Nielsen Retail Measurement Service

Nielsen measures what people watch and buy

Nielsen Presence

What is RMS?

RMS is Retail Measurement Services

Nielsen's RMS is the global industry standard for quality data in product movement, market share, distribution, price and other market sensitive information.
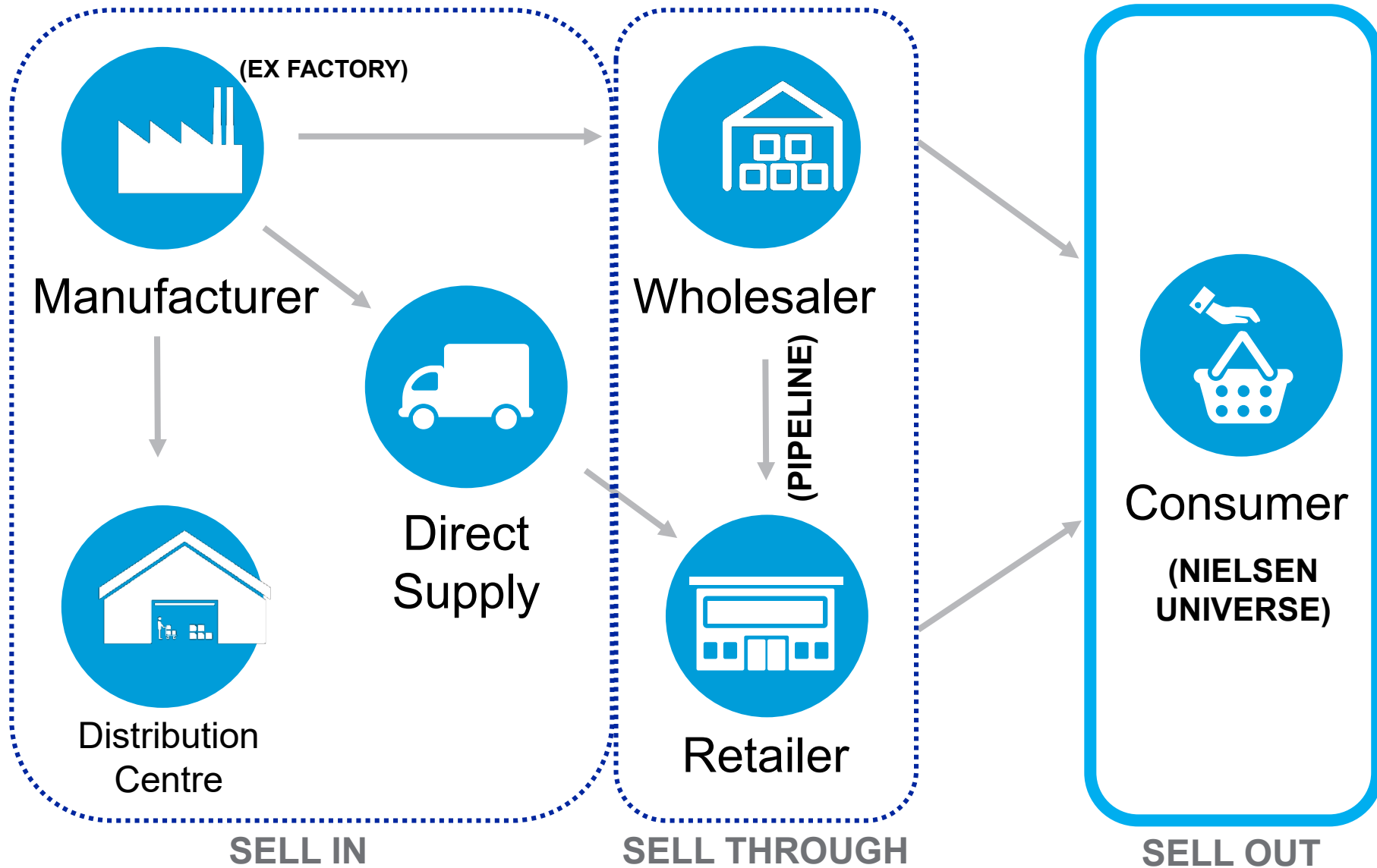
The 2 Nielsen services, based on different data collection methodology are:

- Retail Index (also known as Retail Audit)
- ScanTrack

Why do we need Retail Audit Data when we have Ex-Factory Sales, Consumer Tracking etc ?

- **Cross Border activity**

- **Delays in the pipeline**

- **How are our competitors performing?**

- **What are the trends in the market?**

- **How are our merchandisers performing**

- **Measure consumer off-take**

- **Sell into Trade vs. sell out of Trade**

SUPPLY CHAIN - FROM MANUFACTURER TO CONSUMER

(EX FACTORY)

Manufacturer

Wholesaler

(PIPELINE)

Direct Supply

Consumer

(NIELSEN UNIVERSE)

Distribution Centre

Retailer

SELL IN

SELL THROUGH

SELL OUT

Retail universe covered by RMS

What are the channels typically covered by RMS? What channels are not?

Out-of-Scope Channels
- Wholesalers
- Street Vendors
- On-premise consumption (Hotels, Fast Food, Bakery)
- Seasonal Channels
- Airports/Airlines
- Duty Free
- Bake Shop
- Weekend Markets
- Movie Theatres
- Direct Sales
- Exports
- Institutional
- Warehouse
- Fitness Centers
- Internet Cafes
- Drug Stores
- Cash & Carry
- Hawker Stalls
- Semi-Retailers
- Restaurants
- Coffee Shops
- Entertainment

In-Scope Channels
Modern Trade:
- Chain Supermarkets
- Hypermarkets
- Convenience Stores
- Wine/Liquor Shops
Traditional Trade:
- Independent Grocery
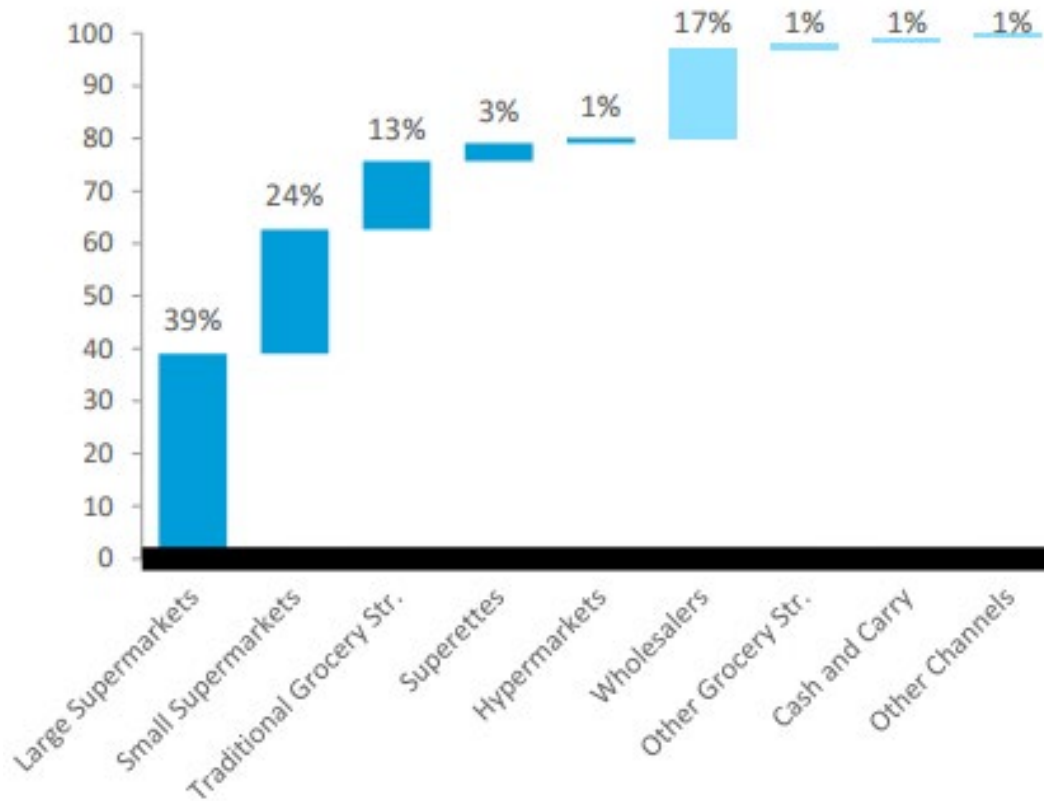
Expected coverage for Retail Index

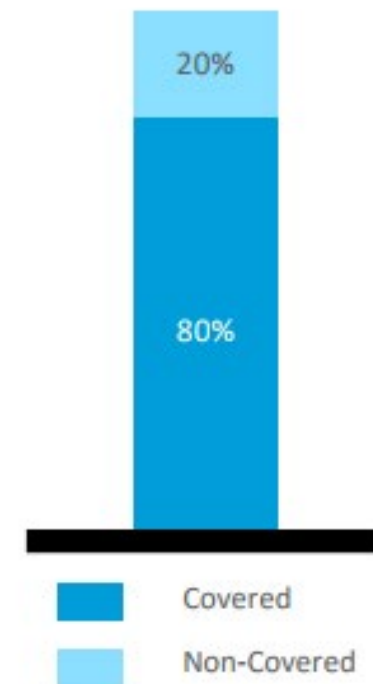## SOUTH AFRICA – FOOD - SHELF STABLE

COVERAGE WALK

The Nielsen service is designed to represent channels which account for 80% of the South Africa market.

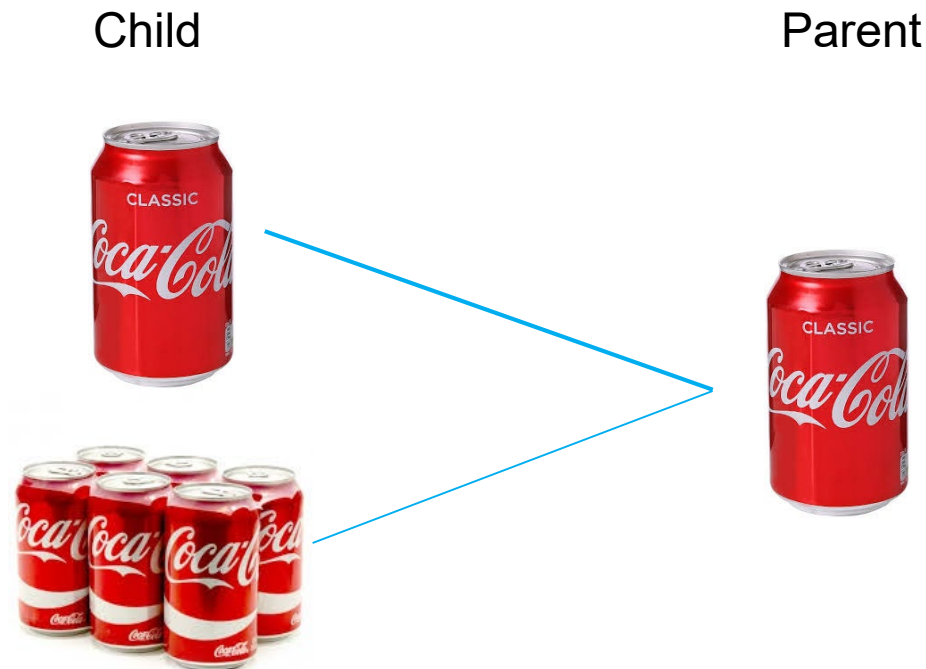**SOUTH AFRICA 2015 FOOD - SHELF STABLE**

INDUSTRY COVERAGE MATRIX

Nielsen data typically comes in 2 levels

- **Scantrack Data:** Scanning data at barcode level delivered weekly
- **RMS Data:** Combination of scanning data and retail audit data typically delivered monthly at P-code level

Child

Parent

ANALYSIS & INTERPRETATION
DATA IS COLLATED INTO 4 BASIC DIMENSIONS

MARKET

May be based on trade channel, geographic region, key accounts or a combination of these:

- Total SA
- Total W Cape
- Total Supers
- Total Pick 'n Pay Supers
- Total PnP Supers WC
- PnP Super Fourways Crossing

PRODUCT

- Total category (eg. Toilet Tissue, Cigarettes)
- Manufacturer
- Brand
- Price segments e.g. Premium, AP, VFM
- Pack size segments e.g. 10s, 20s, 30s
- Format segments, e.g. 1Ply, 2Ply, Soft Cup, HL
- SKU

FACT

- Sales and Share (volume and value)
- Location of business
- Retail Selling Price (RSP)
- Product Availability (numeric, weighted and handling)
- Distribution
- Purchases* (by retailers)
- Stock facts*
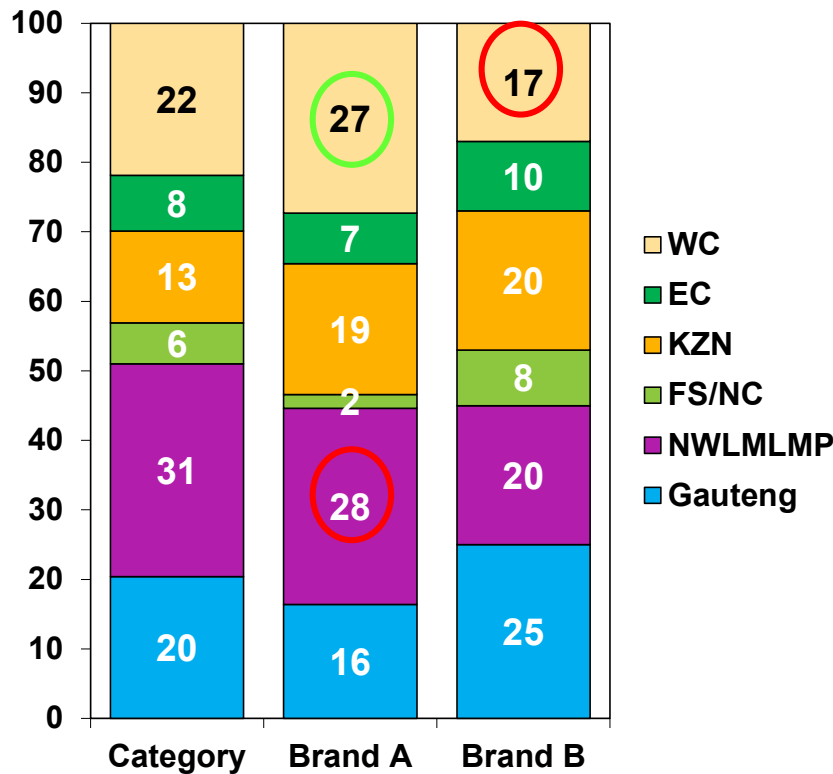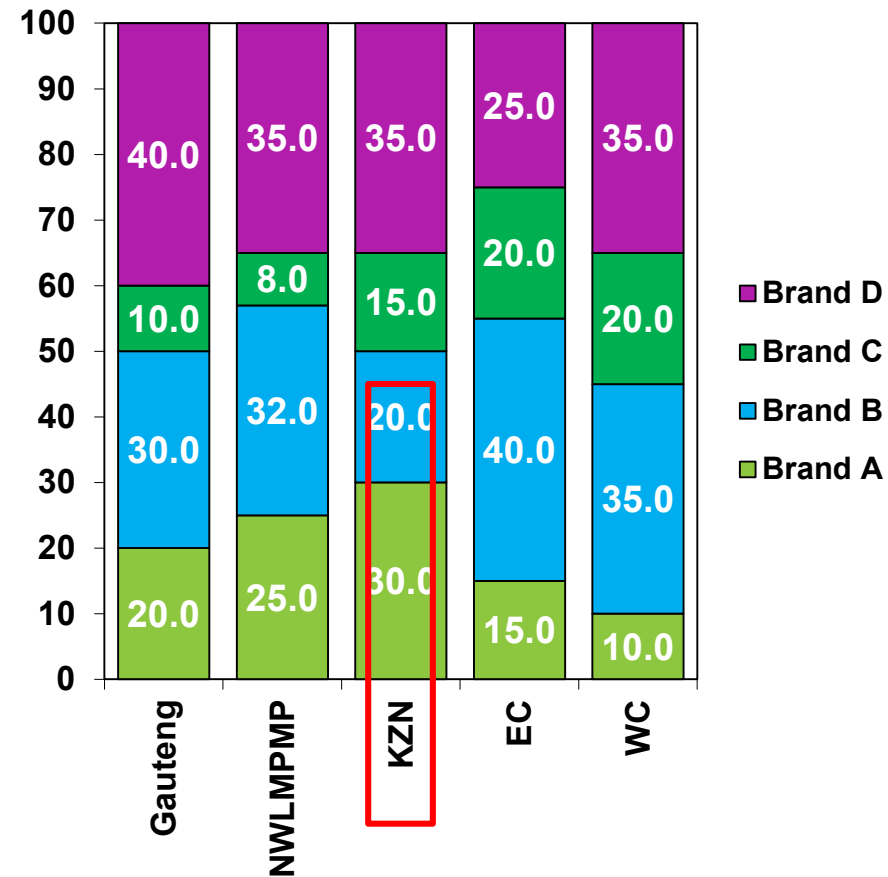
*only available for Independents

PERIOD

- Reporting in monthly delivery database Retail Audit (RA) and Tradedesk
  - Jan 2017
  - Feb 2017
  - March 2017

- Periods can be manipulated to create 12mm, 6mm, 3mm, YTD, month-on-month, etc.

THE DIFFERENCE BETWEEN LOCATION VS SHARES

Category and Brand Location by Region

Legend:
- WC
- EC
- KZN
- FS/NC
- NWLMLMP
- Gauteng

Category column (bottom to top): 20, 31, 6, 13, 8, 22
Brand A column (bottom to top): 16, 28, 2, 19, 7, 27
Brand B column (bottom to top): 25, 20, 8, 20, 10, 17

X-axis: Category, Brand A, Brand B

Brand Share by Region

Legend:
- Brand D
- Brand C
- Brand B
- Brand A

Gauteng: 20.0, 30.0, 10.0, 40.0
NWLMPMP: 25.0, 32.0, 8.0, 35.0
KZN: 30.0, 20.0, 15.0, 35.0
EC: 15.0, 40.0, 20.0, 25.0
WC: 10.0, 35.0, 20.0, 35.0

X-axis: Gauteng, NWLMPMP, KZN, EC, WC

SELLING DISTRIBUTION

- **Selling Distribution**

  - Percentage of shops, which sold the respective article during the reported period

- Numeric

  - Based on percentage of the stores in the universe (store count)
    - **% of all stores in the universe that sell the product**

- Weighted

  - Based on the volume turnover importance of those stores within the audited product class
    - **% of category sales volume that your brand is reaching**

TIME PERIODS

In addition to knowing which Market and which Product you are wanting to see measures for, it's important to know what time frame you want to look at. Retail Measurement data can be combined across standard and non-standard time frames to better address certain issues

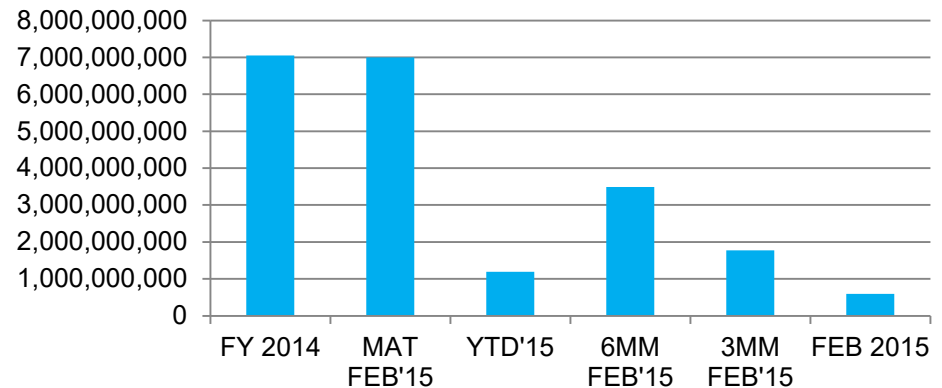**Examples for the use of time periods:**

Long term trends:

   Moving Annual Totals
   Calendar years

Short term trends:

   Year to date
   Quarterly
   Monthly/Weekly (where available)

To evaluate new launches:

   Pre Period(s) vs Launch Period(s)
   vs Post Period(s)

■ TOTAL PS - VOLUME

	VOLUME	VOLUME % SHARE	VOLUME % CHG YA
FY 2014	7,050,875,157	38.6	0.3
MAT FEB'15	7,001,655,395	38.3	-1.3
YTD'15	1,187,929,105	37.9	-4.0
6MM FEB'15	3,485,818,047	37.8	-2.4
3MM FEB'15	1,774,106,303	37.8	-3.5
FEB 2015	589,935,795	38.1	-3.6

TYPES OF PRICE

- **Price per pack**

  - price of an individual pack

   R 39.50   R27.00

  VALUE SALES
  NUMBER OF PACKS SOLD

	BENSON & HEDGES SWITCH PMP 10X20S
SALES VALUE	3,980,046
SALES PACKAGES	144,383
PRICE PER PACK	27.6

- **Price per volume**

  - price of an individual stick

   R1.98   R1.35

  VALUE SALES
  VOLUME SALES

	BENSON & HEDGES SWITCH PMP 10X20S
SALES VALUE	3,980,046.0
SALES VOLUME	2,887,662.0
PRICE PER UNIT OF VOLUME	1.38

13

Price vs Promotional Sales

Incremental Promotional Volume vs Price
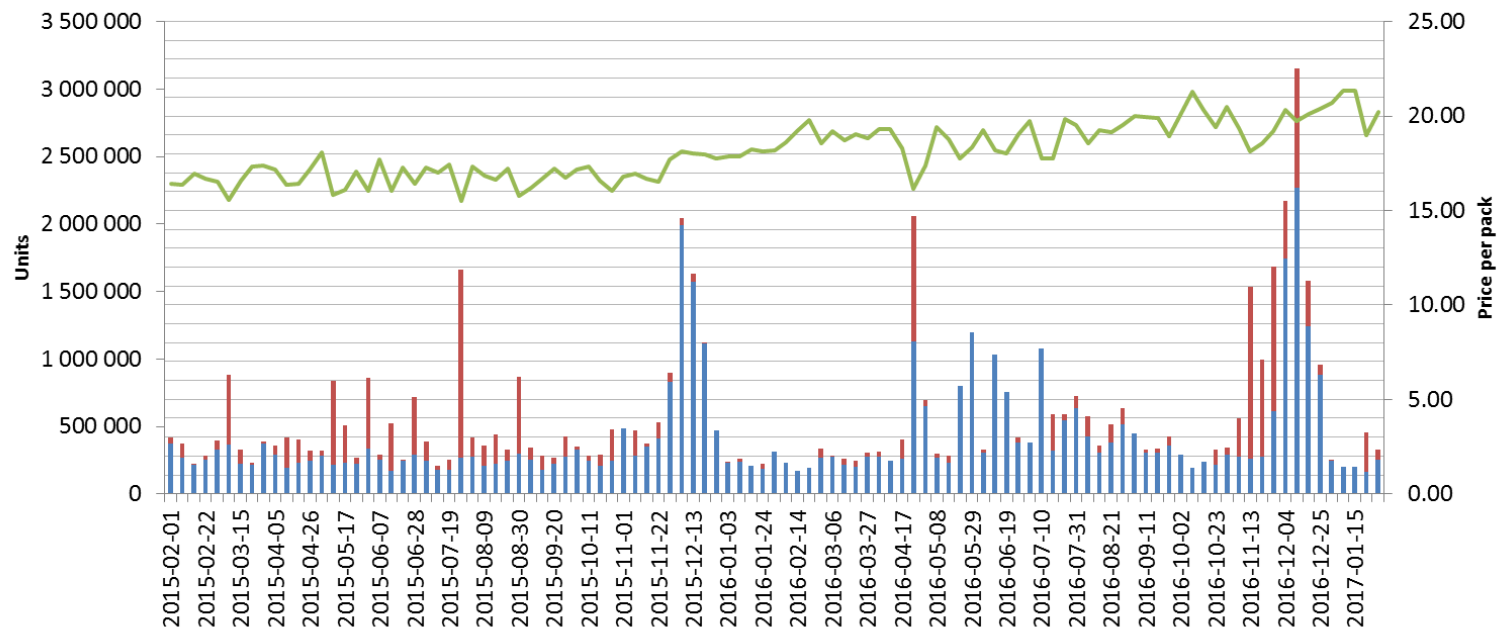
Nielsen Scantrack Data Methodology

Data input

Store file

20190414	7701	CC01	Clothing Menlyn Park	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7702	CC02	Clothing Cresta	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7704	CC04	Clothing Canal Walk	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7705	CC05	Clothing Festival Mall	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7706	CC06	Clothing Somerset Mall	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7707	CC07	Clothing Clearwater	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7708	CC08	Clothing Cape Gate	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7709	CC09	Clothing Westgate	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7710	CC10	Clothing Auckland Park	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7711	CC11	Clothing New Tokai	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7713	CC13	Clothing Paarlmall	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7714	CC14	Clothing Walmer	Clothing (IM)	Eastern Cape	Corporate Store	Clothing
20190414	7715	CC15	Clothing South Coast Mall	Clothing (IM)	Kwazulu/Natal	Corporate Store	Clothing
20190414	7716	CC16	Clothing Carnival Mall	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7717	CC17	Clothing Mountain Mill	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7718	CC18	Clothing Vaal Mall	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7719	CC19	Clothing N1 City	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7720	CC20	Clothing Sunningdale	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7721	CC21	Clothing Plattekloof	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7722	CC22	Clothing Highveld	Clothing (IM)	Mpumalanga	Corporate Store	Clothing
20190414	7723	CC23	Clothing Greenstone	Clothing (IM)	Gauteng	Corporate Store	Clothing
20190414	7725	CC25	Clothing Parow	Clothing (IM)	Western Cape	Corporate Store	Clothing
20190414	7727	CC27	Clothing Walker Drive	Clothing (IM)	Eastern Cape	Corporate Store	Clothing

Data input

Item file

|								
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060837	REAL HANDLE BACK BRUSH	560081
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060844	REAL BAMBOO POCKET	560092
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060851	REAL BODYBUFFER GLOVE	560093
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060868	REAL EXFOLIATING PUFFER	560094
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060875	REAL EXFOLIATING PAD	560095
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060882	REAL BATH BACK STRIP	560096
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060905	REAL BATH SPONGE	560097
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060912	REAL DELUX SCRUBBY PAD	560098
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060943	REAL ANIMAL BATH FLOWER	560100
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926060950	REAL BATH PUFF 1PK PPB12	560101
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926061216	REAL FLOWER SPONGE	601256
20190414	Non Edible Grocery	Beauty & Toiletries	Bath Accessories	Bath Accessories	ACCESSORIES	REAL	6001926061223	REAL LAYERED FLWER SPONGE	601257
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	COSMETIC ACCESSOR	SURFACE	6005914000980	SURFACE SHOWER COMB 1EA	418690
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	COSMETICS FACE	RIMMEL	3607345064505	RIMMEL PUFF POWD STAY MAT TRANSPARE	420422
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	COSMETICS FACE	RIMMEL	3607345064536	RIMMEL PUFF POWDER STAY MAT SANDSTO	420423
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	LIPS	L'OREAL	41554198522	LOREAL VERY CHERRY LIPS 1EA	423973
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	EYE	RIMMEL	3607345116624	RIMMELMASCA VOL FLASH X10 EXTRM BLCK	429887
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	COSMETICS FACE	YARDLEY	6001567138162	YARDLEY PRESS PWD DEEP BEIGE 1EA	437213
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	COSMETICS FACE	YARDLEY	6001567138193	YARDLEY PRESS POWDER TRANSLUCEN 1EA	437216
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	COSMETICS FACE	YARDLEY	6001567138209	YARDLEY PRESS POWDER WARM TOAST 1EA	437217
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	COSMETICS FACE	YARDLEY	6001567138223	YARDLEY PRESS REFILL DEEP BEIGE 1EA	437219
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	COSMETICS FACE	YARDLEY	6001567138261	YARDLEY P/PRESS REF WARM TOAST 1EA	437223
20190414	Non Edible Grocery	Beauty & Toiletries	Cosmetics	Cosmetics	SKIN	PARIS	6008341913212	PARIS BLUSHER DUSK 1EA	457661

Data Input

Sales file

week end	store	barcode	pack type	sales	sales value
20190414	EC06	6001007093259	EA	4	767,96
20190414	EC06	6001007025748	EA	3	22,98
20190414	EC06	6001007032081	EA	2	14,01
20190414	EC06	6001007036195	EA	3	23,7
20190414	EC06	6009705234417	EA	2	7,98
20190414	EC06	6009705234400	EA	2	9,98
20190414	EC06	6001007036805	EA	4	214,96
20190414	EC06	612322030087	EA	2	120,98
20190414	EC06	7622210984555	EA	2	106,9
20190414	EC06	6001007498849	EA	3	74,97
20190414	EC06	6009602782226	EA	2	60,02
20190414	EC06	6009602782387	EA	2	66,98
20190414	EC06	6009880768097	EA	3	719,97
20190414	EC06	6001539603254	EA	3	113,74
20190414	EC06	6009188002718	EA	3	217,87
20190414	EC06	6009706453336	EA	3	158,97
20190414	EC06	6009706453329	EA	3	149,85
20190414	EC06	6004791003114	EA	2	51,91
20190414	EC06	6004791003107	EA	4	59,96
20190414	EC06	6009608647246	EA	2	27,85
20190414	EC06	6009900344621	EA	3	167,45
20190414	EC06	5060375973571	EA	4	120

Ave RSP = Value/ Sales

Data Production Process
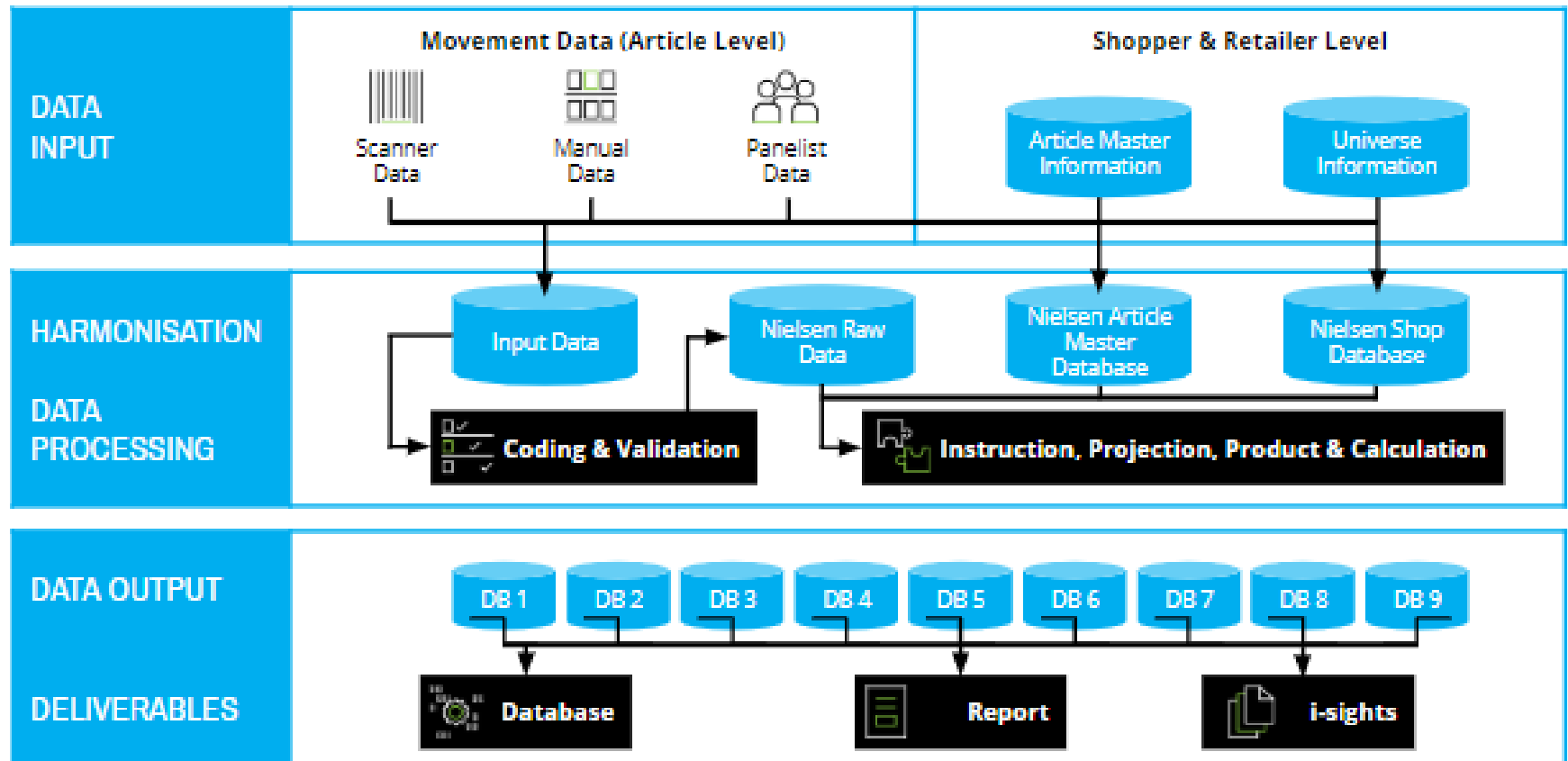
Challenges

- Treatment of promotional prices: Discounts vs. Buy 1 Get 1 Free

- Locally Assigned Codes (LACs)

- Item Coding: Chocolate Brown Prams in Chocolate

Nielsen Retail Audit Methodology

Steps within the Retail Audit

5: Reported outputs

4: Statistical expansion
of sample to universe

3: Data collection
at retail store level

2: Design a representative sample
How many of each store type do we need to represent the universe?

1: Establish the Universe
Define store types and gain information on shop numbers & turnover

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Establishing the Universe

Key Questions:

1. How many Outlets in South Africa sell at least 1 branded Consumer Packaged Good?

2. What is the overall Turnover of retail in South Africa?

3. What channels exist in South Africa and how important are they?

4. How many outlets are there across South Africa by region and channel.

How do we get this information?

1. We constantly carry out a fundamental process for our Retail Audit called the **Rolling Retail Establishment Survey (RRES)**.

2. In the RRES, we physically count thousands of outlets across Stats SA's Small Area Layers (SALs). By using Demographic information at an SAL level as well as constantly carrying out Establishment Surveys, we are able to accurately assess changes in South Africa's trade profile over time by using a sample of outlets (LY we enumerated 34k outlets.

What is an Small Area Layer & how does Nielsen use them?

- Smallest geographical breakdown defined by Stats SA

- By SAL, we know the statistics around Population, Number of HHs, HH Income, LSMs, Ethnicity, Gender, Language, Employment and Education level

- The Nielsen design centre uses a combination of these statistics to define which SALs need to be Enumerated

- Nielsen Auditors are sent to these SALs to Enumerate the number of outlets within the geography

- Auditors receive the Digital Map of the SAL on their phone and carry out the RRES Questionnaire in the defined area.

Details Covered in the RRES

Store Metrics collected across the designed sample

SCOPE

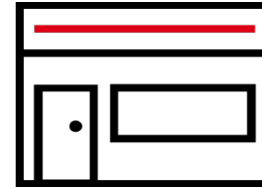All outlets that stock at least one branded CPG item

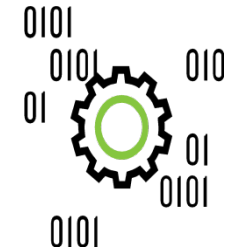RRES QNR   Outlet Definitions

LOCATE

Mapped Store detail
with addresses, GPS
points and photos

3 separate data points are provided in order ensure that the store is found

TRADING FEATURES

In depth store level details including:

- *Trading characteristics*
- *Amenities*
- *Channel type*
- *Turnover Profile*
- *Product Stocking*

USAGE

Tracking these metrics over time allows us to:

- *Update Retail Turnover by channel type and region*
- *Update Store Estimates for the SA Retail Environment*
- *Pick up dynamic / emerging trends*

Market & Sample Details

Actual Relative Standard Error is significantly lower than Target RSE

Market Break Down	Total Market			Independents			Total Market	
	Universe Size	Optimal Sample	Target RSE	Universe Size	Optimal Sample	Target RSE	Universe Importance	Turnover Importance
Total South Africa	**147,257**	**8,455**	**4%**				**100.0%**	**100.0%**
Eastern Cape	21,521	824	10%	20,716	143	15%	14.6%	10.6%
Free State	10,952	511	15%	12,637	199	15%	7.4%	4.5%
Gauteng	34,994	2,594	10%	32,297	251	15%	23.8%	33.0%
Kwazulu Natal	25,331	1,266	10%	23,662	209	15%	17.2%	13.9%
Limpopo	13,127	571	10%	12,653	144	15%	8.9%	6.8%
Mpumalanga	12,963	622	10%	12,373	139	15%	8.8%	6.5%
North West	11,998	526	10%	11,558	151	15%	8.2%	5.7%
Northern Cape	2,456	265	15%	*Combined with Free State for Independents*			1.7%	1.9%
Western Cape	13,915	1,276	10%	12,501	109	15%	9.5%	17.1%
Branded Superette	680	585	15%				0.5%	4.4%
Forecourts	3,126	1,995	15%				2.1%	3.6%
Hypers	66	66	10%				0.0%	5.5%
Med/Large Independents	42,769	873	10%				29.0%	11.2%
Small Independents	95,628	472	10%				64.9%	8.1%
Supers	4,988	4,464	10%				3.4%	67.2%

Steps within the Retail Audit

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Sample Methodology

Stratified Random Disproportionate

Outcomes:

- Reduce the risk of bias
- Measure sampling error
- Make sample more representative
- Ensure data integrity and sample confidentiality

Nielsen Watchbuilder Standards

Product designed to ensure consistency in quality and approach in all Nielsen markets Globally *(precision at an MBD level changes based on size of country – South Africa is a Medium Size country due to a population of between 20m-100m)*

	National	Major MBD	Minor MBD	Very Minor MBD
All Commodity Value	100%	At least 5%	5% - 1%	Less than 1%
Precision (Designed RSE)	4%	10%	15%	20%

Relative Standard Error designed for products with at least 80% WTD Distribution and 5% Share

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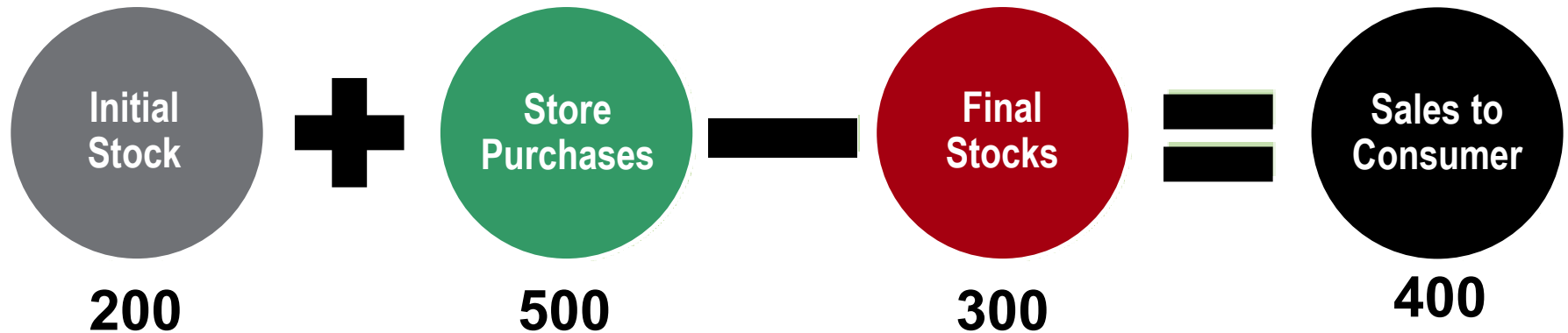Define store types and gain information on shop numbers & turnover

Data Collection

- Auditors visit each store every month
- For every single brand/variant/SKU auditors record:
    - Total stock in the outlet (front and backroom stocks)
    - Forward stock
    - Reserve stock
    - Purchases made by the outlet via invoices since last visit (over 30 days)
    - Direct purchases
    - Indirect purchases (via wholesaler or warehouse)
    - Returns (if any)
    - Retail selling price

- **Final Stock** for current period becomes **Initial Stock** for next reporting period.

Data Collection

How do you calculate total sales from these?

Initial Stock	+	Store Purchases	−	Final Stocks	=	Sales to Consumer
200		500		300		400

Manual Audit

- Auditors uses Hand Held Terminals (HHTs)

- Audit generally completed within 1 day - for larger stores more than 1 field person may be used.

- Auditor also verifies out of stocks and any unusual sales performances.

- It is impossible to audit every sample store on the same day. The audits are undertaken over a period (audit span) of 2 weeks each month.

- Audits must count all units in stock every visit, and record all purchases made by the store between last and this visit (for all categories under measurement).

- Auditors work their way around the shop in a systematic manner, to avoid missing any products.

- All products on shelf, in baskets, on "promotional stands" etc will be counted

Steps within the Retail Audit

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4: Statistical Expansion

Sales in sample stores

X, Y, Z Projection Factor

Projected universe sales
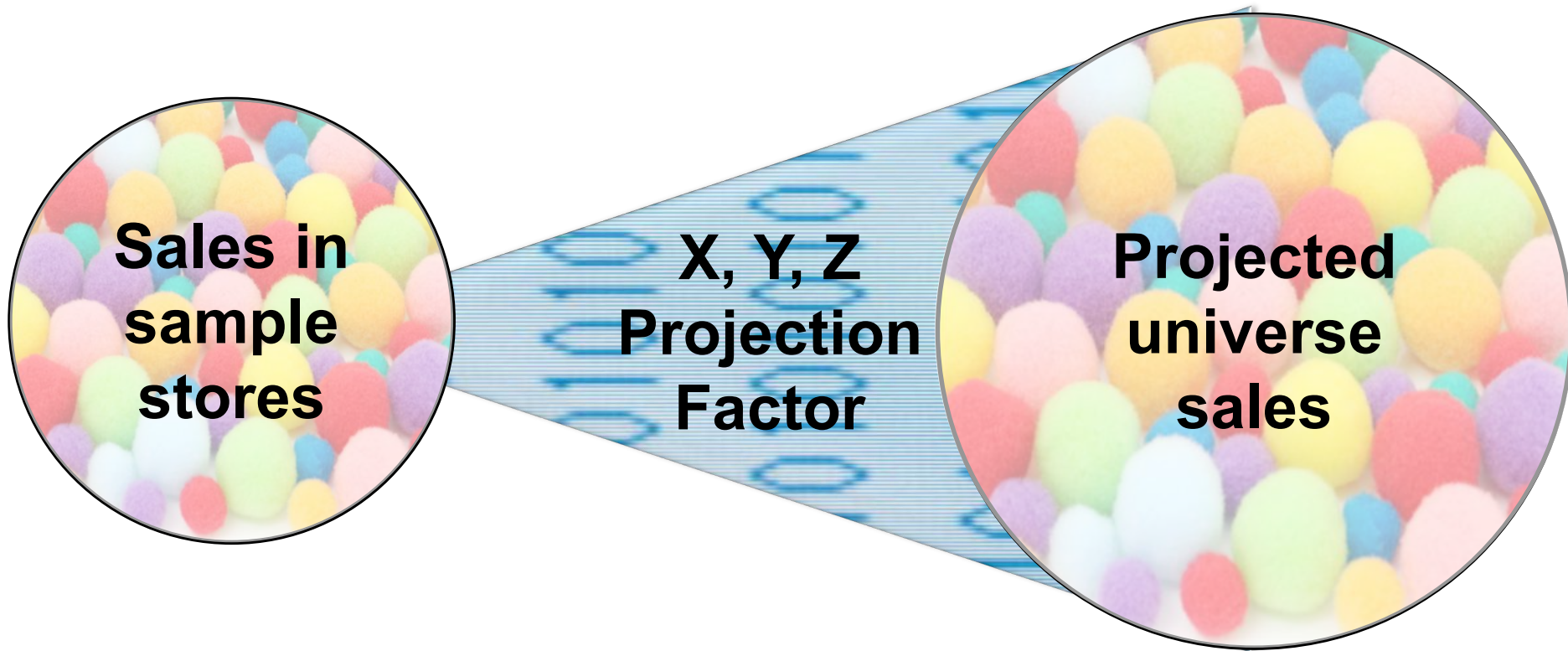
Projection factors:

- **X-Factor**: expand based on Turnover importance across all FMCG categories

- **Y-Factor:** weights all data to align to monthly periods (30.5 days)

- **Z-Factor:** expands sample to align with Number of stores in the Universe

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