FLIP ROBO

Report on

Customer Retention

Submitted by:

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ACKNOWLEDGMENT

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Finally, from the very onset on my assignment I've extensively used online platforms like stackoverflow, w3school, kaggle and many others. I'm obligated to pay my gratitude to every personage involved in making content on these platforms.

INTRODUCTION

- Business Problem Framing

Customer satisfaction has emerged as one of the most important factors that guarantee the success of online store; it has been posited as a key stimulant of purchase, repurchase intentions and customer loyalty. A comprehensive review of the literature, theories and models have been carried out to propose the models for customer activation and customer retention. Five major factors that contributed to the success of an e-commerce store have been identified as: service quality, system quality, information quality, trust and net benefit. The research furthermore investigated the factors that influence the online customers repeat purchase intention. The combination of both utilitarian value and hedonistic values are needed to affect the repeat purchase intention (loyalty) positively. The data is collected from the Indian online shoppers. Results indicate the e-retail success factors, which are very much critical for customer satisfaction.

Analytical Problem Framing

- ## Mathematical/ Analytical Modeling of the Problem

  The dataset constitutes of 269 rows and 71 columns. Our goal is to effectively analyse the relationship between the features. The dataset is a combination of multiple datatypes like objects, int (integer) and float. No features in the dataset have NaN values present (Not a Number). Furthermore, visualization analysis helped understand the relationship between the features.

- ## Data Sources and their formats

  The dataset was assigned to me by "Flip Robo technologies" where I'm designated duties of an Intern. The dataset is of CSV (comma separated values) format.

- # Data Inputs- Logic- Output Relationships

Exploratory data analysis (EDA) is conducted across the dataset. The object here is to establish a relationship between the features. To achieve this I've made use of various visualization features.

- # Hardware and Software Requirements and Tools Used

Hardware necessary:
- RAM- 8GB or above
- Processor – Core i5 or above
- SSD- 250GB or above

Software necessary:

- Anaconda

Libraries:

- import pandas as pd: pandas is a popular Python-based data analysis toolkit which can be imported using import pandas as pd. It presents a diverse range of utilities, ranging from parsing multiple file formats to converting an entire data table into a numpy matrix array. This makes pandas a trusted ally in data science and machine learning.
- import numpy as np: NumPy is the fundamental package for scientific computing in Python. It is a Python library that provides a multidimensional array object, various derived objects (such as

masked arrays and matrices), and an assortment of routines for fast operations on arrays, including mathematical, logical, shape manipulation, sorting, selecting, I/O, discrete Fourier transforms, basic linear algebra, basic statistical operations, random simulation and much more.

- import seaborn as sns: Seaborn is a data visualization library built on top of matplotlib and closely integrated with pandas data structures in Python. Visualization is the central part of Seaborn which helps in exploration and understanding of data.

- Import matplotlib.pyplot as plt: matplotlib.pyplot is a collection of functions that make matplotlib work like MATLAB. Each pyplot function makes some change to a figure: e.g., creates a figure, creates a plotting area in a figure, plots some lines in a plotting area, decorates the plot with labels, etc.
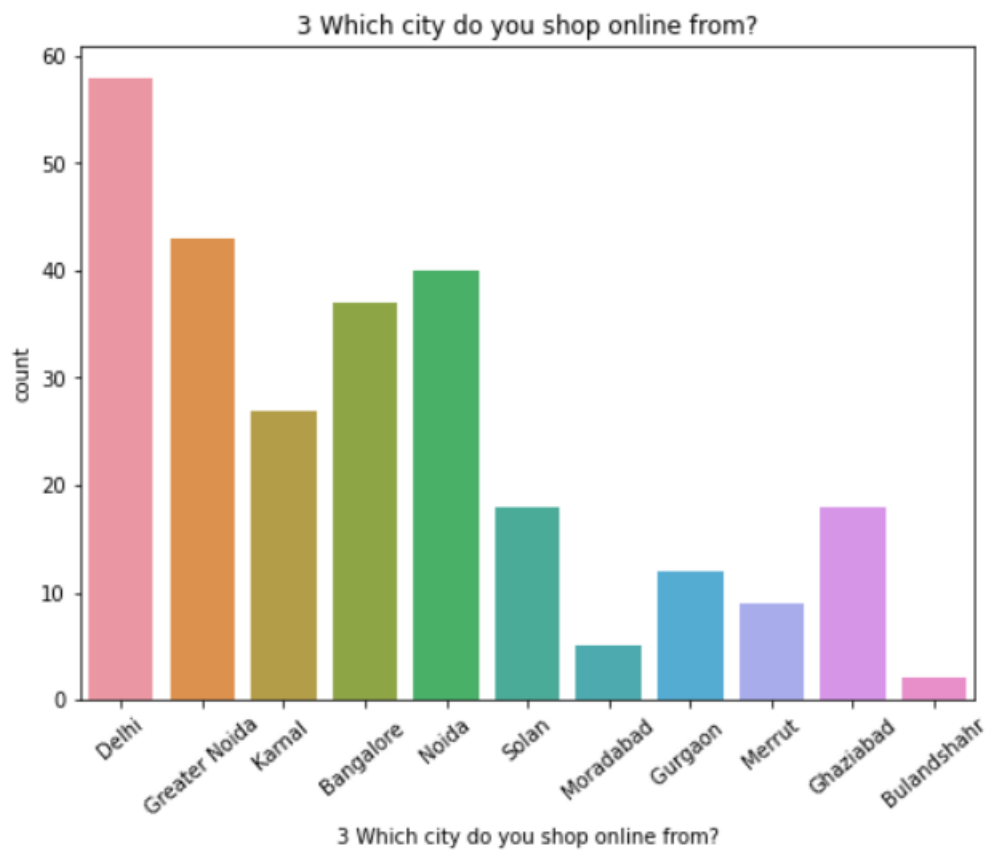
Visualization

Countplot of Gender of respondent
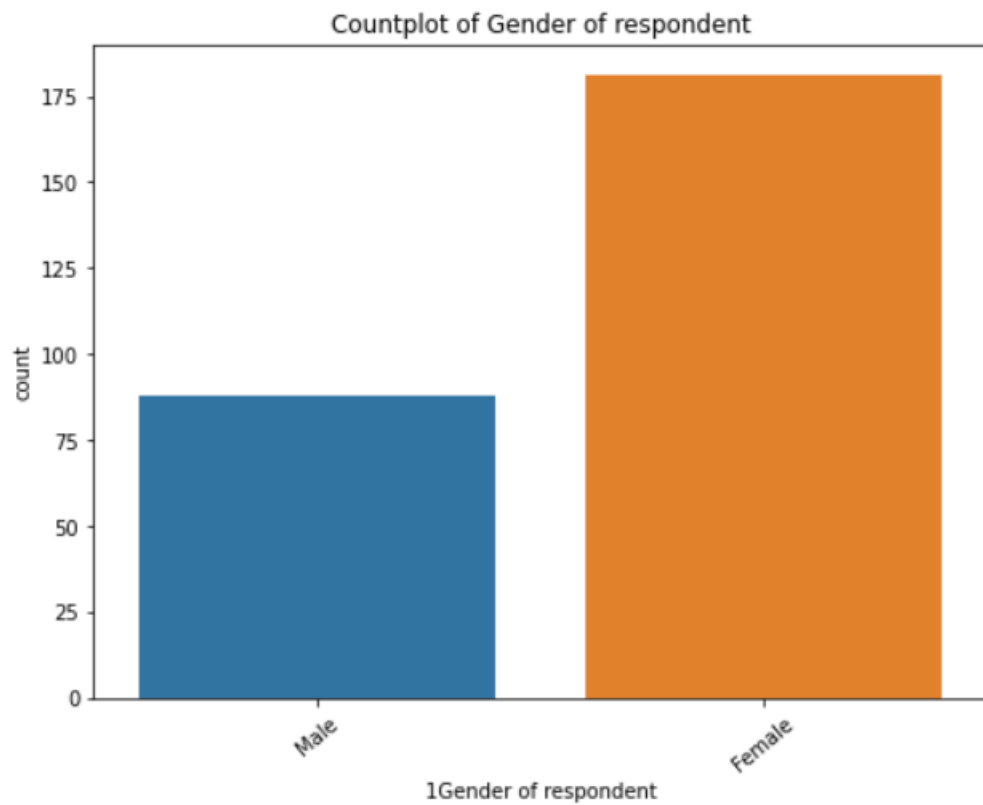
Observation:

Majority, 181 of the customers are Female whereas Male are 88.

Countplot of 2 How old are you?
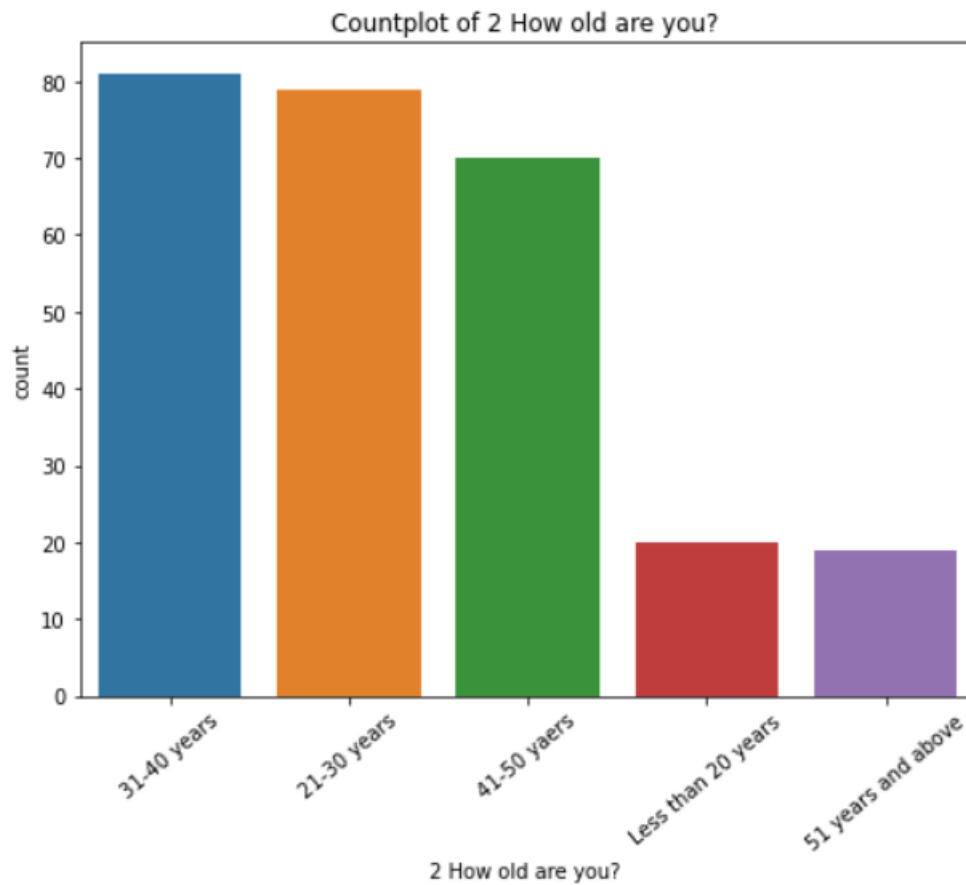
Observation:

Majority, 81 of the customers are from age group 31-40 years.

3 Which city do you shop online from?

Observation:

1. Majority, 58 of the customers placed the order from Delhi city

4 What is the Pin Code of where you shop online from?
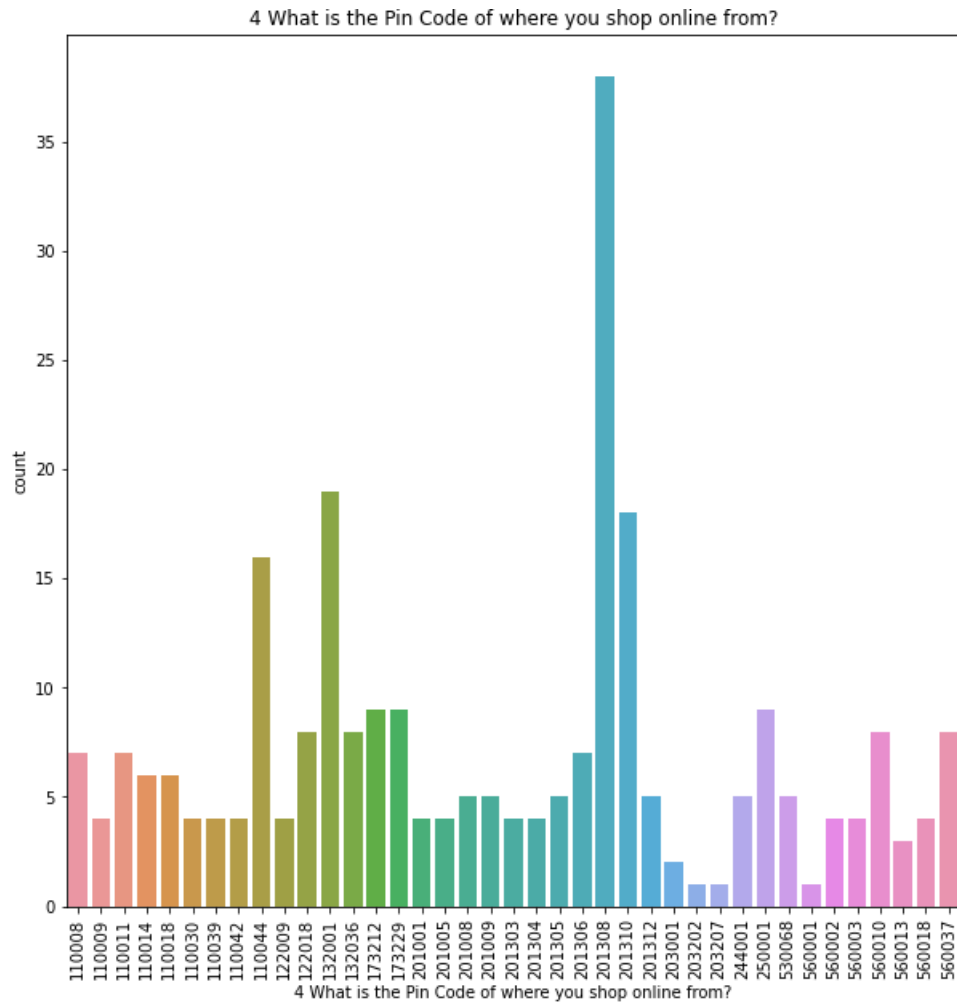
Observation

1. Majority, 38 of the customers placed an order from the pincode 201308.

5 Since How Long You are Shopping Online ?

Observation:

1. Majority, 98 customers are shopping since above 4 years.
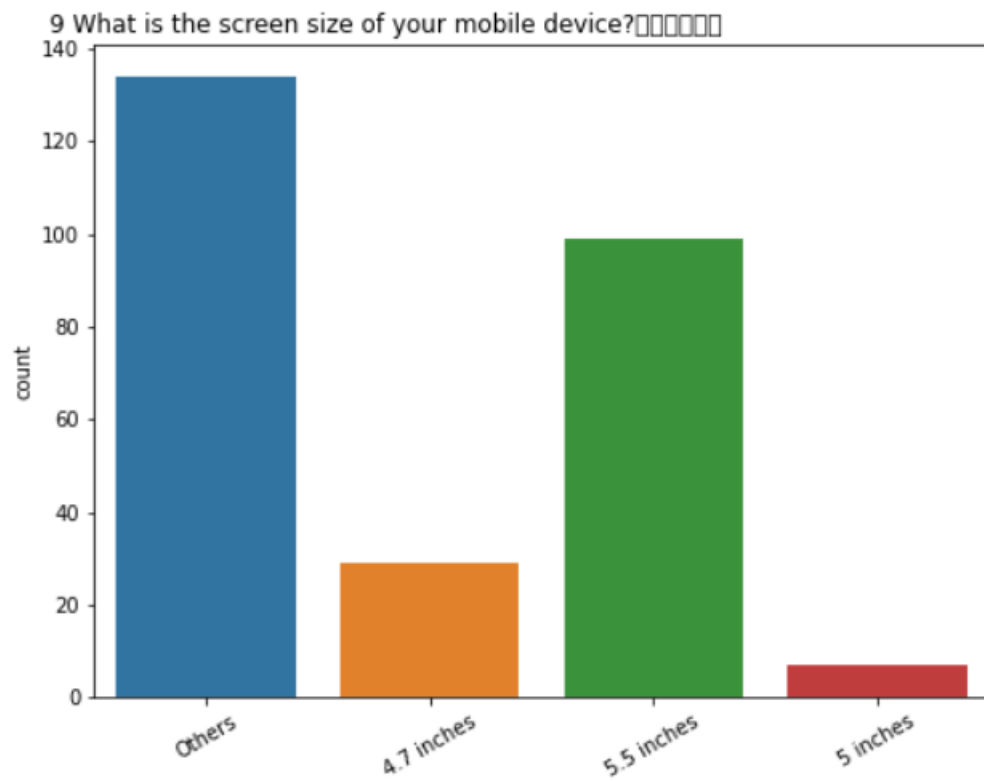
6 How many times you have made an online purchase in the past 1 year?
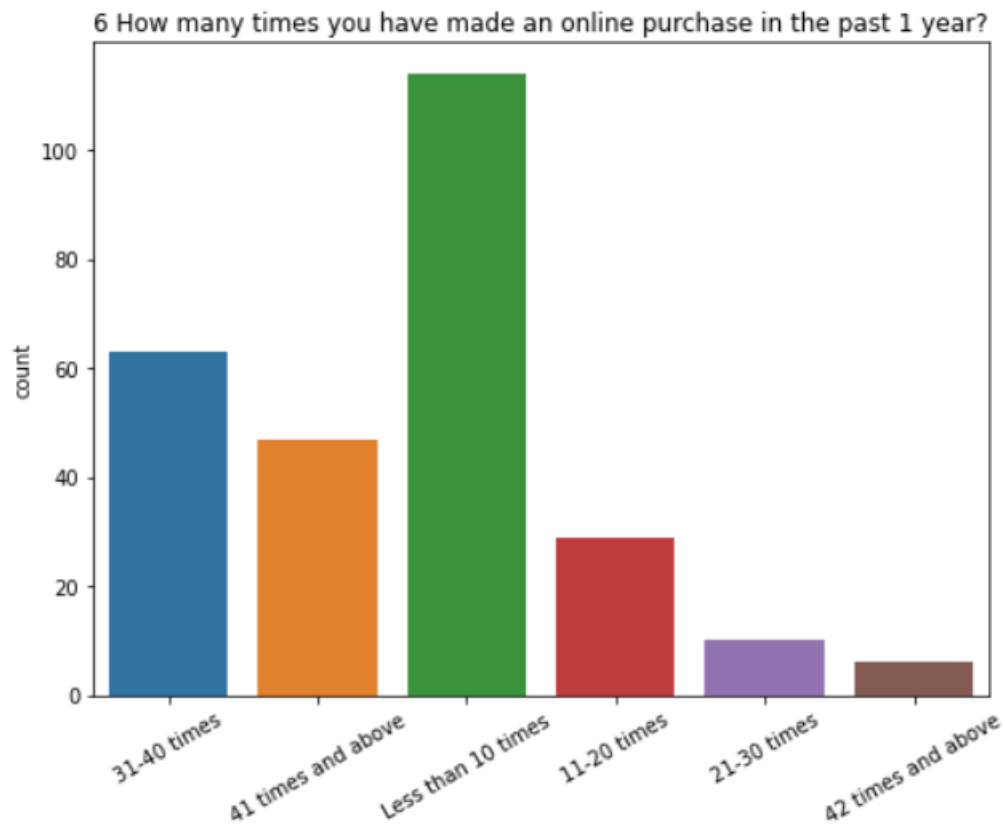
Observation:

1. Majority 114 of the customers have made less than 10 times online purchase in the past 1 year.

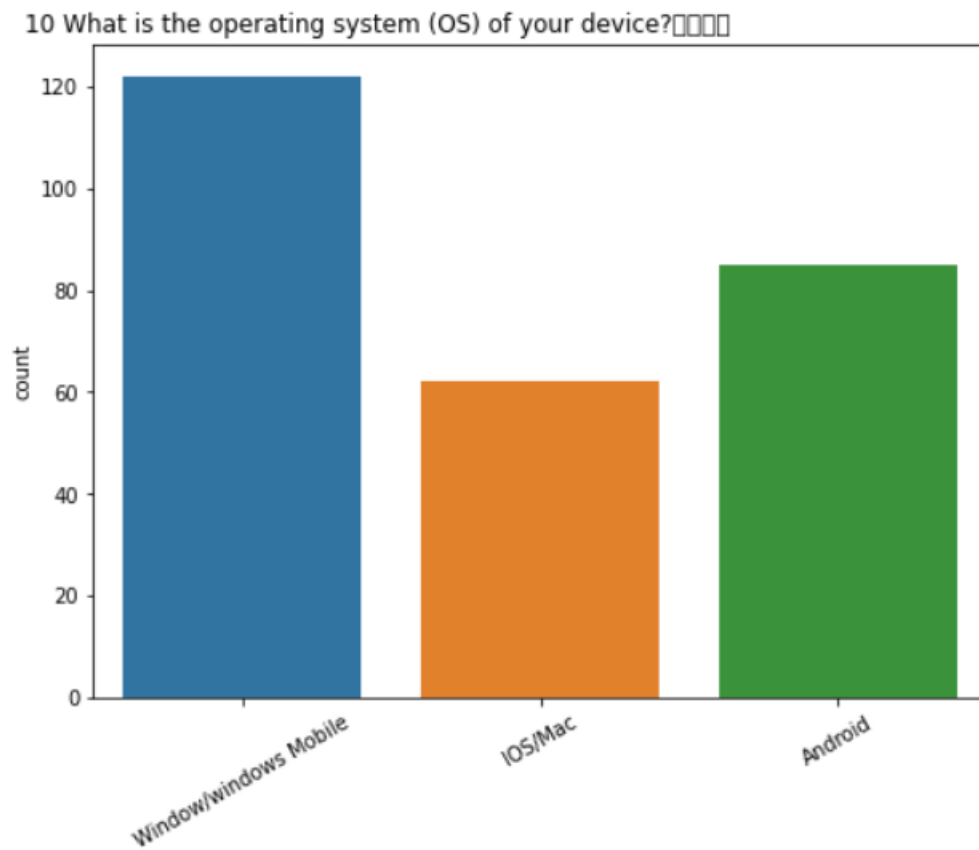7 How do you access the internet while shopping on-line?
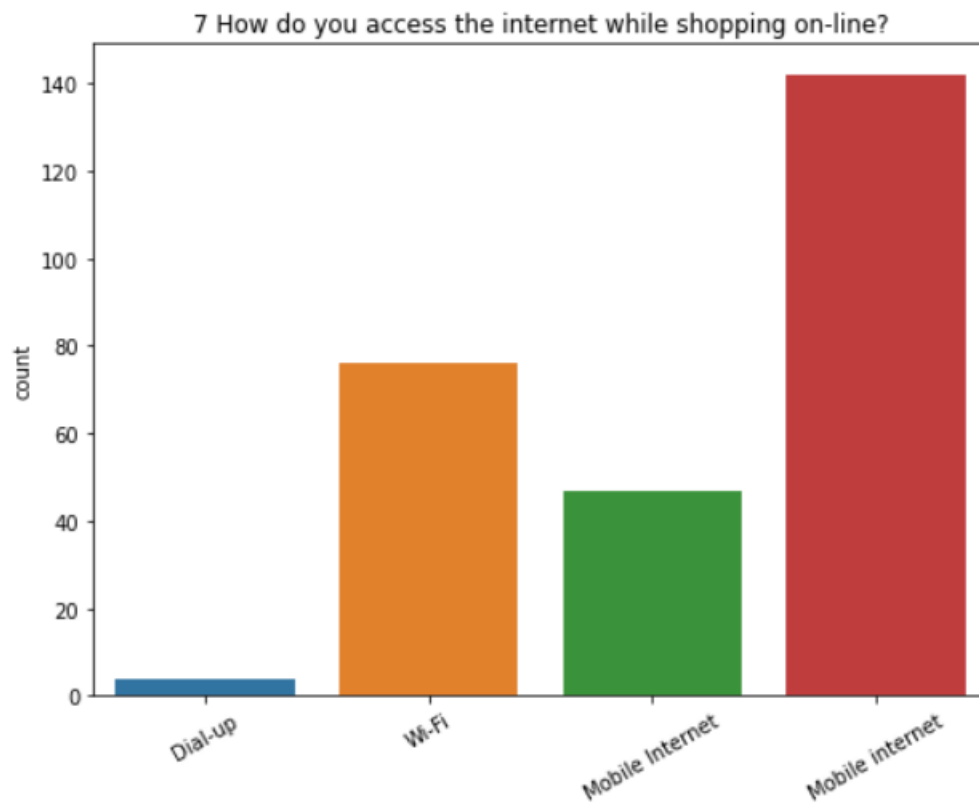
Observation:

1. *Majority, 189 customers use Mobile internet while sh opping online.*

9 What is the screen size of your mobile device?

Observation:

1. Majority, 134 customers have other screen size of mobile.

10 What is the operating system (OS) of your device?

Observation

1. Majority, 122 customers' device operating system is Window/windows mobile

11 What browser do you run on your device to access the website?
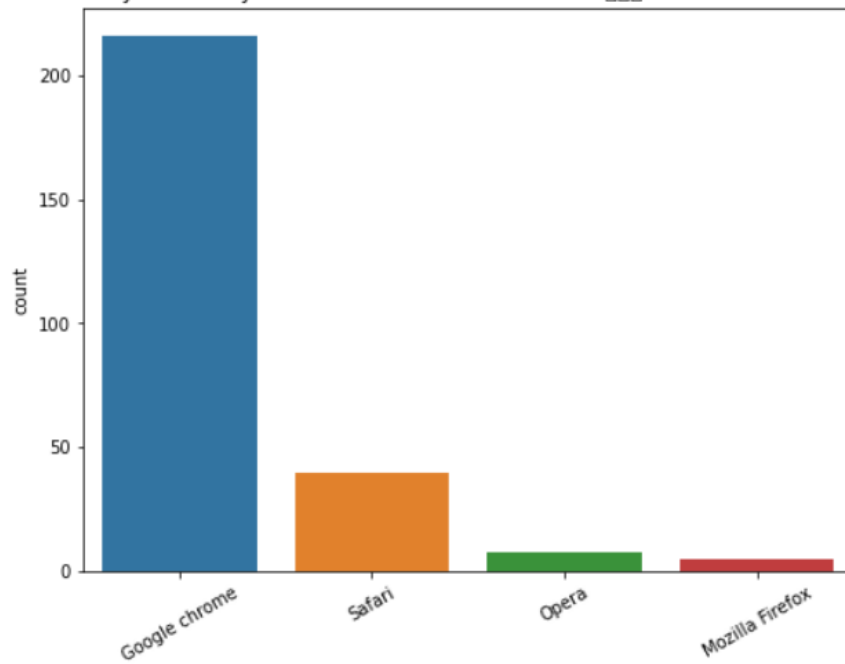
Observation:

1. Majority, 216 customers use Google chrome browser to access the website.

CONCLUSION

- ## Key Findings and Conclusions of the Study

Customer retention refers to the ability of a company or product to retain its customers over some specified period. High customer retention means customers of the product or business tend to return to, continue to buy or in some other way not defect to another product or business, or to non-use entirely.

Successful customer retention involves more than giving the customer what they expect. Generating loyal advocates of the brand might mean exceeding customer expectations. Creating customer loyalty puts 'customer value rather than maximizing profits and shareholder value at the centre of business strategy. By taking full advantage of the data you collect by tracking customer behaviour, requesting feedback, and studying important metrics, you can decrease the churn rate, improve customer satisfaction, and boost your revenue