Date Visualization using TABLEAU

Project Report

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Project Objective

This project requires to prepare Data Visualizations Story of Car Insurance Key Insights and Findings based of Car Claim Insurance dataset provided.

Data Set Overview

Few of the details of Car Claim Insurance dataset provided for analysis is captured in the table below

Assumption	Car Owner and Driver are same Amounts are in Dollars ($)
ID	Identification Variable
KIDSDRIV	Number of teenagers among the car owner's children who can drive a car.
BIRTH	Date of birth of the driver
HOMEKIDS	No of children the car owner has
YOJ	Years on Job. How many years has the owner of the car been working?
INCOME	Income of the driver
PARENT1	Is the car owner a Single Parent
HOME_VAL	Value of the house owned by the car owner
MSTATUS	Marital status of the car owner
GENDER	Gender of the driver
EDUCATION	Maximum Education level of the driver
OCCUPATION	Occupation of the driver
TRAVTIME	Time taken to get to work on an average
CAR_USE	Purpose of using the car
BLUEBOOK	What is the worth of the car. Value of the Vehicle (in dollars)
CAR_TYPE	Car type
OLDCLAIM	Total claim (in past 5 years - in dollars)
CLM_FREQ	Number of claims (in past 5 years)
CLM_AMT	If car was in a crash, what is the currently claimed amount (in dollars)
CAR_AGE	Age of car
URBANICITY	Where the car is being driven primarily

Table 1: Data Dictionary

Executive Summary

- The Tableau dashboards are intended to analyse Car Insurance Claims in Details and to support further decision making in providing better customer Care.
- This project is an open-ended problem. We need to analyse different variables impacting high or low claim amount and claim frequency and build a story accordingly.
- It is assumed that the year in which the car owner applied for the car insurance policy is current year minus the number of total years given in the data set.
- Claim amount & claim frequency are dependent variables and other variables like gender, Mstatus, Homekids, Education, Occupation, Income, Parents, Car Age, YOJ, Urbancity, Birth etc are independent variables.
- We will try to analyse univariate and multivariate analysis to identify the relationship and impact of each variable on car insurance claim amount and claim frequency.

Data Visualisation – Step by Step Approach

Environment Set up and Data Import

- Tableau public was used for the analysis of the data set given
- The Data in the excel file was imported to the tableau environment by connecting the source file.

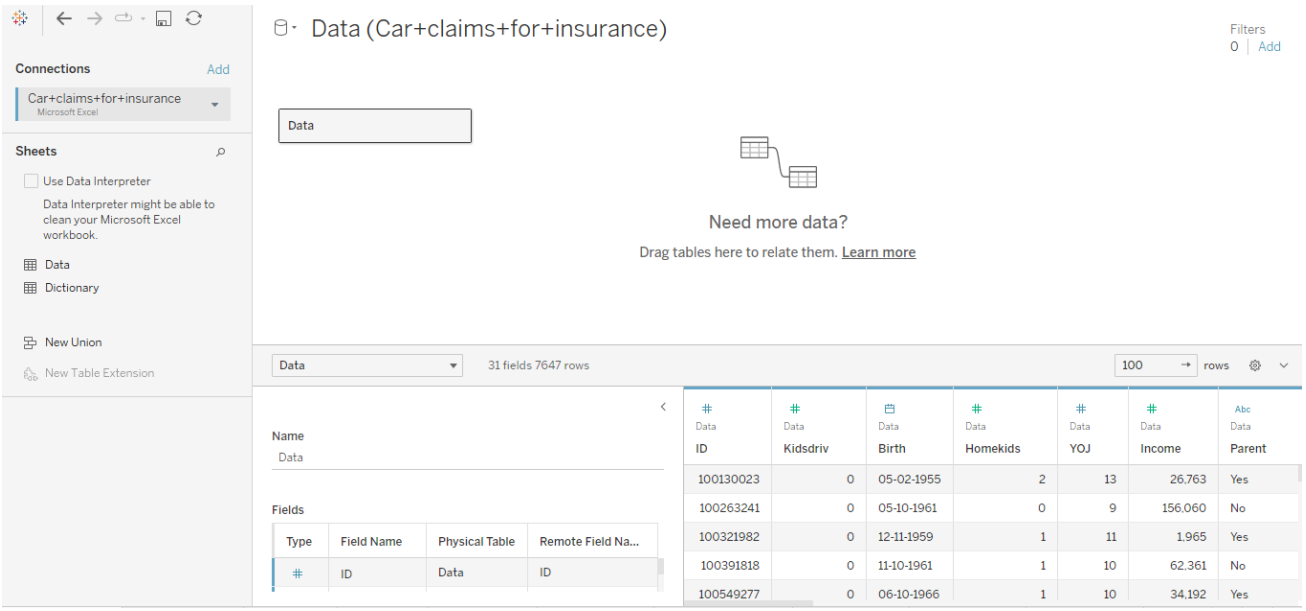

Figure 1: Environment Setup & Data Import

- The worksheet Car Insurance data is dragged and dropped in the sheet environment to analyse the data imported.

URL for the Assignment Submitted

https://public.tableau.com/app/profile/harikrishnan.m4921/viz/CarInsuranceProject_16944010261320/StoryBoard?publish=yes

Insight from the Data & Data Visualisation

CUSTOMER DEMOGRAPHICS:

1. Female customers outnumber male customers by a small margin.

2. A higher percentage of customers are married.

3. The majority of customers have a high school diploma, followed by those who have a bachelor's degree. The Ph.D. holders are the least educated.

4. The majority of customers are blue collar and clerical workers. Doctors have the fewest records. 5. The majority of customers are between the ages of 48 and 77.

6. SUVs are the most popular vehicle type, while panel trucks are the least.

7. Cars are generally utilized for personal purposes.

8. The vast majority of customers earn more than $100,000. There are also records of customers who have no income.

9. The majority of customers do not have parents. 10.The vast majority of customers do not own a home.

INSIGHTS

1. Given the significant proportion of non-home owners, we can deduce that these people are not city dwellers.

2. An increase in education level leads to a drop in claims.

3. A higher percentage of claims within the highest income band could be attributed to the pricey cars possessed by those clients.

4. The majority of claims are made by people over the age of 58, indicating an elevated risk in the years leading up to retirement.

5. SUV is a popular vehicle with a significant number of claims, raising its risk profile.

6. Because 10% of claims are made in the first year, first-time drivers have a high-risk profile.

7. Registering for insurance after the ninth-year results in a high frequency of claims.

8. High risk is indicated by increased claim frequency from the same customers.

9. Expensive automobiles, such as sports cars, will have excessive claims.