Smarter SKU Stratification

Student: Jiaxin Jiang, SCM 2017
Student: Drew Steverson, SCM 2017
Advisor: Eva Ponce
Sponsor: Consumer packaged goods (CPG) Company
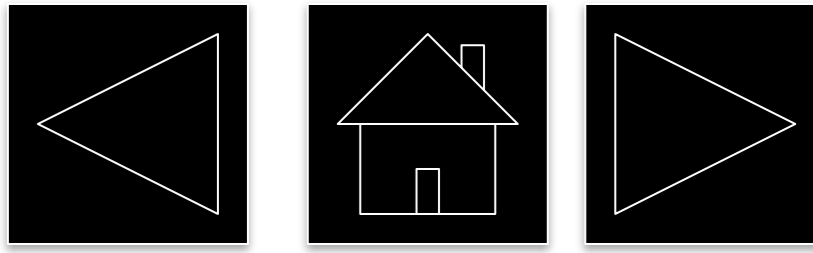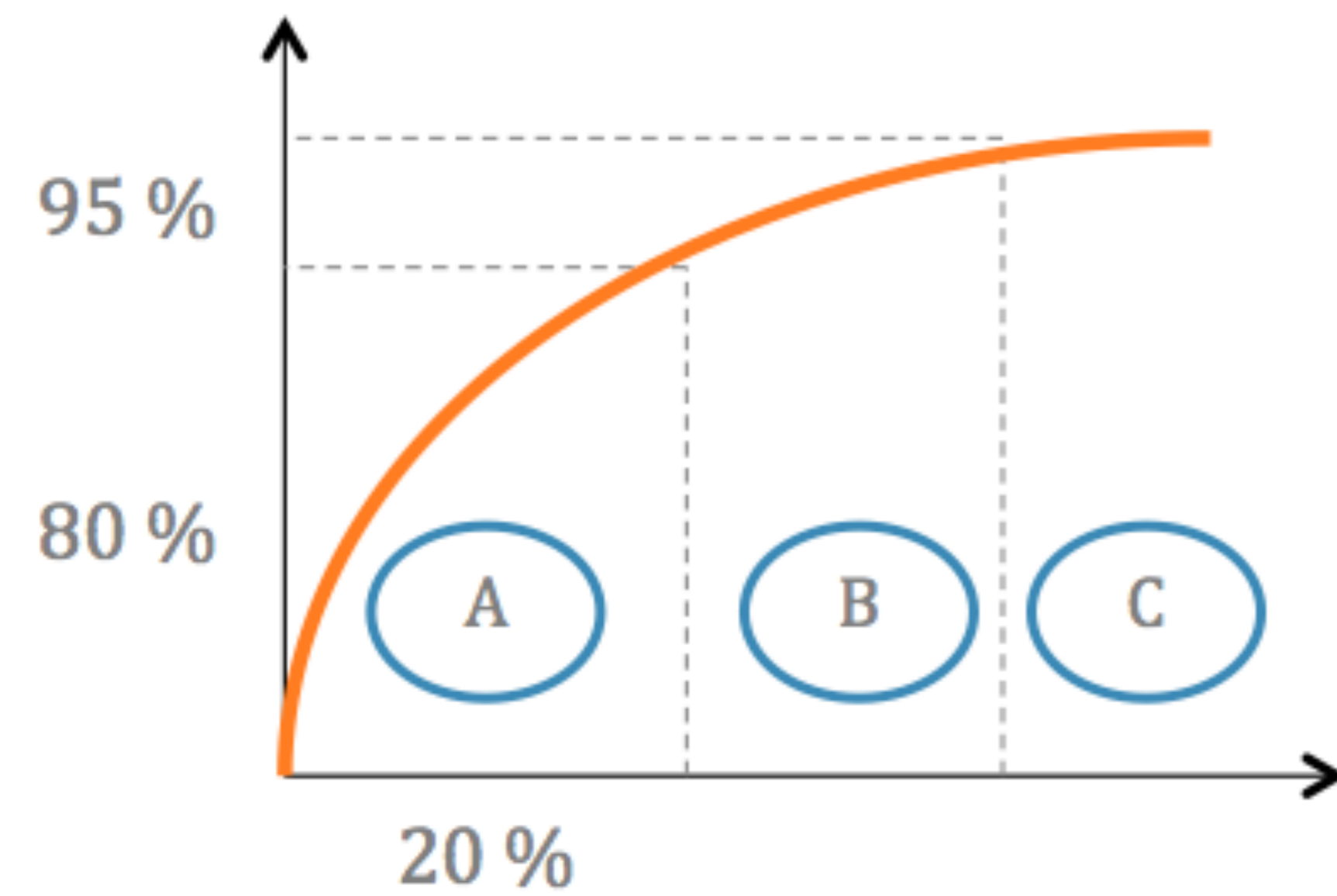
Motivation / Background

80/20 Rule

Current SKU stratification:
- Simple single factor method
- Ignores important factors
  - ✓ Volatility
  - ✓ Profit margin

Key Question / Hypothesis

- ❖ Can a better method be developed using multiple factors?
- ❖ Research: simple single factor => complex neural network
- ❖ A method of medium complexity, allowing subjective input from company experts will provide the most value.
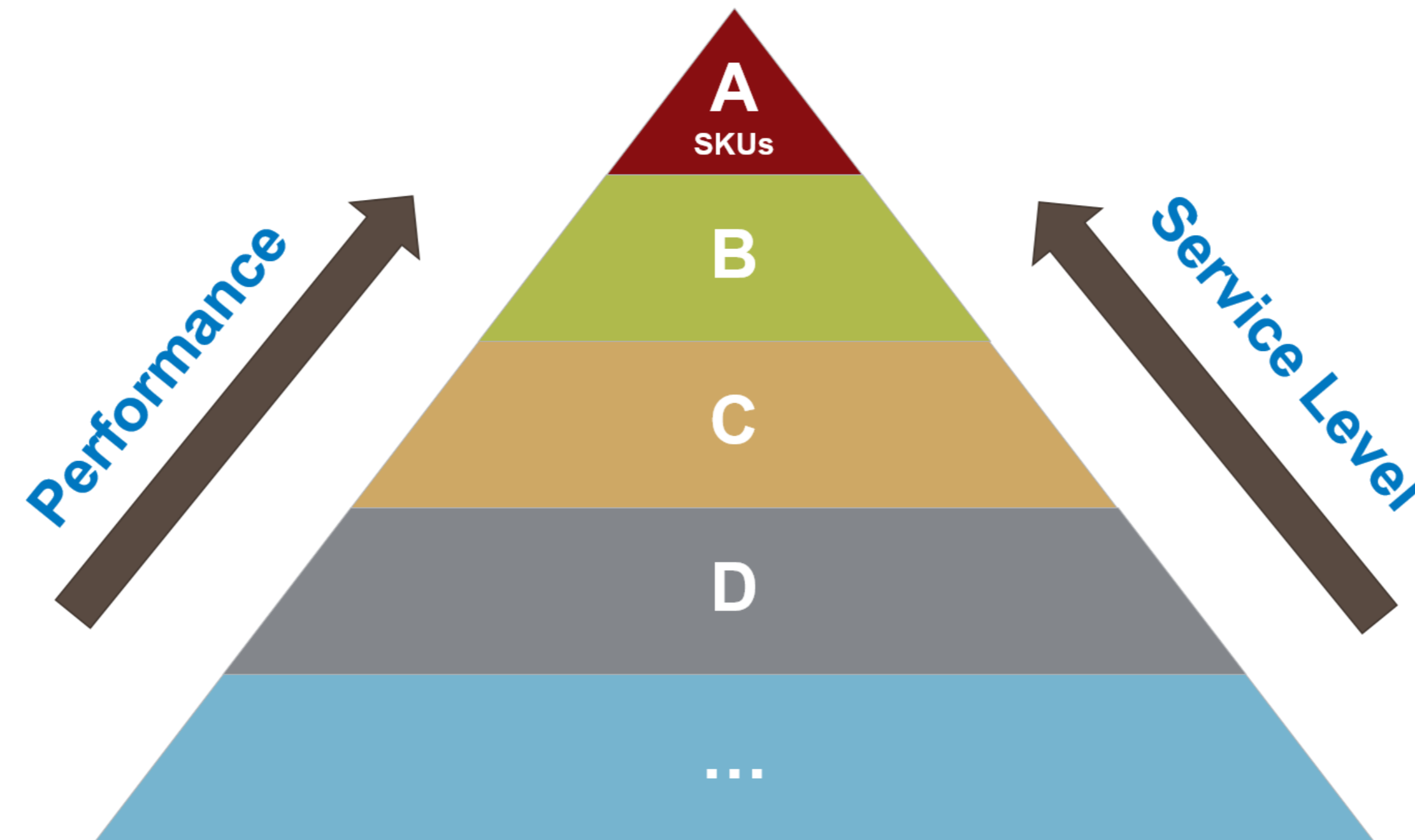

The Problem

Identify an ABC analysis methodology that balances the effort required with the results gained. A method that is too simple leaves much opportunity; too complex and the effort required diminishes the results gained.

Methodology
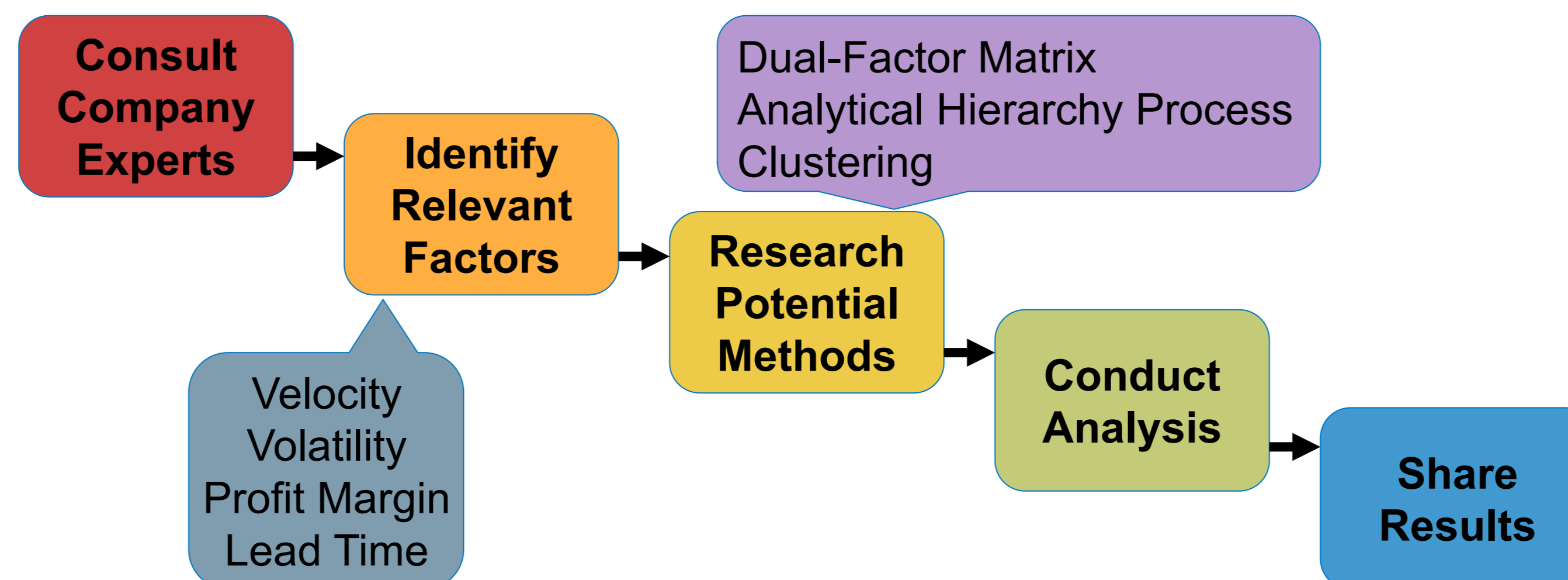
Initial Results

- Single-Factor analysis on each of the factors separately results in very different classification. Thus, more comprehensive method is necessary.
- Dual-Factor Matrix analysis indicates that the number and boundaries of these classifications are critical components.

Single Factor ABC Analysis
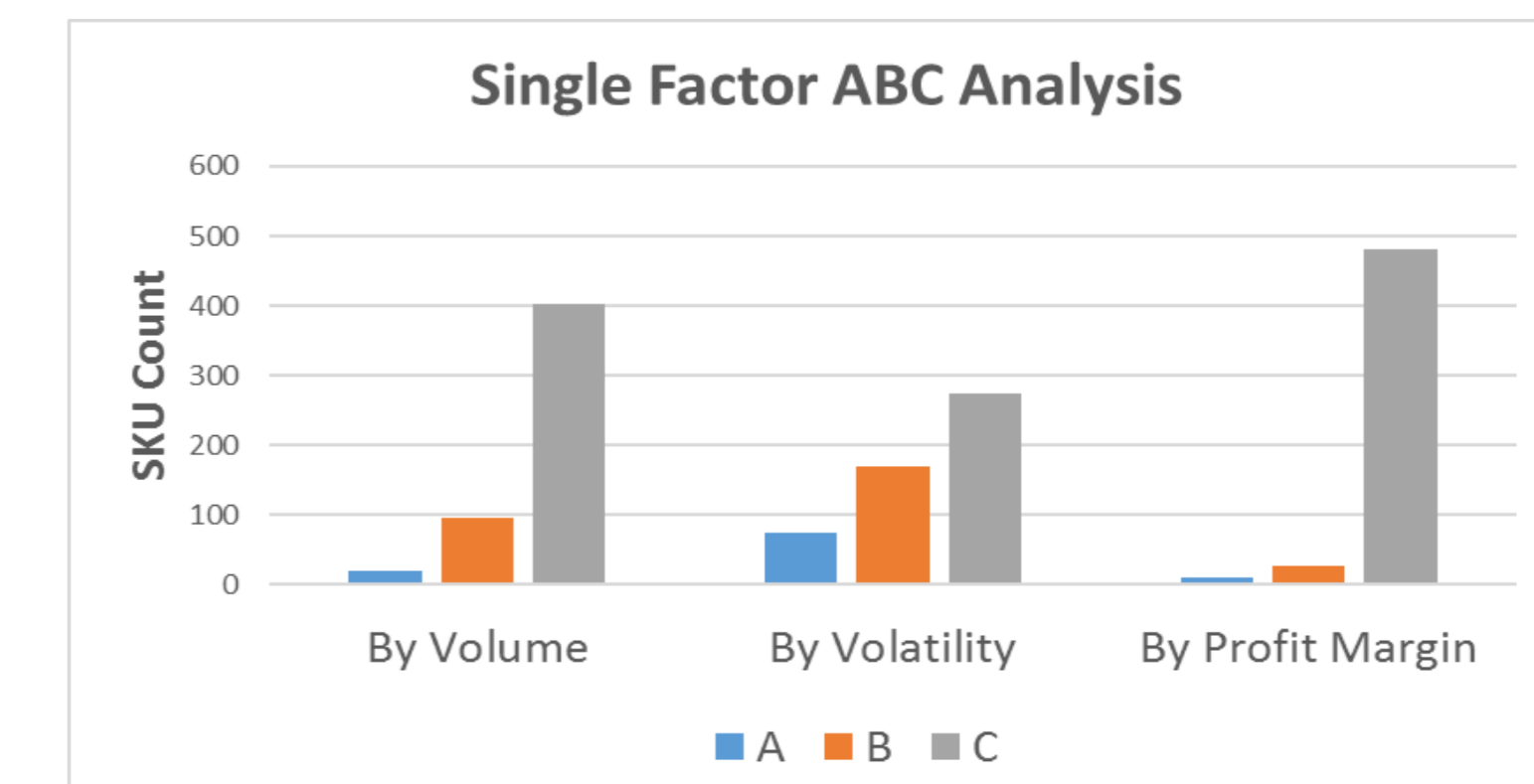
Expected Contribution

- Identify relevant criteria for inventory stratification
- Develop methodologies to better understand and manage inventory in the CPG industry
- Propose a model that will identify stratifications based on multiple criteria
- Display how academic classification techniques can be applied to practical inventory management

Jiaxin Jiang   Drew Steverson