month. The increase in number of customers reached is the increase in the number of customers compared to the previous month; it is considered null when the difference is negative. The customer turnover in a given month is calculated as 15% of the total number of customers reached in the previous month. The overall number of consumers reached each month is equal to the sum of the increase in number of customers reached and customer turnover.

Table 4 – Example of reach calculation for the first half of 2015

	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15
Russian sausage sales revenue (MZN)	43,310	49,340	45,980	32,747	54,264	53,772
Hamburger sales revenue (MZN)	80,080	78,332	113,184	112,309	111,191	120,292
Sum of revenues (MZN)	123,390	127,672	159,164	145,056	165,455	174,064
Number of people reached	1,402	1,450	1,808	1,648	1,880	1,978
Increase in number of customers reached	1,402	49	358	-	232	98
Customer turnover	-	210	218	271	247	282
Overall number of consumers reached	1,402	259	575	271	479	380

3.5. CHALLENGES AND LIMITATIONS

By far the main challenge / limitation to this case study was the fact that the ethical approval was not received in time to be able to launch the quantitative and qualitative surveys. Indeed, the case study was designed to include quantitative and qualitative surveys with meat and meat product consumers and vendors. Several tools had been developed, tested and translated for the random quantitative survey, the POS survey, the vendor survey, ethnographic interviews of both consumers and vendors and focus group discussions with consumers. Guidelines and training material for enumerators had been produced; a significant amount of time was spent designing and explaining the protocol for the overall research; fieldwork had been planned and teams mobilized. Unfortunately, by the time an answer was given by the ethical board, not enough time remained to conduct the actual fieldwork with human subjects and the focus of the study had to be amended to focus on the road to market aspects instead, basing most of the research on interviews with stakeholders, market observations, and value chain and reach analysis, the results of which are presented in this report.

Another key challenge encountered in the research was the fluidity and extreme level of informality of the food value chain in Mozambique: for instance, most of the food (and other basic products) sold in Maputo is brought in the country illegally from South Africa; many vendors of both cooked and uncooked food sell it without permit, sometimes out of the trunk of their personal cars. Official figures are often not reliable given that they mostly do not account for these sales although they represent the vast majority of the market. Points of sale can change from one day to the other, products are often out of stock and prices fluctuate considerably, sometimes daily. In addition, actors in the value chain are reluctant to give any type of information, be it on their suppliers, prices, costs or any other aspect of their business. They are also unwilling to give the names of their contacts and colleagues in the value chain, which makes this type of study and its aim to “follow the product” particularly difficult.

This is worsened by the fact that the stressful economic situation, with the recent devaluation of the currency, affected all Mozambicans, whether vendors or consumers, and left them extremely suspicious, a state of mind which is accentuated in a large city like Maputo where people often do not know each other and are wary of strangers asking too many questions. Some of the information supplied by Alves itself was at times incomplete or difficult to substantiate and some key data was not provided at all, possibly because of issues with record-keeping.

Finally, and given the prominence of the informal economy, the studied products (Russian sausages and hamburgers) are often sold by the unit, without packaging (or without any type of labels, when it comes from South Africa), thus making the product more of a commodity than it was expected to be and much harder to trace.

Given all these challenges, extrapolations and inferences had to be made during the analysis, all of which are recorded, along with their underlying assumptions.

4. MEAT CONSUMPTION IN MOZAMBIQUE

KEY TAKEAWAYS

- With around half of the population living in poverty, consumption of meat products in Mozambique is very low, with a per capita annual expenditure of around 15.1 USD in 2010 on meat (it is likely to have considerably decreased since 2010 due to the economic crisis and devaluation);
- Consumption of meat preparations such as sausages, salami and pâté-like cooked sausages appears to be higher than that of unprocessed and fresh meat products (likely because of their cheaper prices and ability to withstand disruptions in the cold chain);
- As with many other products, a considerable share – possibly up to 50% – of the meat sold in the formal markets in Mozambique is imported from South Africa;
- Many muqueristas (illegal cross border smugglers), especially in the area of Maputo which is 2 hours from the border, purchase goods in South Africa where prices are lower, and resell them in Mozambique.

4.1. MEAT CONSUMPTION BY LOW-INCOME CONSUMERS IN MOZAMBIQUE

Poverty in Mozambique

A 2016 document from the World Bank¹⁸ reports that since the end of the civil war in 1992 until 2014 the economy of Mozambique has grown at the remarkable average rate of 7.9% per year. However, poverty in the country has diminished at a slower pace than in the rest of sub-Saharan Africa. Indeed, while other countries in the region have witnessed an average decrease in poverty of about 0.5% for each percentage point of economic growth, in Mozambique this figure only equaled 0.26% for each percent of growth.

This might be partly owed to unequal distributions of wealth between regions, in particular the south of Mozambique where poverty fell by over 70% compared to the north where it only dropped by 20%. In general, the lowest levels of poverty are registered in large urban concentrations such as Maputo, where the poverty rate is around 10% only, the lowest in the country. In rural regions, on the other hand, poverty levels are much higher and the four provinces of Zambezia, Sofala, Manica (all in the center of the country) and Gaza (in the south) alone accounted for 70% of the poor as of 2009, while only representing one third of the overall population.

It is estimated that, as of 2017, nearly 50% of the population of Mozambique still lives in poverty.

Food consumption

The urban population currently represents 32% of Mozambique's total population and is progressing by 3.3% per year¹⁹. Greater Maputo, with a population of about 1.8 million people, is home to much of Mozambique's middle class and expatriates. Thus, most of the country's formal distribution channels (including supermarkets) can be found there. This is also because urban consumers usually purchase their food while rural dwellers tend to consume what they produce themselves.

¹⁸ Accelerating poverty reduction in Mozambique: challenges and opportunities, E. Baez, Javier; Olinto, Pedro, October 2016

¹⁹ UN data, Mozambique Country Profile, data for 2015.

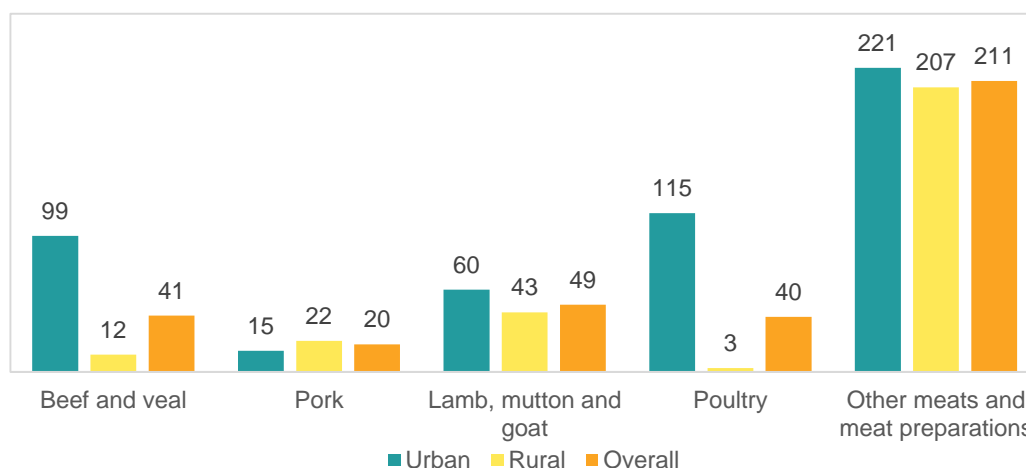
The lack of infrastructure makes distribution of perishable and nutritious foods, such as fish and meat, difficult in Mozambique and informal value chains end up supplying most of the demand, especially for poorer households since official systems to support this type of food require many precautions like a cold chain, a good hygiene and a short lead time between slaughter and sale, all of which make prices unaffordable for a large portion of the population²⁰.

The main dish consumed by Mozambicans is a traditional porridge made of maize, cassava, sorghum and millet. It is usually served with a stew which can occasionally contain meat. The consumption of meat is rare for most of the population and is mainly reserved for festive occasions. Meanwhile, a transition in dietary habits can be observed in the urban areas of Mozambique: in Maputo, as an example, fast foods that sell hamburgers and hot dogs have become more popular over the last few years.

On the other hand, increasing availability of fast foods and street foods may contribute to the emergence of medical conditions such as obesity²¹. In both urban and rural areas, when income increases, meat and fish become more common in consumers' diets, but this happens in parallel with a drop in the consumption of green leafy vegetables and beans, while consumption of staples (cereals and starches mentioned above) remains the same²².

According to data from the World Bank, conjoint consumption of beef, veal, pork, lamb and poultry meat in Mozambique is lower than that of "meat preparations and other meat products" (which include sausages, salami, bacon, ham, other preserved or processed meat and meat-based preparations). This may be owed to the fact that fresh meat products are more expensive and harder to get. Per capita consumption ratios between rural and urban areas vary by product. Although the consumption of "other meat and meat preparations" is the highest of all meat consumption, it nevertheless remains very low at 211 MZN per person per year, or approximately 6.24 USD (in 2010)²³. In addition, the deep economic crisis that hit Mozambique in 2015-16 is likely to have caused further decreases in these numbers, especially given that, in moments of financial difficulty, consumers will privilege cheaper, more filling products like porridge and meats will be among the first goods to be given up.

Figure 8 – Annual per capita consumption of different meat products²⁴ - in MZN, 2010



²⁰ Source: Value Chains and Nutrition, CGIAR, October 2014.

²¹ Source : Mozambique Nutrition Profile, FAO, 2011.

²² Ibid.

²³ At average exchange rate for 2010.

²⁴ Global Consumption Database, World Bank.

Focus box 5 – Qualitative insights from FGD in Matola, meat consumption, April 2017

Chicken stands out in meat consumption in the FGD

In the FGD, the meats that were most mentioned were chicken and turkey. If possible, chicken is bought live. Pork and beef are liked but often considered expensive. Feijoada is one of the dishes in which sausages are used. The quotes below are answers to the question “what type of meat do you eat?”. Sausages and hamburgers are not mentioned spontaneously (apart from worz once).

“I eat chicken mostly and sometimes pork and turkey.” (Edmundo)

“I buy mostly chicken because it’s easily accessible. Turkey and pork prices are also reasonable.” (Edmundo)

“I like chicken, beef, turkey, gizzards and worz (sausage).” (Fatima)

“In my house, chicken and turkey are the most eaten meats.” (Leonor)

“I eat chicken and turkey, I do not eat other meats. I only prepare for the rest of the family.” (Sandra)

“Fried chicken, roasted pork, salad and omelet.” (Helena)

“Chicken, beef and turkey. I don’t eat pork.” (Natalia)

“Chicken, turkey and pork.” (Luisa)

When asked if meat is affordable:

“Chicken is cheaper.” (Edmundo)

“Chicken is more advantageous to buy.” (Marcia)

Live chicken is preferred

Consumers value live chicken, as they like to eat the gizzards and the feet.

“I buy live chickens and I do not always buy frozen chickens.” (Fatima)

“In my house, we like live chickens.” (Helena)

“I buy live chickens.” (Luisa)

“I prefer buying live chickens to eat the gizzards and the feet.” (Leonor)

“I buy live chickens.” (Marcia)

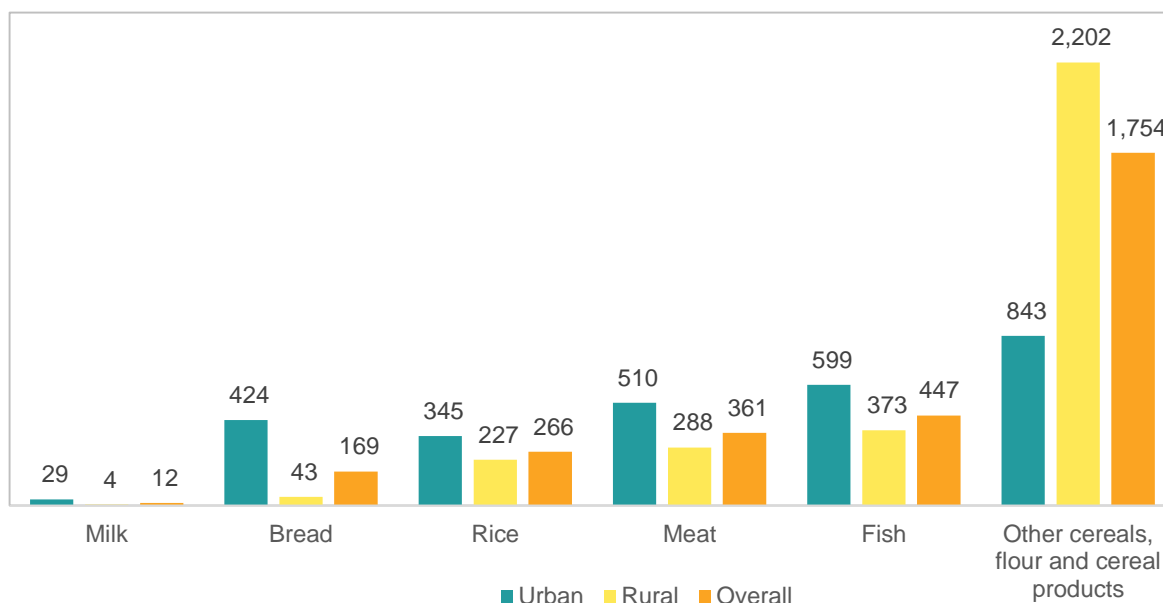
“I buy chicken pieces and sometimes live chicken to breed.” (Edmundo)

“I buy live chicken to breed.” (Sandra)

“I end up buying the frozen chicken because it is easier but I like live ones to eat the gizzards.” (Natalia)

Average expenditure for meat in general is slightly lower than for fish. Consumption levels per capita are higher in urban areas for most products, but per capita expenditure for cereals such as maize, wheat, other grains and flour is three times as high among rural dwellers.

Figure 9 – Annual per capita consumption of basic products²⁵ - in MZN, 2010



Focus box 6 – Qualitative insights from FGD in Matola, food consumption, April 2017²⁶

Food consumption is affected by poor economic circumstances

FGD participants tend to eat two to three meals a day depending largely on financial constraints. The number of meal decreases when they make less money.

“When I have some money, my family has breakfast, lunch and dinner.” (Edmundo)

“I have two meals a day. Breakfast is usually strong and is taken around 11 and then I have dinner.” (Helena)

“I cannot have three meals, due to my financial conditions. But, I always do my best to ensure my daughter's snack at school.” (Augusta)

“It is difficult to have many meals because of money, but I try to do my best to guarantee a loaf of bread and soup.” (Natalia)

Fish, chicken and starches and cereals dominate food preferences

When asked about food preferences, traditional starches and cereals (porridge) and fish stand out.

“I like to eat kale, beans, fish and from time to time meat.” (Leonor)

“I like peanut stews with porridge.” (Edmundo)

“My son likes beans more than snacks, but I like beans and tseke²⁷ with fish and porridge.” (Fatima)

“I like fish and chicken and so does my family.” (Marcia)

“In my house we like vegetables, beans, and fish with peanuts.” (Augusta)

“I like to eat fish, cabbage and sweet potato leaves.” (Luisa)

²⁵ Global Consumption Database, World Bank.

²⁶ “Porridge” refers to a form of corn porridge which is a staple food for Mozambicans; “cassava” is an edible root;

²⁷ Traditional green leafy vegetable.

Food consumption is dominated by starches and cereals

Filling and cheap foods such as starches, cereals (bread, porridge, rice) often constitute most of the food intake. Vegetables are eaten two or three times a week.

“From Monday to Thursday we eat vegetables and on weekends it varies. Sometimes we eat feijoada²⁸, fish or chicken.” (Natalia)

“[We eat vegetables] three times a week because there are varieties of vegetables. Depending on the season, we eat cassava.” (Natalia)

“I cook rice every day, I eat bread and sometimes cassava and sweet potato. When I do not have money to buy cassava because it's expensive, I buy bread.” (Fatima)

“I eat rice every day [...]. My family eats bread and sometimes cassava.” (Augusta)

“My family eats rice the more often and sometimes porridge and bread.” (Edmundo)

“In my family, we often eat rice, bread and salads.” (Helena)

“I eat rice, bread, salad, yam, potato (once a week) and always bread.” (Marcia)

4.2. SOURCES OF MEAT SUPPLY

Much of Mozambique's food is imported, whether legally or not. Some estimate that 50% of the products distributed by formal channels in Mozambique come from South Africa²⁹. For some products, the estimate is much higher as it is also believed, for example, that as much as 85% of the alcohol sold in Mozambique is fraudulently imported, mostly from South Africa³⁰.

Since the liberalization policies and pro-foreign investment reforms of the early 1990's, the distribution sector has opened up to foreign investors and South African chains have been the principal retail investors. They settled throughout the country, selling a large selection of imported products including meat, taking advantage of the fact that the country did not produce enough to satisfy its needs. Nowadays South Africa is the main supplier of legally imported meat and fish in Mozambique: in 2015, its share of legal imports of meat and fish reached 67%³¹.

While meat and fish consumption is still very low in Mozambique, it is increasing, and imported quantities rise with consumption: the quantity of legal imports of fish and meat doubled between 2010 and 2015³².

The main suppliers on the official meat market in Mozambique are Terramar, Procongel, A&L Entreprises, Inalca Food & Beverages, Swazimeat Industries and Karahem beef. Reportedly most of the meat is imported, with chicken as the only exception (notable local suppliers are Higest and Huku). However, interviews with several supermarket managers, wholesalers and retailers indicate that the official meat market only supplies to the large supermarket chains, large catering companies, restaurants and upper-scale hotels that are out of reach for BoP customers.

Aside from the legally imported products, an important share of meat, among other goods, is smuggled illegally to Mozambique. Many middle-class Maputo inhabitants go regularly to Nelspruit, a

²⁸ Traditional Portuguese stew of beans with beef or pork, also commonly prepared in Mozambique.

²⁹ Le secteur de la distribution de détail au Mozambique, Ambassade de France au Mozambique et au Swaziland, mai 2015.

³⁰ Ibid.

³¹ Source: World Bank data, 2010 (datatopics.worldbank.org/consumption/product/)

³² Ibid.

South African city 200 km away from the city of Maputo, to do their shopping. There also is an important number of cross-border traders or smugglers, nicknamed “muqueristas”, who illegally import South African goods to sell them in Mozambique. The total amount of purchases made by Mozambicans in Nelspruit is estimated at 250 million USD per year, which is equivalent to the size of the formal market in the greater Maputo area³³. These illegal imports are driven by a number of factors, including the important difference in prices between the two countries: for instance, in 2014, a frozen SPAR-brand chicken originating from South Africa cost on average 145 MT in Maputo whereas it only cost 83 MT in Nelspruit³⁴. The same report calculates that the price differences between the two countries on a set of products varied between 16% and 48%.

These differences in prices are due to several factors including but not limited to: the cost of transport of goods (the cost per km is much higher in Mozambique than in South Africa), the difference between VAT in Mozambique and South Africa, duties that legal importers pay which range from 10% to 20% depending of the product, the margins made by all the intermediaries in the value chain, frequent corruption and delays at the border which necessitate the payment of bribes and much higher storage and rental costs for commercial space in Mozambique.³⁵

Despite Mozambique’s massive dependence on South Africa for meat supply, the Mozambican authorities have banned certain imports of South African meat since 31 August 2017, following an outbreak of foot and mouth disease in the northern South African province of Limpopo, a region which constitutes nearly half of the border that Mozambique and South Africa share. This ban concerns live cattle, pigs, goats and sheep meat and is meant to avoid the disease’s spread in Mozambican livestock farms and industries, as foot and mouth is a highly infectious viral disease³⁶. However, given that South African meat imports to Mozambique are largely illegal, it is unlikely the ban will be respected and/or have real impact.

Focus box 7 – Informal markets in Mozambique³⁷

In Mozambique, informal markets are widespread, especially in the large cities like Maputo where 70% of households declare they are involved in informal economic activities. On the scale of the country, it is estimated that only one fifth of the total revenues of the distribution sector is generated by formal trade and the rest comes from informal trade. The primary mechanism for the informal economy is informal cross-border trade, and in the south of Mozambique it is very developed: numerous cross-border traders go regularly to South Africa to buy products that are rare or very expensive in Mozambique. Meat is one of the usual goods that are illegally imported from South Africa to Mozambique. This informal trade is now important for both countries: it provides employment and cheaper consumer goods for Mozambicans and has a significant role in the economy of the region of Johannesburg which is the primary place of purchase of goods by Mozambican traders.

³³ Le secteur de la distribution de détail au Mozambique, Ambassade de France au Mozambique et au Swaziland, mai 2015.

³⁴ Price variations in Mozambique, USAID report, March 2015

³⁵ Ibid.

³⁶ African independent news, 4 September 2017

³⁷ Source: Informal entrepreneurship and cross-border trade between Mozambique and South Africa, Abel Chikanda and Ines Raimundo.

Focus box 8 – Qualitative insights from FGD in Matola, affordability and products from South Africa, April 2017

Affordability is a crucial factor and driver of food purchasing for low income consumers. In this regard, several participants mentioned getting food from South Africa, where it is cheaper.

“People bring rachel’s for me [from South Africa] and I pay at the end of the month.” (Helena)

“They [the Russian sausages he buys] are from South Africa because the Mozambican ones are more expensive.” (Edmundo)

“I always get burgers and rachel’s from my sister who brings them from South Africa.” (Leonor)

“In my house [...] meat comes from Komatipoort [South Africa].” (Helena)

“I buy burgers and rachel’s. I always order rachel’s from one of my friends who goes to South Africa to buy [food there].” (Edmundo)

“I buy from outside the country because it is cheaper.” (Natalia)

“I prefer the Mozambican ones [Russian sausages], but I eat the South African ones because they are cheaper.” (Fatima)

“The Mozambican ones [Russian sausages] are hard to find.” (Marcia)

4.3. MAIN MEAT PRODUCTS SEEN ON THE MARKETS OF MAPUTO

The main types of meat products seen on the markets of Matola and Maputo during this study were the following (in no particular order). It should be highlighted that, as the study focused on meat (and fish to a lesser extent as a substitution product) consumption by the bottom of the pyramid, these products were seen in markets and at vendors targeting this segment. For instance, while it was noted that Mozambicans like pork and beef steaks, neither of these were seen in the shops and markets visited. They would, however, be likely to be found in more upscale supermarkets like Shoprite.

Table 5 – Main types of meat seen in the markets of Maputo and Matola, July – September 2017

Russian sausage, also called Russian or Rachel

Cooked sausages made of chicken or beef which in general come from South Africa. Their recipe is supposedly Russian, explaining the name. They apparently have a very specific taste obtained by a mix of spices that is said to be kept secret by South African producers.



Hamburgers

Hamburgers are made of beef and usually eaten at take-aways. As they are still a recent product in Mozambique, most interviewees (including Alves) claimed that very few people eat them at home. Jorge, from Alves, mentioned that when they (Alves) imported the first burgers from Brazil in 2006, consumers did not know they had to cook them.



Whole live chicken

Mozambicans like to buy whole live chicken because it allows them to breed them but also because they eat not only the meat but also the feet and gizzards, which are both particularly valued. Live chicken can be seen at markets like T3.



Frozen whole chicken

In general, they come from South Africa. They can be seen at supermarkets, wholesalers (who have refrigerated containers), burundese shops and A Panela shops.



Frozen pieces of chicken

They can either include chicken legs or not and are generally imported (legally or illegally) from South Africa. They originate not only from the latter but also from Brazil and the USA. They are also sold at A Panela shops in bulk.



Frozen chicken feet

Cheaper than frozen whole chicken or pieces of chicken, they are sold by the weight in most shops targeting BoP customers and are well-liked.



“Mão de vaca”

Composed of beef bones with some meat, it is mostly used to cook stews (such as the very popular feijoada) and sold by the weight.



Hams / “fiambre”

Hams, made either from pork, beef or chicken are very popular. Their prices by package (given the low weight of a package and the high water

content) is among the lowest and therefore most affordable. Alves's most popular product.



Polony

Polonies are very common sausages made of a type of chicken paste. They usually come from South Africa and are sold in supermarkets, at burundeses and by muqueristas. Since they are cooked, they withstand disruptions in the cold chain more than several of the other meat products which need to be frozen and are often seen sold in the sun at markets in Mozambique.



Turkey / "peru"

Frozen turkey legs can often be seen at burundeses (and some A Panela shops), sold in bulk.



Worz / "wors" sausage

Also a popular import from South Africa, worz is a long, rolled sausage that can often be seen in burundese shops. It is also produced by Alves.



Horse mackerel / "carapau"

Horse mackerel is a fish that can often be found frozen in all the markets and other stores catering to the BoP. They are often the cheapest animal protein to be found there by the kg. Most of it is said to be imported from Namibia (as most of Mozambique's fishing is small-scale and/or exported).



5. MEAT DISTRIBUTION CHANNELS

KEY TAKEAWAYS

- Distribution channels for consumer goods and in particular meat (and meat products) remain very informal in Mozambique;
- Hamburgers and Russian sausages are sold both uncooked (by different types of vendors) or cooked, mostly by mamas (ladies who cook basic foods in the street) and take-aways (small shacks that sell hamburgers);
- Of the numerous distribution channels that exist, some (like burundese shops, dumba nengue or mamas³⁸) are more adapted to BoP customers (smaller shops, close to residential areas, smaller unit sizes, cheaper prices, possibilities of credit) than others (supermarkets or, to a lesser extent, take-aways³⁹);
- Market observations show that prices vary depending on the (type of) vendors and location of the markets; certain markets are cheaper thanks to the higher presence of muqueristas (smugglers); and there are many vendors selling fish and meat products (among other products).

5.1. DIFFERENT TYPES OF VENDORS

5.1.1. UNCOOKED MEAT

Mozambique overall is still a very informal and under-developed market. It is for instance estimated that the whole distribution market in Mozambique represents 2.5 billion USD of which only 500 million USD in sales, or about one-fifth, are made in the formal sector⁴⁰. This is likely starting to change as a growing urban middle-class emerges and is increasingly attracted to occidental brands and patterns of consumption.

The Mozambican food market is largely dominated by the informal economy. In Maputo, which is about two hours from South Africa, most consumer products come, legally or most often illegally, from South Africa and, to a lesser extent from Swaziland when it comes to meat. As was seen above, lower prices in South Africa drive this commerce.

In the greater Maputo, meat (along with fish and meat products) is sold in different types of outlets which offer varying qualities of product, prices, purchasing experiences and are targeted at different segments of the population.

Supermarkets and cash & carry shops

There are estimated to be between 23 and 36 supermarkets in greater Maputo (including Matola), divided into cash & carry-type stores and more traditional supermarkets.

³⁸ “burundese” are small stores in and around markets which sell meat in freezers; “dumba nengue” are informal vendors outside markets who sell goods on the floor and often sell some types of meats; “mamas” are ladies who cook basic foods such as grilled or fried sausages and fish in the street.

³⁹ “take-aways” are small shacks who sell almost exclusively hamburgers and mostly cater to youths.

⁴⁰ Le secteur de la distribution de détail au Mozambique, Ambassade de France au Mozambique et au Swaziland, mai 2015.

Table 6 – Main supermarkets in the greater Maputo area, September 2017⁴¹

Number of stores	Name of store / chain	Type	Positioning
2-15	Extra	Cash & carry	Target low-income consumers. Used to belong to a Mozambican group but 2 stores have been recently bought by a Portuguese chain. Some 25 stores nationwide.
7	Shoprite	Supermarket	Target middle-high income consumers; South-African; Africa's largest food retailer. Some 12 stores nationwide.
3	Spar (and Premier)	Supermarket	Target middle-high income consumers; Dutch; Some 4 stores nationwide.
2	Game	Cash & carry	Discount retailer; target low-income consumers; South African company called Massmart which has approx. 6 stores (various brands) nationwide.
3	Recheio	Cash & carry	Target low-income consumers; belong to group COGEF, originally from the DRC, now based in Mozambique; 12 Recheio stores nationwide.
2	Jumbo	Cash & carry	Branded as a B2B store targeting retailers; also belongs to COGEF; 11 stores nationwide.
4	Other supermarkets (mostly local, non-chain)	Supermarkets	Target middle-high income consumers.

Cash & carry stores sell goods in large quantities in warehouse-like environments. They tend to target professionals (retailers or restaurant-owners) or low-income consumers and although the prices are lower than in traditional supermarkets, packaging sizes tend to be large and thus the disbursement required for any purchase significant. They are often located in more industrial areas (as opposed to residential neighborhoods) and therefore require transportation. Russian sausages or hamburgers tend to be sold in such stores in the larger packages (1kg of sausages, 10x 50g or 500g of hamburger).

Figure 10 – A Recheio cash & carry and a Spar supermarket in Maputo, April 2017



Supermarkets like Shoprite or Spar tend to target middle to high-income consumers. They are located both in residential neighborhoods and more industrial areas that may require cars / transportation. At supermarkets, hamburgers and sausages are generally sold in packages containing several units

⁴¹ Numbers include stores in Maputo and Matola. Source: observations, secondary research, interviews.

(from 6 to 12 sausages for Alves for instance). They also generally have a butcher stand and therefore sell certain types of fresh meat by the kg, as is the case for ground meat for hamburgers. Both cash & carry stores and supermarkets have guards at the entrance who let customers in (or not).

Mini-markets

Situated in the areas surrounding markets, often close to residential neighborhoods, mini-markets are large grocery stores, which sell all types of food and basic home non-food products. They have a significant choice of products and are more like small supermarkets than grocery stores. Most of the products they sell come from South Africa. They generally have freezers and fridges in which they have frozen or refrigerated meat and fish. The fancier ones have a small butcher counter where fresh meat or fish can be bought by the weight.

Figure 11 – Entrance to a mini-market in Patrice Lumumba market, Matola, April 2017



Chains of grocery stores like A Panela or O Peixe da Mamã

A Panela and O Peixe da Mamã are the two main chains of grocery stores visible in Maputo and now that the A Panela shops have mostly closed, only O Peixe da Mamã remains. They are closer to “burundese” shops than mini-markets in that they are much smaller and have very little choice in terms of products. In the same way that A Panela shops were developed as a means to sell Do Chefe branded meat products, O Peixe da Mamã stores are outlets for Finage Mar fish products. Both function similarly in that they are allowed to sell whatever other product they wish to as long as they do not compete with their owner’s/partner’s goods. A Panela shops sell fish in addition to their meat products and O Peixe sell meat products in addition to their fish. They both also sell a few cheap first necessity products such as oil, rice, sugar, flour, sodas etc.

Focus box 9 – Qualitative insights from FGD in Matola, A Panela and Do Chefe, April 2017

Participants in general were familiar with the A Panela brand and were positive about it. Only one remembered seeing do Chefe.

“Yes, I know the A Panela store. I buy fish, chicken parts, cheese and black chorizo there.” (Marcia)

“There is no A Panela store in Patrice⁴².” (Edmundo)

“It [A Panela] has good quality and all of its products are Mozambican.” (Fatima)

“Patrice’s residents go to Infulene or Machava⁴³ to get A Panela products.” (Helena)

“I rarely consume A Panela’s products.” (Marcia)

“I eat mostly fish because there is no longer any A Panela store in Patrice. It used to help us by providing a variety of products.” (Edmundo)

When asked about what A Panela changed for them (when it opened):

“When A Panela opened, I started eating rachels and gizzards.” (Edmundo)

“There was a change, I started to eat more products such as chicken, beef and sausage.” (Natalia)

“It changed things because it brought something new at affordable prices.” (Marcia)

Muqueristas

The muqueristas are the center of the informal system. (See focus box on informal trade). They are individuals who regularly travel to South Africa on their own or more often by minibus to buy consumer goods and smuggle them back into Mozambique. Some use their own cars but most work with a minibus driver who takes them to South African and back and who is responsible for paying the bribe at the border. Muqueristas only pay for their passage and their goods (100 MZN per box was commonly cited). Those we interviewed claim to be unaware of how much the bribe actually costs since it is deducted from their payment. They generally go to South Africa once a week, most often to the town of Komatipoort (5 km from the border with Mozambique), where large warehouse-like shops have been set up for this business. Muqueristas either sell their products on their own, in stalls in the inside of the covered markets, or sell them to burundeses, dumba nengues and wholesalers around the markets. Generally, and logically given the illegal nature of their business, they build preferential relationships with limited numbers of clients and they call them in advance to tell them when they are going to come to distribute their products.

Muqueristas tend to gravitate to products that are easy to carry and likely to sell quickly. For this reason, Russian sausages and polony are particularly popular because they sell well and, given that they are already cooked, they can stand disruptions in the cold chain. One can often see Russian sausages directly in the sun, being sold in the street by muqueristas or dumba nengues. However, they also bring frozen chicken (whole or in parts) which can be traced back to Brazil or the USA and which often stays in boxes out on the street until it is all sold, with no regard for the cold chain.

⁴² “Patrice” is the nick-name for the Patrice Lumumba neighborhood of Matola and its market.

⁴³ Infulene and Machava are neighborhoods (and markets) close to Patrice in Matola.

Figure 12 – Muquerista’s display in Patrice Lumumba market (left) and boxes of thawing frozen chicken “imported” by muqueristas (right), April 2017



“Burundese” shops

“Burundese” shops are probably the most frequent and main source of meat for low-income consumers: they are small shops with all types of food and non-food products. They are similar to mini-markets but for their smaller sizes, and consequently narrower range of choice per product. They are located near or in the markets and in residential neighborhoods, close to the low-income consumers. They often have one or two freezers towards the entrance with frozen meat and fish products and, although they sell other types of product, it is often the meat and the fish that are advertised outside (and in the freezers at the front). While supermarkets sell packages of sausages and hamburgers, burundeses tend to open the (not re-sealable) packages and sell the sausages by the unit. The stores get their nickname of “burundese” because they tend to be owned by foreigners who at some point in the past may have been from Burundi (although some interviewees also call them “nigerianos”). Burundeses generally get their supplies from muqueristas or wholesalers (who are often muqueristas themselves).

Figure 13 – Burundese shop (advertising meat on its top front wall) in T3 market area, April 2017



Focus box 10 – Qualitative insights from FGD in Matola, brands, April 2017

Participants were unaware of the brands of sausages, which is in line with the facts that most sausages from South Africa are unbranded (in fact, they generally have no labels of any kind, including expiration dates) and that vendors open the packages and sell the sausages by the unit. When asked “do you buy products based on brands?”:

“No, because rachels do not come with brands.” (Fatima)

“Perhaps the brand comes on national products but we consume more products from outside the country. The rachels we buy have no brand.” (Natalia)

“I do not see any brand.” (Luisa)

“There is no brand.” (Marcia)

Butchers

Butchers either have very little stores or, more often, have stands at the markets where they sell limited amounts and types of meat. Some sell ground beef meat. Several of the interviewed take-aways and some mamas buy their meat for hamburgers directly from the closest butcher.

Butchers, and anybody wishing to buy fresh meat, are supposed to go to government-owned slaughterhouses to ensure the animals are slaughtered in the right conditions and according to sanitary regulations. Maputo’s main and most renowned slaughterhouse, which is called Matadouro, reportedly goes through 200 animals per day⁴⁴. Animal owners go there with their clients and the animal that is to be slaughtered and they pay the slaughterhouse per kg of meat obtained. The client pays the supplier and leaves with the meat. Butchers have regular suppliers who they rely on for their meat. Some of the interviewed supermarkets also act this way, sourcing their meat from regular

⁴⁴ Source: interview at the slaughterhouse.

suppliers and meeting them at the slaughterhouses, then selling the meat by the kg in a butchery within the supermarket.

In fact, there are many informal slaughterhouses around town or even places (for instance empty plots of land in the middle of busy neighborhoods) that are known to be locations where animals are killed regularly and where one can come sell their animals, buy meat or even eat on the spot (some of the meat, such as the innards, is cooked on the spot). Although the spaces are completely empty the rest of the time, dates are shared by word of mouth and these spots are very popular. Prices are not fixed there and consumers can bargain.

Informal vendors / dumba nengue

Next to all markets, generally sitting on the floor and often starting their activities towards the end of the day or in the evenings, are informal vendors who do not have their own stands but sell products wherever they can (without paying any licensing fees). They generally buy their products in small quantities from either burundeses or more often muqueristas, and make small profits. They are generally women and are often nick-named “dumba nengue” for informal trade or commerce. Some also call them “mamanas” (not to be confused with the mamas who sell cooked food also on the streets).

Figure 14 – Dumba nengue stalls and products, July 2017



Focus box 11 – Qualitative insights from FGD in Matola, issues with quality, April 2017

Given that many products are imported illegally and the cold chain is rarely observed, products are often spoiled. Participants commented on the poor quality of the products they often bought.

“I would like good products, prices and national products. We sometimes eat products that are old.”
(Natalia)

Wholesalers

Wholesalers are generally specialized in a limited type of product (meat, fish or both for instance) and work on a word of mouth basis. They are not necessarily located in the markets but they are close enough for individual consumers to be able to walk to them if need be while doing their food shopping. They mostly get their supplies from muqueristas with whom they build relationships.

Focus box 12 – Portrait of a wholesaler near T3 market, April 2017

One of Alves's largest clients is a wholesaler who has a refrigerated container on an empty plot of land about two blocks from the T3 market. She sells mostly imported frozen goods, including whole chicken, fish, sausages and parts of chicken and turkey, but most of her revenues come from fish, of which she claims to sell 1,000 boxes of 30 kg (or 3 tons) per week. Her main supplier is a muquerista from whom she gets all her products except for the Russian sausages which she gets from Alves. The muquerista comes to supply her every week.

Her customers are individuals who know of her and come to get the products at her container.

She complains about Alves saying that they always run out of product and when she calls to order sausages, they "always say tomorrow!"

Figure 15 – Wholesaler's refrigerated container and sign outside the plot, April 2017



5.1.2. COOKED MEAT

Since poverty is high, Mozambicans tend to eat at home except for some special occasions. One can, however, see all over Maputo a variety of different types of small fast-food stands or individuals (mostly women) cooking quick and basic dishes in the streets, catering to urban workers, travelers getting off or on buses and youth out on the town in the evenings.

Mamanas

"Mamanas" are ladies who cook basic food on small charcoal stoves in the streets of greater Maputo. They can generally be found in the late afternoons and evenings around the markets and busy areas, including bus stops. They generally cook Russian sausages, fried or grilled fish, chicken, fries and sometimes stews, as long as they can carry all of their equipment and products. Interviewed mamas buy their Russian sausages from muqueristas (one muquerista was a mama's friend from Church for example) or burundese stores.

Figure 16 – Mamas selling their cooked goods on the street, April-September 2017



Take-aways

Take-aways are small stalls where young people and work commuters can drop by in the afternoons and evenings to eat something quickly. They generally serve only hamburgers or also Russian sausage sandwiches (i.e. hotdogs) and even Russian sausage burgers (the sausage is split in two and placed on a hamburger bun). They are particularly popular on Fridays, Saturdays and Sundays and many of them close during the school holidays.

Figure 17 – Two take-aways in the streets of Maputo, April-September 2017



Focus box 13 – Qualitative insights from FGD in Matola, hamburgers, April 2017

Hamburgers were never mentioned spontaneously in the FGD. They are eaten exceptionally, when out on the town, at take-aways.

“I have not eaten any hamburgers for months. I only eat some when I am out of my house in the city and cannot return home, at the take-away. I only eat it when I feel hungry.” (Fatima)

“I buy hamburgers about once a month.” (Fatima)

“I eat hamburgers when I am in the city.” (Edmundo)

“I eat meat and chicken. I don’t eat hamburgers because my son does not eat meat.” (Leonor)

Table 7 – Indicative prices for meat products in different types of shops, September 2017^{45,46}

Type of shop	Russian sausage (MZN/unit)	Russian sausage (MZN/package)	Frozen chicken (MZN/kg)	Burger (unit)	Beef hamburger (MZN/kg)
A Panela	16 (uncooked)	140 (1kg)	-	-	190
Dumba nengue	15 (uncooked)	150 (1kg)	-	-	-
Muquerista	-	150 (1kg)	-	-	-
Burundese	15 (uncooked)	180 (1kg)	163	30 (uncooked)	206
Mamana	25-35 (grilled)	-	-	-	-
Take-away	-	-	-	55 (simple) / 75 (w/cheese and eggs)	-
Butcher	-	200 (1kg)	290	-	290
Supermarket Recheio	-	165 (750g)	193	-	200
Supermarket Shoprite	-	99 (420g)	239	-	369

5.2. MARKET OBSERVATIONS

Most low-income consumers buy their meat from the markets that are most convenient for them (near home, near work or near the bus stops where they take the bus to go from one to the other), including at the burundeses or the butchers who are in and around the markets. Some also get meat from friends and acquaintances who go to South Africa.

T3 market was considered an intervention market as it has one of the more active A Panela shops. Benfica is similar to T3 and would thus have been a control market had the quantitative survey taken place.

⁴⁵ Source: Market observations for T3, Benfica and supermarkets.

⁴⁶ Generally 12 sausages per kg, although sizes vary by producer.

Focus box 14 – Qualitative insights from FGD in Matola, markets, April 2017

Places where participants purchase meat

Meat is either brought from South Africa through friends and connections or bought at the market, including from burundeses⁴⁷.

“I often buy [meat] in Xipamanine⁴⁸ market.” (Fatima)

“I buy [meat] in Patrice⁴⁹ market.” (Sandra)

“I buy [meat] in Zimpeto and sometimes in T3.”⁵⁰ (Luisa)

“I buy rachels on the market.” (Fatima)

“I buy rachels in the Burundese containers.” (Natalia)

5.2.1. MARKET OBSERVATION – T3 MARKET**Location of the market**

The market is located in the Matola district, some 12km from the city center of Maputo. The closest suburbs are T3 (less than one km away) and Zona Verde (also some three km away). T3 market is located next to the large Avenida 4 Outubro, which is a large asphalted road with some potholes. There are very frequent buses and minibuses stopping at the market: in just 30 minutes of observation, around 185 minibuses stopped there. Buses stopping at the market are usually all headed to T3 and come from different areas of the city.

Figure 18 – T3 market satellite view, September 2017

**Characteristics of the market**

⁴⁷ “Burundeses” are foreigners who own small stores – or sometimes containers – in or around the markets of the city and who sell a variety of mostly food products, including meat and fish. Most of their products come from South Africa via muqueristas (smugglers).

⁴⁸ One of the largest and cheapest markets in Maputo city.

⁴⁹ “Patrice” is the nick-name for the Patrice Lumumba neighborhood of Matola and its market.

⁵⁰ Zimpeto and T3 are neighborhoods and markets in Maputo city and Matola, respectively.

T3 market is a closed market with a permanent structure and cemented flooring. It has electricity and running water. There are around 45 shops inside the main structure and a further 22 outside. The total area around the market has around 400 vendors, of whom 130 have permanent stalls, and one cash and carry shop. The market has two entrances, both showing the market's name. Some areas of the markets are dedicated to specific products, such as live chicken, construction materials, cooked food or traditional medicine while others sell mixed types of products.

Figure 19 – Entrance of T3 market, September 2017



The market is open every day from 6am to 6pm, the busiest hours being from 7 to 9am and from 3 to 5pm. Between 8.45 and 9.15am, on the day of the observations, 192 women, 55 men and 78 children visited the market. The customers appear to be generally middle-class, in most cases women between 14 and 45 years old, often coming in groups of at least two. Men shopping at the market are mostly on the way to or from work.

T3 is smaller than other markets such as Zimpeto, Xipamanine, Malanga, Patrice Lumumba or Benfica. The overall organization as well as hygiene conditions are good, there is no trash around the market.

Types of vendors

The market offers a large selection of fresh products and, in particular, a lot of fruit. Prices tend to be slightly higher than those in Benfica market. Shops in the market includes shoemakers, tailors, carpenters, welders and locksmiths. There is also an area dedicated to the sale of alcoholic beverages.

Table 8 – Types of vendors at T3 market, September 2017

Type of vendor	Number of vendors
Vegetables	73
Fruits	12
Grains and cereals (rice, wheat, maize, etc.)	126
Meat and meat products	127
Fish	127
Eggs	231
Dairy products (milk, butter, yoghurt, etc.)	125

Meat sales at T3 market

Meat at the market is mostly sold by burundeses, who are spread out around the market and generally sell both fish and meat. There is only one vendor in the market who sells exclusively meat products: he is located outside the main structure. In addition, 6 stalls inside the main structure are designated for the sale of meat but they are currently not occupied.

Table 9 – Meat vendors at T3 market, September 2017

Type of shop	Selling Russian sausages	Selling burgers	Selling fish
Shops with permanent structures (mini-markets, mini-shops / burundeses)	56	9	127
A Panela	1	1	1
Around the market / Dumba nengue	12	2	9

Most of the vendors selling uncooked meat keep their products in freezers inside the stores (if they have one) or just exposed in their packages if they have no store. The latter is mostly the case for dumba nengue since burundeses generally have freezers. Dumba nengue prices tend to be cheaper than those of the burundeses. There are also 7 mamas and 18 take-aways in the area around the market selling cooked products. Customers are not interested in the origin of the products, either for uncooked and cooked products.

Of the 20 vendors interviewed at T3 about uncooked meat products, nine were mini-shops or burundeses, seven were mini-market vendors, three were dumba nengues and one was an A Panela vendor. All were selling Russian sausages and nine were selling burgers. All of them were selling Russian sausages both per package and per unit. Overall, Russian sausages sold by the unit were sold for 15 to 17 MZN per sausage, and one vendor was selling small ones for 9 MZN per unit. Some vendors were selling Russian sausages by package of ten and asking for 150 to 155 MZN per package, and some were selling packages of 12 at prices ranging from 140 to 160 MZN. The vendor from A Panela was the only one selling Alves Russian sausages, while all the others were selling Russian sausages from South Africa.

Among those selling uncooked hamburgers, one was asking for 30 MZN per patty, several were asking for 125 to 135 MZN per package of 10x50g, one was asking for 140 MZN per package of 10x75g and one was asking for 60 MZN per package of 4 chicken burgers. The A Panela vendor was selling Do Chefe burgers while five others were selling burgers from South Africa and three were

selling burgers coming from a butcher. When asked which main other fresh meat products they sold, they mostly mentioned: chicken pieces (15 times), worz sausage (11 times), chicken feet (9 times), polony (9 times), beef⁵¹ (8 times) and sardines (8 times).

In addition, 15 vendors were interviewed in T3 about cooked meat products: eight were take-away vendors, two were “mercadinhos” (grocery stores that also sell some cooked food) and five were mamas⁵². Ten were selling both Russian sausages and burgers, and five (the five mamas) were selling only Russian sausages. Some vendors sold grilled Russian sausages for 25 to 30 MZN per sausage, and many of them also offered bread, fries, eggs, cabbage salad and tomato sauce with the grilled sausages. These “menus” cost anywhere from 40 to 80 MZN depending on the chosen additional food. Those who were selling burgers often sold them with bread, fries, lettuce, eggs, tomato, mayonnaise, cheese or polony, with prices varying from 50 MZN for a simple fried burger to 100 MZN for a burger with all the side ingredients. The main other products that these vendors sold were stews, grilled chicken parts, grilled chicken brochettes, and “sandés de queijo” (cheese sandwich).

Table 10 – Prices of fish and meat products at T3 market, September 2017

Product	Minimum price	Maximum price
Polony	95 MZN /kg	100 MZN /kg
Beef / “mão de vaca”	100 MZN / kg	120 MZN / kg
Russian sausages / rachels	125 MZN /package of 12 sausages	180 MZN /package of 12 sausages
Horse mackerel “carapau” (whole, frozen)	145 MZN /kg	155 MZN /kg
Chicken (parts except legs, frozen)	155 MZN/ kg	160 MZN / kg
Raw beef patties / burgers	190 MZN /kg / raw beef	270 MZN /kg/ raw beef
Chicken (whole, frozen)	220 MZN /1.3kg	240 MZN / 1.3kg
Chicken (whole, live)	230 MZN	250 MZN
Ham / fiambre ⁵³	350 MZN/ kg	360 MZN/ kg

5.2.2. MARKET OBSERVATION – BENFICA

Location

The market is located in the suburb of Benfica, some 9km from the city center. The main road to get to the market from the center of Maputo is the Avenida de Moçambique, which is in good condition and has no potholes. The market is located about 150 meters from the main street, on a secondary non-asphalted street. Zona Verde is about 3km and T3 market some 4km away. In a 30-minute window, around 141 minibuses stopped by the market. They often have different origins and destinations, such as Matola, T3 and Benfica.

⁵¹ Most likely referring to “mão de vaca” as beef fillet is rarely seen on these markets.

⁵² “street vendors” were included as mamas

⁵³ Hams are generally sold in small packages of 75g to 180g, which make them more affordable per package than other packaged products.

Figure 20 – Benfica market satellite view, September 2017



Characteristics of the market

The market has an enclosed walled structure but several vendors sell their goods outside and around the market. There are no defined entrances, nor do the stalls have a clear organization. There are about 68 stores/stalls inside the market and 104 outside. In total, there are 172 shops with permanent structures, 3 cash and carry stores, and 238 non-permanent stalls. The floor is cemented inside and bare earth outside. The market has electricity and running water. The vendors staying outside get their water inside the structure.

Some areas of the market are dedicated to the sale of specific products such as construction material or cooked food, while the rest of the market sells mixed types of products.

The market is open from 5.30am to 6pm every day except Sunday when it opens at 6am and closes at noon. The busiest times are from 7 to 9am and from 4 to 5pm. Most customers coming between 12 and 2pm are looking for cooked food. Peak numbers of customers happen during long holidays, while fewer come during rainy days and during the rainy season in general. Between 8.45 and 9.15am, on the day of the observation, 212 women, 73 men and 40 children visited the market. Most customers are middle-class women ranging from 16 to 60 years old. Men visiting the market are usually on the way to or from work. Some customers come by car.

The overall organization is worse than T3 and the level of cleanliness is lower but acceptable, with no garbage around the market. The inside area is smaller than that of T3 market, but, including the outside area, Benfica is larger. The market still does not feature among the largest in Maputo, which are Zimpeto, Xipamanine and Fajardo.

Types of vendors

Prices at Benfica market are cheaper than in other markets, partly because of the competition from the neighboring Zimpeto market. Types of vendors include shoemakers, tailors, carpenters, welders and locksmiths. There is also a significant amount of informal commerce taking place around the market, while several stands inside the main structure are unoccupied (around 40) as vendors prefer to stay outside (and probably not have to pay a fee).

Vegetables and fruit look generally fresh and clean.

Table 11 – Types of vendors at Benfica market, September 2017

Type of vendor	Number of vendors
Vegetables	90
Fruits	15
Grains and cereals (rice, wheat, maize, etc.)	172
Meat and meat products	154
Fish	154
Eggs	185
Dairy products (milk, butter, yoghurt, etc.)	177

Meat sales at Benfica market

The market does not have a designated area for the sale of meat. Burundeses are spread out around the market. The price of meat is cheaper partly because the prices of the market are generally low but also because of the presence of muqueristas.

Table 12 – Meat vendors at Benfica market, September 2017

	Selling Russian sausages	Selling hamburgers	Selling fish	Selling other meat products
Shops with permanent structures (mini-markets, mini-shops / burundeses)	66	12	112	0
Around the market / Dumba nengue	15	0	10	0
Cash and carry	0	0	1	0
Muqueristas	0	0	0	6

Some 20 vendors were interviewed in Benfica about uncooked meat products: seven were mini-shop or burundese vendors, six were mini-market vendors, six were dumba nengues, and one was a Peixe da Mamã vendor. All 20 were selling Russian sausages and three were selling hamburgers; 15 were selling the sausages both by package and per unit, four were selling them per unit only, and one was selling them per package only.

Among those who were selling Russian sausages per unit, one was asking for 14 MZN per unit, 15 were asking for 15 MZN, and three were asking for 16 MZN per sausage. Among those who were selling packages of 10 Russian sausages, one was asking for 135 MZN, four charged 150 MZN, and 2 put a price of 160 MZN on them. Among those selling packages of 12 sausages, one was asking for 145 MZN, six were asking for 150 MZN and two were asking for 155 MZN. All the Russian sausages sold by these vendors came from South Africa.

Among those selling burgers, one charge 30 MZN per burger, one was asking for 155 MZN per package of 5x150g, one was asking for 160 MZN per package of 5x150g and one was asking for 110 MZN per package of 10x50 burgers. All those who specified the origin of their burgers said they were from South Africa. When they were asked which main other fresh product they were selling, they mostly mentioned tripe (9 times), gizzards (9 times), liver (8 times), chicken feet (6 times) and cow feet (6 times).

In addition, 15 vendors of cooked food were interviewed in Benfica: nine were take-away vendors and six were mamas⁵⁴. Among them, eight were selling Russian sausages and burgers, and seven were selling only sausages (the six mamas and one take-away). Some vendors sold grilled sausages for 25 to 35 MZN per unit, and many of them also offered bread, fries, eggs, cheese, cabbage salad and even soda with the grilled sausages. These “menus” cost from 45 to 95 MZN depending on the chosen add-ons. Those who were dealing with hamburgers often sold them with bread, fries, salad, eggs, tomato, mayonnaise, ham, cheese or sodas, with prices varying from 55 MZN for a simple burger to 120 MZN for a burger with all the side ingredients. The main other products that they sold were bread, grilled chicken parts, grilled chicken brochettes and sodas.

Table 13 – Prices for fish and meat products at Benfica market, September 2017

Product	Minimum price	Maximum price
Beef / “mão de vaca”	90 MZN / kg	100 MZN / kg
Polony	95 MZN / kg	100 MZN / kg
Russian sausages / rachels	145 MZN / kg	190 MZN / kg
Horse mackerel “carapau” (whole, frozen)	140 MZN / kg	150 MZN / kg
Chicken (parts except legs, frozen)	175 MZN / kg	185 MZN / kg
Raw beef patties / hamburgers	200 MZN /kg	220 MZN /kg
Chicken (whole, live)	230 MZN	240 MZN
Chicken (whole, frozen)	235 MZN / 1.3kg	245 MZN / 1.3kg
Ham / fiambre	290 MZN/ kg	310 MZN/ kg

Meat products in the shops are usually stored inside freezers if the vendors have one or exposed in their packages. The products generally look fresh although some products look like they have been stored for too long, especially the hamburgers. Products from South Africa are not branded, but most customers do not seem interested in the origin of the products. There are also 15 mamas and 9 take-aways selling meat around the market area.

⁵⁴ Take-aways included one “mercearia” (take-away within a grocery store) and one “barraca” (food stalls that are slightly larger than take-aways); mamas include two “street vendors”.

6. DISTRIBUTION, VALUE CHAINS AND REACH

KEY TAKEAWAYS

- Alves's combined distribution and pricing strategy does not make its products easily accessible or affordable to BOPs;
- Alves's products tend to go through several levels of intermediaries, thus becoming more expensive with margins at each step;
- 85% of Alves's sales are made to supermarkets and cash & carry stores which, although the latter target low end consumers, tend to reach middle-income consumers and retailers rather than the BoP;
- Alves's margins are higher either when selling to supermarkets or when selling hamburgers to Reginaldo, thus the company's interest in pushing this product;
- Supermarkets are a profitable distribution channel for Alves but the package size and the location and customer base of the supermarkets is a disincentive for BoP customers;
- Smaller shops like the burundeses sell (mostly sausages) by the unit which allows them to sell greater volumes and make higher margins per unit and appeal to poorer consumers (but burundeses get most of their products from muqueristas);
- Further processing the product (cooking it, like take-aways or mamas do) is a way to increase margins considerably, but in this case the vendors do not differentiate and buy the cheapest product available (often from muqueristas or burundeses);
- Alves's products are predominantly sold in the city of Maputo and its suburb Matola, except for some products sent by Shoprite to one supermarket each in Boane (50km from Maputo), Manhica (90km) and Nampula (2,000km);
- Alves's reach is estimated at around 27,000 consumers (or some 6,000 households) since 2015, about 1% of the population of Maputo and Matola.

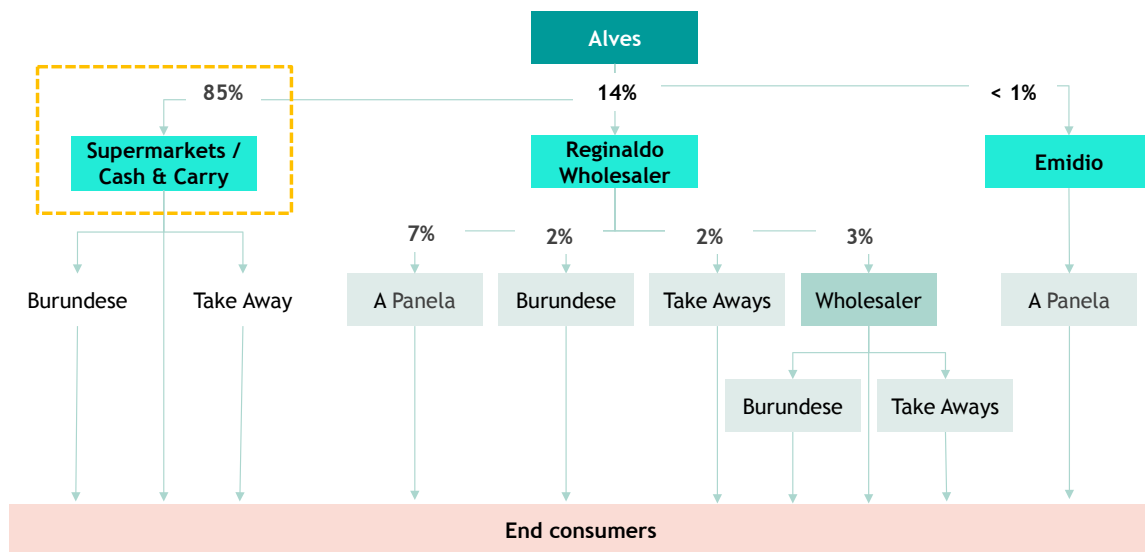
This section aims at better understanding Alves's value added and influence on local food markets thanks to detailed distribution, value chain and reach analyses.

6.1. MAPPING ALVES'S DISTRIBUTION

While initially Alves's distribution model relied on its network of A Panelas (36 stores at the height of their activity) situated in low-income neighborhoods throughout Maputo and Matola, now the great majority of Alves's products is sold to supermarkets (85%), including Recheio (an estimated 35%) Shoprite (20%), Extra (15%) and Game (15%).

While Recheio, Extra and Game are cash & carry stores who target retailers and low-income consumers, Shoprite is known to target middle to high-income consumers. In the Shoprite shops, Alves products therefore probably provide an entry point product, much cheaper than the other products, to attract lower income consumers and for advertising.

Cash & carry are, on the other hand, sources of products for take-aways and some burundeses.

Figure 21 – Map of Alves's distribution model for meat products, in % of total volume, July 2017⁵⁵

Noticeably, through most of their distribution channels, Alves products are likely to go through at least one intermediary and most often, probably two or three, who will all take a share of the value.

Most of the rest of Alves's products (a total of 14% of its volume) is sold through Reginaldo, an ex-Alves employee who manages 4 A Panelas and mostly acts as a distributor and wholesaler for Alves. Antonio, one of Alves's owners, claims that they give better prices to Reginaldo (than to the supermarkets) because they want to encourage the A Panelas and attend to their BoP customer base. This is likely the case but the fact that Reginaldo has his own car and therefore does not require distribution from Alves's single truck is also probably a factor.

Reginaldo – and any A Panela owner – has a contract with Alves according to which he can sell any kind of product he likes in his shop as long as it does not compete directly with Alves products, therefore no processed meat other than Alves. In his A Panelas, he sells Alves products but also other meats (whole frozen chicken, frozen chicken pieces, frozen beef parts and mostly fish). Reginaldo also delivers to Emidio, owner of the fifth A Panela, since the latter does not have a car and is a friend of Reginaldo's.

Despite making most of his business through the A Panelas, Reginaldo also sells and delivers Alves products to a number of other clients, including a large wholesaler, Bonestine, who has a refrigerated container and sources all her Russian sausages from Alves. Other clients are take-aways who solely buy hamburger patties and burundeses.

⁵⁵ Source: based on interviews with Alves management and other value chain actors. The 7% going to A Panela shops include 46% of 14% going through the wholesaler (Reginaldo) and the <1% going to Emidio's A Panela.

6.2. VALUE CHAINS

This section of the report details the value chains corresponding to the main distribution channels used by Alves and compares them to those of a muquerista, who illegally imports most of the food coming from South Africa (including Russian sausages) and a butcher. Prices are as of July 2017 and can vary.

6.2.1. SALES TO SUPERMARKETS

In supermarkets, Alves prices are considered affordable and are generally lower than competitors.

However, since products are sold in large packages (500g or more for Russian sausages and 300g or more for hamburgers) they are too expensive for most low income consumers. In addition, most supermarkets appeal to a higher income crowd and are often located in areas that require transportation, which most BoP consumers can barely afford or try to avoid, preferring to shop closer to their home, work or near the bus stops they frequent when going from one to the other. In supermarkets, Alves is therefore competitive but for the wrong market, if its aim is to attract BoP consumers.

The value chain analysis shows that supermarkets are a profitable distribution channel for Alves, with an average margin of around 33% for both Russian sausages and hamburgers.

Its main costs are costs of goods sold for both products and also transport in the case of Russian sausages since most of their ingredients come from South Africa.

Supermarkets ask that Alves deliver their products, which implies a small additional cost as they group deliveries to several supermarkets in order to amortize costs. They have one truck which can carry up to 2 tons and it generally delivers between 300 and 400 kg per trip, thus lowering costs per kg⁵⁷. This may, however, also explain issues with delays in deliveries of stock which several customers complained about since Alves waits to have enough products ordered before making a delivery.

Table 14 – Retail prices Recheio Machava supermarket In Maputo, in MZN, July 2017

	Price per kg	Price per pack
Carapau (horse mackerel)	88	-
Alves burgers (10x50g) (out of stock) ⁵⁶	200	100
Polony (various brands 1-3 kg)	160-295	160-415
Alves Russian sausages (1 kg)	190	190
Classic Russian sausages (750g) (South Africa)	220	165
Today hamburgers (6x50g) (South Africa)	343	103

⁵⁶ Alves hamburgers were out of stock in 8 visited supermarkets; price was given by the manager of the Machava Recheio.

⁵⁷ Source: interview with Alves truck driver.

Figure 22 – Supermarkets buying Russian sausages from Alves and selling them to end consumers, in MZN/kg, July 2017⁵⁸

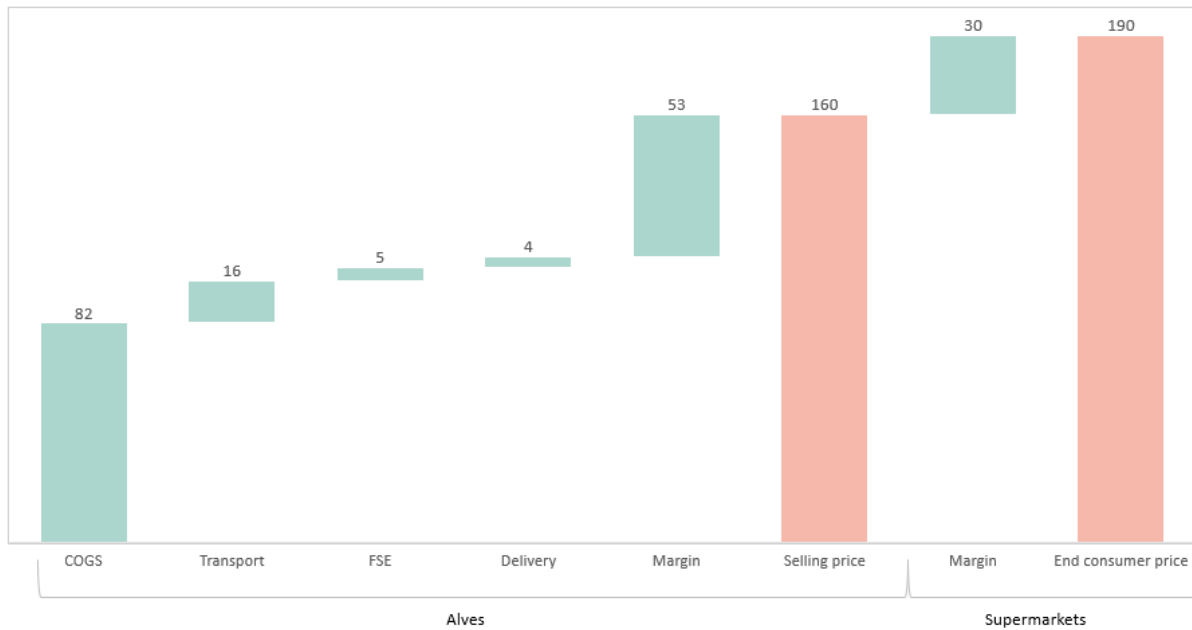
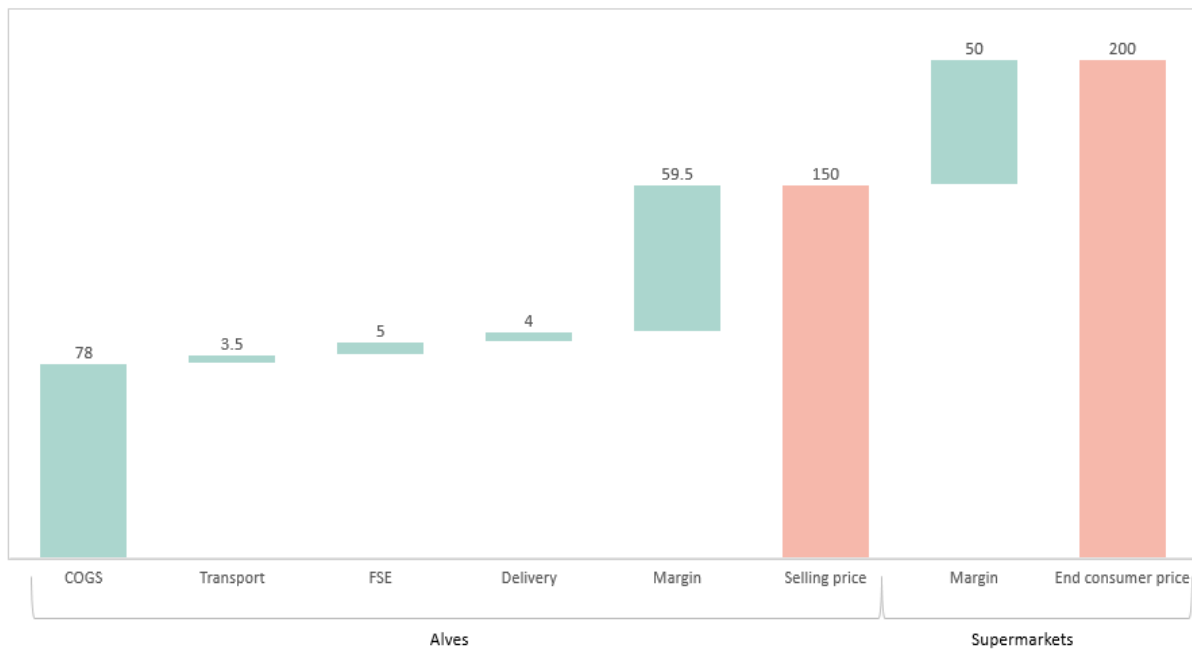


Figure 23 – Supermarkets buying hamburgers from Alves and selling them to end consumers, in MZN/kg, July 2017



⁵⁸ Source: Alves's costs of goods sold (COGS) come from Alves's 2016 balance sheet; transportation cost per kg (from South Africa) has been calculated by attributing an equal proportion of the total transportation costs for 2016 (also from Alves) to all Alves products except hamburgers, for which meat is sourced in Mozambique instead of South Africa. Other FSE costs (Food Service Equipment), including energy, water, petrol, paper, maintenance and office costs have been equally attributed to all products sold by Alves. Delivery costs based on interview with truck driver, cost of gas and average amount delivered. Purchasing and selling prices of supermarkets come from interview with Recheio manager.

Focus box 15 – Qualitative insights from FGD in Matola, supermarkets, April 2017

Most participants noted they did not go to supermarkets or cash & carry stores. When asked if they had ever shopped at these types of supermarkets / cash & carry stores, they answered:

“Yes, I have, but I have not been to Recheio in a year.” (Fatima)

“I have never entered the two places [Jumbo or Recheio]. It’s too far. They only sell big quantities so it is not good for day to day consumption. I prefer small shops and local places.” (Luisa)

“I have been there in the last months.” (Augusta)

“Recheio does not help. Prices are good but transportation is too expensive.” (Marcia)

“I buy there because there is everything available.” (Edmundo)

“I have not gone there because the prices are the same as the ones here, and also because the transportation is expensive.” (Natalia)

6.2.2. SALES TO REGINALDO

As seen above, after supermarkets, Reginaldo is Alves’s main client / distributor. He buys products for his four A Panela shops, distributes to the fifth A Panela and acts as a wholesaler for other clients, including a large wholesaler and several take-aways and burundeses. He makes higher margins on his A Panela sales but acting as a wholesaler and distributor for Alves may entail additional advantages (e.g. credit, support in difficult times, etc.) that make it worth his while to make the smaller (but still positive) margins he makes by acting as a wholesaler.

6.2.2.1. Sales to A Panela stores

Reginaldo buys Alves products directly from the company picking them up from the factory and selling them in the A Panela stores. Although the packages are not re-sealable, products at A Panela stores are mostly sold unpackaged (as they also are in burundese shops), which allows consumers to buy the products by the unit.

In this case, Alves’s margin is lower for Russian sausages (around 11 MZN per kg) but remains high for hamburgers (43.5 MZN/kg), which explains Alves’s clear decision to push the sale of hamburgers. Reginaldo’s margins are also higher through this model, especially as he sells products by the unit, which greatly increases his margin. He also makes more money on hamburgers than he does on Russian sausages. In A Panelas, Russian sausages are sold at 16 MZN per piece, while hamburgers are sold in different sizes (125 MZN for 10x50g, 140 MZN for 10x75g and 60MZN for 7x75g)⁵⁹.

⁵⁹ In July 2017.

Figure 24 – A Panela stores (Reginaldo) buying Russian sausages from Alves and selling them to end consumers, in MZN/kg, July 2017⁶⁰

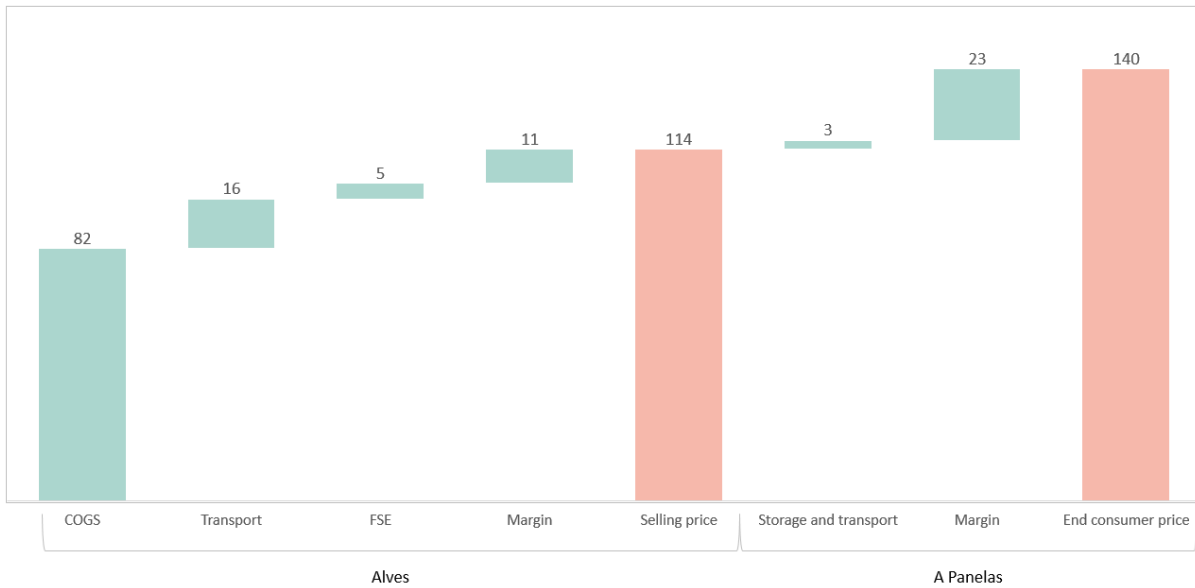
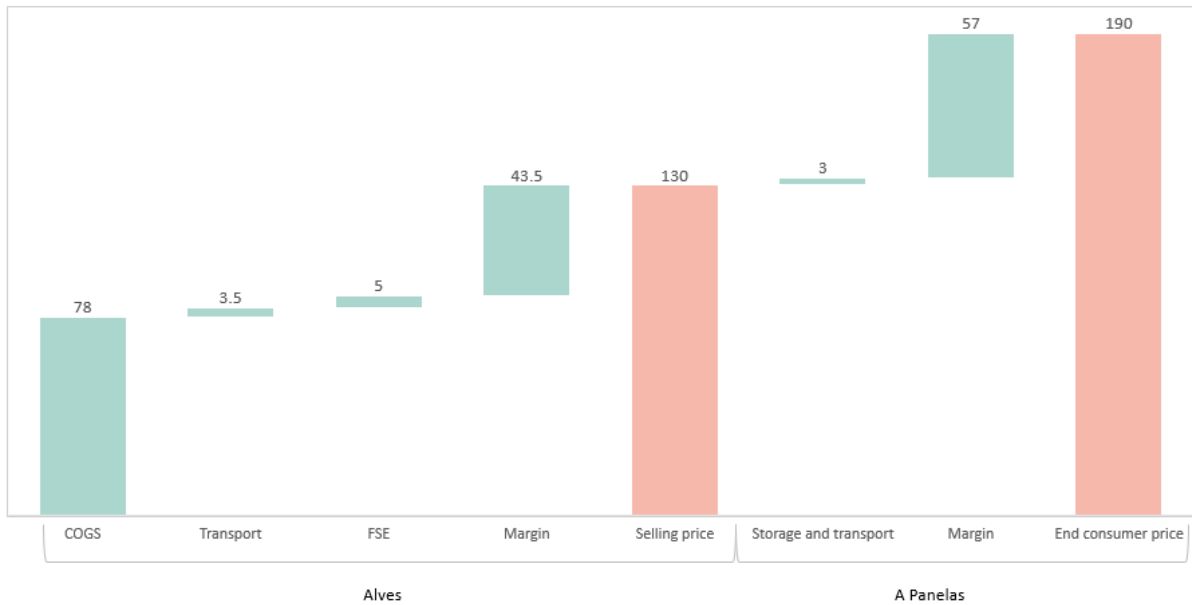


Figure 25 – A Panelas (Reginaldo) buying hamburgers from Alves and selling them to end consumers, in MZN/kg, July 2017



⁶⁰ The purchasing prices of Reginaldo from the Alves factory were provided by Reginaldo in an interview. The selling prices to end consumers were observed in A Panela stores in July 2017; based on the price of sausages sold to end consumers by package (not unit).

Focus box 16 – A Panela shops

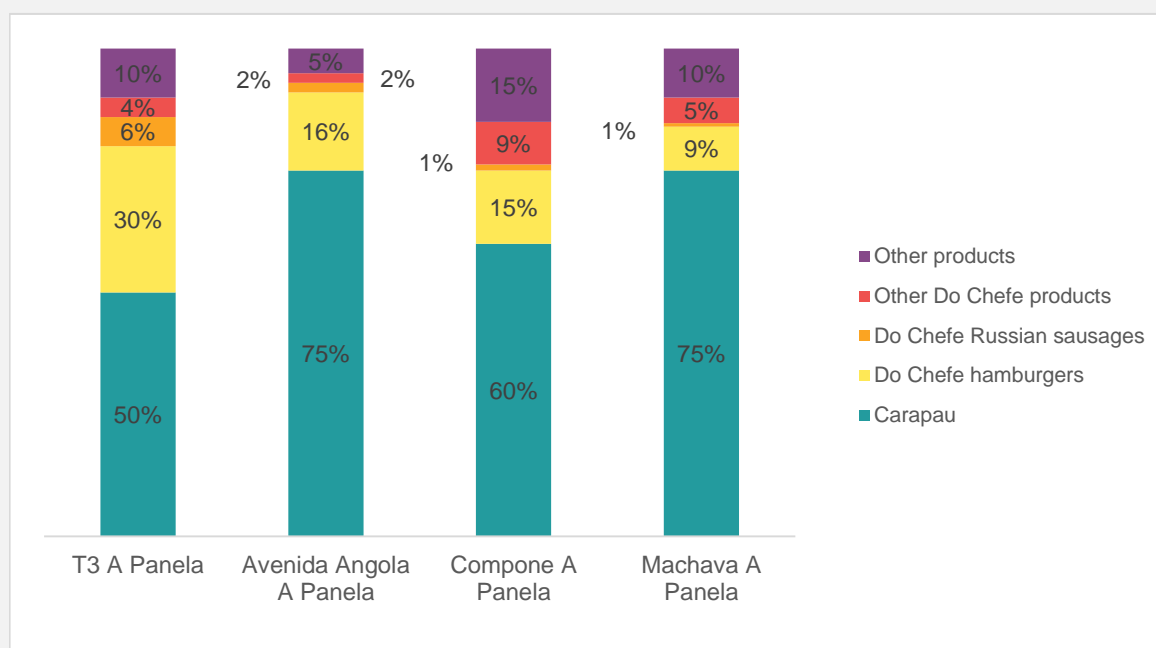
A Panelas, formerly owned by Alves, are now franchised. Alves still helps them by providing much of the equipment, including the expensive freezers and fridges. There used to be 36 such shops around Matola and Maputo, but as of July 2017 only five were still open, four of which are owned by Reginaldo, Alves's main intermediary. A Panelas, by contract, can only sell Alves meat products (but can sell any other goods they wish to as long as they do not compete directly with Alves products).

Table 15 – Retail prices at the T3 A Panela, in MZN, July 2017

	Price per kg	Price per pack
Horse mackerel (carapau)	85-95	-
Alves Russian sausages (1kg)	140	140
Chicken parts	155	-
Alves burgers (10x50g)	190	95
Cow parts (mão de vaca)	200	-
Alves ham (180g)	417	75

While A Panela shops are Alves franchises, it is interesting to note that only 15% to 40% of their sales come from Alves / Do Chefe products. Their most popular product remains carapau (horse mackerel), which is also often the cheapest product per kg.

Figure 26 – Breakdown of A Panela shops' sales by products and suppliers, July 2017

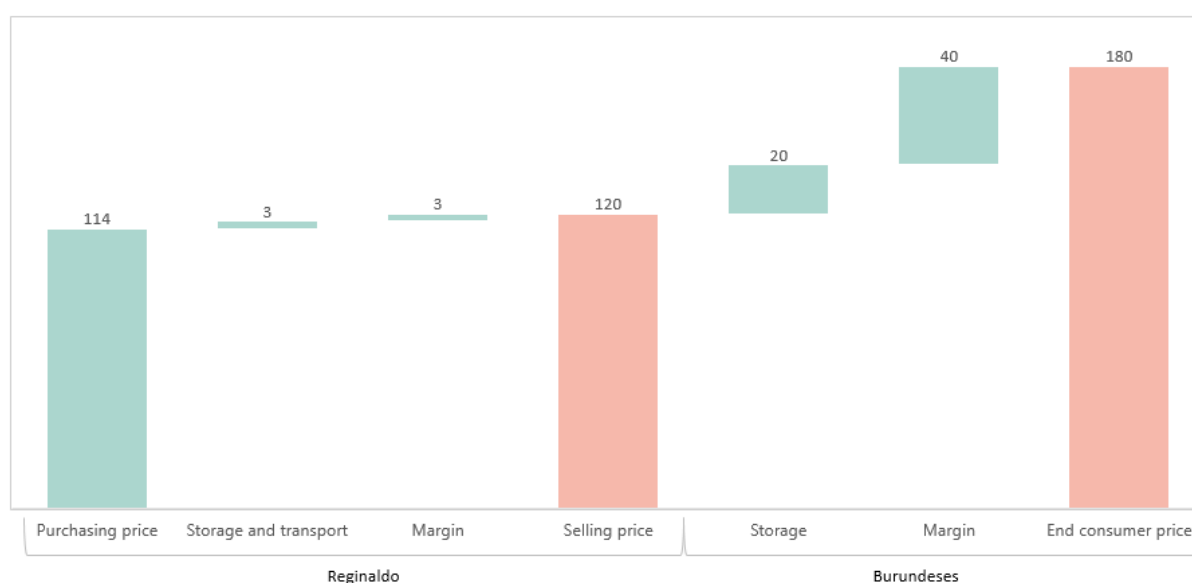


With the products he buys from Alves, Reginaldo also supplies other retailers such as burundeses and take-aways, to whom he personally delivers with his own car.

6.2.2.2. Sales of Russian sausages to burundese shops

Reginaldo acts as a wholesaler selling and delivering Russian sausages and hamburgers to burundese clients. These shops usually unpack the products and sell them by the unit, which allows them to increase the price per kg and make higher margins while at the same time attracting consumers who would not be able to afford the whole package. Prices for one Russian sausage (regardless of its brand or country of origin) range between 15 and 16 MZN per unit.

Figure 27 – Burundeses buying Russian sausages from Reginaldo and selling them to end consumers, in MZN/kg, July 2017⁶¹



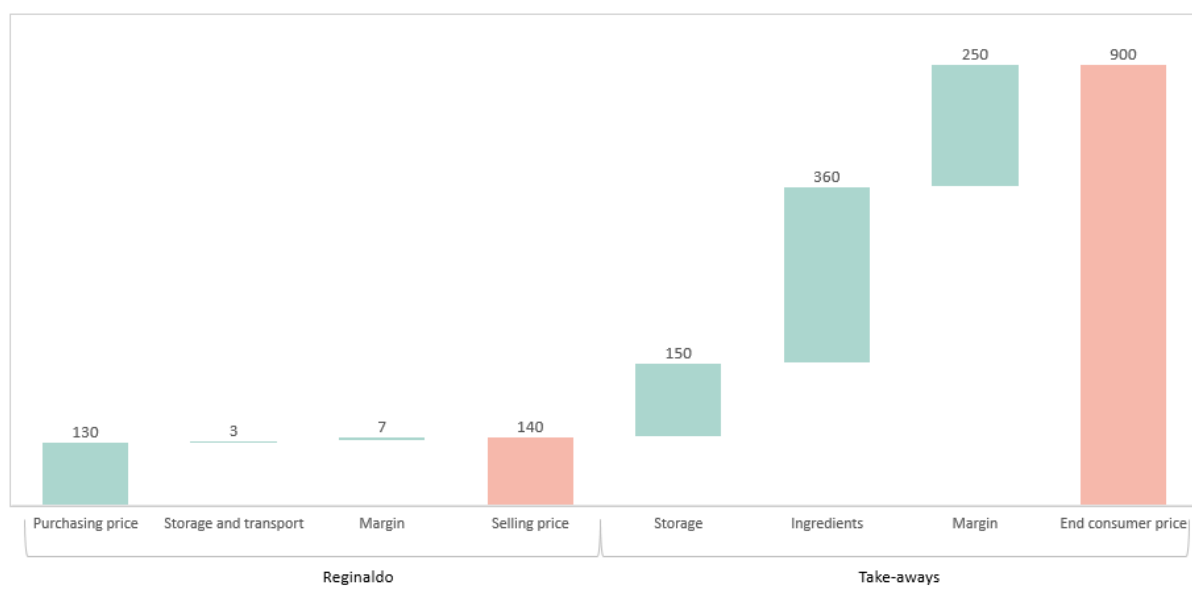
6.2.2.3. Sales of hamburgers to take-aways

Take-aways mostly sell hamburgers (the few other products they tend to sell are complements for hamburgers like fries or sodas). Fancier take-aways will sell a few additional types of sandwiches like hotdogs or cheese sandwiches. A hamburger with cheese and eggs at a take-away can cost around 75 MZN. The traditional ingredients used include bread, cheese and sauces, whose cost per hamburger have been estimated at around 30 MZN, based on interviews with take-aways.

As has been seen in other cases, the addition of a few ingredients and processing of the meat into a hamburger helps take-aways make the highest margins.

Figure 28 – Take-aways buying hamburger patties from Reginaldo and selling cooked hamburgers to end consumers, in MZN/kg, July 2017⁶²

⁶¹ Storage costs based on interviews with burundese owners; Reginaldo prices and costs from interview with him; assumes 12 sausages per kg.



6.2.3. MUQUERISTAS

Muqueristas import Russian sausages (among many other products) from South Africa and either sell them directly to end consumers or supply other retailers such as burundeses and mamas. The prices at which muqueristas sell Russian sausages is similar or slightly higher than the wholesale price for Alves’s Russian sausages (140-150 MZN compared to 120 MZN) (see value chain of Reginaldo selling to burundese above). However, South African sausages are considered tastier.

Muqueristas usually travel in groups on a minivan. The transport costs consist in a fee that each passenger pays the driver who is personally responsible for dealing with the customs authorities at the border and making sure the products are allowed into Mozambique (usually by paying a bribe). Muqueristas benefit from the fact that prices are lower in South Africa and a whole industry has been set up in towns like Komatipoort or Nelspruit to tend to them, with large warehouses with unmarked / unbranded product they can easily buy and sell back in Mozambique. Back in Mozambique, they have networks of clients they contact in advance when they are ready to make a delivery.

Given that they have very few costs and distribute their products right away, muqueristas tend to be able to make good margins, especially when they sell the products directly to end consumers.

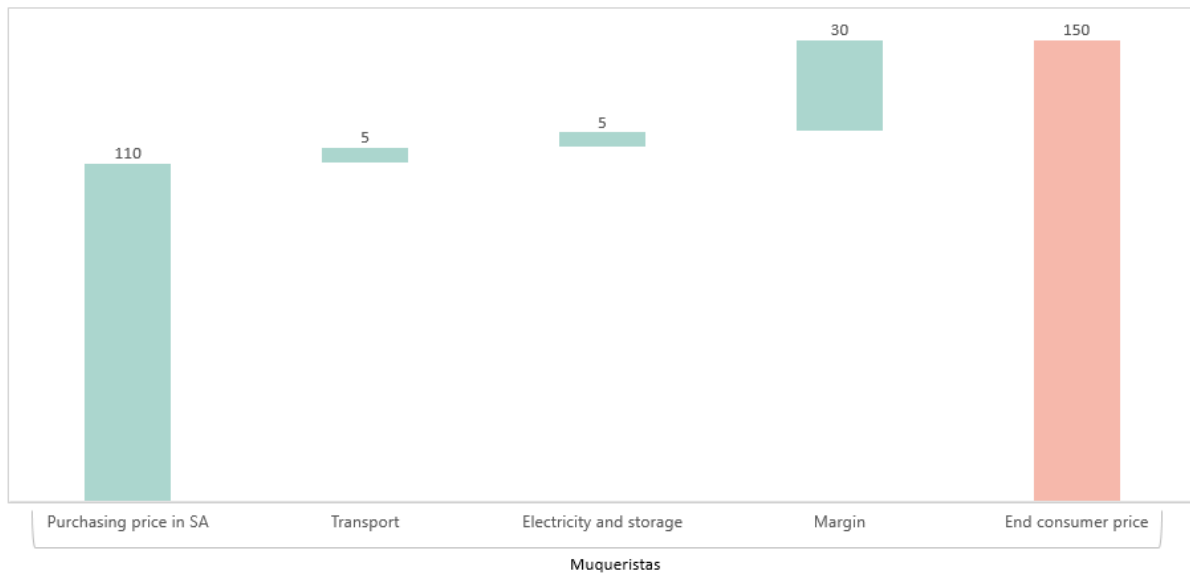
“Despite a 20% increase in the buying price of rachels [a box of 25kg of Russian sausages] in Komatipoort [South Africa] in the last two years and a 50% increase in my selling price, I still have managed to quadruple my sales.”

Muquerista selling South African Russian sausages in Patrice market, Matola

Figure 29 – Muqueristas importing Russian sausages from South Africa and selling them to end consumers, in MZN/kg, July 2017⁶³

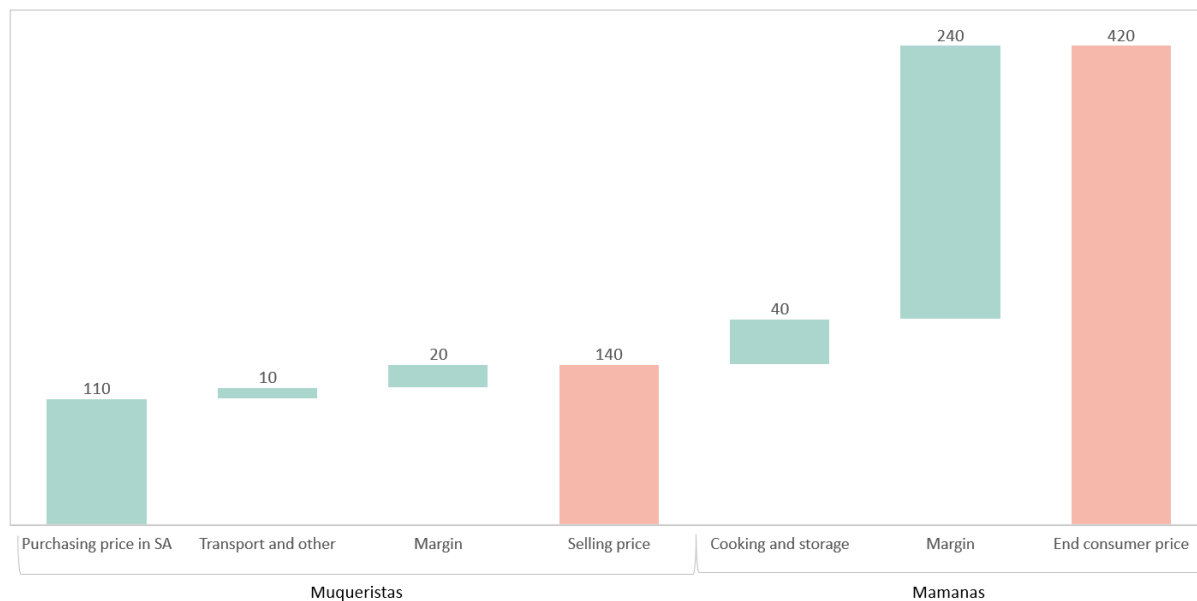
⁶² “Ingredients” refers to additional ingredients in the hamburger: bread, lettuce, tomato, sauce (and others, as required). Assumes 12 hamburgers per kg.

⁶³ Prices, transport costs and other running costs were estimated based on interviews with muqueristas.



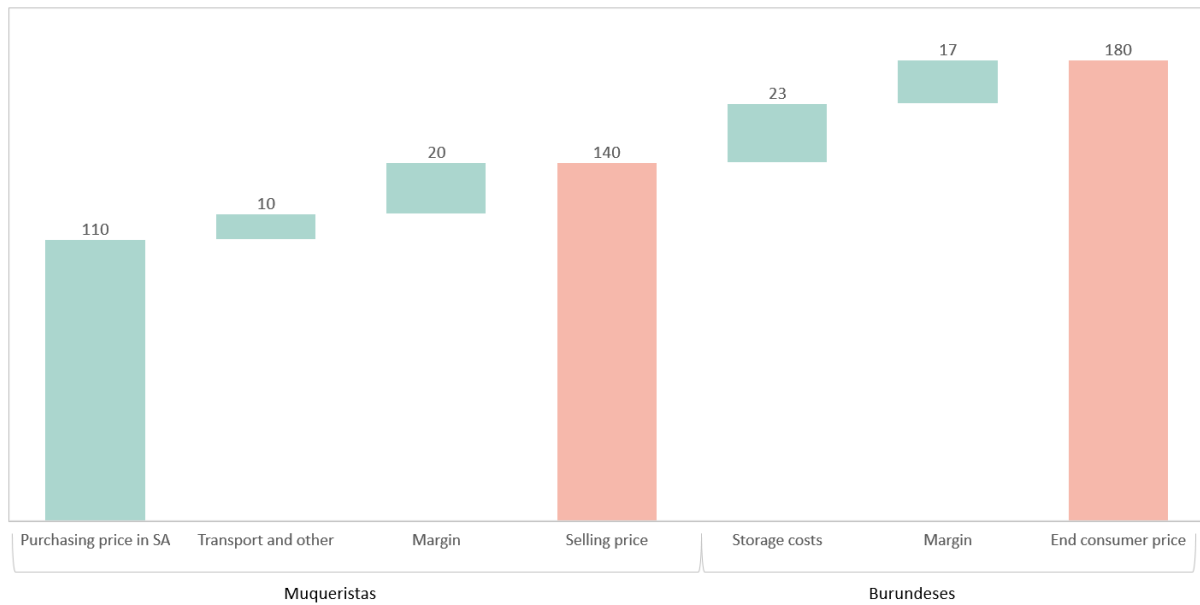
Mamanas sell cooked Russian sausages mostly at night markets. They often source their products from muqueristas or nearby burundeses and sell them cooked for around 35 MZN per unit, regardless of the brand, making comparatively high margins per sausage. One kg contains around 12 sausages.

Figure 30 – Mamanas buying Russian sausages from muqueristas and selling them to end consumers, in MZN/kg, July 2017



When burundeses buy Russian sausages (and other products) from muqueristas, the margins are divided between the burundese and the muquerista. At the same time, muqueristas benefit from selling to the burundeses since they generally do not have freezers themselves (compared to the burundeses) and therefore cannot keep frozen products long. Selling to burundeses allows them to compensate high margin per product with quantity.

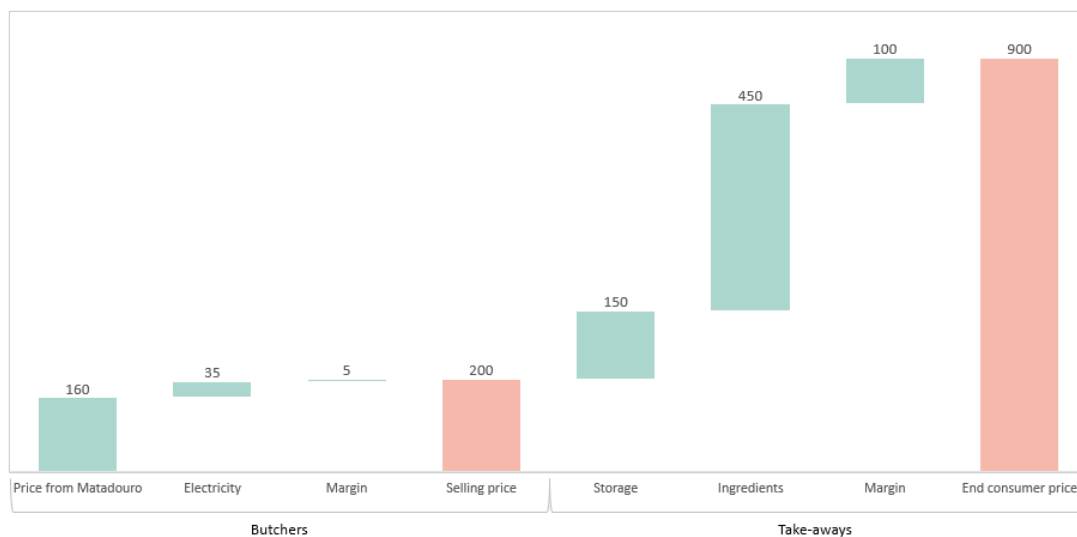
Figure 31 – Burundeses buying Russian sausages from muqueristas and selling them to end consumers, in MZN/kg, July 2017



6.2.4. BUTCHERS

The last value chain covers butchers, who usually buy raw unprocessed meat from suppliers (generally farmers) and sell their products (e.g. ground beef, chicken parts, chopped meat) to end consumers on the market. The butcher whose value chain was analyzed buys his meat from regular suppliers who he goes to the slaughterhouse (matadouro) with, and makes hamburgers which he generally sells to take-aways. Butchers' margins are very small and, in this case, he needs to compensate by selling high quantities.

Figure 32 – Butchers buying meat from farmers/suppliers and selling it to take-aways, in MZN/kg, July 2017⁶⁴

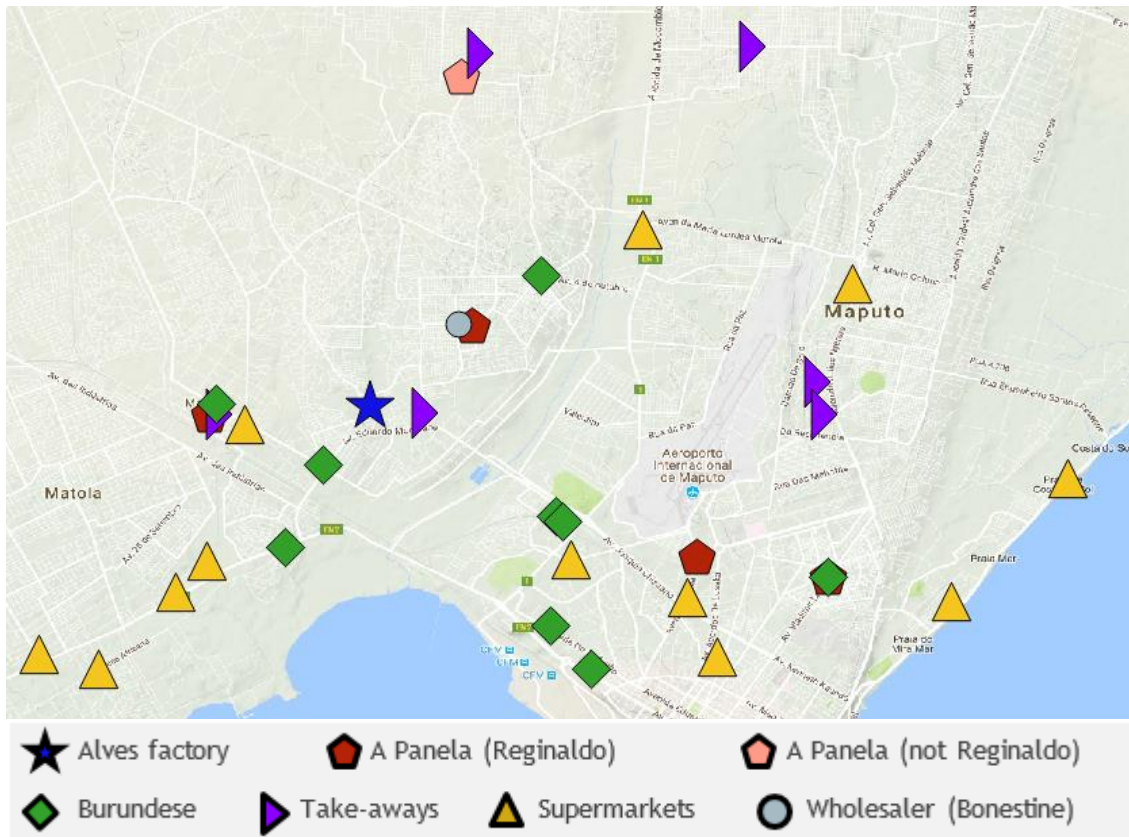


⁶⁴ Electricity costs for the butcher include the running costs of 6 freezers, 4 fridges, 2 cold rooms, 3 mincers and 3 slicing machines.

6.3. REACH

Alves products are distributed in some 15 supermarkets mostly in Matola and the city of Maputo as well as some 20 A Panela shops, burundeses and take-aways. In addition, Shoprite sends Alves products to its supermarkets in Boane (50km from Maputo), Manhiça (90km) and Nampula (2,000km).

Figure 33 – Reach of Alves products, July 2017



The total number of customers reached amounts to some 27,217⁶⁵ or about 1% of the overall population of the cities of Maputo and Matola. The estimated number of households reached is 6,048. Consumers reached under 5 and 18 years old are respectively 4,627 and 13,881, while female consumers are 13,886. Considering that Maputo has the lowest poverty rate of Mozambique, around 10%, it is estimated that only 2,722 low income consumers have been reached by Alves products.

⁶⁵ See methodology section for details on the calculations.

Table 16 – Approximate number of people reached by Alves products, September 2017⁶⁶

	Source	Results
Number of consumers reached by Alves	Calculation	27,217
Average household size in Mozambique	Michael Bauer Research, 2015	4.5
Percentage of Mozambique population below 5	CIA World Factbook, 2016	17%
Percentage of Mozambique population below 18	CIA World Factbook, 2016	51%
Male/female overall ratio in Mozambique	CIA World Factbook, 2016	0.96
Percentage of females between 15 and 49 of overall population	CIA World Factbook, 2016	22%
Percentage of Maputo inhabitants living under poverty line of 1.9 \$ a day	World Bank, 2016	10%
Number of households reached by Alves	Calculation	6,048
Number of consumers under 5 reached by Alves	Calculation	4,627
Number of consumers under 18 reached by Alves	Calculation	13,881
Number of female consumers reached by Alves	Calculation	13,886
Number of low income consumers reached by Alves	Calculation	2,722
Number of low income households reached by Alves	Calculation	605
Number of female consumers between 15 and 49 reached by Alves	Calculation	5,988

⁶⁶ Calculations are done solely for Russian sausages and hamburgers, not all of Alves's products.

7. CONCLUSIONS

The case study on Alves takes place in a difficult context which finds Mozambique slowly recovering from the deep financial and economic crisis of the last few years which badly affected low-income consumers' purchasing power. In addition, Alves has to compete with meat products that are overwhelmingly imported from South Africa at cheaper prices than national products and in distribution channels that are highly informal and constantly shifting. Within this tough context, Alves, one of the very few existing Mozambican meat processing companies, has continued producing, succeeded in maintaining relatively stable prices, bought equipment with GAIN's support and thus greatly increased its production capacity and found a new distribution channel for most of its products as its franchised shops closed.

Alves has bet on the Mozambican hamburger market "exploding" in the near future and has some high-margin products and a convenient distribution channel through its sales to large supermarkets. It is, however, likely to continue struggling with issues like the competition from South African smuggled goods, currency variations as it imports many of its ingredients from abroad and, importantly, reaching its target.

Indeed, while Alves's products are overall competitive in terms of price, even when compared to South African products, its distribution model, packaging size and overall marketing is not conducive to it reaching its BoP target. Supermarkets prove to be a profitable distribution channel for Alves and its products provide an entry price to consumers there. However, supermarkets, even cash & carry stores that supposedly target low income consumers, offer quantities and packages that are too large for these consumers' wallets. In addition, they generally require transportation which is an expense these consumers try to avoid. While BoP consumers generally shop at least once a day if not more, preferring small quantities that can serve one meal and will not need to be stored in refrigerators that they do not have, supermarkets encourage the purchase of large quantities.

Alves products are more adapted to small neighborhood stores like A Panelas or burundeses who are willing to open the packages to sell the products by the unit. Unfortunately, most of the A Panelas have closed and the burundeses are used to working with muqueristas and selling South African products.

Alves is currently producing at one-eighth to one-fourth of its production capacity. If it wishes to increase this volume, it will need to re-consider its distribution, possibly recruiting or working with more wholesalers to reach more burundeses (although adding intermediaries will lower most of its products' margins). The A Panela brand could also be used given that it still holds positive associations for consumers. This would however require trained and experienced managers who could ensure their shops' survival.

Alves could further consider reducing the number of products it markets to focus on a combination of the best-selling and higher margin products. It could also re-think its packaging to make prices more attractive to BoP consumers (who are unlikely to buy 1kg packages unless they have a business themselves). Since hamburgers are still considered a luxury product of sorts, the marketing strategy for this product could continue to be different, targeting take-aways who can make higher margins by cooking and selling the hamburgers. The issue of taste, for both hamburgers and Russian sausages, remains and the past unsuccessful experiments may have affected the products' desirability. A full re-think of the products' recipe may be necessary, to make them healthier and more agreeable to Mozambican consumers' taste while at the same time maintaining acceptable costs. When and if this combination is reached, the change may have to reach past distribution, packaging and pricing to communicating to the consumers so as to ensure they return.

8. APPENDIX

8.1. LIST OF ALVES REFERENCED PRODUCTS

Enchidos (Smoked sausages)	
1	Artigo: ENCHD-001000010 - Fumeiro - Alheira (un)
2	Artigo: ENCHD-001000022 - Fumeiro - Chouricao Fatiado (un)
3	Artigo: ENCHD-001000025 - Fumeiro - Chourico Argola (un)
4	Artigo: ENCHD-001000030 - Fumeiro - Chourico Preto de Vaca (un)
5	Artigo: ENCHD-001000040 - Fumeiro - Farinheira (un)
6	Artigo: ENCHD-001000050 - Fumeiro - Chouriço Corrente
7	Artigo: ENCHD-001001000 - Fumeiro - Chourico Argola (kg)
8	Artigo: ENCHD-001001010 - Fumeiro - Alheira (kg)
9	Artigo: ENCHD-001001040 - Fumeiro - Farinheira (kg)
10	Artigo: ENCHD-001003122 - Fumeiro - Chouricão (kg)
11	Artigo: ENCHD-001004022 - Fumeiro - Chourição Vaca Fatiado (un)
12	Artigo: ENCHD-001004030 - Fumeiro - Morcela de Assar (un)
13	Artigo: ENCHD-001004122 - Fumeiro - Chourição de Vaca - kg
14	Artigo: ENCHD-001004130 - Fumeiro - Morcela de Assar (kg)
15	Artigo: ENCHD-001010025 - Fumeiro - Chouriço de Vaca (un)
16	Artigo: ENCHD-001004200 - Fumeiro - PAINHO (kg)
17	Artigo: ENCHD-001000015 - Fumeiro - Painho Fatiado (un)
Fiambres (Hams)	
18	Artigo: CARNE-007000020 - Charcutaria - Fiambre de Vaca (kg)
19	Artigo: CARNE-007000010 - Charcutaria - Fiambre de Vaca Extra-Kg
20	Artigo: CARNE-007000220 - Charcutaria - Fiambre Galinha (kg)
21	Artigo: CARNE-007000400 - Charcutaria - Fiambre de Perú - kg
22	Artigo: CARNE-007000320 - Charcutaria - Fiambre de Barra (kg)
23	Artigo: CARNE-007000120 - Charcutaria - Fiambre da Pá (Kg)
24	Artigo: PROCS-007000020 - Charcutaria - Afiambrado Fatiado (un)
25	Artigo: PROCS-007000120 - Charcutaria - Fiambre da Pá Fatiado (un)
26	Artigo: PROCS-007000320 - Charcutaria - Fiambre de Barra Fatiado
27	Artigo: PROCS-007000400 - Charcutaria - Fiambre de Perú Fatiado
28	Artigo: PROCS-007000500 - Charcutaria - Fiambre de Aves Fatiado
29	Artigo: PROCS-007000600 - Charcutaria - Fiambre Vaca c/ Cogumelos
30	Artigo: PROCS-007000700 - Charcutaria - Mortandela c/ Azeitonas un
31	Artigo: PROCS/007000220 - Charcutaria - Fiambre de Galinha Fatiado
Charcutaria (Vienna and Bologna sausages)	
32	Artigo: PROCS-002000010 - Charcutaria - Salsichas Viennas - (05un)
33	Artigo: PROCS-002000020 - Charcutaria - Salsichas Viennas - (12un)
34	Artigo: PROCS-002000102 - Charcutaria - Salsicha Fresca Vaca - kg
35	Artigo: PROCS-002000202 - Charcutaria - Salsicha Fresca Porco - kg
36	Artigo: PROCS-002000210 - Charcutaria - Salsicha Fresca Gr 500g
37	Artigo: PROCS-002001000 - Charcutaria - Salsicha Vienna 1kg
38	Artigo: PROCS-004000250 - Charcutaria - polony 250gr
39	Artigo: PROCS-004000000 - Charcutaria - Polony 500gr
40	Artigo: PROCS-004000000 - Charcutaria - Polony 750gr
41	Artigo: PROCS-004000100 - Charcutaria - Polony 1kg

42	Artigo: PROCS-004000100 - Charcutaria - Polony 2.5 kg
	Russian (Russian sausages)
43	Artigo: PROCS-006000050 - Charcutaria - Russian de Porco 500g
44	Artigo: PROCS-006000150 - Charcutaria - Russians de Galinha (500g)
45	Artigo: PROCS-006000100 - Charcutaria - Russian de Galinha (kg)
46	Artigo: PROCS-006010050 - Charcutaria - Russian Vaca (500 g)
47	Artigo: PROCS-006010100 - Charcutaria - Russian Vaca (kg)
	Wors e outros (Boerewors-type sausages and others)
48	Artigo: PROCS-001000050 - Processado – Wors
49	Artigo: PROCS-001000100 - Processado - Wors 1kg
50	Artigo: PROCS-001000200 - Processado - Wors 2kg
51	Artigo: PROCS-001001050 - Processado - Wors Extra
52	Artigo: PROCS-001001100 - Processado - Wors Extra 1kg
53	Artigo: PROCS-002000050 - Processado - Wors Chakalaka
54	Artigo: PROCS-002000051 - Processado - Wors Chakalaka - Piri-Piri
55	Artigo: PROCS-002000100 - Processado - Wors Chakalaka 1kg
56	Artigo: PROCS-002000151 - Processado - Wors Chakalaka Piri-P 1kg
57	Artigo: PROCS-002000100 - Processado - Wors Babalaza 1kg
58	Artigo: PROCS-002000101 - Processado - Wors Babalaza Vaca 1kg
59	Artigo: PROCS-002000126 - Processado - Wors Babalaza Vaca 250g
60	Artigo: PROCS-002000150 - Processado - Wors Babalaza 500g
61	Artigo: PROCS-002000151 - Processado - Wors Babalaza Vaca 500g
62	Artigo: PROCS-003000050 - Processado - Carne Vaca Moída
63	Artigo: PROCS-005000250 - Processado - Almôndegas (9 x 30g)
	Hamburguer (Hamburgers)
64	Artigo: PROCS-005000000 - Processado - Espetadas un
65	Artigo: PROCS-005001500 - Processado - Hamburguer (10x50g)
65	Artigo: PROCS-005001000 - Processado - Hamburguer (20x50g)
66	Artigo: PROCS-005000050 - Processado - Hamburguer (4x75g)
66	Artigo: PROCS-005000050 - Processado - Hamburguer (10x75g)
67	Artigo: PROCS-002001080 - Processado - Hamburguer (10x80g)
67	Artigo: PROCS-005000100 - Processado - Hamburguer (4x100g)
68	Artigo: PROCS-005000120 - Processado - Hamburguer (2x120g)

8.2. PARTICIPANTS IN MATOLA FGD

Date	29.04.17					
Name of moderator	Mercio Banze					
Location of FGD	Matola (Patrice)					
PARTICIPANTS	Age	occupation	Personal status	Neighborhood	Recruitment market	children
Fatima	39	Housewife	Single (household of 4)	Machava	Machava	3
Natalia	39	Housewife	Single (household of 8)	Machava	Machava	4
Augusta	33	Unemployed	Single (household of 9)	Machava	Machava	3
Helena	38	Housewife	Single (household of 7)	T3	T3	5
Luisa	40	Business-woman	Single (household of 4)	T3	T3	2
Leonor	27	Housewife	Married (household of 3)	T3	T3	1 (adult)
Marcia	45	Housewife	Married (household of 7)	Patrice Lumumba	Patrice Lumumba	3
Edmundo	24	Business	Single (household of 4)	Patrice Lumumba	Patrice Lumumba	1
Sandra	32	Housewife	Single (household of 8)	Patrice Lumumba	Patrice Lumumba	3

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