# **Problem Statement Worksheet (Hypothesis Formation)**

In order to develop a consumer specialized market strategy, our client needs their consumer data of the last year segmented into tiered groups of the best consumers, average consumers, and weakest consumers. This must also allow for future consumers to be added into the data and segmented into proper tiers.



### 1 Context

Our client is a UK-based retailer that primarily sells unique all-occasion gifts. Many customers of the retailer are wholesalers. Our client has provided the previous year's (01/12/2010 - 09/12/2011) transaction history of its customers. The client wants a model which identifies customers based on recency, frequency and monetary value for targeted marketing strategies such as reward programs, VIP memberships, and mailing lists. All of this will allow our client to focus on customer retention across the entire customer base.

### 2 Criteria for success

The model most properly categorize:

- the Recency of customers (time between purchases)
- the Frequency of a customer's purchase history
- the Monetary value of a customer (how much they spend)
- and accurately categorize future customers.

## 3 Scope of solution space

Focus will be on the past year's transactional history for all customers provided by the client. After identifying key features of the data, a model can be developed based on the key features that properly categorizes the customers.

### 4 Constraints within solution space

- Customers that have no ID (likely customers that purchased as a guest) will need to be dropped as they cannot be consistently measured
- Customers that are other large retail companies will likely be outliers
- The model will be based on the recent trends and cannot accurately measure developing trends for the next year (think fidget spinners and pop culture).

### 5 Stakeholders to provide key insight

Our largest stakeholders are our client's:

- CEO
- Head of Marketing
- Marketing Strategist
- PR department
- Highest RFM consumers

## 6 Key data sources

The past years transaction data provided in the csv file labeled "data.csv."