MARKETING SEGMENTATION

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Definition of Market Segmentation

★ Markets are heterogeneous: consumer demand varies on the basis of demographic, socio-economic, lifestyle and other factors

★ In order to be competitive, firms must account for market heterogeneity

★ The Internet has exacerbated market fragmentation, with companies able to communicate with and target very small groups and even individuals

Purposes of Market Segmentation

Process of dividing an heterogeneous consumer or business market into relatively homogeneous sub-groups of customers (market segments) with similar needs and wants

STP Framework for Marketing Planning

Segmentation → Targeting → Positioning

Segmentation

Segmentation → Targeting → Positioning

Market Segmentation Process

Psychographic

Behaviora

Demographic

Geographic

Types of Segmentation

Businesses selling to businesses (B2B)

Please give examples of B2B
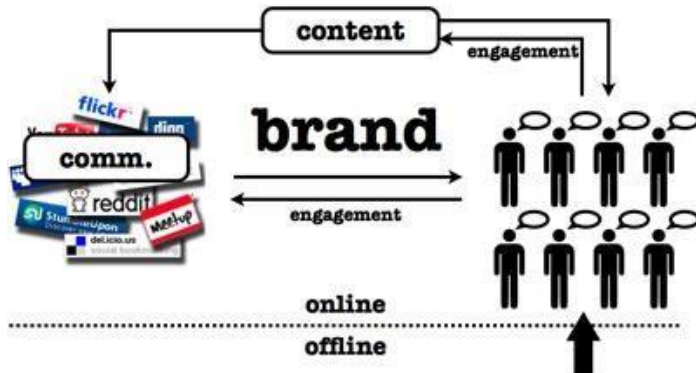
Businesses selling to consumers (B2C)

Bases for Segmentation (B2B)

★ Industry

★ Business Size

★ Business location

★ Business technology

★ Purchasing approach

★ (…)

Bases for Segmentation (B2C)

Market Segmentation

- Demographics
- Behavioural
- Geographic
- Psychographic

✧ *Internal segment homogeneity*

✧ *external segment heterogeneity*

Demographic Segmentation

Quantifiable population characteristics
(e.g. age, gender, income, education, ethnicity, family size)

e.g. YUPPY; MUPPY; DINKS; GLAMS; Empty-nester, Full-nester

Geographic Segmentation

Physical location or region

e.g. Southeast Asia; urban; rural; remote

Phsycographics Segmentation

Lifestyle, social or personality characteristics (activities, interests and opinions)

Normally includes basic demographic descriptors)

e.g. Health conscious; style conscious; traditionalists; conservatives; young professionals
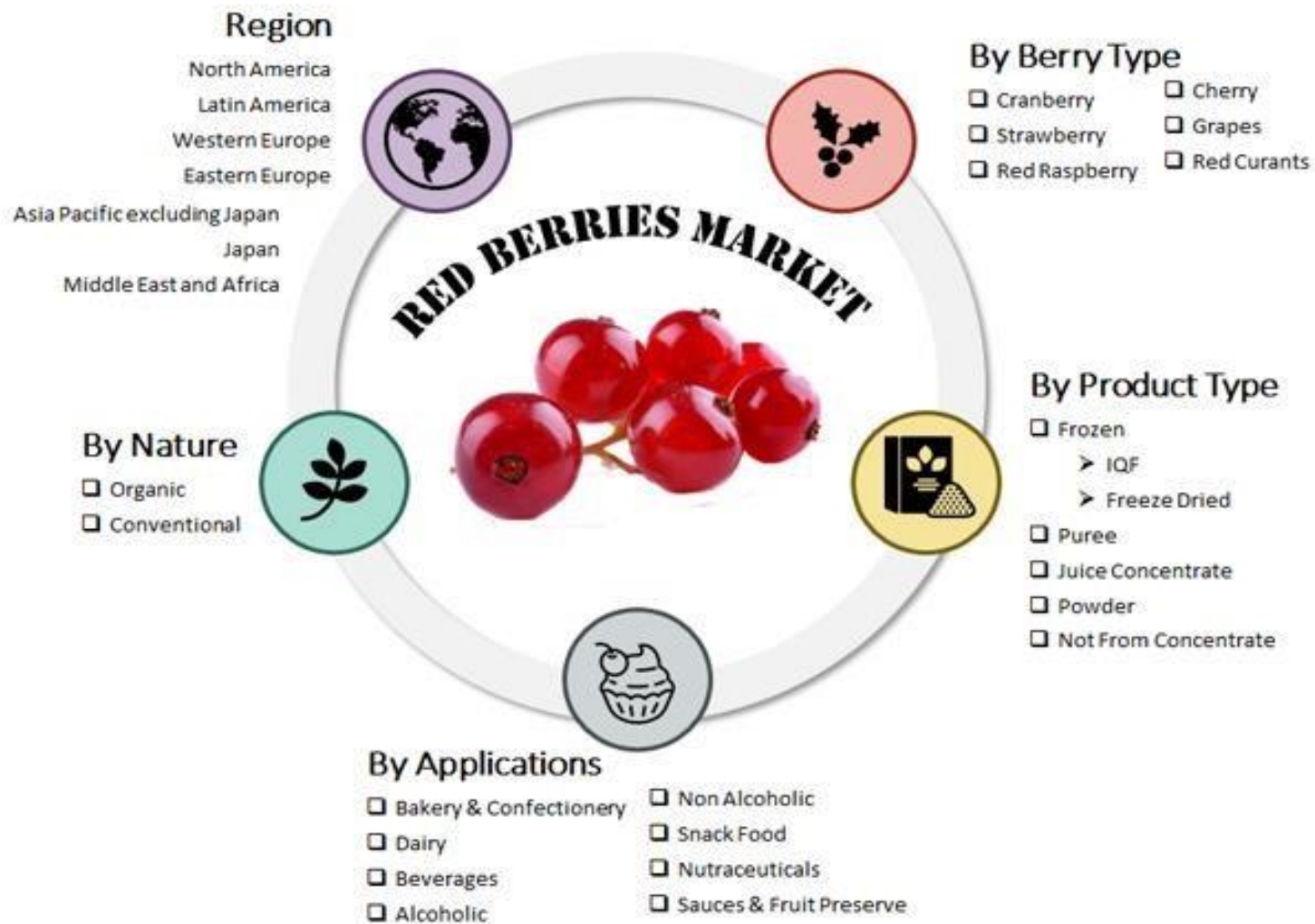
Behavioral Segmentation

Purchasing, consumption or usage behavior (e.g. needs-based, benefit-sought, usage occasion, purchase frequency, customer loyalty, buyer readiness)

e.g. Tech-savvy; heavy users; enthusiasts; early adopters; opinion leaders; luxury-seekers; price-conscious; quality-conscious; time-constrained

Segmenting the Red Berries Market

Segmenting the Breakfast Cereal Market

Breakfast cereal market segments

- Easy start
- Family feeders
- Mobile snackers
- Family friendly
- Good start
- Dietary needs
- Just for kids
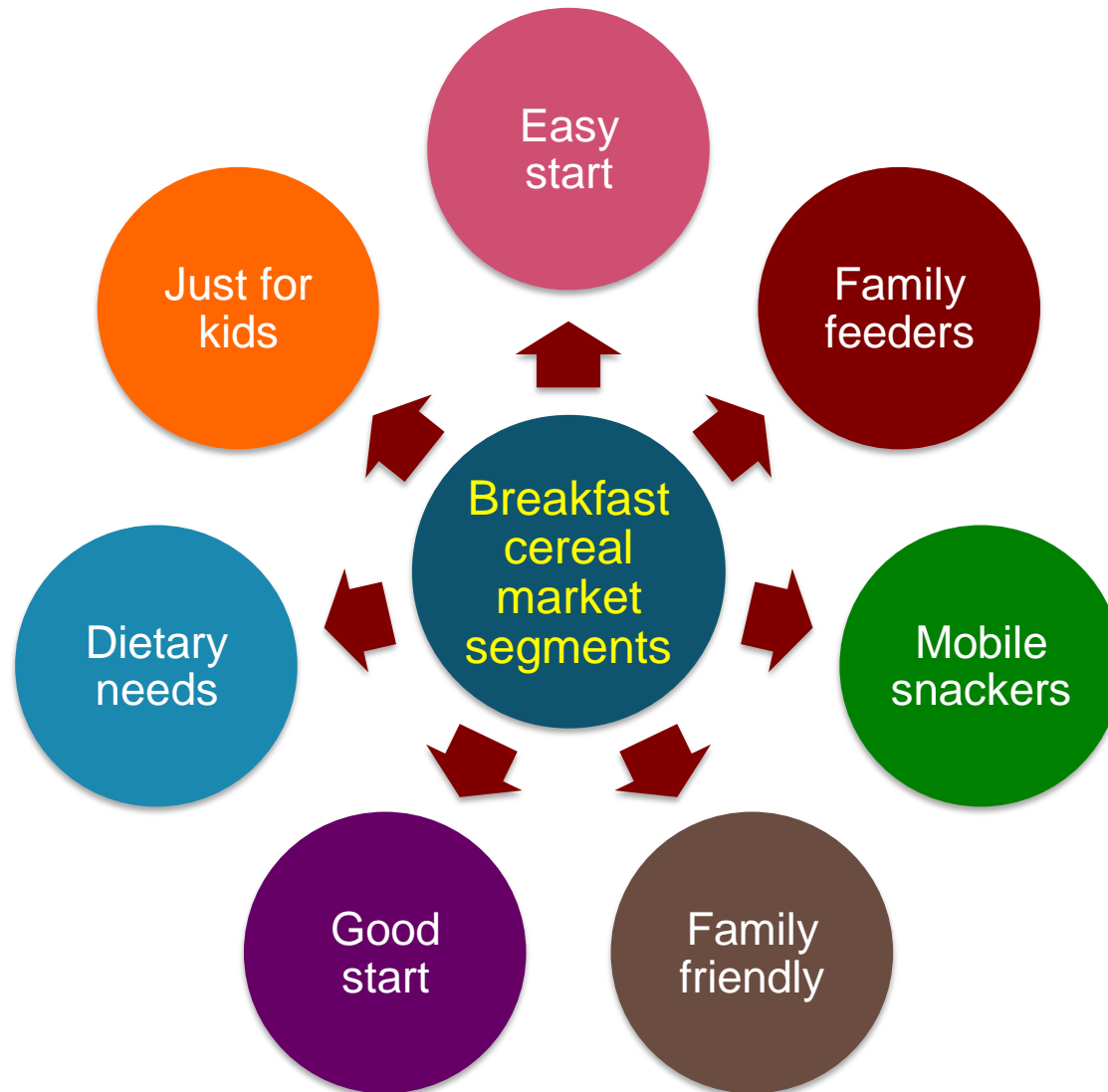
Segmenting the Car Market

Another Example from the Car Industry
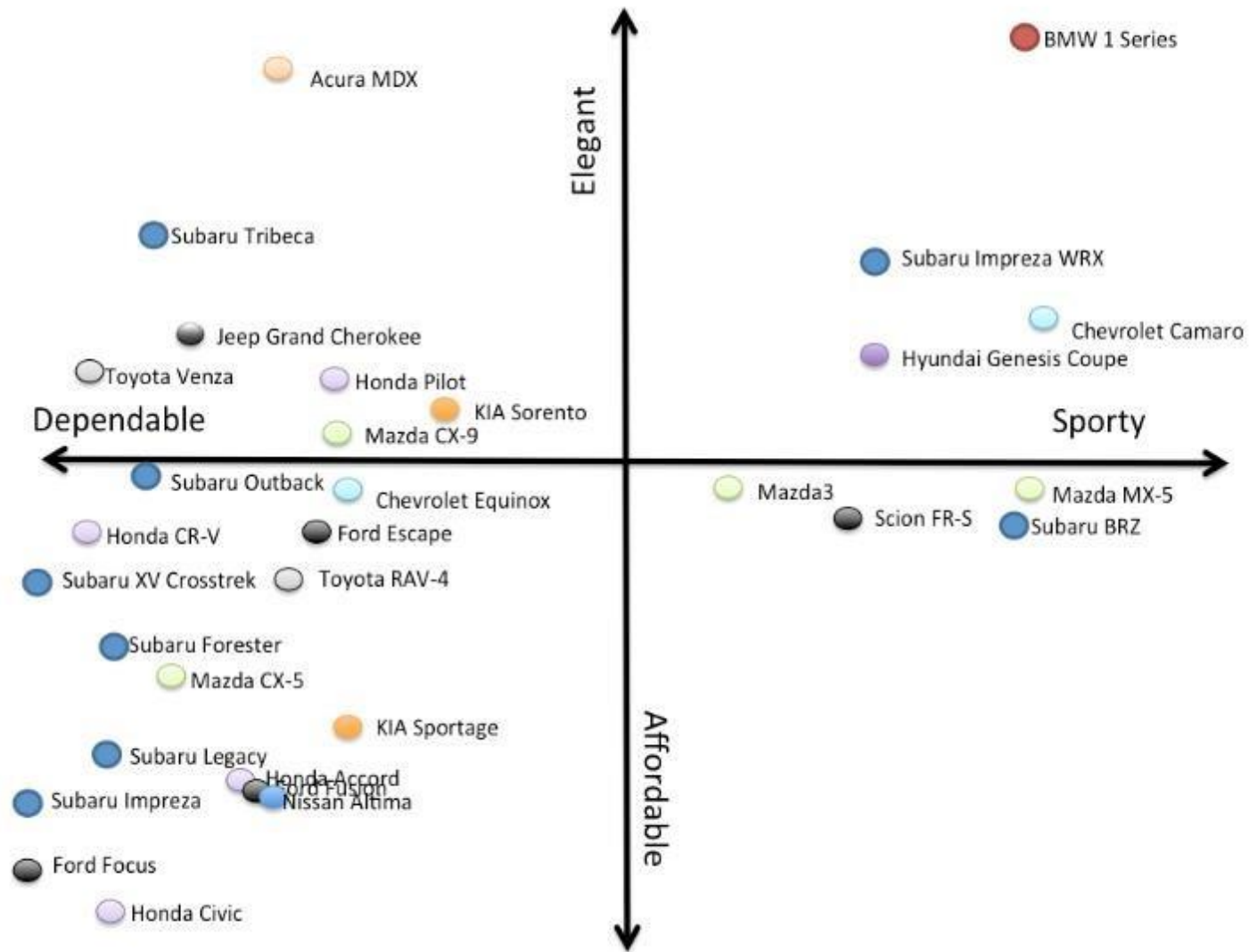
Segmentation

Targeting

Positioning

Criteria for Selecting Target Markets

1. Segment size and growth

2. Segment structural attractiveness

3. Company objectives and resources

Segment Size and Growth

★ How large is the market?

★ Is the market segment large enough to be profitable?

★ Is the market segment growing?

★ What are the indications that growth will be sustained in the long term?

★ Is the segment stable over time?

Segment Size

Traditional foodstore sales by segment, 2011
Retail food and nonfood sales were $571 billion in 2011
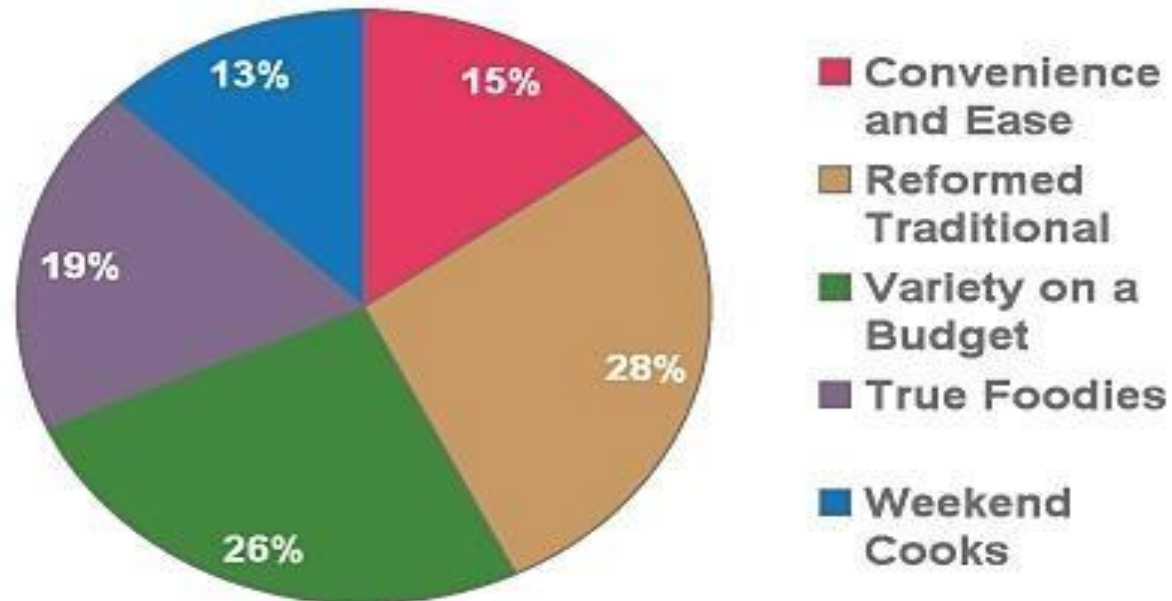

■ Grocery stores, including supermarkets
■ Convenience stores
■ Specialized stores

Source: U.S. Census Bureau, Annual Retail Trade Report, 2011.
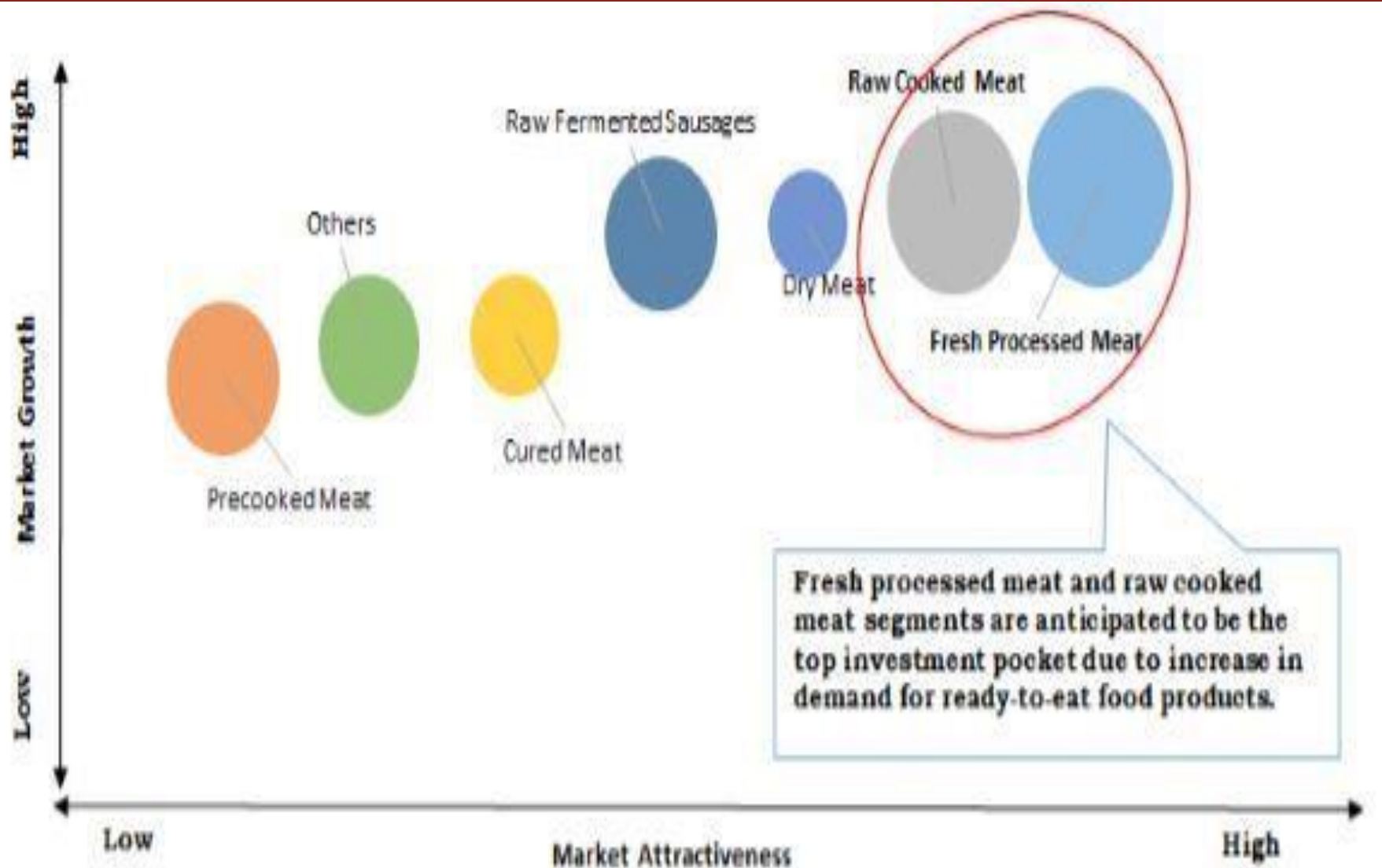
Segment Size

New Segmentation Solution: Food Lifestyle

- Convenience and Ease — 15%
- Reformed Traditional — 28%
- Variety on a Budget — 26%
- True Foodies — 19%
- Weekend Cooks — 13%

Experian
Simmons

Segment Growth

Segment Growth

The channel structure in Turkish retail is changing rapidly.

Grocery retail by channel, %[1]

CAGR,[2] 2013–18, %

	2006	2013	2018E	
100% =	₺143 billion[3]	₺177 billion	₺229 billion	5.3
Supermarkets	15.0	21.4	22.5	6.4
Hypermarkets	1.6	3.3	3.6	1.1
Discounters	2.2 / 1.0 / 0.2	10.8	18.1	16.8
Forecourts		1.3		10.4
Convenience stores		1.2	3.3	24.5
Mom-and-pop stores	80.1	61.9	50.8	0.8
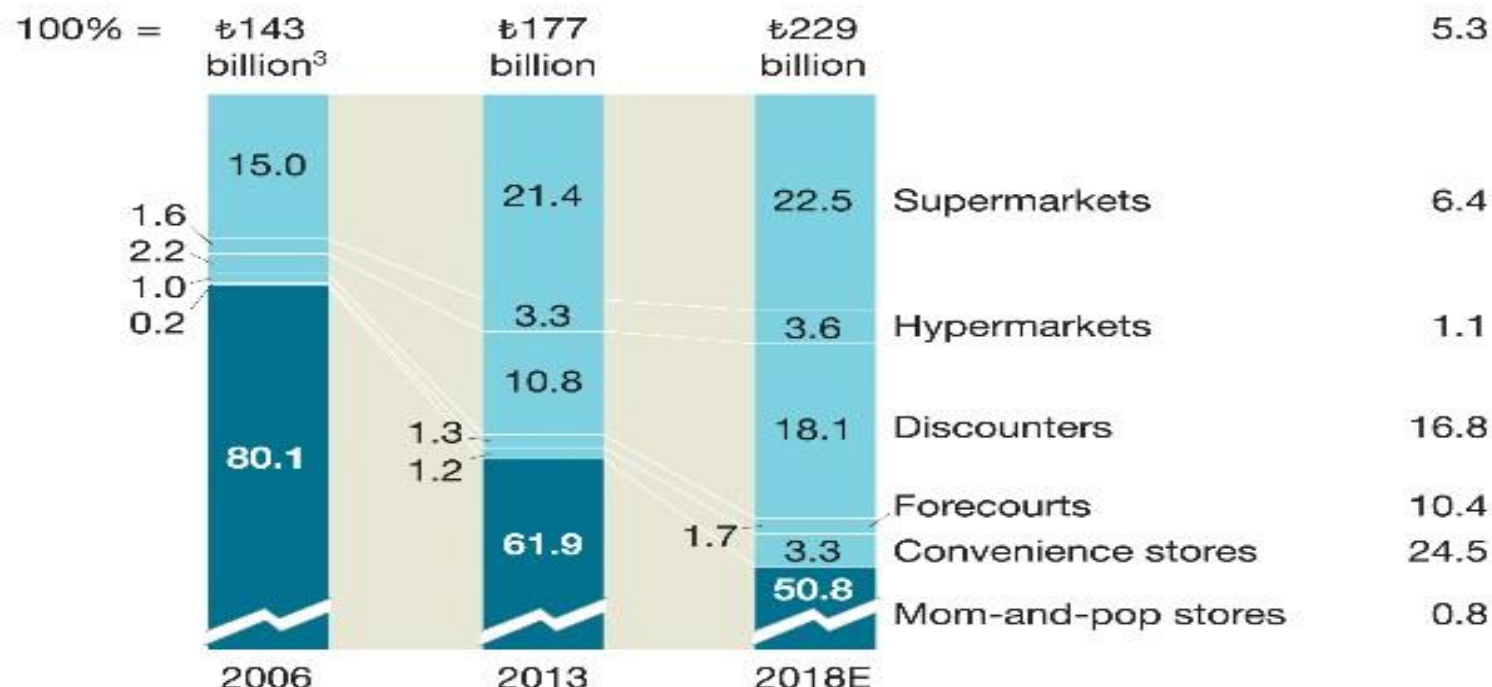
[1]Figures may not sum to 100%, because of rounding.
[2]Compound annual growth rate.
[3]As of Aug 2015, $1.0 = ₺2.8.

McKinsey&Company | Source: Euromonitor International; McKinsey analysis

Segment Structural Attractiveness

★ To what extent are competitors targeting this market segment?

★ Do buyers have strong bargaining power?

★ Are substitute products available?

★ Can we develop a viable, differentiated position in the segment?
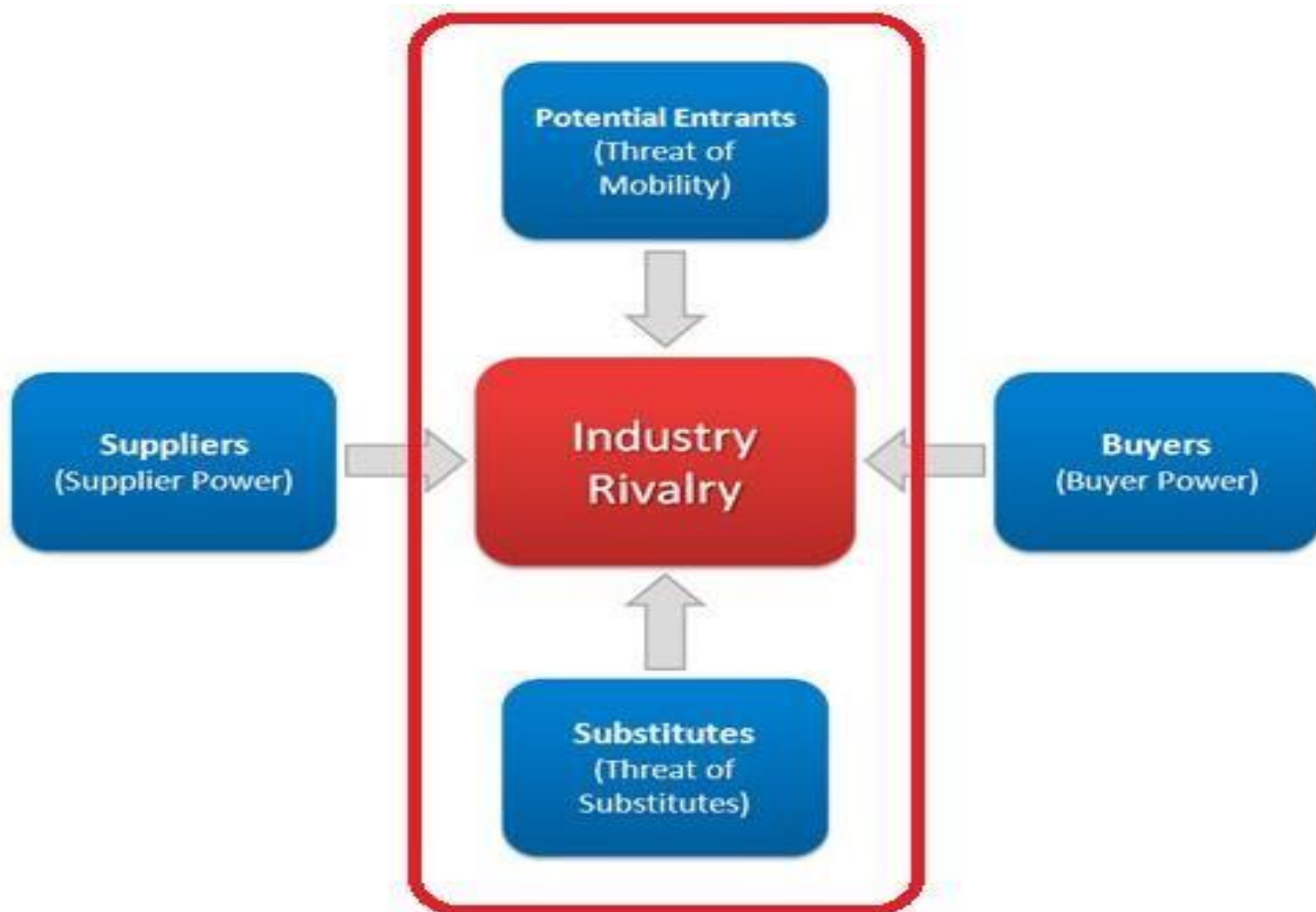
★ How responsible are customers in the segment to the marketing program?

★ Is this market segment reachable and accessible?

Porter's Diamond

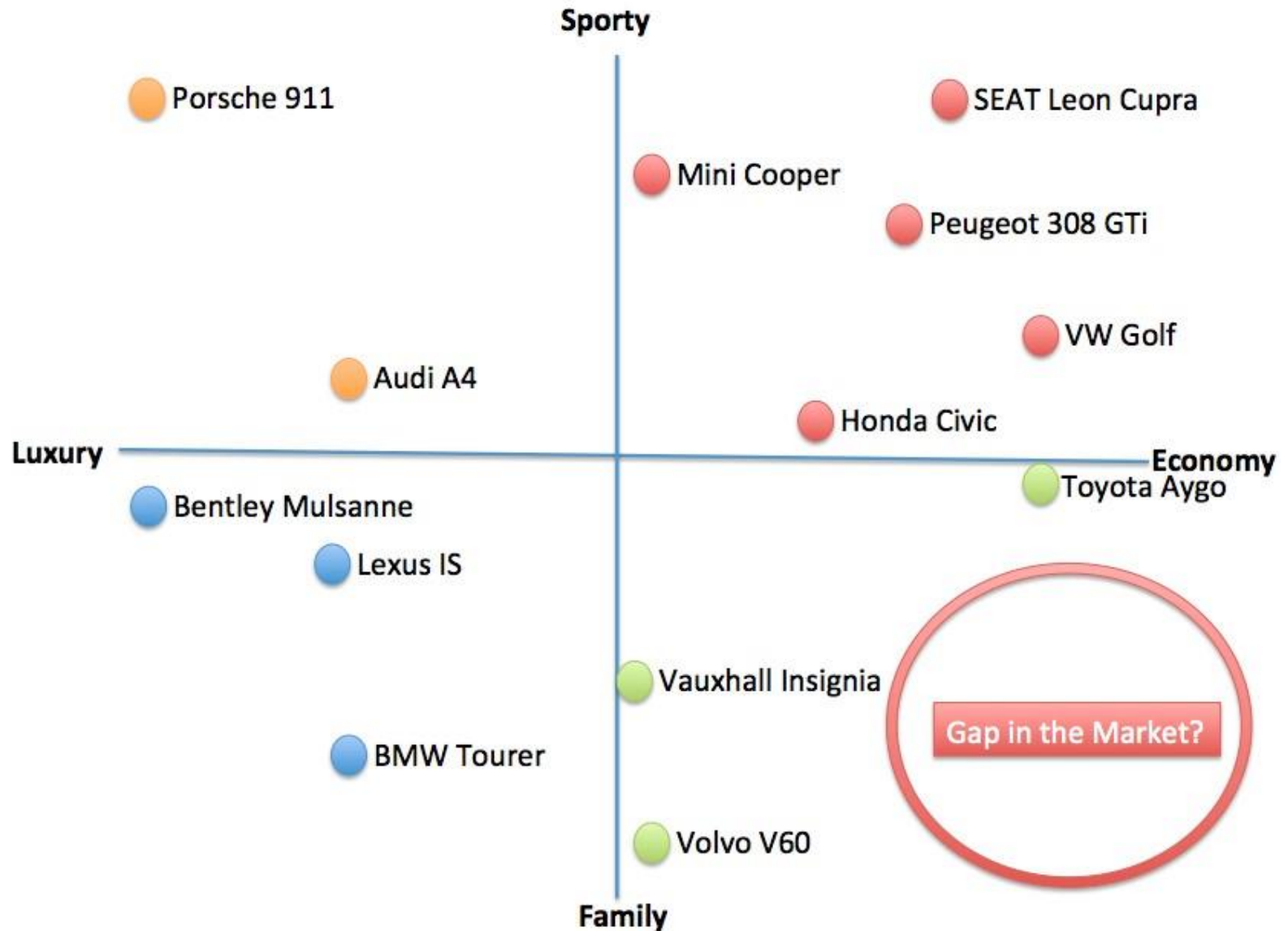# Company Objectives and Resources
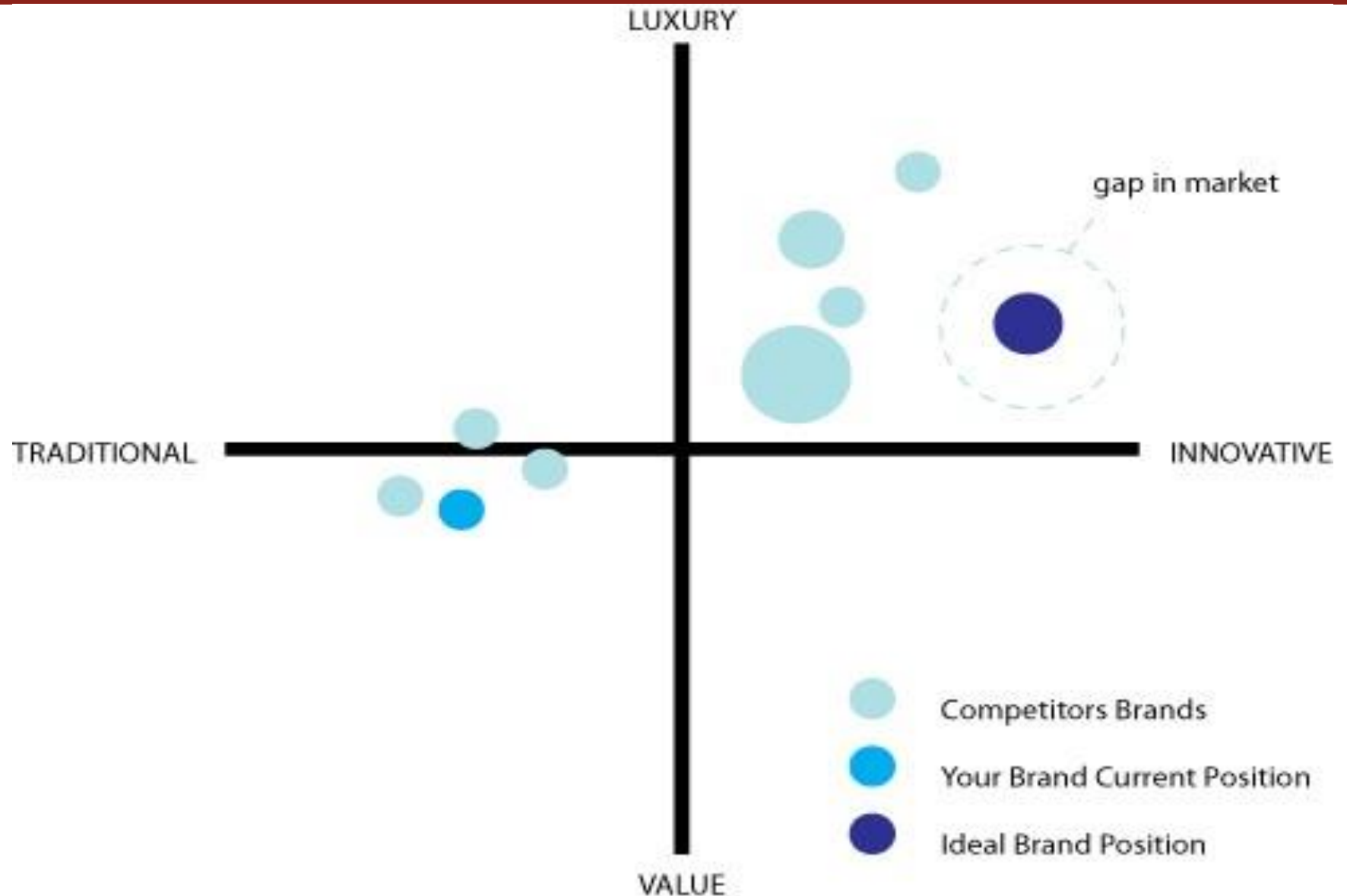
★ Do we have the resources necessary to enter this market segment?

★ Do we have prior experience with this or similar market segments?

★ Do we have the skills and know-how to enter this segment successfully?

An example from the car industry

LUXURY

TRADITIONAL — INNOVATIVE

VALUE

gap in market

Competitors Brands

Your Brand Current Position

Ideal Brand Position

Main Strategic Approaches to Segmentation

Number of segments	Segmentation strategy	
Zero	Undifferentiated strategy	**Mass marketing**: no segmentation
One	Focus strategy	**Niche marketing**: focus on a small, tightly defined target market (e.g. organic)
Two or more	Differentiated strategy	**Multiple niches**: focus efforts on two or more tightly defined targets
Thousands	Hypersegmentation strategy	**One-to-one marketing**: customize the offer for each individual customers

Please discuss the level of market segmentation of Cadbury

MARKET SEGMENTATION

Demographic

Age & Life Cycle	Gender	Income
• Buyers come under the age group from 2 to 50	• Cadbury is meant for male as well as female	• It is very reasonable and affordable

Factors Affecting Segmentation Stratey

★ Company resources

★ Product variability

★ Product life cycle

★ Market characteristics

★ Competitors' strategies

Segmentation → Targeting → Positioning

Marketing Program or Marketing Mix (4Ps⁺)

PLACE
- Retail
- Wholesale
- Mail order
- Internet
- Direct Sales
- Peer to Peer
- Multi-Channel

PRODUCT
- Design
- Technology
- Usefulness
- Convenience
- Value
- Quality
- Packaging
- Branding
- Accessories
- Warranties

PRICE
Strategies:
Skimming
Penetration
Psychological
Cost-Plus
Loss leader, etc.

TARGET MARKET

Physical Environment
- Smart
- Run-down
- Interface
- Comfort
- Facilities

PROMOTION
- Special Offers
- Advertising
- Endorsements
- User trials
- Direct mailing
- Leaflets/posters
- Free gifts
- Competitions
- Joint ventures

Process
- Especially relevant to service industries
- How are services consumed?

People
- Employees
- Management
- Culture
- Customer Service

Prototype Development`

➢ **Defining the model**

```
# Define K-means model
kmeans_model = KMeans(init='k-means++', max_iter=400, random_state=42)
```

- **Training the model**

```
# Train the model
kmeans_model.fit(customersdata[['Age','Annual Income (k$)','Spending Score (1-100)']])
```

- **Creating the K-means model**

```
# Create the K means model for different values of K
def try_different_clusters(K, data):

    cluster_values = list(range(1, K+1))
    inertias=[]

    for c in cluster_values:
        model = KMeans(n_clusters = c,init='k-means++',max_iter=400,random_state=42)
        model.fit(data)
        inertias.append(model.inertia_)

    return inertias
```

- ## Finding optimal number of clusters

    we use **elbow method** for finding the optimal number of clusters

```
# Finding optimal number of clusters k
figure = go.Figure()
figure.add_trace(go.Scatter(x=distances["clusters"], y=distances["sum of squared distances"]))

figure.update_layout(xaxis = dict(tick0 = 1,dtick = 1,tickmode = 'linear'),
                xaxis_title="Number of clusters",
                yaxis_title="Sum of squared distances",
                title_text="Finding optimal number of clusters using elbow method")
figure.show()
```


Finding optimal number of clusters using elbow method
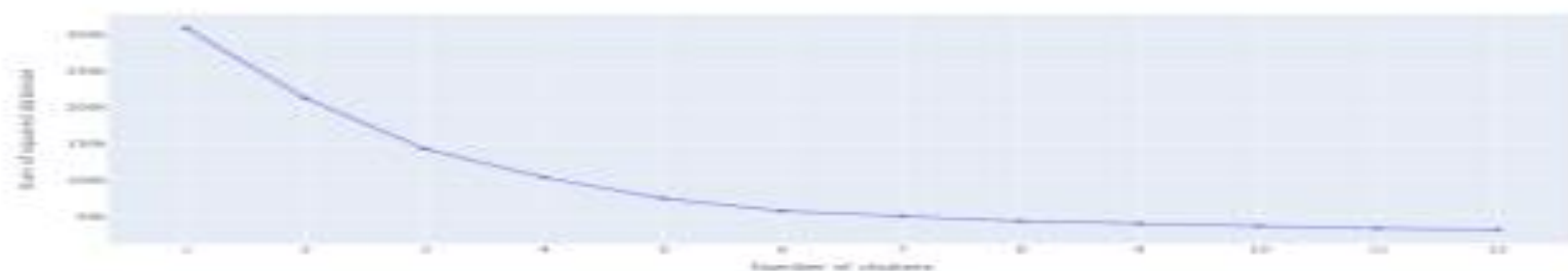
- **Re-Training the model with 5 clusters**

```
[10] # Re-Train K means model with k=5
     kmeans_model_new = KMeans(n_clusters = 5,init='k-means++',max_iter=400,random_state=42)

     kmeans_model_new.fit_predict(customersdata[['Age','Annual Income (k$)','Spending Score (1-100)']])

/usr/local/lib/python3.10/dist-packages/sklearn/cluster/_kmeans.py:870: FutureWarning:

The default value of `n_init` will change from 10 to 'auto' in 1.4. Set the value of `n_init` explicitly to suppress the warning

array([0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4,
       0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 4, 0, 3,
       0, 4, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,
       3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,
       3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,
       3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 1, 3, 1, 3, 1, 2, 1, 2,
       1, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1,
       2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1,
       2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1,
       1, 1], dtype=int32)
```
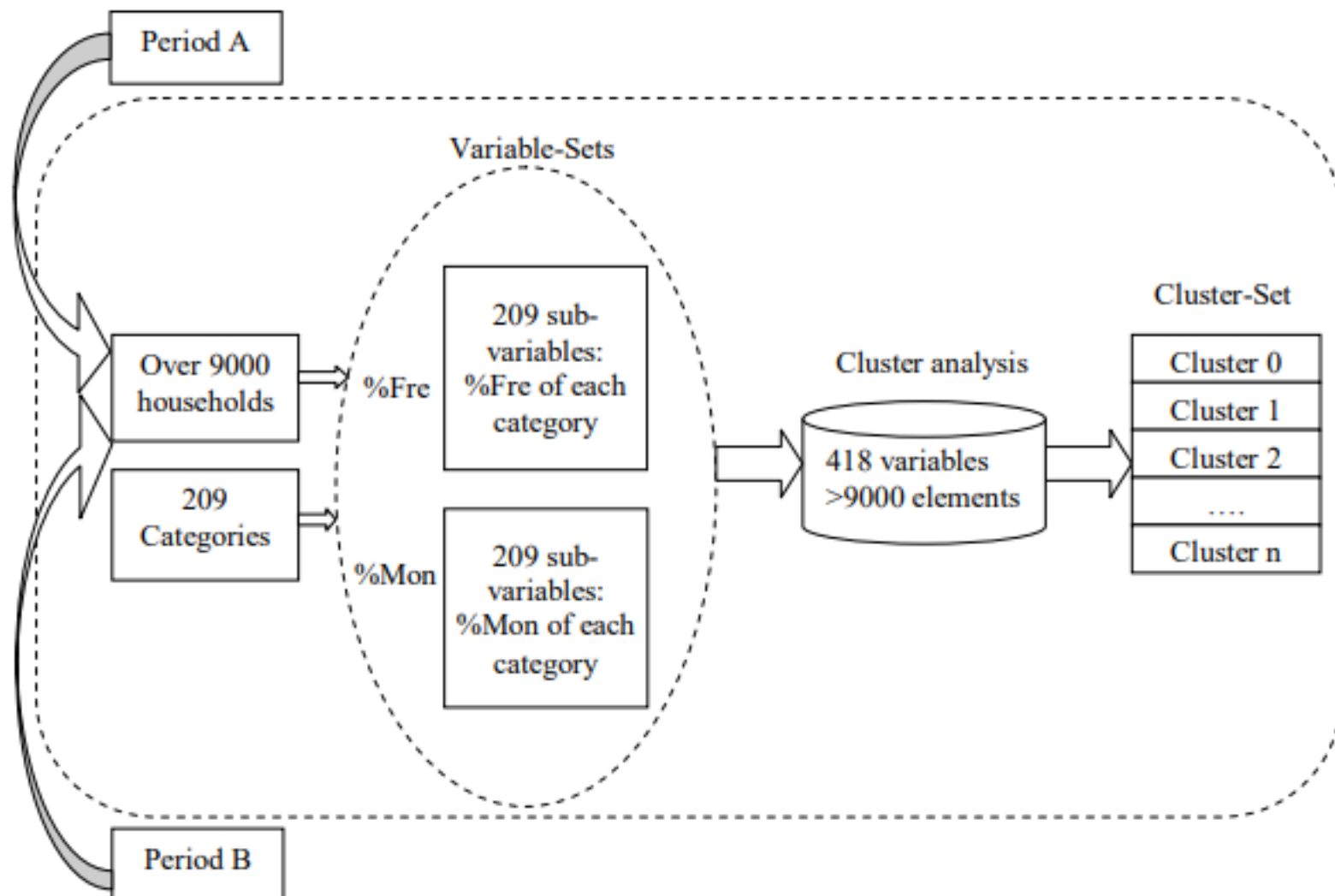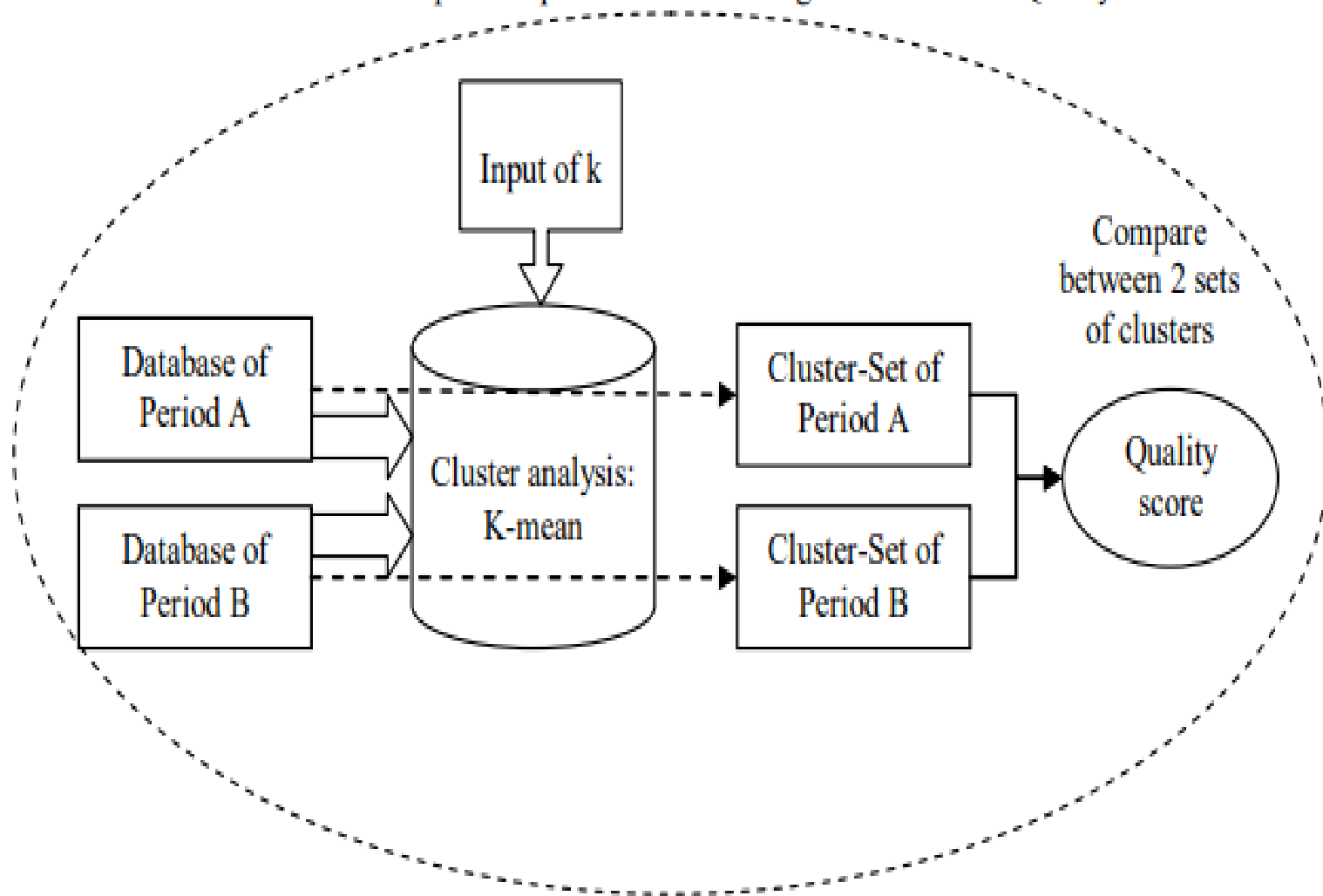
- **Visualizing the clusters**

```
# visualize clusters
figure = px.scatter_3d(customersdata,
                       color='clusters',
                       x="Age",
                       y="Annual Income (k$)",
                       z="Spending Score (1-100)",
                       # category_orders = {"clusters": ["0", "1", "2", "3", "4"]}
                       )
figure.update_layout()
figure.show()
```
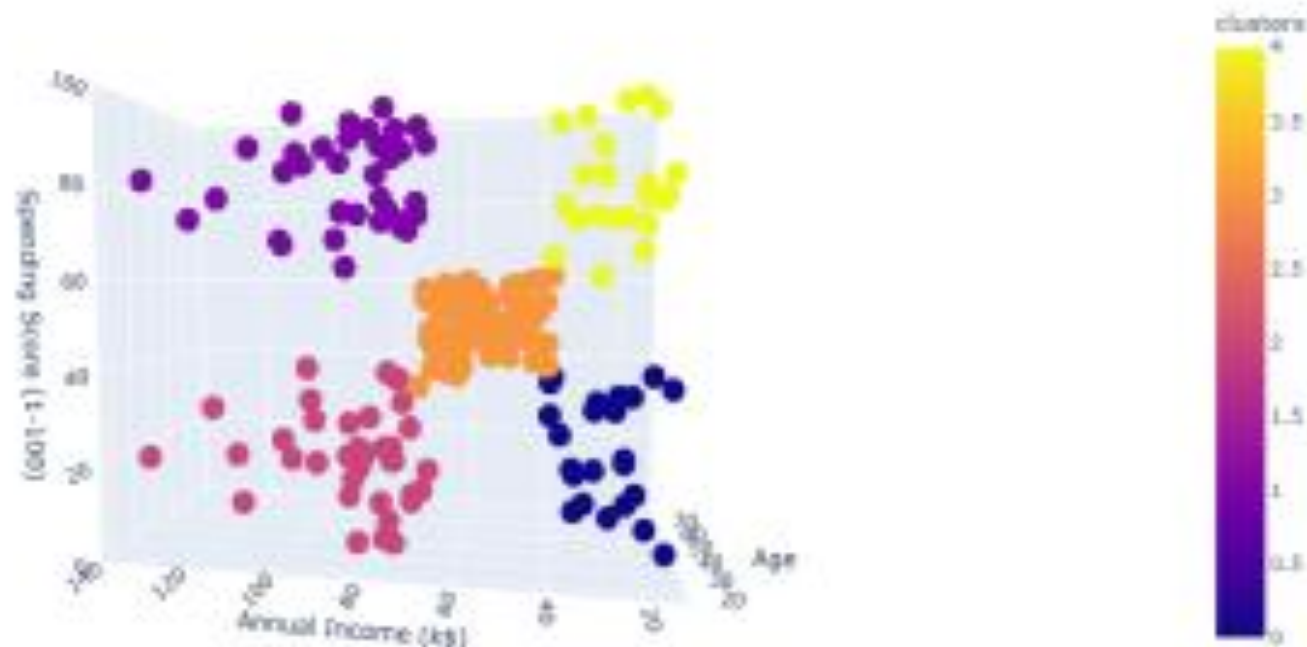
- **From the above visualization we can see that Mall Customers is broadly divided into 5 Groups.**
    1) **Clusters 1- Purple**
    2) **Clusters 2- Pink**
    3) **Clusters 3- Orange**
    4) **Clusters 4- Yellow**
    5) **Clusters 5- Blue**

Period A

Period B

Variable-Sets

Over 9000 households

209 Categories

%Fre

%Mon

209 sub-variables: %Fre of each category

209 sub-variables: %Mon of each category

Cluster analysis

418 variables >9000 elements

Cluster-Set

Cluster 0

Cluster 1

Cluster 2

....

Cluster n

Increase k = k+1 and repeat the process until reaching local maximum Quality score

Input of k

Database of
Period A

Database of
Period B

Cluster analysis:
K-mean

Compare
between 2 sets
of clusters

Cluster-Set of
Period A

Cluster-Set of
Period B

Quality
score

Financial Modelling (equation) with Machine Learning & Data Analysis

$$y = mx + c$$

The general equation of any straight line is:
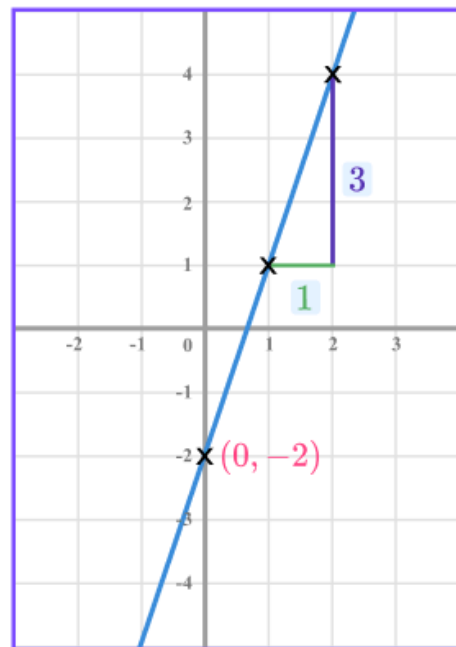
$$y = mx + c$$

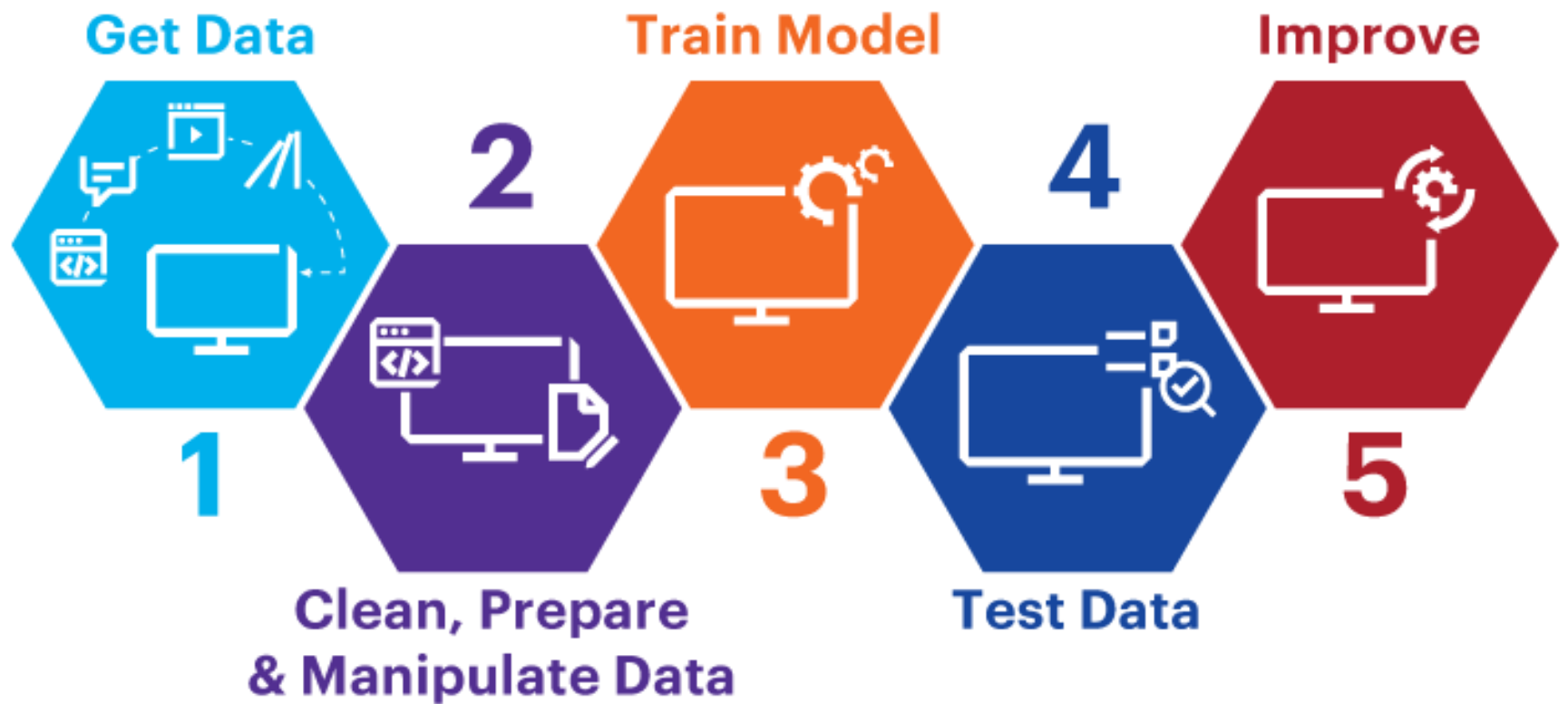m is the **gradient** (steepness) of the line

c is the y-**intercept** (where the line crosses the y-axis)

🖊 Example The graph of the line $y = 3x - 2$

The gradient is 3

The y-intercept is -2, the coordinate $(0, -2)$

Get Data

2

Train Model

4

Improve

1

3

5

Clean, Prepare & Manipulate Data

Test Data

1.Financial modeling is the process of creating a representation of a company's financial situation and performance

2.Through the use of mathematical and statistical models.

3.These models are typically built in spreadsheet software like Microsoft Excel and are used to make informed financial decisions and projections.