**Sampling Techniques Project**

**Problem Statement**

What percentage of Kenyans are avid readers?

1. **Sampling Strategy**

**Objectives and Reliability Requirements**

The objective is determining if we have bookworms in Kenya and if so what are the most popular books being bought and read.

**Target Population**

Target population are the customers who visit different Prestige bookstore and different Half Priced bookstore in Nairobi.

**Sampling Methods**

The sampling method to be used will be stratified sampling. This is a sampling technique where the population is divided into smaller distinct groups that do not overlap but represent the entire population together. While sampling, these groups can be organized and then draw a sample from each group separately.

The customer data will be gathered in groups divided by different bookstores. These bookstores will form our strata groups. From there, one bookstore will be chosen at random from the different locations.

**Sample Size**

The number of samples will be equal to the total number of bookstores. These bookstores are the segmentations done by the business to divide the location for easier divisions and reporting. The parameter of interest is what type of book that was purchased. Other observations we expect from the data are age, repeat visit, depending on the customer data. The variance expected will be based on the amount of data.

**Sampling Frame**

The sampling frame is each of the bookstore segmented by the business needs for reporting.

**2. Data**

**Field Measurements**

The variables will be:

1. Book purchased
2. Customer mobile number
3. Date
4. Repeat visit
5. Method of payment
6. Store visited e.g., Mama Ngina St., Lavington Mall and Village Market

**Analysis**

The data collected will be used to discover the book preferences of most customers. From this analysis, the chain management will be able to discover which books to market more to customers and what the customers like.

**3. Implementation**

**Implementation Plan**

The data will be shared from the various bookstore databases through the database management teams of the various chains. The management will share the data without compromising the client privacy.

Machine learning experts will do data collection and analysis. The data availed will undergo cleaning and filtering in order to work with data that provides useful sentiments.