Class test

Class-MCA Retail Analytics 2022-23

V trim

MM:30

Case1:

In this modern, multidimensional, and Omni channel environment, consumers are barraged with information about goods and services. Retailers who can connect with their customers by providing targeted information and offer value to customers will stand apart and have the potential to create deep customer engagement. Retailers not only provide manufacturers with a distribution system that reaches the end-customer more efficiently but also provide much necessary and important customer support on the manufacturers’ behalf (Webster, 2000). In this context, the brand can be regarded as a ‘resource tie’ that links manufacturers and retailers together in order to serve the end customer (Ford, 1998). Thus undeniably, many manufacturers’ marketing strategies require the full cooperation of the retailers for their successful implementation. Retailers are considered to be one of the most significant partners in a manufacturing organization’s supply chain who are responsible in delivering the products to the end consumers. Simpson et al. (2001) too highlighted the importance of increased collaboration between manufacturers and retailers. In business-to-business (B2B) settings, the relationship between the organizations involved in the transaction is one of the most critical elements contributing to their success. Generally, in most of the business context, a retailer deals with many brands from many manufacturers and these manufacturers also supply to a retailer’s competitors. Thus, in order to get the full support of the retailer to place the product for the customer, the manufacturer must take efforts to keep the retailers satisfied. This study was done to investigate the satisfaction level of retailers on the following parameters.

**Questionnaire:**

Please share your perception on five point Likert scale. 1 being strongly dissatisfied and 5 strongly satisfied.

1. Brand image of the supplier
2. Availability of product
3. Price to the retailer
4. Timely delivery of products
5. Increased Credit period
6. Satisfaction level

7. What is the average revenue (yearly) of your retail store

1. < 50 lacs
2. 51 lacs to 75 lacs
3. > 75 lacs

**Based on the above case study solve the following questions**

**Question1.**

1. Identify dependent and independent variables of the study.
2. Identify the impact of Brand image of the supplier, Availability of the product, price to the retailer, timely delivery of products, increased credit period on satisfaction level.
3. Identify the insignificant variables
4. Is this model significant
5. Frame the regression model and interpret.

Question 2

1. Identify the impact of Brand image of the supplier, Availability of the product, price to the retailer, timely delivery of products, increased credit period, Average revenue on satisfaction level.
2. Identify the insignificant variables
3. Is this model significant
4. Frame the regression model and interpret.

Question3

Compare the results generated in Q1and Q2

Question 4.

One Retail store has conducted one project. The project was about predicting whether a customer will change telecommunications provider, something known as "churning".

The training dataset contains 4250 samples. Each sample contains5 features and 1 Boolean variable "churn" which indicates the class of the sample. The 5 input features and 1 target variables are:

* **state**, *string*. 2-letter code of the US state of customer residence
* **international\_plan**, *(yes/no)*. The customer has international plan.
* **voice\_mail\_plan**, *(yes/no)*. The customer has voice mail plan.
* **number\_vmail\_messages**, *numerical*. Number of voice-mail messages.
* **total\_day\_minutes**, *numerical*. Total minutes of day calls.
* **churn**, *(yes/no)*. Customer churn - target variable.

Predict the probability of customer churn.