DAIRY IN ETHIOPIA

Appraisal of Methodology

Compiled by Euromonitor International for the Global Alliance for Improved Nutrition

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Objectives and Scope

Research Objectives

- Design and test a methodology to research food categories, which can be replicated across markets where informal channels dominate
- Evaluate lessons learnt and review the methodology together with GAIN to finalise approach for similar markets

Pilot – Ethiopia Dairy

- Identify dairy products typically consumed in Ethiopia
- Assess the channels where they are sold
- Estimate the market size of the Ethiopian dairy market
- Determine the outlook for dairy
- Understand trends and drivers of the dairy market
- Determine the brands active in dairy products

Project Scope

Dairy in Ethiopia, with a focus on traditional/informal channels

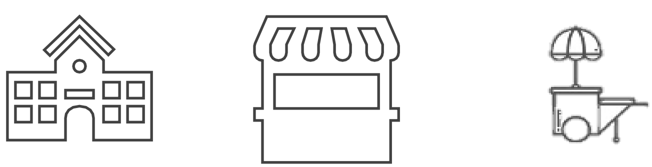
Geographies

Channels*

Modern Grocery Retail

Traditional Grocery Stores

Informal Points of Sale



Product Categories*

T6 product categories are included for this study:

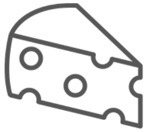
Drinking Milk

Powdered Milk

Infant Milk Formula

Yoghurt

Cheese



Butter

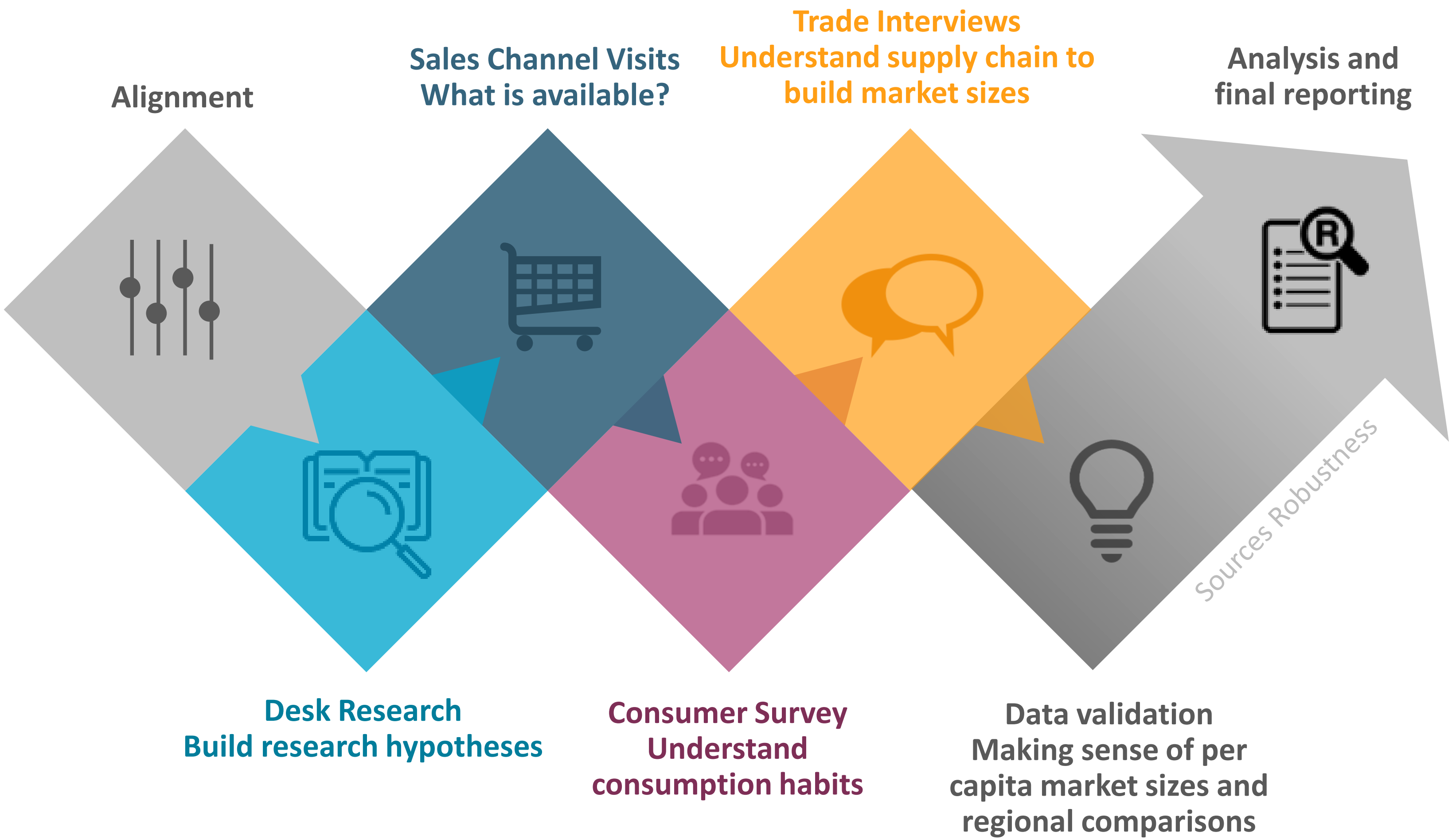
* - Please see Appendix for a full definition of Channels and Product Categories

Dairy subcategories in Ethiopia dependent on local consumption habits

Dairy	**Butter and Spreads**	Butter is edible yellow fat, salted or unsalted, including spreadable and low fat butter, typically made of milk fat (80%-82%) and water (16-17%) and the remaining: milk solids/curd and/or salt.
	Cheese	Aggregation of processed and unprocessed, hard and soft cheeses
	Drinking Milk	Aggregation of fresh/pasteurised milk, long-life/UHT milk, goat milk, flavoured milk drinks, non-dairy milk alternatives.
	Powdered Milk	Powdered milk (dehydrated) used in place of fresh or long life milk or goat milk. Infant milk formula is considered separately. Soy based powder milk products are included here as well. Also includes all powder milk for pregnant and nursing women, sometimes known as mothers' milk formula.
	Infant Milk Formula	Infant formula includes standard infant milk formulas in powder and ready-to-drink liquid form, which are given to babies usually between birth and 6 months. Follow-on formula is given to babies aged between 7 and 12 months. Toddler formula is provided for babies/toddlers from 13 months onwards, although many parents typically keep giving their babies 7-12 month follow-on milk formula.
	Yoghurt and Sour Milk Products	This is the aggregation of yoghurt and sour milk drinks. Sour milk drinks include products such as Includes kefir, lassi as well as buttermilk and whey drinks. Yoghurt includes both spoonable and drinking yoghurt
	Other	This is the aggregation of chilled and shelf stable desserts, chilled snacks, coffee whiteners, condensed/evaporated milk, cream, and fromage frais and quark, and local variants to be clarified

Project Methodology

Each part of the research methodology designed to reinforce the other



Methodology Components

Each part of the research methodology designed to reinforce the other

Secondary Research

Import volumes for dairy subcategories

Size of the dairy herd

Average yields

Number of commercial dairy farmers / cooperatives

Proportion of traditional & modern retail

Household income and expenditure distribution

Sales Channel Visits

Brands and products present in different channels

Facing proportions

Prices for dairy subcategories

Promotions and product innovation

Shopper profile

Trends in consumption between urban / rural

Consumer Survey

Popularity of different dairy types and reasons

Volumes purchased per time period

Proportion of dairy bought in modern grocery and traditional outlets

Consumption habits by income group

Trade Interviews

Outline of the supply chain and main players

Production and processing volumes of main producers

Volumes sold at different stages of the supply chain

Drivers of growth

Trends in consumption

Competitive environment

Market Size

Assessment of reliability of different data sources

Triangulation of data inputs

Comparison to per household consumption

Assessment of Methodology

Secondary Research

Conflicting information across online sources limited hypothesis building around dairy consumption using desk research

Data Points

Quantitative

- Import volumes for dairy subcategories
- Size of the dairy herd, including cow breeds and average yields
- Number of modern retail outlets
- Milk conversion rates to other dairy products

Qualitative

- Trends around dairy consumption
- Key animal sources of milk
- Historic changes in the retail landscape and how this impacted dairy
- Key value/supply chain actors
- New developments in processing
- List of trade contacts for primary research

Source Types

- Knowledge sharing from previous research by Euromonitor, GAIN and related agencies
- Existing information from Passport on retailing, packaged food
- Industry/Trade associations
- Government and national / regional trade data - Ethiopian Revenues and Customs Authority (ERCA)
- Company websites and marketing material e.g. for dairy processors
- NGO reports e.g. Wagenigen UR Livestock Research
- Consumer and online press
- Academic articles and journals – domestic and international publications – good quality of information

Limitations

- Incomplete or ambiguous data sets e.g. Import data for 2018
- Definitions not matching, or definitions and what categories are included / excluded not entirely clear
- Differing data across sources e.g. cow herd, average yield, number of processors, number of modern channels. No indication of growth
- Obsolete information online such as contact details on websites, processors' capacity
- Limited or misreported information on active supply chain actors e.g. Berwako Camel Milk Processing Company
- No repository of active dairy chain stakeholders.
- Language limitation - most documents written in Amharic

- Provides background information to build initial hypotheses, no matter how limited
- Repository of active key stakeholders reduces efforts for sourcing interviews

Traditional/Informal channels were easier to access and assess

Data Points

- Portfolio of dairy categories by sales channel (including types)
- Brands present (including origin)
- Packaging types
- Packaged vs unpackaged products
- Price points for different products in channels
- Presence of local vs imported brands
- Processor, supplier and distributor information
- A window to consumer preferences
- Changes in the retail landscape and how this impacts dairy
- **Intercepts** – sales volume estimates, typical consumer, supply chain challenges
- **Pictures** – store characteristics and products

Sales Channel Sample

- 23 sales outlets where dairy is exchanged for money
  - 7 modern retail stores including chained supermarkets
  - 12 traditional stores
  - 4 informal sales channels (3 hawkers and 1 open air stand)
- Due consideration given to balancing getting an extensive list of products and brands from modern retail with understanding popular traditional / informal outlets while being logistically efficient. Also to cover both key areas of milk production and consumption:
  - 18 visits conducted in Addis Ababa
  - 5 visits in rural / peri-urban Bishoftu

Limitations

- **Visits required to complete information**: Modern - 2 to 3, Traditional / Informal - 1
- **Small sample** – anecdotal data
- **Modern channels**
  - Data capture and pictures prohibited in some branches.
  - Formal introduction letter needed
  - Uninformed or uncooperative staff. Supervisors usually unavailable
  - Sales volumes closely guarded/not available
  - Facing proportions approximate brand shares at best. Fluctuating stock levels belies product prominence e.g. UHT milk
  - High customer flow/disruptions
- **Traditional/Informal channels**
  - Fragmented, sometimes mobile, limiting follow-up
  - Very limited product range, 1 to 2 items
  - Often needed to buy product to engage seller

- Auditing more traditional/informal channels due to their small product portfolio
- But, visits to modern retail channels quickly allows assessment of all brands present, and the extent of imported brands
- Price data can be used for volume conversion

Trade Interviews

Interviews required prior formal contact and appointments

Data Points

- Outline of the supply chain and main players
- Production and processing volumes of main producers
- Dairy flows and volumes sold at different stages of the supply chain
- Drivers and constraints of growth
- Trends in consumption
- Competitive environment including leading brands
- Supply chain challenges
- Prevalence of
- Planned investments
- New product development
- Outlook for dairy

Interviewees

- 19 main trade interviews across the supply chain with the following:
  - Research & Development Body (1)
  - Industry Association (1)
  - Dairy processors (4)
  - Dairy Farmers (2)
  - Private Milk Collectors (3)
  - Dairy Cooperatives/Union (3)
  - Institutional End-user (1)
  - Modern Retail Channels (4)
- 23 short interviews conducted in-store during store audits

Limitations

- Some details of trade contacts were obsolete. Information on website not up to date
- Email contacts not responding /addresses incorrect
- Low responsiveness, required physical reminder visits
- In-person interviews preferred: limited exposure to market research, wary of competition
- Multiple attempts needed with an average of 3.
- Cost implications - average interview time of 41 minutes, ranging from 20 to 80 minutes.
- Differing information across sources e.g. processors’ capacity
- Retail channels unwilling or unable to disclose sales volumes/value

- With large informal markets, it is important to capture perspectives across the supply chains from producers to cooperatives, private collectors, retailers etc.
- Face to face interviews yield better results to overcome objections but add to research time
- Introduction letter from GAIN improved willingness of processors and retailers to grant interviews

Surveying rural consumers posed peculiar challenges for fieldwork

Data Points

- Average household size
- Average grocery spending
- Dairy product popularity, including variants
- Volumes purchased per week
- Effects of fasting on consumption by religion
- Channels where dairy is purchased and why
- Differences in consumption habits by different income group
- Perceptions of dairy - consumer concerns around different types of dairy
- Access to refrigeration
- Reasons for not consuming dairy
- Animal sources of dairy

Consumer Sample

- 200 respondents who purchase dairy
  - 140 in Addis Ababa - 60 each near modern and traditional/informal channels, and 20 near mosques – to improve representativity across different religions
  - 60 from rural areas (Butajera, Adis alem, Zeit, Mojo, Waliso, Agere, Debre, Koka, Fiche)

Limitations

- 200 respondents limited opportunity to subsegment the sample as analysis can become meaningless
- In-person surveys limited the number of questions and necessitated a close-ended questioning style
- Low response rate and unwillingness to participate/share contact details
- Response rates low around Mosques as difficult to find willing participants
- Some surveys cancelled midway, especially in rural areas, due to lack of understanding
- Phrasing of questions somewhat too complex especially for rural respondents
- Difficulty understanding measures in rural areas due to low literacy levels
- Trade by barter & 'own-production own consumption' in rural areas necessitated increasing sample

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- F2F suitable for markets with low internet penetration
- Fieldworkers speak the different home languages required
- Including consumption volumes helps validate household consumption
- Multiple levels of quality control

Multiple approaches to analysis before adjusting assumptions and selecting best fit

Secondary Research

- Quantitative data used to build initial hypothesis (refined based on findings from other methodology components)
- Qualitative data to understand trends and drivers, identify key brands and players, market constraints, source interview contacts

Store Audits

- Estimates of packaged-unpackaged, channel sales
- Dominant products, shelf facings, availability of refrigeration, product portfolio, packaging
- Sample prices
- Store interviews for volume sales, supply constraints
- Pictures

Trade Interviews

- Trends, drivers and constraints
- Processed volumes
- Sales volume splits per product
- Supply chain actors and challenges
- Channel operations
- Market regulation and support
- Pipeline plans for milk production and dairy processing

Consumer Surveys

- Dairy consumption trends, drivers and constraints
- Proportions consuming dairy types
- Average volumes consumed
- Product popularity
- Channel importance
- Qualitative insights on dairy consumption/non-consumption

APPROACH 1
Channel Sales

- Average volumes sold (modern, traditional /informal)
- Number of Channels
- Average Price

APPROACH 2
Household Consumption

- Number of Consuming households (location, religion)
- Average volumes consumed (per household)
- Average Price

APPROACH 3
Processing Output

- Number of processors (large, medium, small)
- Volumes processed
- Average Price

APPROACH 4
Cow Milk Production

- Number of cows (local & cross bred)
- % utilisation (consumed at home, wasted, processed)
- % shares (processed into dairy sub-categories)
- Conversion rates

Dairy Market Size and Analysis

Key Take-Aways

Uniqueness of Ethiopia

Ethiopians have a liking for raw milk, a banned product in many countries

Dairy Products - Consumption and Channels

- High volume of raw milk consumption
- Orthodox Christian Fasting seasons cause a significant dip in dairy consumption
- High rural consumption entailing 'own production own consumption' and trade by barter – complex segment
- Different sub-categories with local variants, especially butter and cheese. This creates many complex and overlapping data points for sizing (if of sub-categories)
- Long-life UHT milk only in seen modern retail channels, though no raw milk
- Imported products not typical in traditional retail, except peri-urban cities located well away from Addis
- Highly fragmented traditional/informal channels including mobile hawkers of a sensitive product
- Less than 50 modern retail outlets, but growing
- Need to speak local language – translation of interview questions and consumer survey

Methodology

- **Interviews** - preference for face to face interviews
- **Store Audits** - 1 to 2 dairy products typical for traditional/informal channels
- **Consumer Surveys** – low response rates, low literacy levels, questions seemed unclear for some rural respondents
- Consumer surveys MUST be done in local languages of the respective regions

Supply Chain

- Dairy co-operatives are a key collection point due to fragmented milk production
- Lack of refrigeration affects milk collection and sales in traditional/informal retail channels

Surveys for rural respondents require more consideration in terms of wording

1

Store Audits

- Increased number of stores should be audited to cover other peri-urban areas including areas where
  - non-cow milk is produced, or
  - the culture of dairy consumption differs, for example, residents in Dire Dawa consume relatively more dairy, or
  - other key supply chain actors, brands or products exist.

2

Trade Interviews

- Trade interviews should be face to face interviews, speaking to local preferences, as this allowed more insights to be gathered, and reduced the response time, but may take longer to set up
- Trade interviews should also be conducted with dairy processors in other regions, even if this has more time and cost implications. This will enable more robust data points to be obtained for market sizing, especially for non-cow dairy sources.

3

Consumer Surveys

- Questions should be phrased more simply given low literacy levels. In rural areas, the value of dairy purchased should be asked.
- Location was used as proxy for religion to avoid religious targeting
- Conduct more surveys in Addis vs. rural areas since own-consumption is prevalent in latter
- For specific categories like infant formula, follow-up questions should be asked about if and how volume changes as child grows older

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