

Indian Institute of Technology, Madras

Business Data Management

Inventory Management & Pareto Analysis for a Retail
Liquor Store

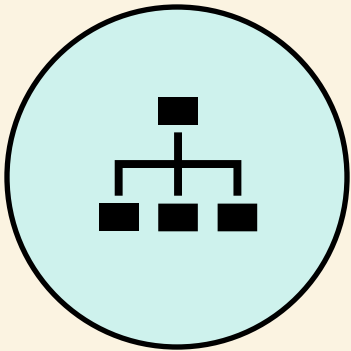
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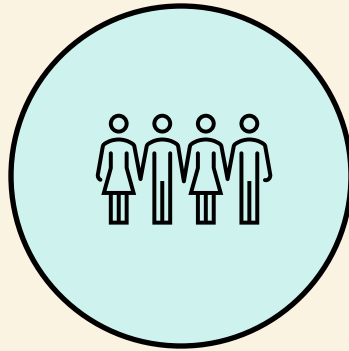
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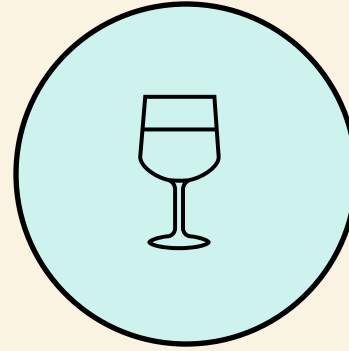
ABOUT THE COMPANY



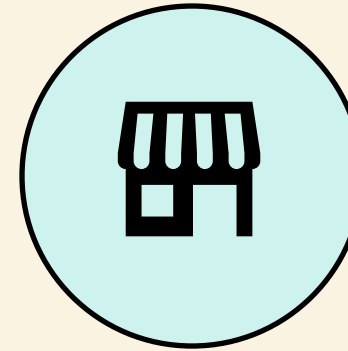
Legacy Liquor is a small retail liquor store chain



Type of Business: B2C



Specializes in vintage wines, premium spirits and a sea of handmade beers



Owens a total of 4 stores across town



Situated in Calgary, AB Canada

Problems

Inventory Management

To identify and distinguish the dead stock among traffic builders

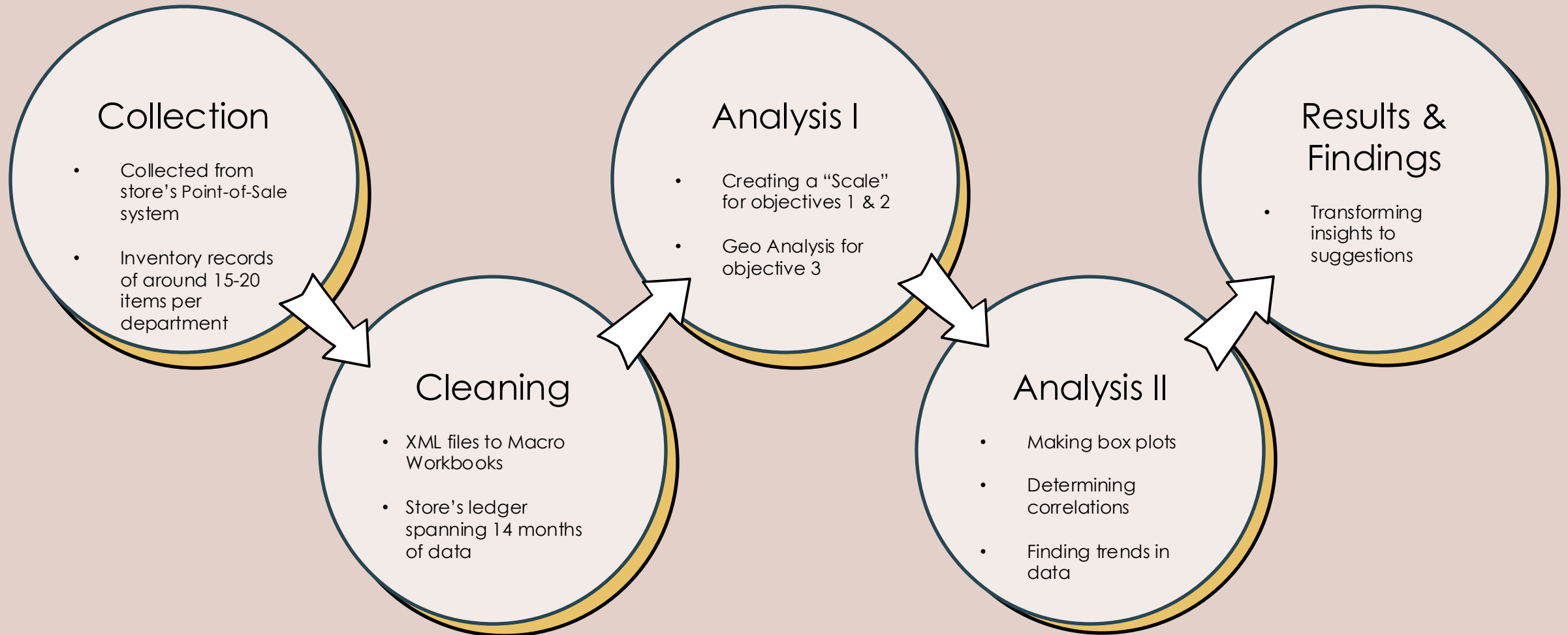
Pareto Analysis

To identify Top performing SKUs, to prevent their Stock-outs

Daily Sales

To determine the cause of plummeting daily sales

Data Journey



Assigning “Score(s)”

- Finding the item's probability of being sold

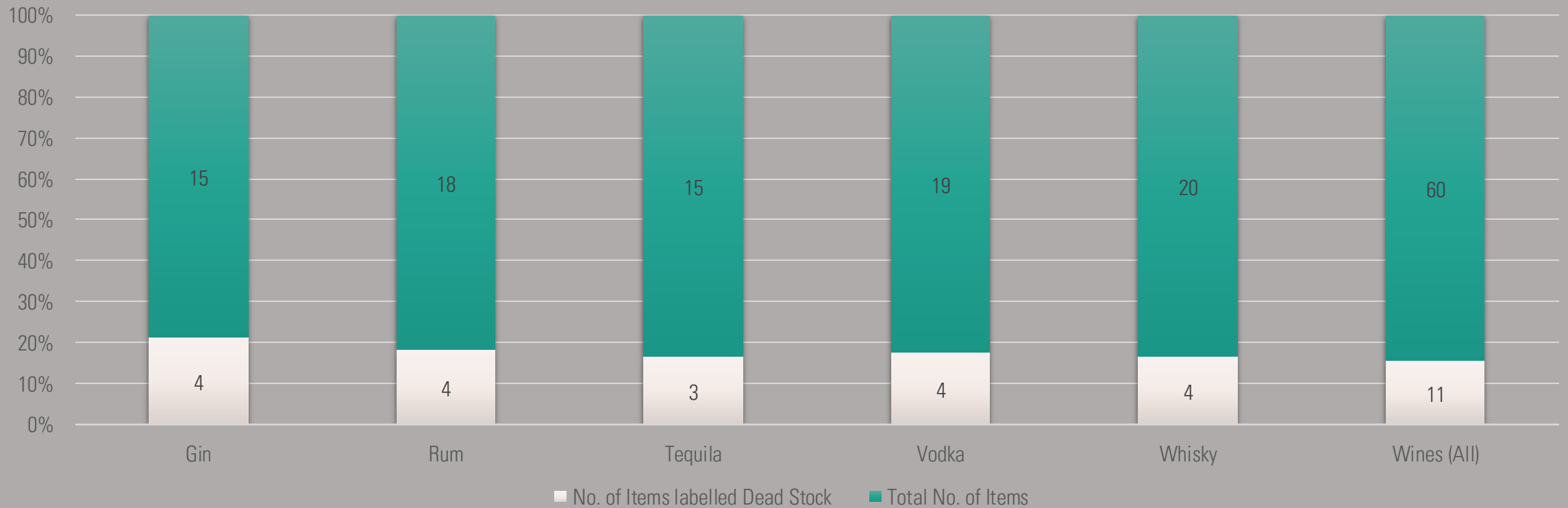
$$Probability = \frac{\text{Item's total quantity sold}}{\text{Max of quantity sold in the department}} \times 100$$

- Scoring it based on its Popularity & Probability

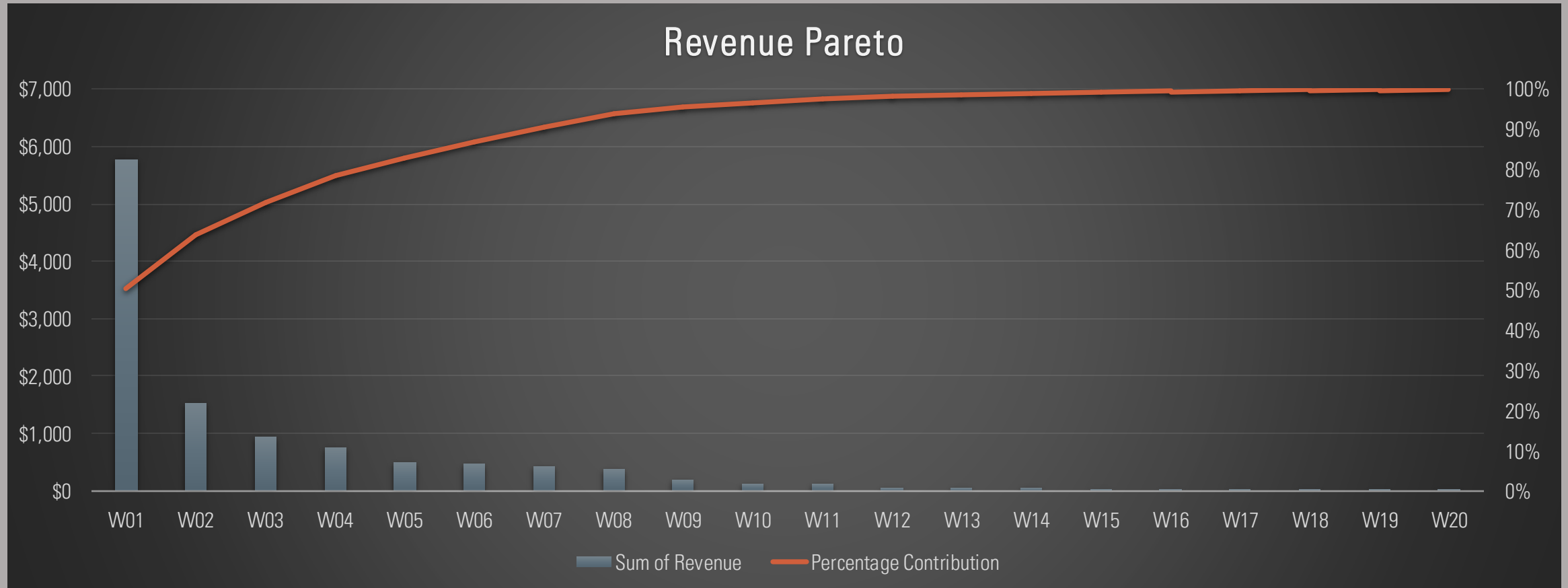
$$Score = \frac{Probability + Popularity}{2}$$

Dead Stock VS Traffic Builders

% of Items labelled Dead Stock by Category



Fast Movers (Whiskeys – 1 of 6)



Closeness to Competitors

- 7 Competitors within circle of radius 1 KM
- With addition of a new entrant in December 2022



Recommendations

Popularity Tracking

- 1/5th Items labelled Dead Stock
- Managers should be aware of an item's popularity
- Various resources on web

Customer Request Form

- To maximize sales probability
- Extended control to customers

Lookout for Top Sellers

- To always keep an eye on fast movers
- Buy in bulk, during limited time offers
- Prevent Stockouts

Destination Merchandise

- Broaden the customer base
- Include competitors' products
- Include additional items

THANK YOU

Open to Questions !

Harmanpreet Singh

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