Customer Retention

Question:

- Customer satisfaction has emerged as one of the most important factors that guarantee the success of online store.
- If customers are satisfied then they will definitely come back to online store again and this is called customer retention.
- We have to find a pattern in the given data to see what factors affect customer satisfaction and in turn affects customer retention.

EDA Steps:
1. First of all i imported data from excel file to dataframe using pandas.
2. Then i used different functions (like .shape, .describe(), .dtypes) to know more about dataframe.
3. Next i checked whether there is a NULL value or not in dataframe using heatmap as well as .isnull()
4. After that i used count plots from seaborn library to plot all columns for visualisation.

Data for determining Customer Retention (EDA visualizations):

- Gender of Customers:
  As we can see most Customers are female while number of male customers are less than half of the female.

- Age of Customers:
  As we can see most Customers are between 21-50 years and others are very very less.

- Location of Customers:
  Here we can see that most customers are from big cities like Delhi,Greater Noida, Bangalore,Noida and lesser number are from smaller cities like Moradabad, Bulandshahr,etc

- **Number of Years' Experience in online shopping:**
  As we can see most customers have been purchasing from online stores for more than 4 years and least number of customers have been purchasing from online stores for 1-2 years.

- **Last 1 year online purchases count:**
  In the last 1 year most customers has bought less than 10 items from online stores and least has bought more than 42 items from online stores

- **Device used for online shopping :**
  Most customers use Smartphone and laptops for shopping online.

- **Browser used for online shopping:**
  Almost all people use Google chrome while some use Safari, others are used by negligible number of customers.

- **Channel which sent people to their favourite online store:**
  Most customers have been forwarded by search engines to their favourite online stores.

- **Mode of access to online store:**
  Most people either use search engine, application or direct website url to access their favourite online store.

- **Preferred Mode of Payment:**
  Most customers use cards to pay while others either use COD or e-wallets.

- **Reason for abandoning shopping cart by Customers:**
  As we can see most customers abandon shopping carts as they get better offers but there are also significant number of customers with other reasons.

- **Availability of Complete information on listed seller and product:**
  As we can see most Customers agree and some are indifferent but very very less are against this idea.

- **Availability of complete product information:**
  As we can see most Customers agree with this idea and negligible number of customers are against it.

- <u>Loading and Processing speed:</u>
  As we can see most Customers agree that loading and processing speed of online store plays a part in their decision to purchase items from it.

- <u>Convenience of Payment method:</u>
  As we can see most Customers agree that convenience of payment method provided by online store plays a part in their decision to purchase items from it.

- <u>Trust on online store:</u>
  As we can see most Customers agree that trust on online store to complete its side of deal in given time plays a part in their decision to purchase items from it.

- <u>Customer Privacy:</u>
  As we can see most Customers agree that customer privacy provided by online store plays a part in their decision to purchase items from it.

- <u>Availability of multiple communication channel:</u>
  As we can see most Customers agree that availability of multiple communication of online store plays a part in their decision to purchase items from it.

- <u>Availability of discounts:</u>
  As we can see most Customers agree that discounts in online store plays a part in their decision to purchase items from it.

- <u>Return and replacement policy:</u>
  As we can see most Customers agree that return and replacement policies of online store plays a part in their decision to purchase items from it.

- <u>Access to Loyalty programs:</u>
  As we can see most Customers agree that availability of loyalty program in online store plays a part in their decision to purchase items from it.

- <u>Net Benefit leads to user satisfaction:</u>
  As we can see most Customers agree with this idea and only negligible number of customers disagree.

- <u>Availability of wide variety of Products:</u>
  As we can see most Customers agree that availability of

wide variety of Products in online store plays a part in their decision to purchase items from it.

- <u>Most Online Retailers used:</u>
  As we can see most Customers use Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com

<u>Assumptions Used:</u>

- First assumption that i took was that all columns are nominal data and hence plotted count plots.
- Next assumption was that the data (checked for NULL values) was clean data i.e. no garbage value.

<u>Analysis:</u>

- We can see from above graphs that most customers are from big cities and roughly 2/3rd are female.
- We can also see that most customers are of age 21-50 years and use smartphone or laptop mainly for online shopping.
- Almost all customers access online store through search engine, application or direct website url and in that also Google chrome is the most used search engine.
- Most customers have been forwarded by search engines to their favourite online stores during first time.
- Customers prefer mode of payment in order (descending) - credit/debit cards, COD, e-wallet. Ease of payment increases customer retention in positive way.
- Customers want complete information on product as well as listed seller.
- Loading and processing speed as well as user friendly interface of online store plays an important role in customer retention.
- Trust on online store as well as discounts provided by it is another major factor.
- Return and replace policy as well as loyalty benefit programs are also very important according to customers.
- And the last important factor is availability of wide range of products.

Conclusion:

For Higher customer retention online shops should have:
- Wide range of products mainly for customers of age 20-51 years.
- Accessibility from laptop as well as smartphone.
- Multiple mode of payments and wide range of products.
- Fast loading and processing speed as well as user friendly interface for website as well as application.
- Availability of good discounts, good return and replace policy as well as good loyalty benefit program.
- Availability of complete information of product as well as listed seller.