Dear (Client),

The three data sheets containing customer and transactions data was analyzed and following observations were made:

1. Transaction sheet details

* There are missing values in online\_order, brand, product\_line, product\_class, product\_size, standard\_cost, product\_first\_sold\_date.
* Where ever details in brand column is missing few other column values are also missing which include product\_line, product\_class, product\_size, standard\_cost, product\_first\_sold\_date
* product\_id shows zero shows null values in brand, product\_line, product\_class, product\_size, standard\_cost, product\_first\_sold\_date
* product\_first\_sold\_date is not in date format, if its converted to date format ,there is no data after 6th Dec 2016

1. Customer demographic sheet details

* null values are found in DOB, job\_title, job\_industry\_category, default, tenure
* In gender female is designated in three different ways i.e. F, Female, Femal and male as Male, M and there is category U
* DOB of a person is 1843, which is skewed.
* Data of default can’t be read.

1. Customer address sheet details

* There is so no such error in this sheet.

One more significant observation made from the data is customer\_id in all the three sheets doesn’t contain the same numbers.

To mitigate the issues of missing values we can either drop the values or impute the values as its percentage is significantly small, for inconsistent values for the same attribute we can replace it with unique value and inconsistent data types can be converted to required data type to interpret the results properly.

Kindly go through the above observation and solutions and provide us necessary details if null values doesn’t have to be dropped or imputed. If the provided detail doesn’t give necessary information, please let us know.

Moving forward our team will be analyzing ,cleaning and visualize the data to ensure that all the assumptions are aligned with Sprocket Central’s understanding for optimizing the market strategy.

Regards

Sruthi E R