

Intale Report

Business Analytics and Personalization
Techniques 2021-2022

Dataleak

Iliadis Viktoras 8180026

Ioannis Vagionakis 8180009

Antreas Sofos 8180119

Ioannis Vogas 8180013

Nikos Georgakopoulos 8180016

Dataset 1
200 Stores
Last 2 Years

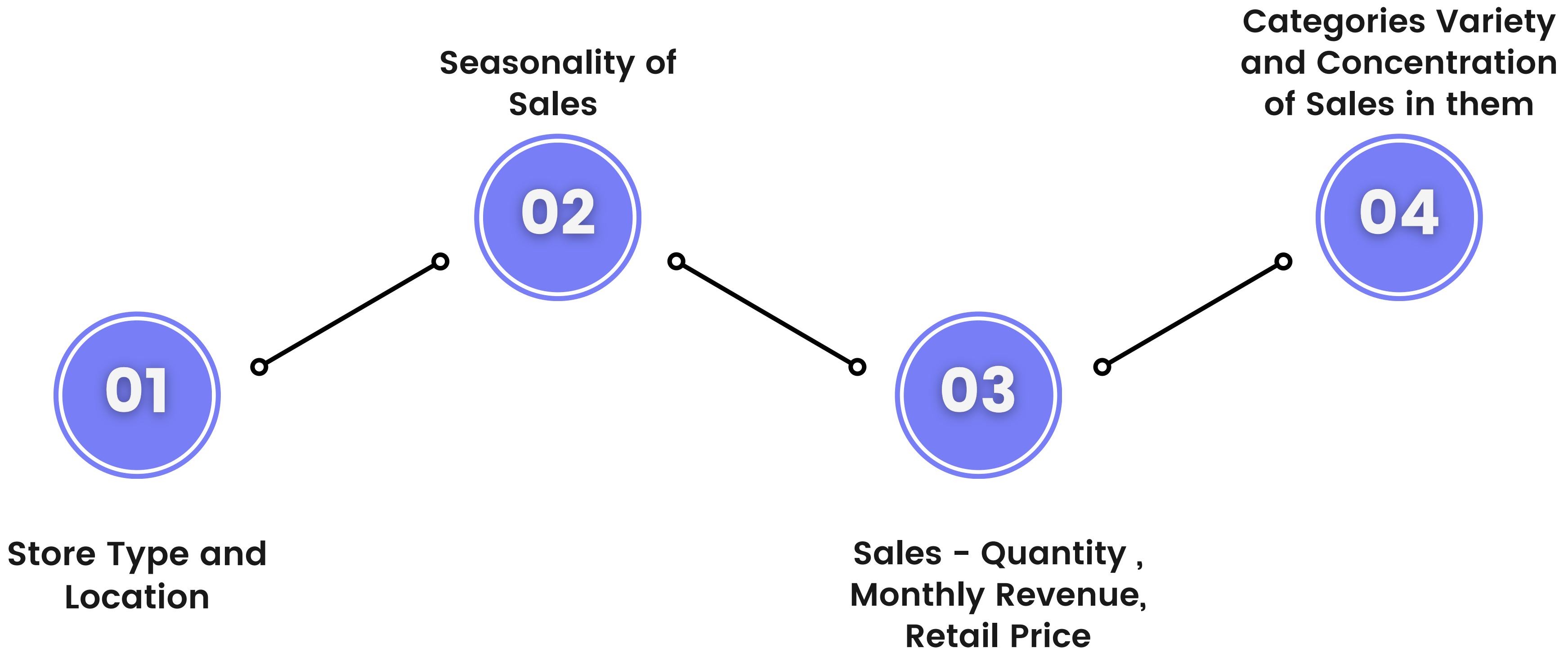
Dataset 1

135,367 rows of sales data

Parameter	Info	What we focused on
Geography	Location , Type (Kiosk - MiniMarket)	01 Segmentation of the Stores
Product	32 Categories	02 How the Segments Differ and Propositions
Measures	Quantity & Revenue	
Time	Monthly Dec 2019 - Nov 2021	03 Lockdown Effect Analysis

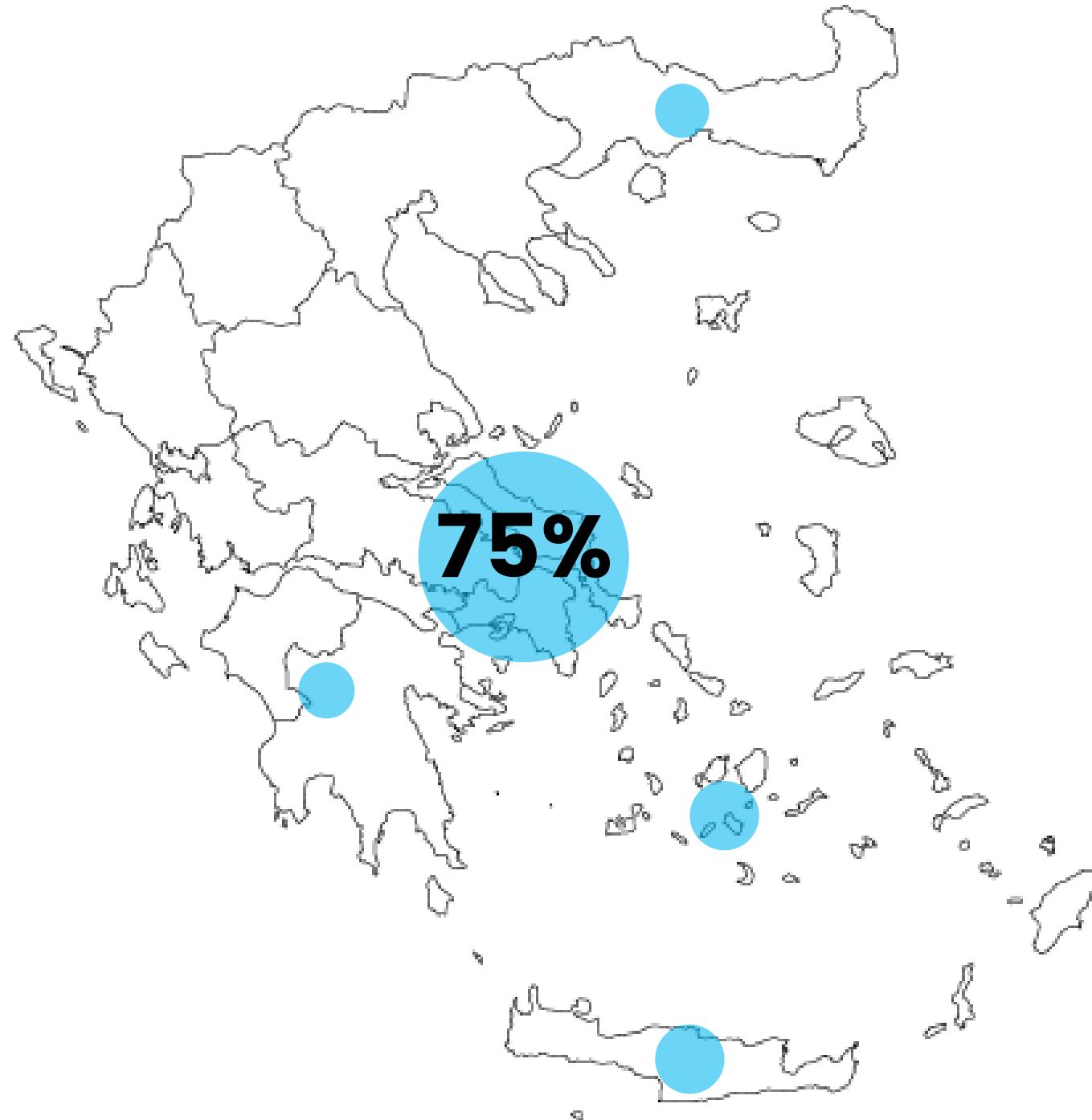
Dataset 1 Store Segmentation

Clustering Basis 200 Stores



Attica - High Earners

80 Stores - 40% of Total Stores



01

**75 % Attica - 25 % Highest
Earnerns of other regions**

02

63 Kiosks - 17 Mini-Markets

03

**Lowest Summer to Year
Performance**

04

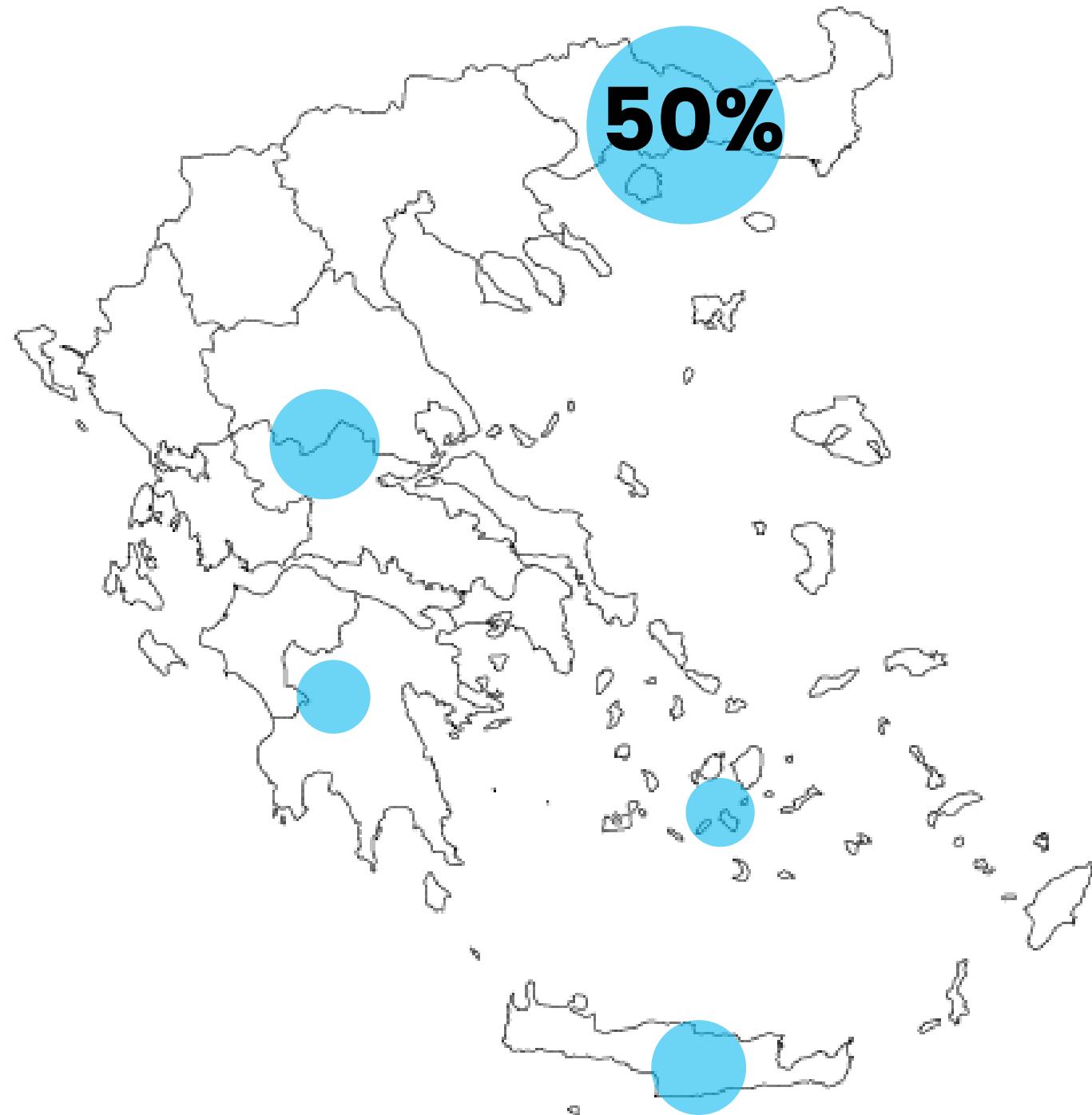
**Offer AVG 28 Categories -
7% Produce 80 % of Rev**

05

**2.42 AVG Price Highest
Observed , Double the sales
of other Segments**

Rural Mini Markets

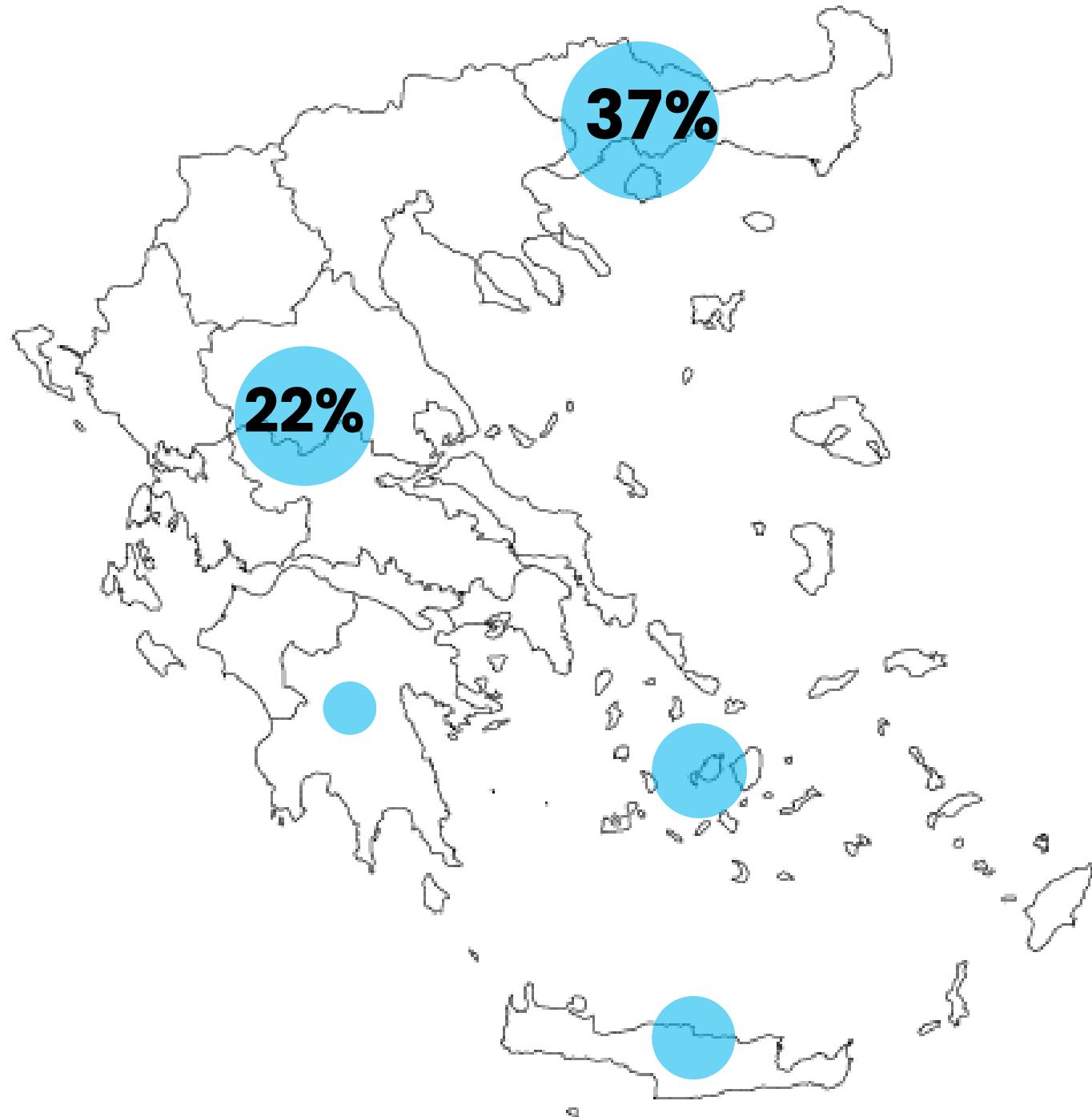
60 Stores - 30% of Total Stores



- 01 50% Macedonia -50% Rest of Greece without Attica
- 02 Highest Distribution of Sales to different categories
- 03 Largest Categories Variety
- 04 90% Mini Markets to 10% Kiosks with higher Rev to categories Distribution
- 05 2.26 Lowest AVG Price
Observed , Lowest Revenue
Second Lowest Quantities

Rural Kiosks

60 Stores - 30% of
Total Stores



01

Relatively evened out
Locations - Without Attica

02

80% Kiosks to 20% Mini -
Markets

02

Slightly Higher Summer
Performance

02

Only 5% Of categories
amount for 80% of Revenue -
Cigarettes , Lowest amount
of Categories Offered



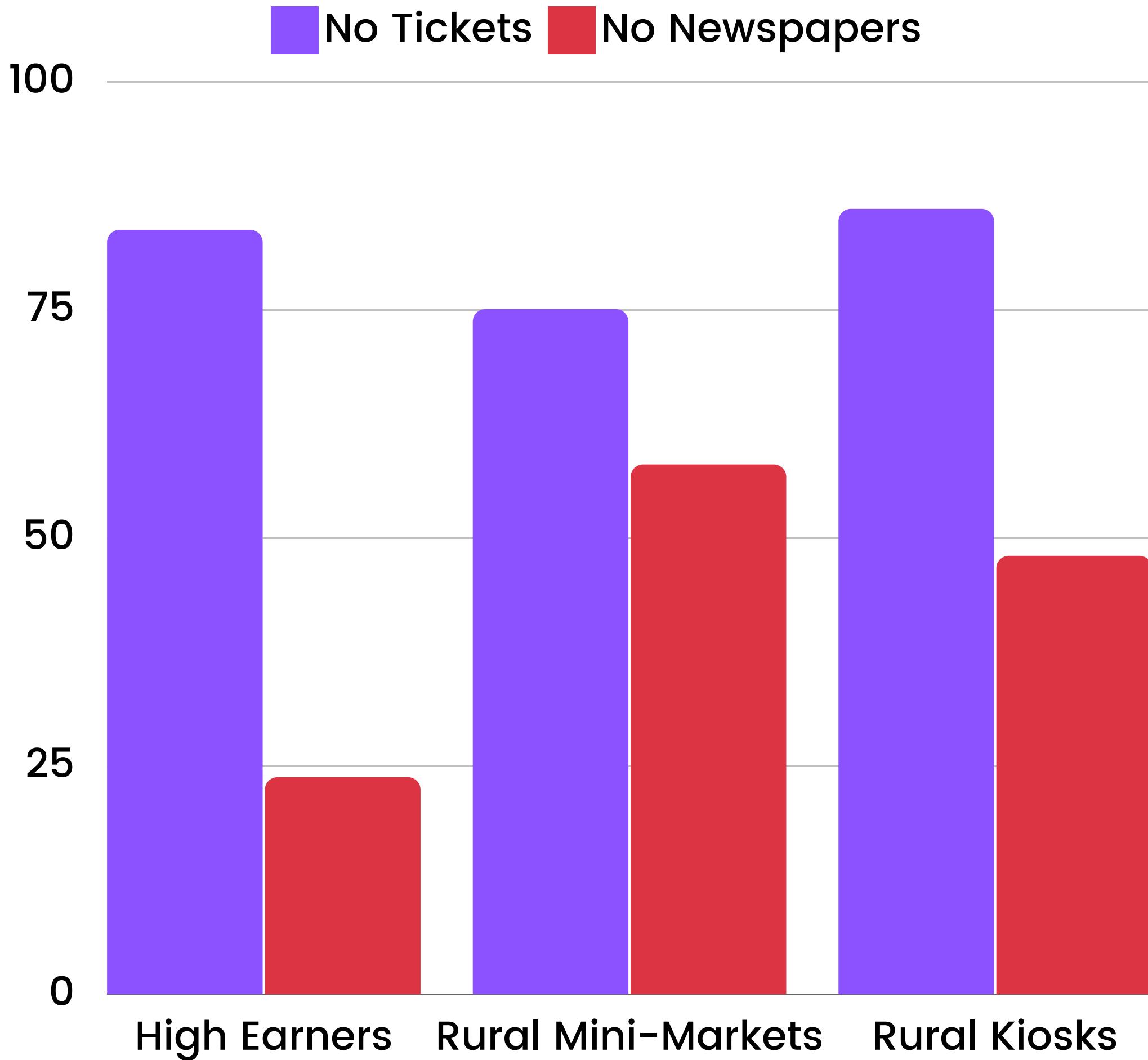
Segments Strategy

Cross - Selling

Newspapers and Tickets

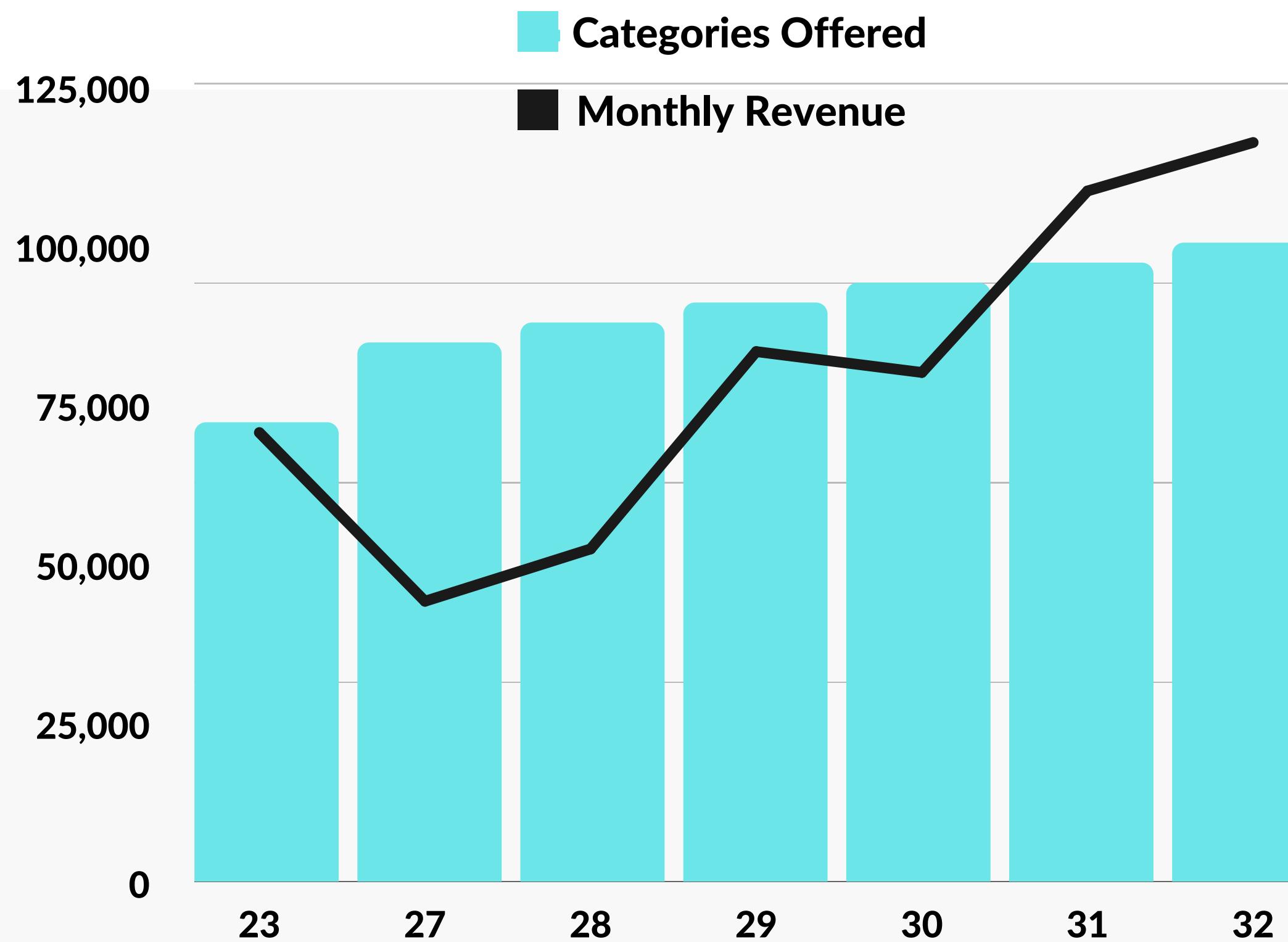
Large percentages of the stores especially the rural markets, do not sell newspapers and tickets perhaps because they have very small room for net profit.

But they are great opportunities for attracting customers into the store and cross selling



Rural Mini-Markets

Proposition



- Positive Correlation (0,5) Between Amount of Categories Sold and Sales (Quantity and Revenue)

- Negative Correlation between sales/categories concentration

Proposition for Rural Mini-Markets

Bring more product categories from suppliers – try to antagonize bigger channels, have broader baskets.

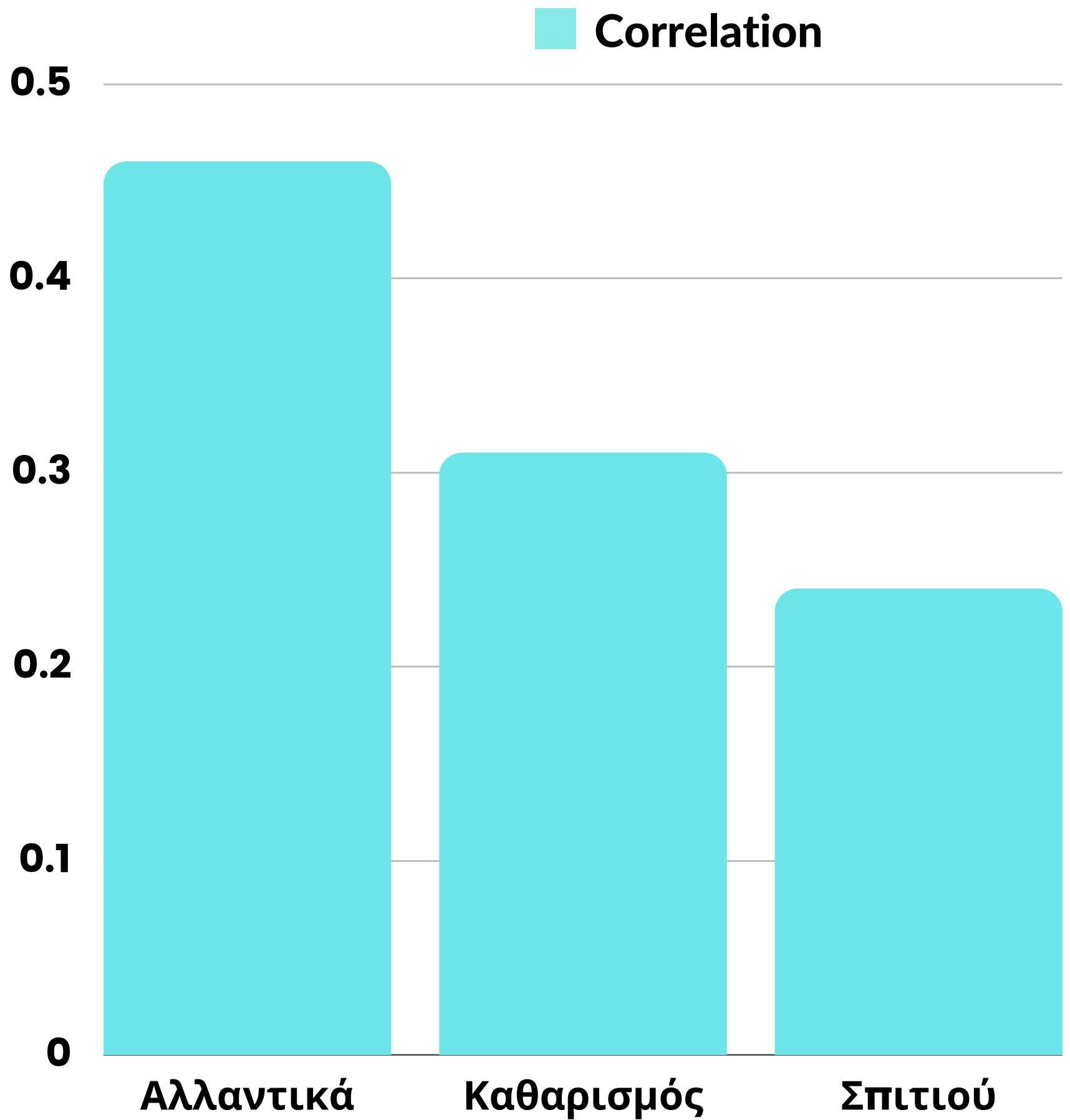
Rural Kiosks

Category Price to
Produced Revenue

- Positive Correlation between certain products price , and monthly revenue

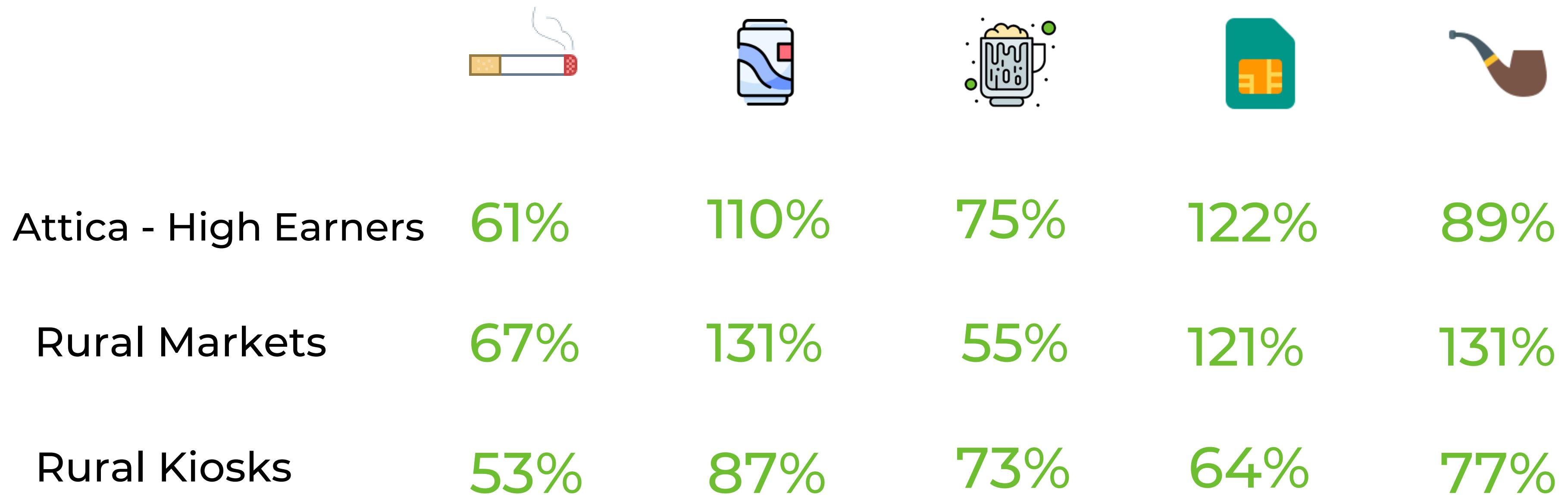
Proposition for Rural Kiosk Segment

increase prices on products people would buy in bigger chains , like cleaning and house merc.



Lockdown effect on Segments

Dec 19, Jan 20, Feb 20 vs
Dec 20, Jan 21, Feb 21



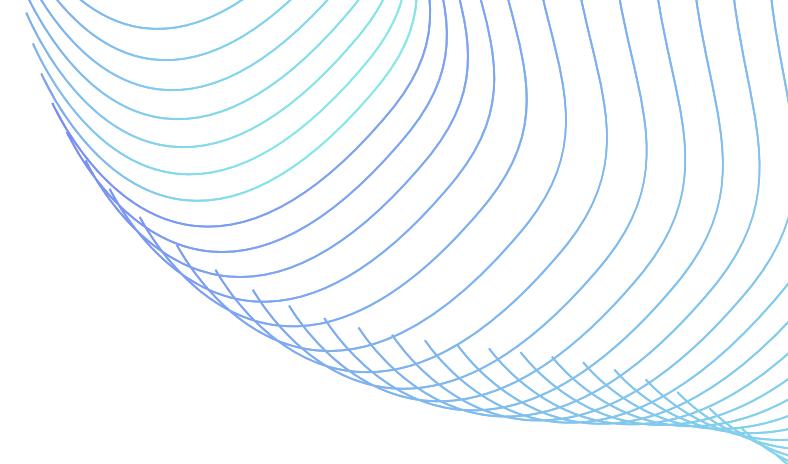
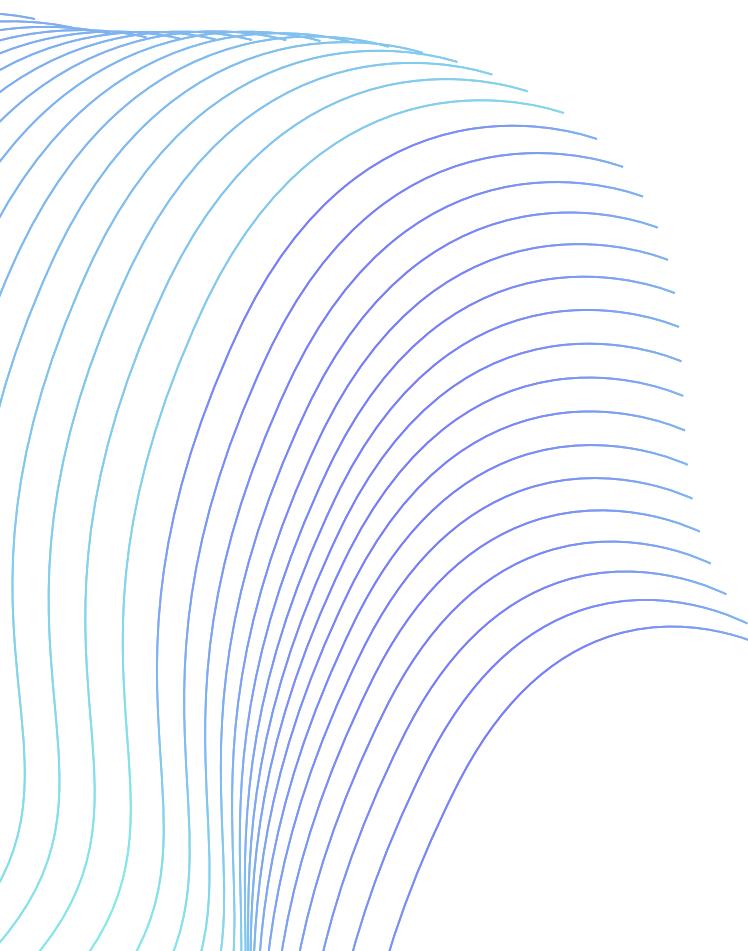
Segments Growth Last 2 Years

High-Earners 3.7%

Rural Kiosks 4%

Rural Mini-Markets 6.8%





**The fear of coronavirus contagion in
large and packed super-markets , created
an opportunity for small retail to be a source
for broader type of sales .**

Dataset 2

10 Stores

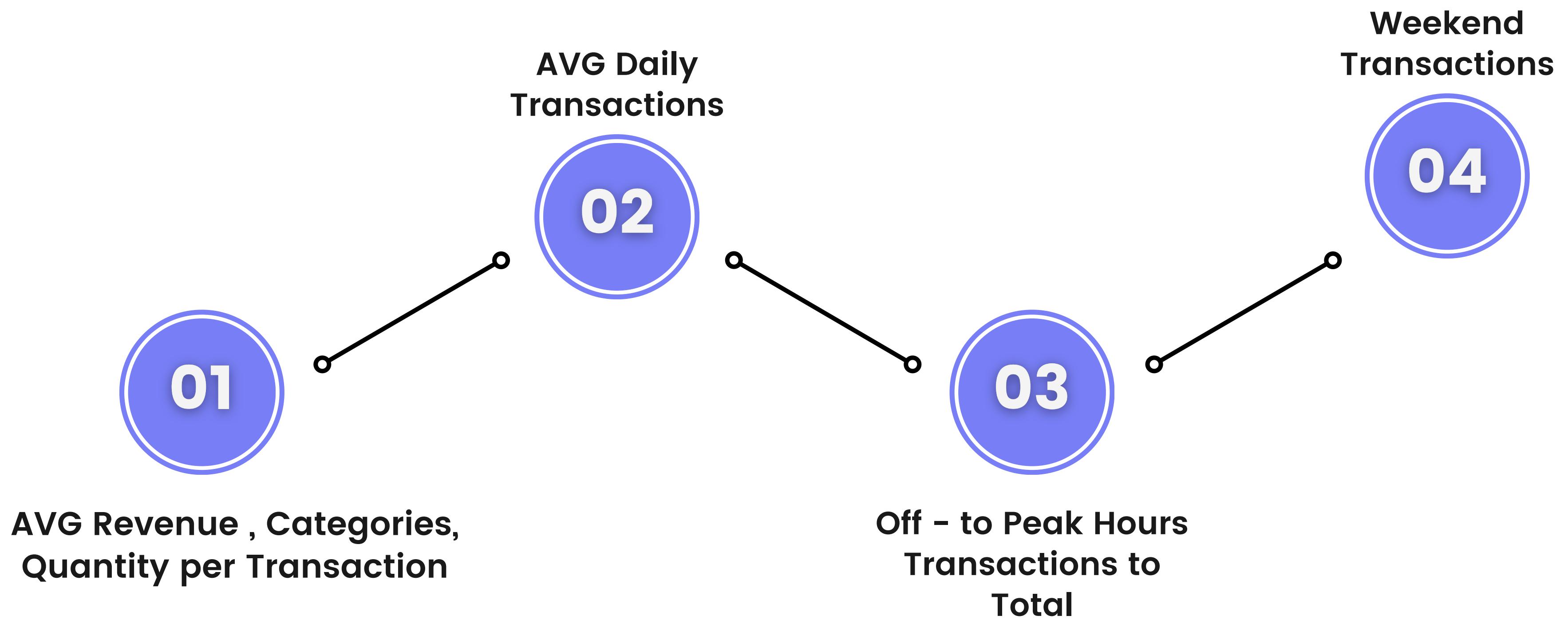
October 2021

Dataset 2

128,129 rows of sales data

Parameter	Info	What we focused on
Geography	Location - Store Type	01 Transactional Store Segmentation
Product	32 Categories	02 Product Correlations
Measures	Quantity & Revenue	
Time	Day - Time /October 2021	

Clustering Basis 10 Stores

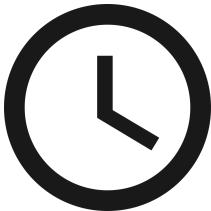


Dataset 2

Standard Kiosk



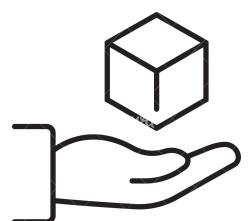
Contains 7 stores



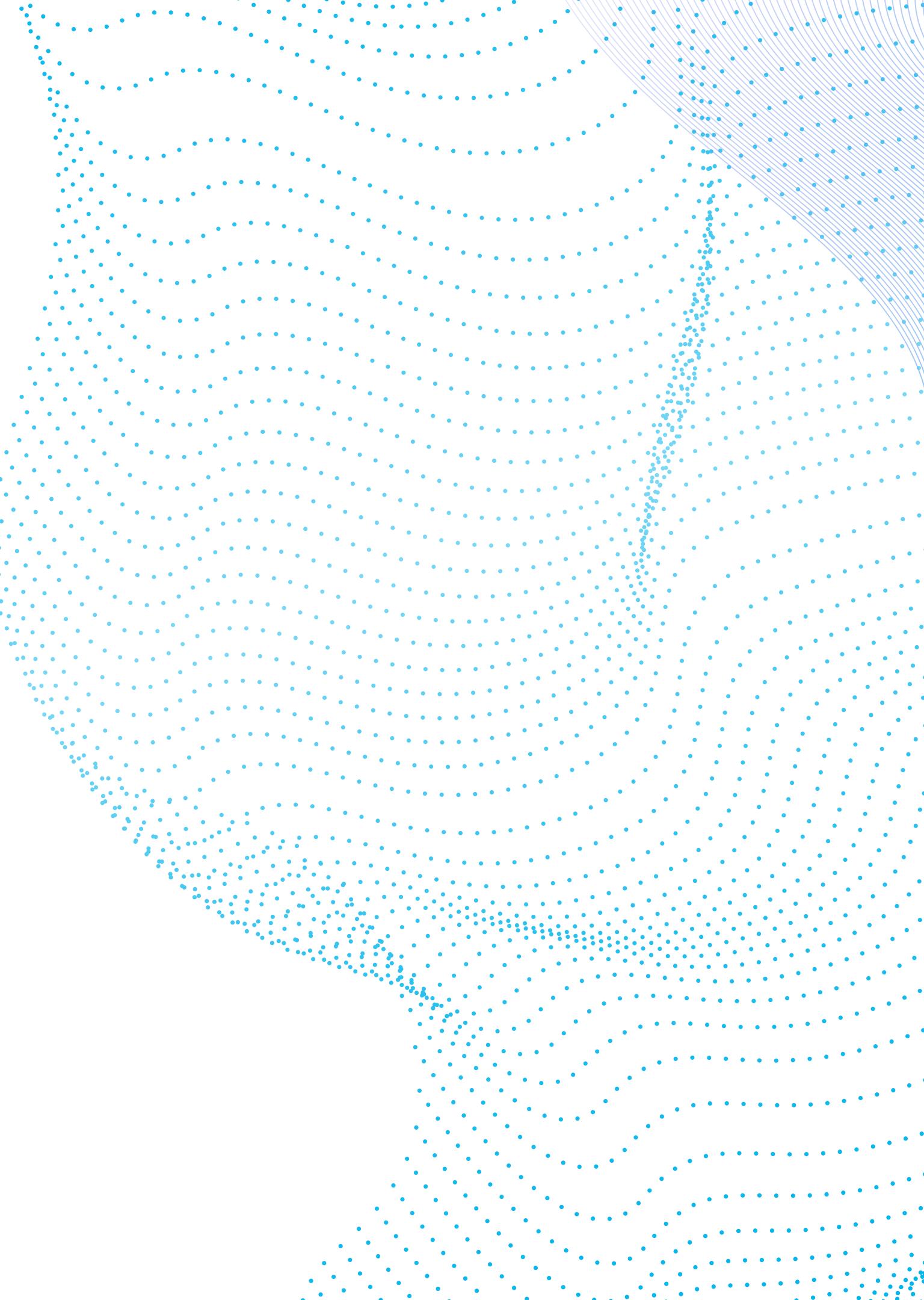
Tend to operate during night hours



Typically more profitable on weekends



Make more, but less lucrative, sales



Dataset 2

Provincial Mini Markets



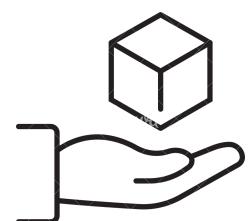
Contains 2 stores



Operate during peak hours only



Typically more profitable on working days



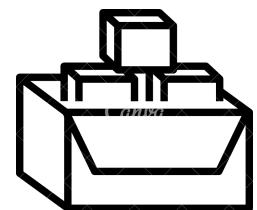
Tend to sell a limited variety of products per transaction

Dataset 2

Large Kiosk in Central Location



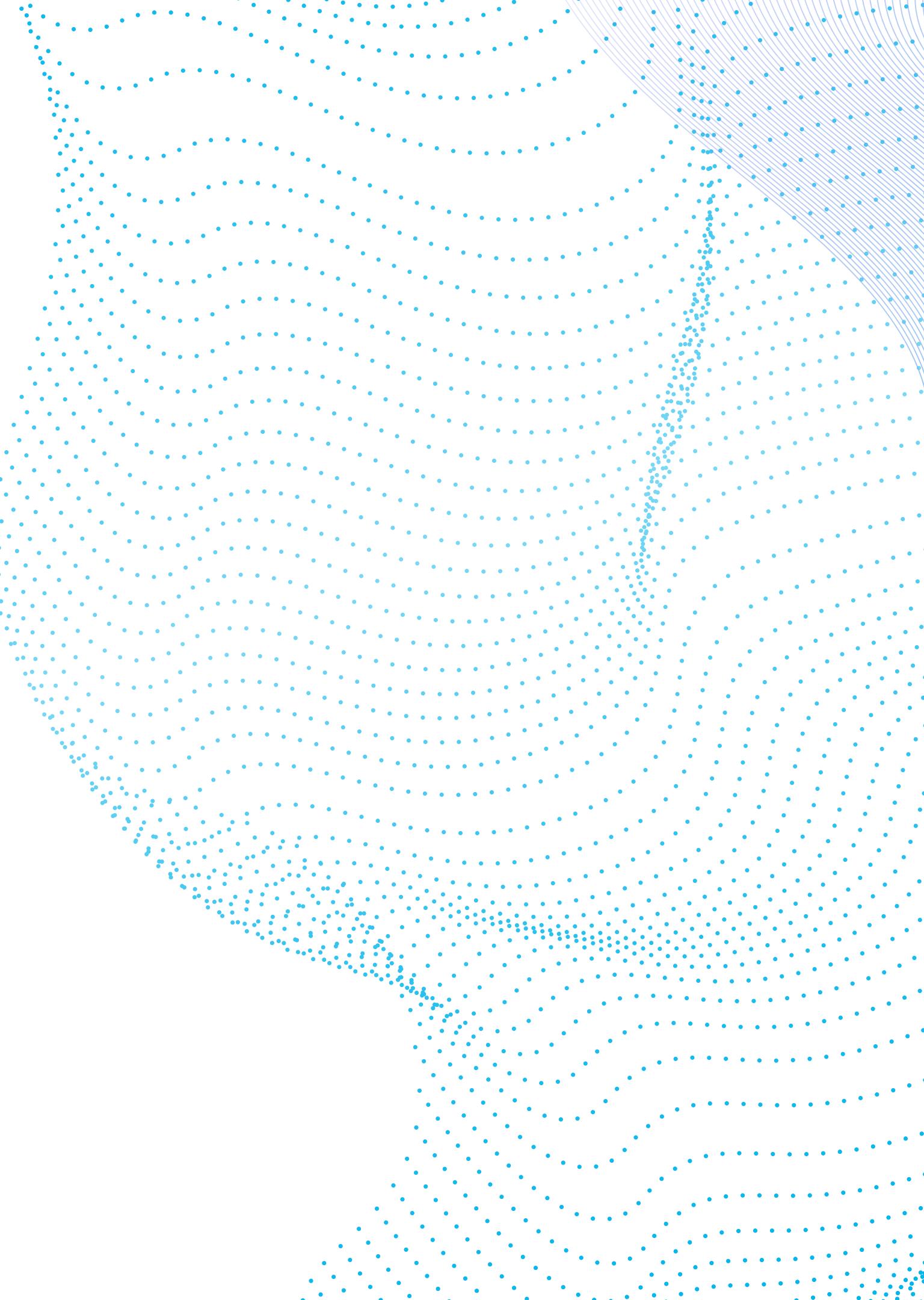
Contains 1 store



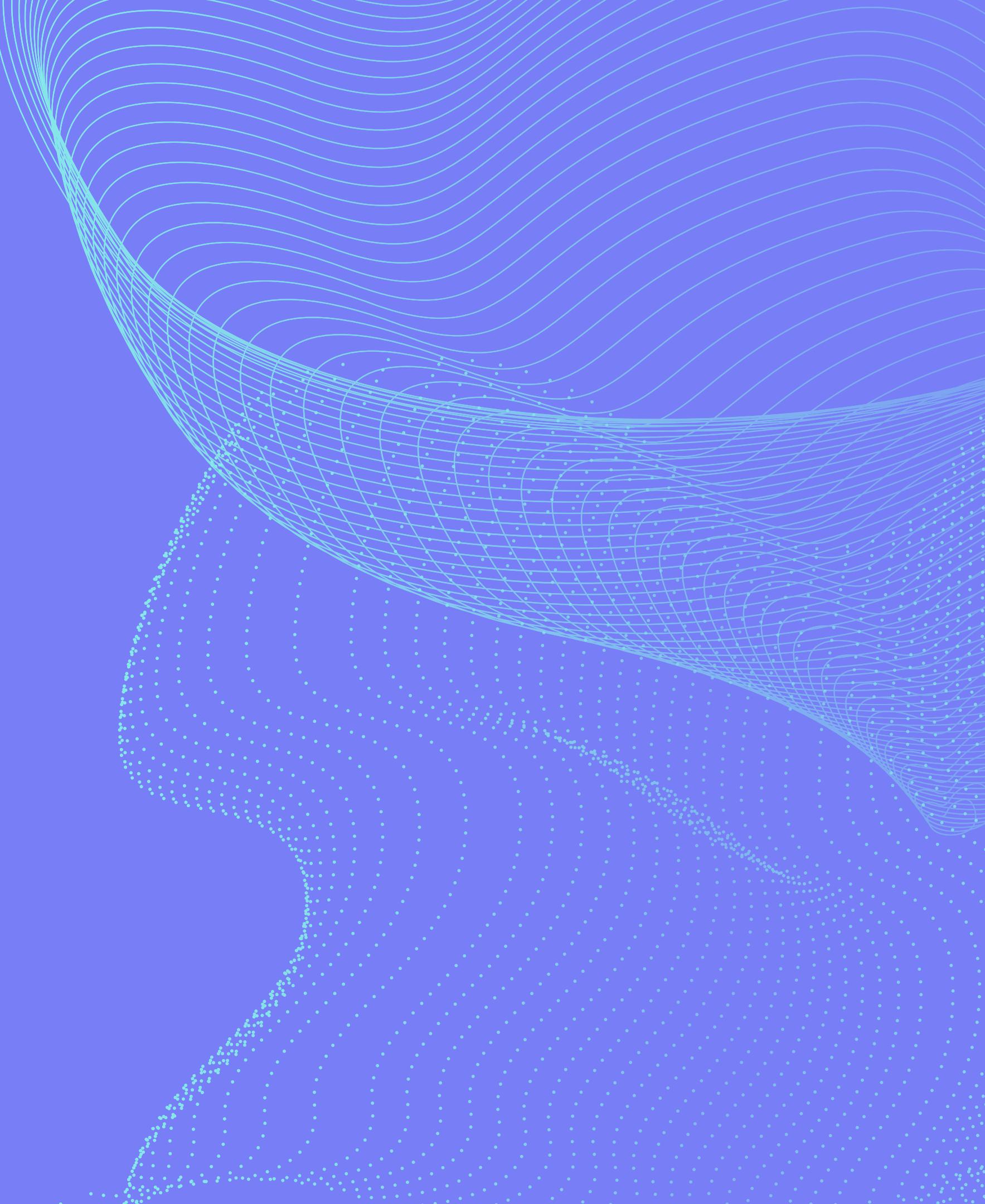
Its sales volume and variety are significantly bigger



Sales on working days and working hours make bigger part of its income than the average store



Cluster Analysis



About baskets

97.800 Baskets



AVG basket size

Kiosks

1,9

Mini-Markets

2

Large Stores

3,4



AVG basket value

5,6

7,1

11,2

%

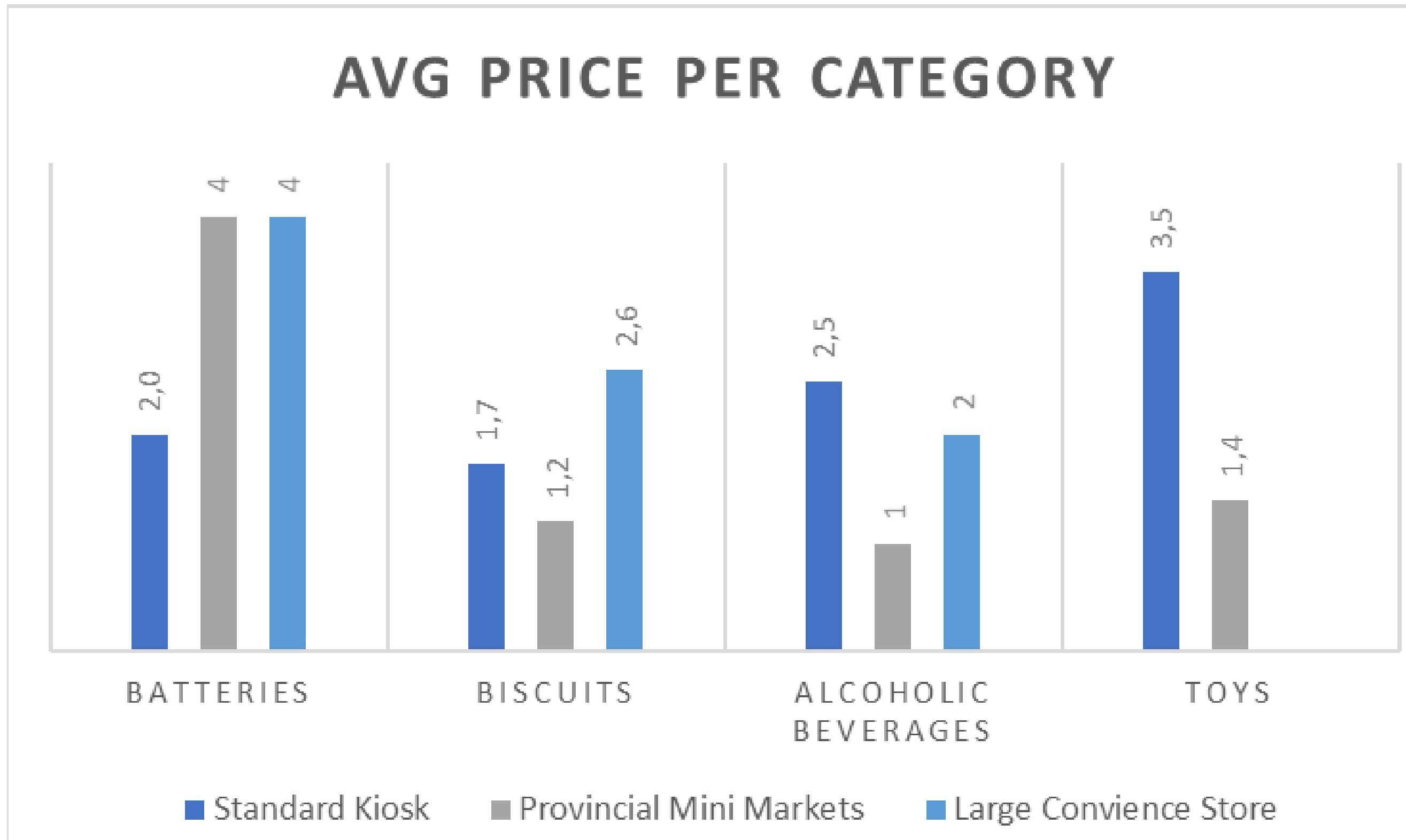
Percentage of
total baskets

86%

7%

7%

AVG price product



Product correlations

All store types

Mini Market &
Large Store

Kiosk & Mini
Market

Large Store

Kiosk

Rolling papers & filters

Alcoholic Beverages

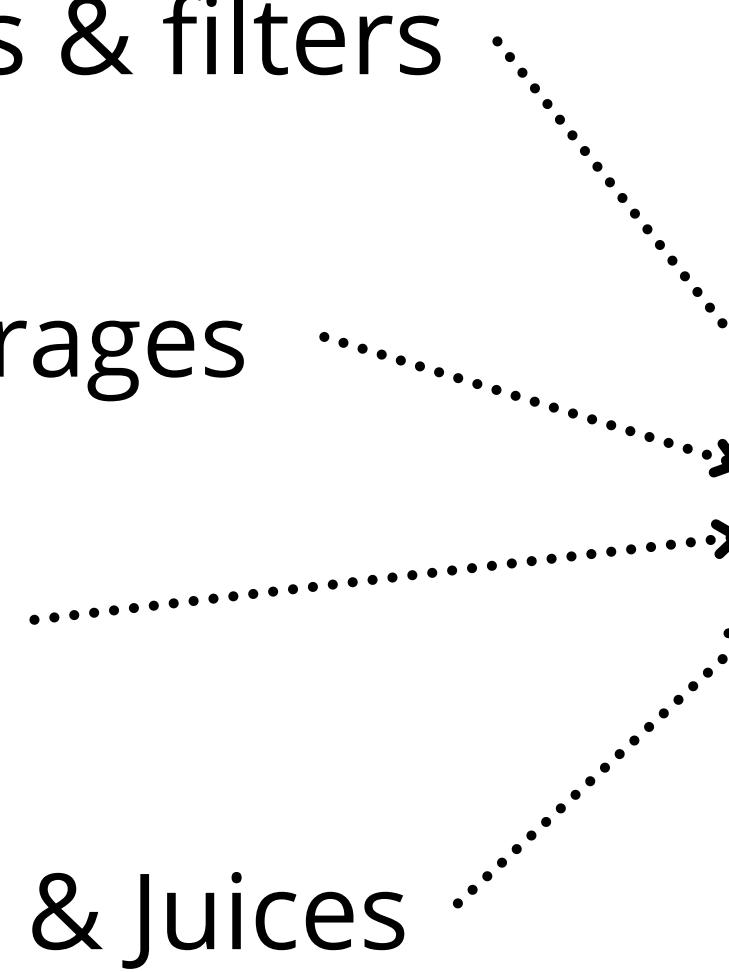
Chewing Gum

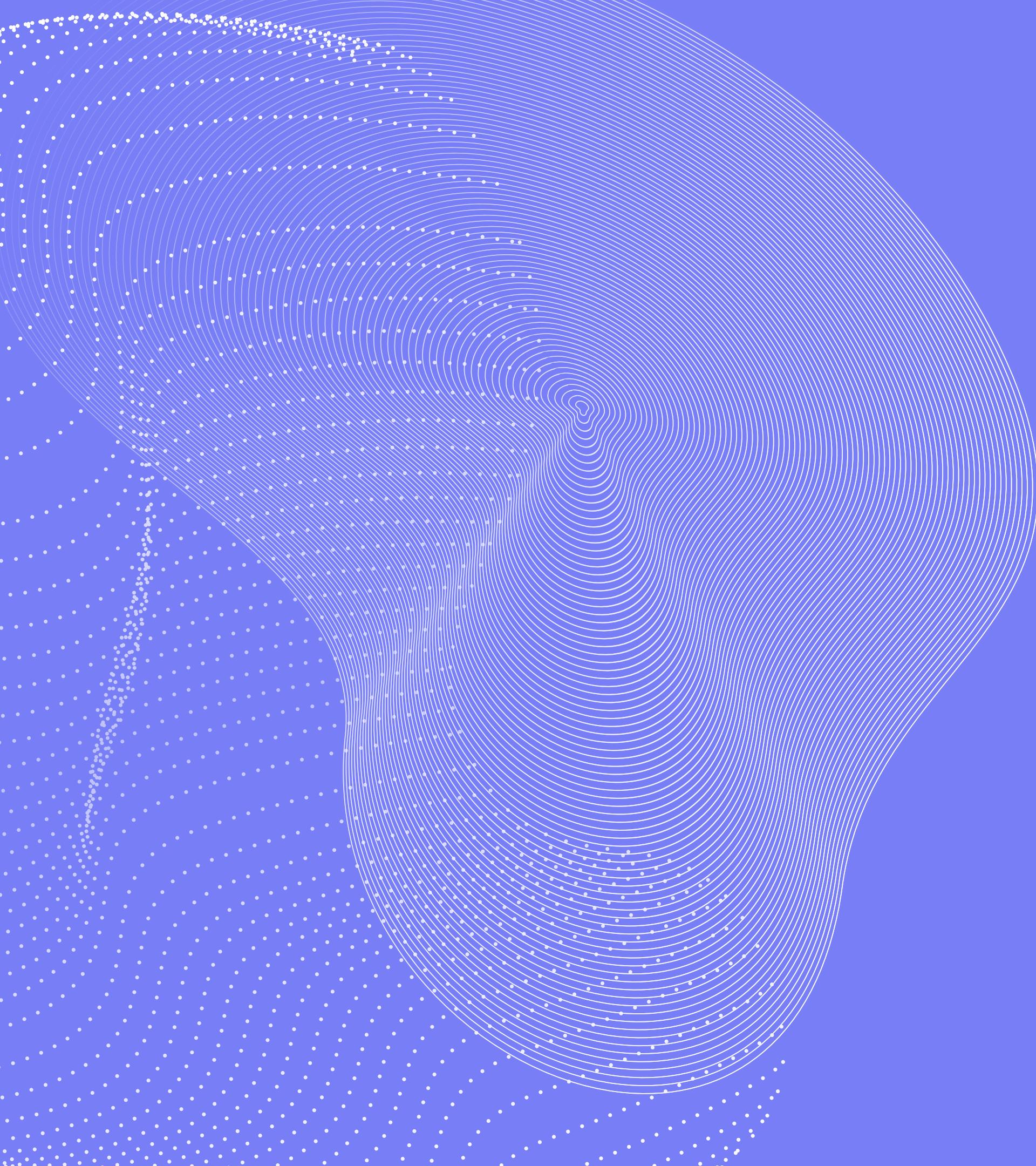
Refreshments & Juices

Sandwiches

Cigarettes

Refreshments & Juices





Segments Strategy

Most "powerfull" product combination

for all store
types

Snacks



Refreshments & Juices

Stores missing on this opportunity

Standard
Kiosks



Store 4139

Store 7227

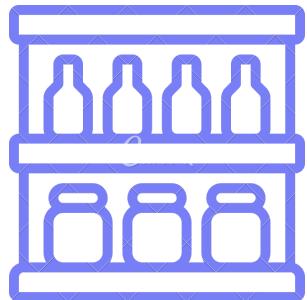
Store 5458

Provincial Mini
Markets



Store 3788

Our proposal: "Bundle them!"



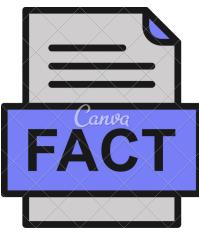
Put those products in close range inside the store



Display ads of these products on the kiosk screens



Introduce promotional offers that include these types of products as a bundle



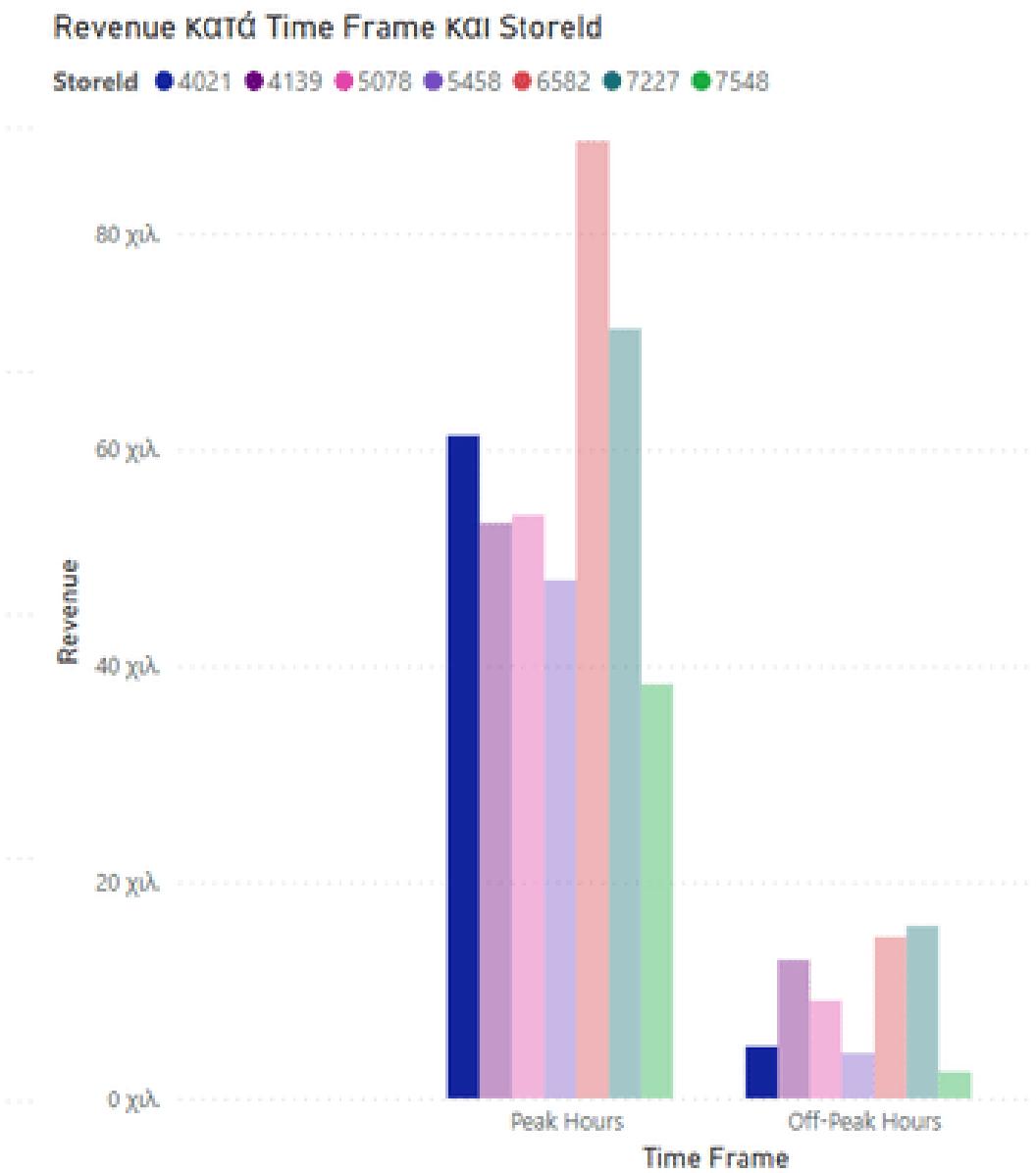
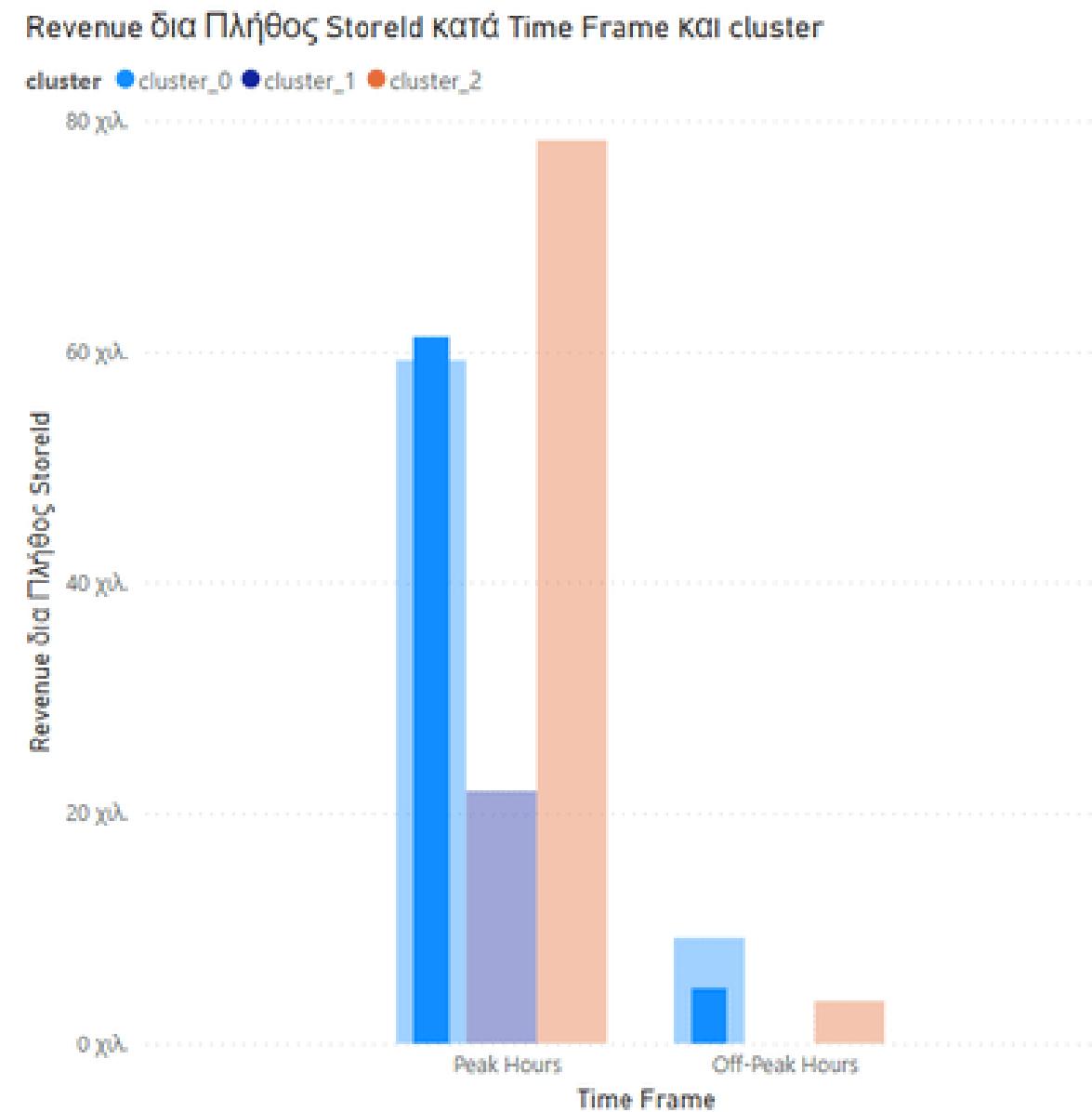
Some stores that perform better than others during peak hours don't do so on off-peak ones

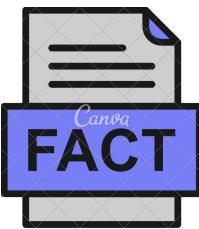


Get a bigger share on off-peak hours



Expand their oppening hours and spread the word





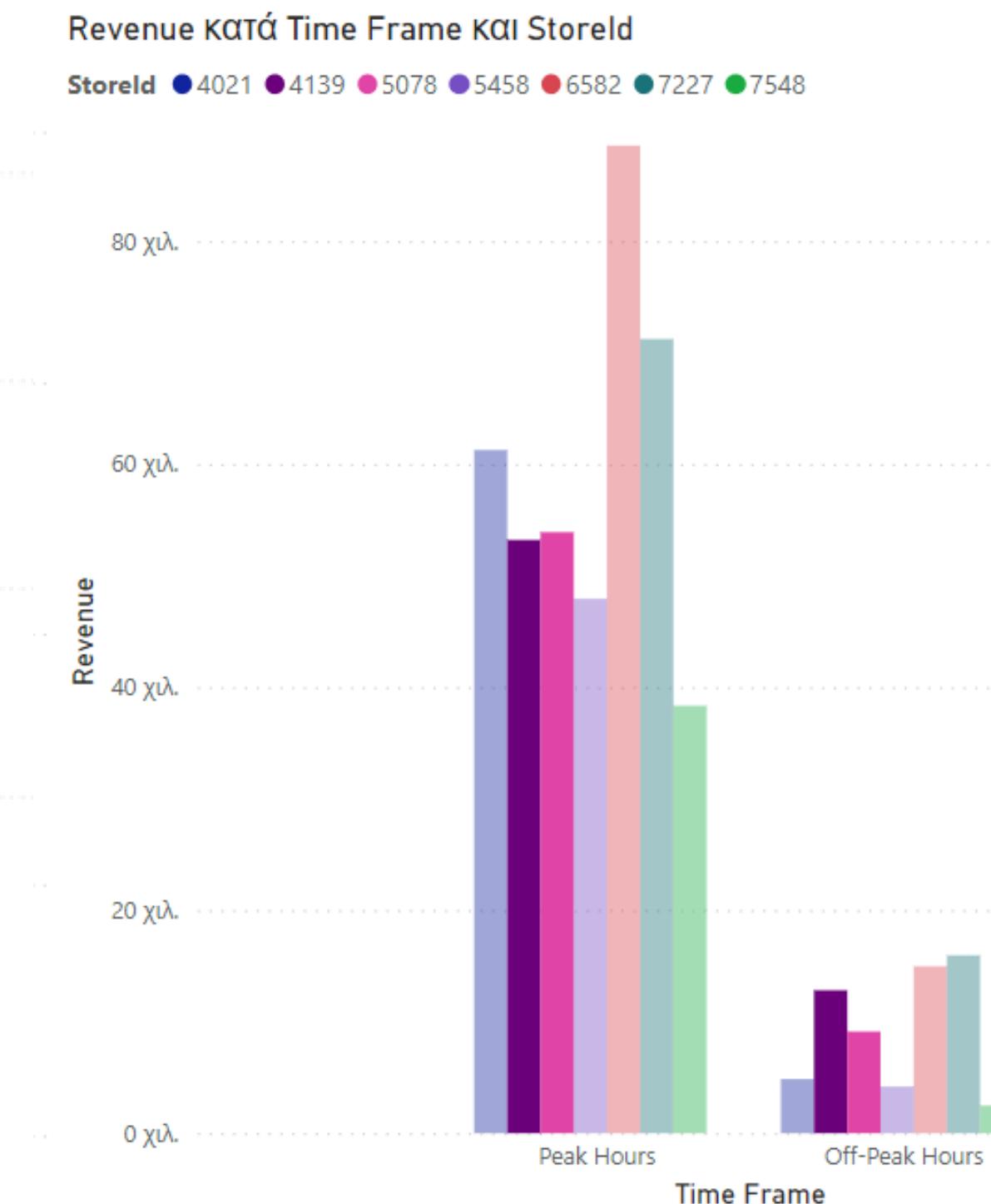
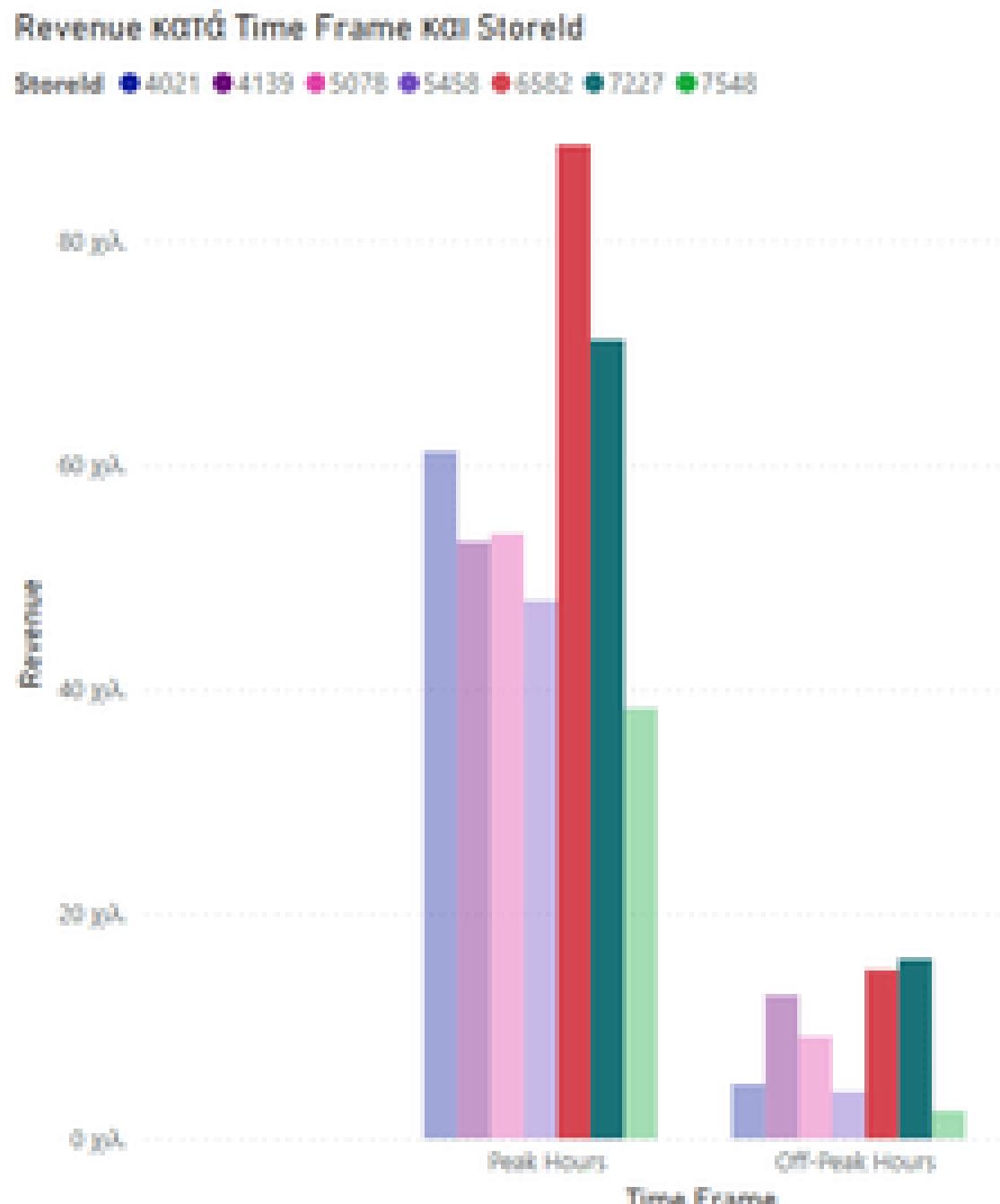
Some stores that perform better than others during peak hours don't do so on off-peak ones



Get a bigger share on off-peak hours/ make their operational costs more effective in producing revenue



Shrink their opening hours and/or their operational costs accordingly, or try to introduce promotional offers for that period



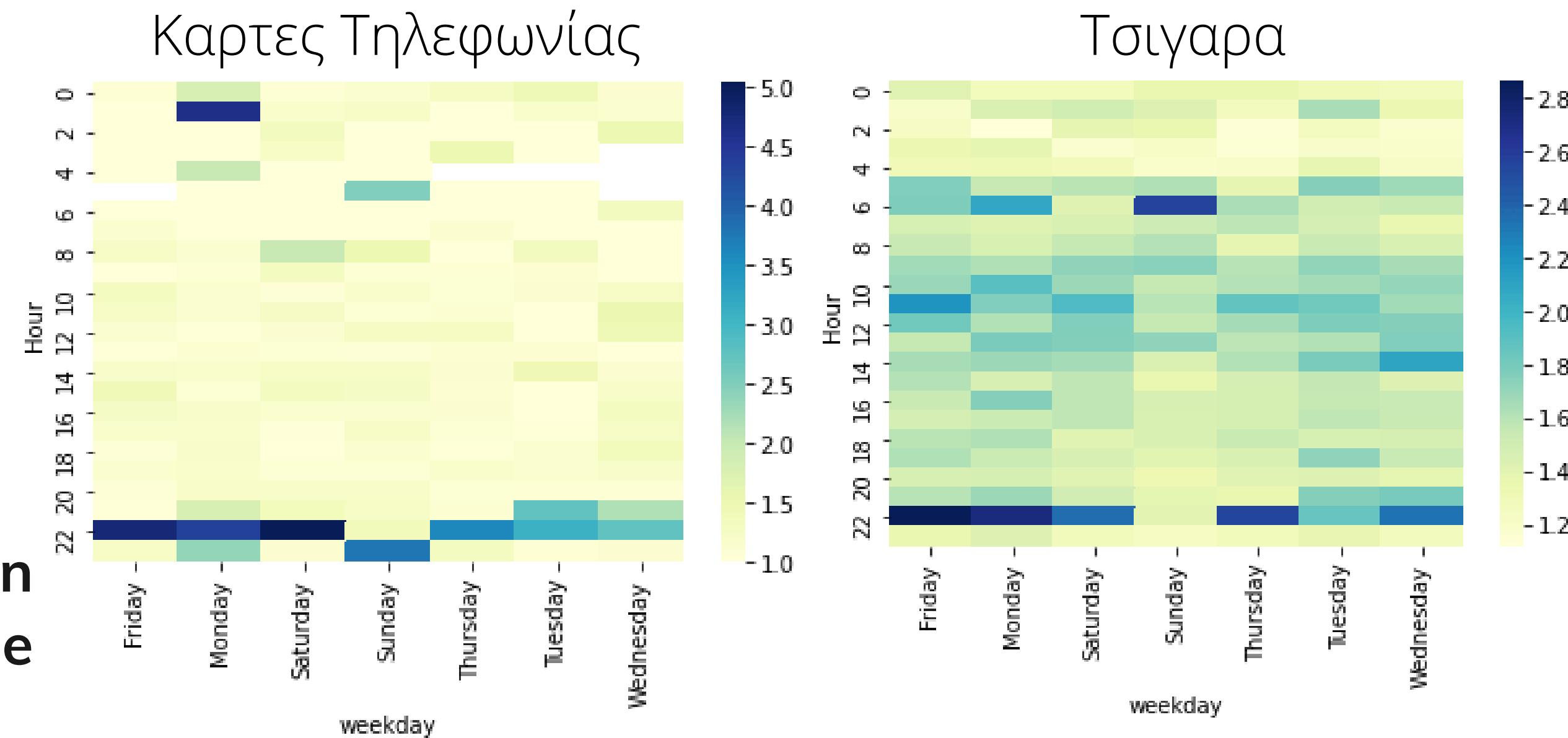
Dataset 2

Standard Kiosk

Most phone cards and cigarettes sales are concentrated around 22:00

Suggestions:

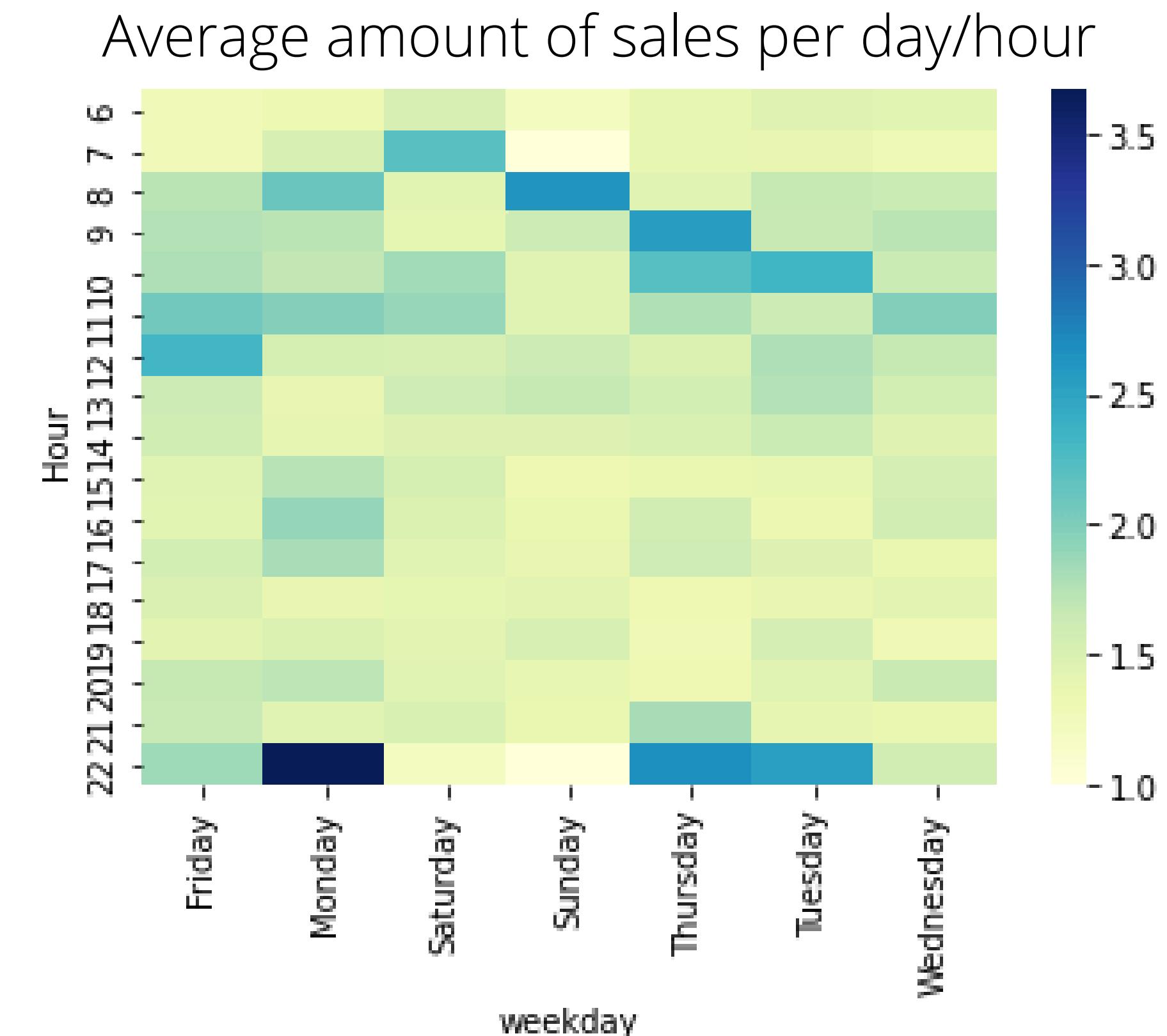
- Retailers should preload stock to target this time period
- Manufacturers should run media exactly at this time



Dataset 2

Provincial Mini Markets

The average amount of sales per hour is negligible. We would recommend considering alternative channels of sales such as delivery, in order to increase the amount of sales and revenue



Dataset 2

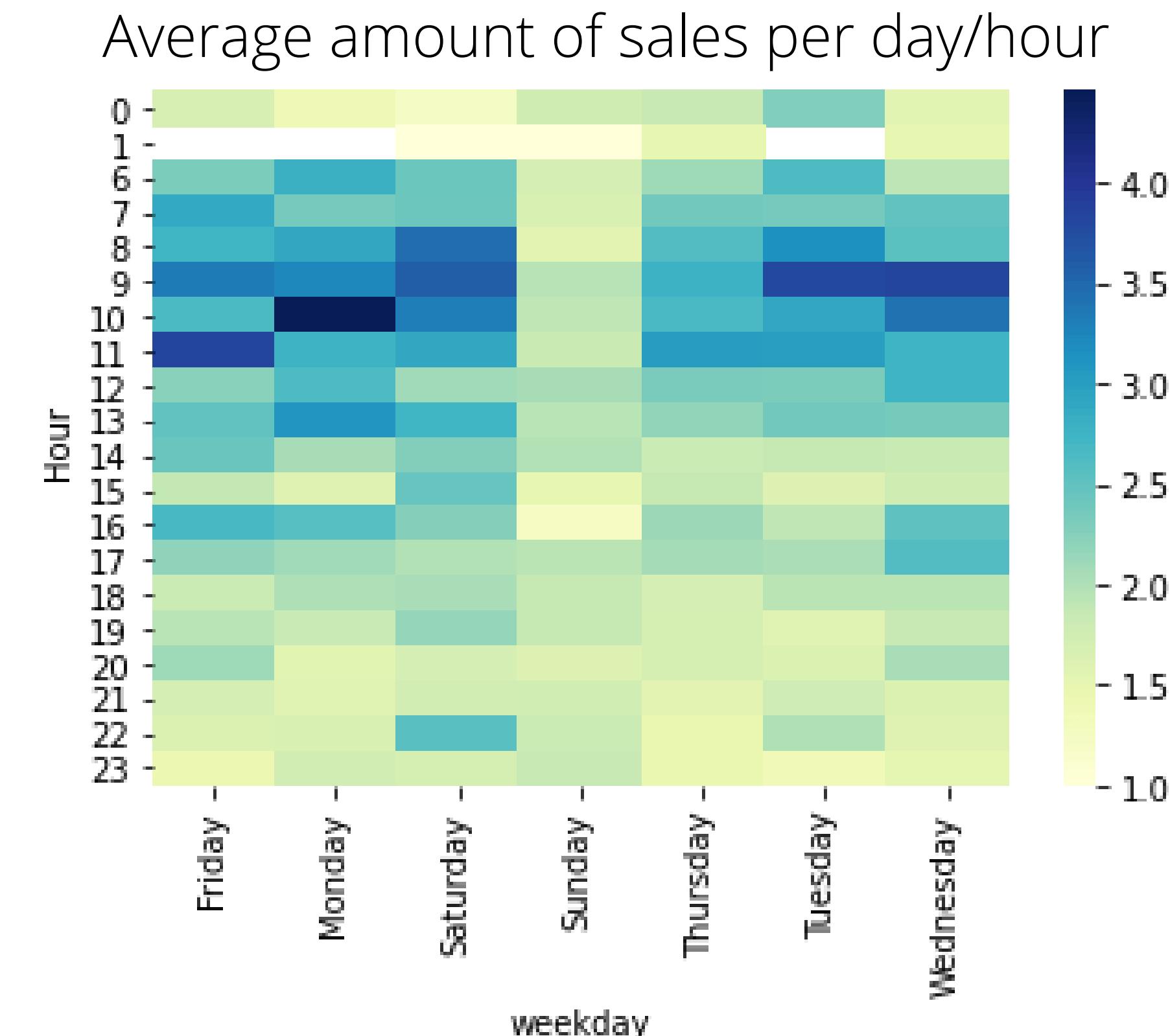
Large Kiosk in Central Location

- Most sales on working days and early hours probably before work.
- Almost 50% of sales are tobacco related products

Suggestions:

- Starbucks coffees
- Puff pastry/ pies such as Stergiou

Try to catch some coffee and breakfast sales-products





Thank you!
Questions?