# Customer Retention : Online retailer Data Analysis

**INTERNSHIP BATCH-33** 

Submitted by: Rahul M

Problem Statement:- 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.

## **Exploratory Data Analysis**

- 1. Checking the missing values
- 2. Checking for numerical columns
- 3. Checking for the distribution of numerical variables
- 4. Checking for Categorical variables
- 5. Types of categorical variables
- 6.detecting outliers

## 1. Checking the missing value

```
Missing value can be checked by the following python code:-
missing_value=[feature for feature
in df.columns if df[feature].isnull().sum()>1]
missing_value
```

Observation:-

There are no missing values present in the dataset

## 2. Checking the numerical columns

Numerical values can be checked using the following python code:numerical\_feature=[feature for feature in df.columns if df[feature].dtypes!="O"] df[numerical\_feature]

Observation:-

There are 1 numerical values present in the dataset

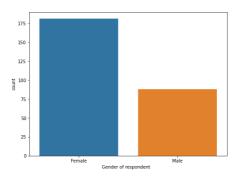
## 3. Checking the categorical variable

Categorical variable can be checked using the following python code
discrete\_feature=[feature for feature in df.columns if feature not in numerical\_feature]
df[discrete\_feature]

Observation:-

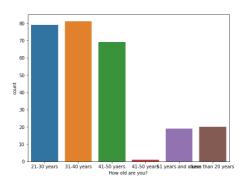
There are 70 categorical values present in dataset

Data Visualization:-



Gender of the respondent

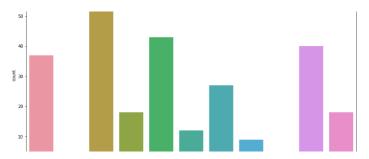
## observation:- There are 181 female and 88 male



How old are you?

observation:-1. there are 81 peoples in age between 31 and 40 years.

- 2.there are 70 peoples in the age between 41 and 50 years
- 3.there are 20 peoples in less than 20 years
- **4.**there are 19 peoples 51 years and above

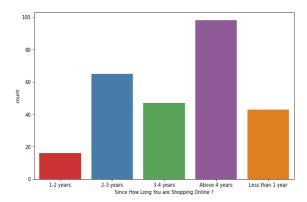


Which city do you shop online?

## observation:

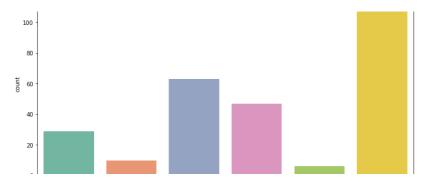
- 1. 58 people shop online from Dehli
- 2. 43 people shop online from Greater Noida
- 3.40 people shop online from Noida
- 4.27 People shop online from karnal
- 5.12 People shop online from Gurgaon
- 6.9 People shop online from Merrut
- 7. 5 People shop online from Moradabad

- 8. 2 People shop online from Bulandshahr
- 9. 18 people shop online from Ghaziabad



Since how long you are shopping online?

- 1. there are 98 people are shopping online above 4 years
- 2. there are 65 people are shopping online between 2 and 3 years
- 3. there are 47 peoples are shopping online between 3 and 4 years
- 4. there are 43 peoples are shopping online less than 1 year
- 5. there are 16 peoples are shopping online in between 1 and 2 years



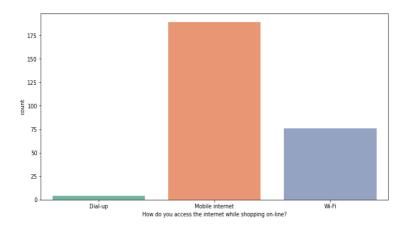
How many times you have made an online purchase in the past 1 year?

## observation:-

1. There are 114 people have made online purchase less than 10

## times

- 2. There are 63 peoples have made online purchase in between 31 and 40 times.
- 3. There are 47 peoples have made online purchase 41 times and above
- 4. There are 29 peoples have made online purchase 11-20 times
- 5. There are 10 peoples have made online purchase 21-30 times
- 6. there are 6 peoples have made online purchase 42 times and above



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

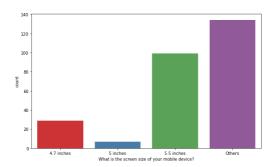
- 1. There are 189 people accessing the mobile internet
  - 2. There are 76 people accessing the wifi network
  - 3. There are 4 people accessing the Dial-up network



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

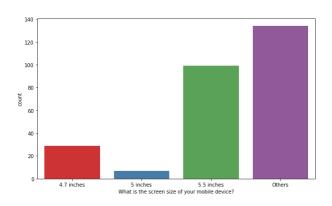
## Observation:-

- 1. There are 189 people accessing the mobile internet 2. There are 76 people accessing the wifi network
- 3. There are 4 people accessing the Dial-up network



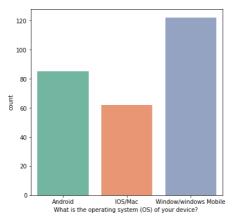
Which device do you use to access the online shopping?

- 1. 141 people use smart phone to access the shopping online
- 2. 86 people use laptop to access the shopping online
- 3. 30 people use desktop to access the shopping online.
- 4. 12 people use tablet to access the shopping online



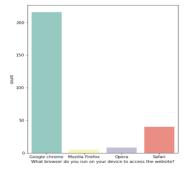
What is the screen size of your mobile device?

- 1. The screen size of Mobile device of the people shopping online of 5.5 inches are 99
- 2. The screen size of Mobile device of the people shopping online of 4.7 inches are 29
- 3. The screen size of Mobile device of the people shopping online of 5 inches are 7
- 4. The screen size of Mobile device of the people shopping online of others are 134



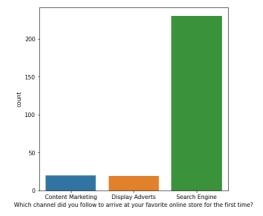
What is the operating system (OS) of your device?

- 1. The operating system used by people who are shopping online in windows/ windows Mobile are 122.
  - 2. The operating system used by people who are shopping online in Android are 85.
  - 3. The operating system used by people who are shopping online in IOS/MAC are 62



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

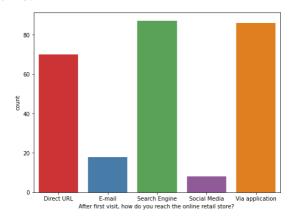
- 1. the browser used by people in the device to access the website in Google Chrome are 216
  - 2. the browser used by people in the device to access the website in safari are 40.
  - 3. the browser used by people in the device to access the website in opera are 8
- 4. the browser used by people in the device to access the website in Mozilla fireFox are 5



Which channel did you follow to arrive at your favourite online store for the first time?

## Observation:-

- 1. There are 230 people who follow the search engine channel to arrive at your favourite online store for the first time.
- 2. There are 20 people who follow the content marketing channel to arrive at your favourite online store for the first time.
- 3. There are 19 people who follow the Display Adverts to arrive at your favourite online store for the first time.

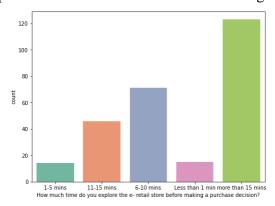


After first visit, how do you reach the online retail store

#### Observation:-

1.after the first visit, people do reach the online retail score through the search engine are 872.after the first visit, people do reach the online retail score through the Via Application are 86

3.after the first visit, people do reach the online retail score through the Direct URL are 70.4.after the first visit, people do reach the online retail score through the E-mail are 18.5.after the first visit, people do reach the online retail score through the Social Media are 8

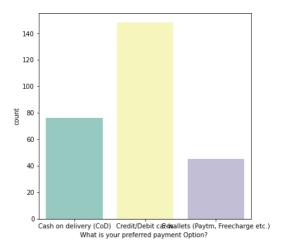


How much time do you explore the e- retail store before making a purchase decision

## Observation:-

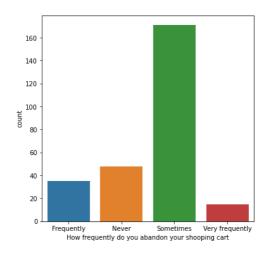
1.the people exploring the e-retail store before making the purchase decision more than 15 mins are 123.

- 2. the people exploring the e-retail store before making the purchase decision between 6 and 10 minutes are 71.
- 3. the people exploring the e-retail store before making the purchase decision between 11 and 15 mins are 46.
- 4. the people exploring the e-retail store before making the purchase decision less than 1 mins are 15.
- 5. the people exploring the e-retail store before making the purchase decision between 1 and 5 mins are 14



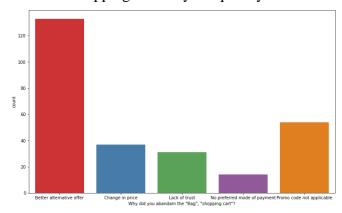
What is your preferred payment Option?

- 1. The number of people who preferred payment location as credit/debit cards are 148
- 2. The number of people who preferred payment location as cash on delivery are 76
- 3. The number of people who preferred payment location as E-wallets(paytm, Free charge etc) cards are 45



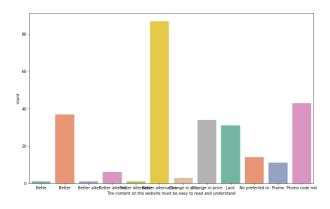
How frequently do you abandon your shopping cart

- 1.the people abandon on the shopping cart sometimes are 171 2.the people never abandon on the shopping cart are 48
  - 3. the people abandon on the shopping cart frequently are 35
  - 4. the people abandon on the shopping cart very Frequently are 15



Why did you abandon the "Bag", "shopping cart

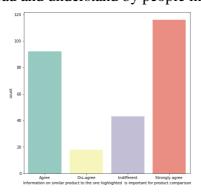
- 1. The people abandon the bag for better alternative offer are 133
- 2. The people abandon the bag for Promo code not applicable are 54
- 3. The people abandon the bag for change in price are 37
- 4. The people abandon the bag for lack of trust are 31
- 5. The people abandon the bag for no preferred mode of payment are 14



The content on the website must be easy to read and understand

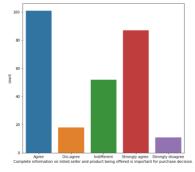
actually in this data, better is same bette. in the code r is missing. better alternative, better alter, better alterna are all same, change in price is same as change in pric

- 1. the content must be easy to read and understand by people in better way are 38
- 2. the content must be easy to read and understand by people in better alternative way are 96
- 3.the content must be easy to read and understand by people in lack are 31
- 4. the content must be easy to read and understand by people in change in price are 37
- 5.the content must be easy to read and understand by people in no preferred m are 14



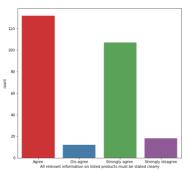
Information on similar product to the one highlighted is important for product comparison observation:-

- 1. information on similar product people who strongly agree are 116
- 2.information on similar product people who agree are 92
- 3.information on similar product people who are indifferent are 43
- 4.information on similar product people who dis-agree are 18



Complete information on listed seller and product being offered is important for purchase decision

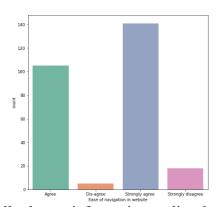
- 1.people who agree on complete information on listed seller and product being offered is important by purchase factor are 101.
- 2. people who strongly agree on complete information on listed seller and product being offered is important by purchase factor are 87.
- 3. people who become indifferent on complete information on listed seller and product being offered is important by purchase factor are 52.
- 4. people who disagree on complete information on listed seller and product being offered is important by purchase factor are 18.
- 5. people who strongly disagree on complete information on listed seller and product being offered is important by purchase factor are 11.



All relevant information on listed products must be stated clearly

#### Observation:-

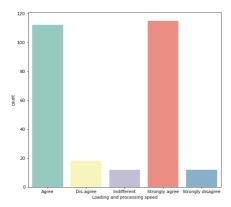
1. people who agree on all relevant information on listed products are 132 2.people who strongly agree on all relevant information on listed products are 107 3.people



who strongly dis-agree on all relevant information on listed products are 18 4.people who disagree on all relevant information on listed products are 12

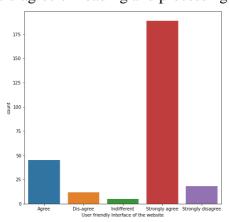
Ease of navigation in website

- 1.people who strongly agree on ease of navigation are 141. 2.people who agree on ease of navigation are 105
- 3.people who strongly disagree on ease of navigation are 18
- 4.people who disagree on ease of navigation are 5



Loading and processing speed

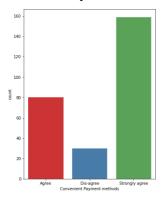
- 1.people who strongly agree on loading and processing speed are 115.
  - 2.people who agree on loading and processing the speed are 112.
  - 3.people who dis-agree on loading and processing the speed are 18.
  - 4.people who are indifferent in loading and processing the speed are 12.
  - 5.people who are strongly dis-agree on loading and processing the speed are 12



User friendly Interface of the website

## Observation:-

- 1. people who strongly agree on user-friendly interface of the website are 45.
  - 2. people who strongly disagree on user-friendly interface of website are 18.
  - 3.people who dis-agree on user-friendly interface of website are 12
  - 4. people who are indifferent on user friendly interface on website are 5

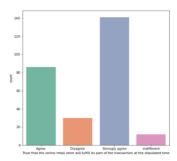


Convenient Payment methods

## Observation:-

1.people who strongly agree on convenient payment methods are 159. 2.people who agree on convenient payment methods are 80.

3.people who dies-agree on convenient payment methods are 30



Trust that the online retail store will fulfill its part of the transaction at the stipulated time

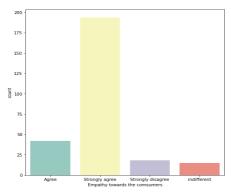
## Observation:-

1.people who strongly agree on the trust that online retail score will fulfill its part of transaction at the stipulated time are 141

2. people who agree on the trust that online retail score will fulfill its part of transaction at the stipulated time are 86

3. people who disagree on the trust that online retail score will fulfill its part of transaction at the stipulated time are 30.

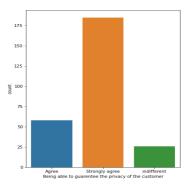
4. people who are indifferent on the trust that online retail score will fulfill its part of transaction at the stipulated time are 12



Empathy towards the consumers

Observation:-1. people who strongly agree on empathy towards the consumer are 194.

- 2. people who agree on empathy towards the consumer are 42
- 3. people who strongly disagree on empathy towards the consumer are 18.
- 4.people who are indifferent on empathy towards the consumer are 15.

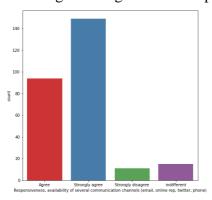


Being able to guarentee the privacy of the customer

1.people who are strongly agree on being able to guarantee the privacy of the customer are 185.

2.people who agree on being able to guarantee the privacy of the customer are 58.

3.people who are indifferent on being able to guarantee the privacy of the customer are 26



Responsiveness, availability of several communication channels

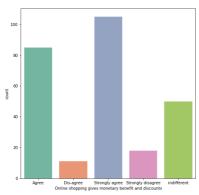
## Observation:-

1.people who are strongly agree on the responsiveness, availability of several communication channels are 149.

2. people who are agree on the responsiveness, availability of several communication channels are 94.

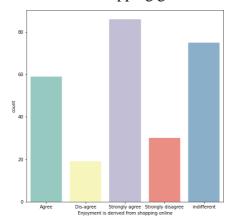
3. people who are indifferent on the responsiveness, availability of several communication channels are 15.

4. people who are strongly disagree on the responsiveness, availability of several communication channels are 11



Online shopping gives monetary benefit and discounts

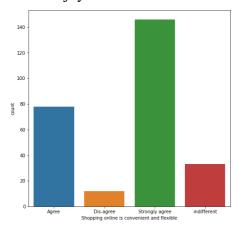
- 1. people who are strongly agree on the online shopping gives monetary benefit are 105
  - 2. people who are agree on the online shopping gives monetary benefit are 85.
  - 3.people who are indifferent on the online shopping gives monetary benefit are 50.
  - 4.people who are strongly disagree on the online shopping gives monetary benefit are 18.
  - 5.people who are dis-agree on the online shopping gives monetary benefit are 11



Enjoyment is derived from shopping online

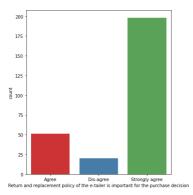
## Observation:-

- 1. people who are strongly agree on the enjoyment is derived from shopping online are 86.
  - 2.people who are indifferent on the enjoyment is derived from shopping online are 75.
  - 3.people who are agree on the enjoyment is derived from shopping online are 59.
  - 4.people who are strongly disagree on enjoyment is derived from shopping online are 30.
  - 5. people who are disagree on the enjoyment is derived from shopping online are 19.



Shopping online is convenient and flexible

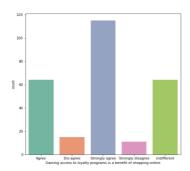
- 1.People who are strongly agree on the shopping online is convenient and flexible are 146
  - 2. People who are agree on the shopping online is convenient and flexible are 78.
  - 3.people who are indifferent on the shopping online is convenient and flexible are 33
  - 4.people who are disagree on the shopping online are 12



Return and replacement policy of the e-tailer is important for the purchase decision

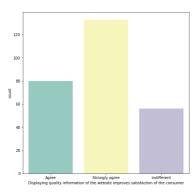
1.people who strongly agree on return and replacement policy of the e-tailor is important for the purchase decision are 198.

- 2. people who agree on return and replacement policy of the e-tailor is important for the purchase decision are 51.
- 3. people who dis-agree on return and replacement policy of the e-tailor is important for the purchase decision are 20



Gaining access to loyalty programs is a benefit of shopping online

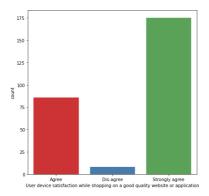
- 1. people who are strongly agree on the gaining access to loyalty programs is a benefit of shopping online are 115
- 2. people who are indifferent on the gaining access to loyalty programs is a benefit of shopping online are 64.
- 3. people who are agree on the gaining access to loyalty programs is a benefit of shopping online are 64
- 4. people who are disagree on the gaining access to loyalty programs is a benefit of shopping online are 15
- 5. people who are strongly disagree on the gaining access to loyalty programs is a benefit of shopping online are 11



Displaying quality information of the website improves satisfaction of the consumer

1.people who are strongly agree on displaying the quality information of the website improves satisfaction of the customer are 133.

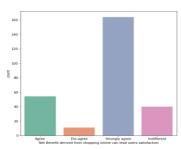
- 2. people who are agree on displaying the quality information of the website improves satisfaction of the customer are 80.
- 3. people who are indifferent on displaying the quality information of the website improves satisfaction of the customer are 56



User device satisfaction while shopping on a good quality website or application

## Observation:-

- 1. people who are strongly agree on User device satisfaction while shopping on a good quality website or application are 175.
- 2. people who are agree on User device satisfaction while shopping on a good quality website or application are 86.
- 3. people who are disagree on User device satisfaction while shopping on a good quality website or application are 8.



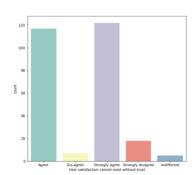
Net Benefit derived from shopping online can lead users satisfaction

## Observation:-

1.people who are strongly agree on Net Benefit derived from shopping online can lead users satisfaction are 164.

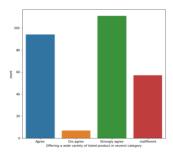
2. people who are agree on Net Benefit derived from shopping online can lead users satisfaction are 54

- 3. people who are indifferent on Net Benefit derived from shopping online can lead users satisfaction are 40.
- 4. people who are disagree on Net Benefit derived from shopping online can lead users satisfaction are 11.



User satisfaction cannot exist without trust

- 1.people who are strongly agree on the user satisfaction cannot exist without trust are 122.
  - 2.people who are agree on the user satisfaction cannot exist without trust are 122.
- 3.people who are strongly disagree on the user satisfaction cannot exist without trust are 122.
  - 4.people who are disagree on the user satisfaction cannot exist without trust are 122.
  - 5.people who are indifferent on the user satisfaction cannot exist without trust are 122.

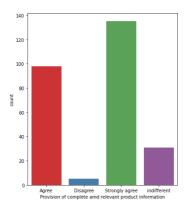


Offering a wide variety of listed product in several category

#### Observation:-

1.people who strongly agree on Offering a wide variety of listed product in several category are 111

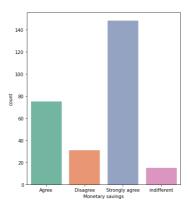
- 2. people who agree on Offering a wide variety of listed product in several category are 94.
- 3. people who are indifferent on Offering a wide variety of listed product in several category are 57
- 4. people who are disagree on Offering a wide variety of listed product in several category are 7



Provision of complete and relevant product information

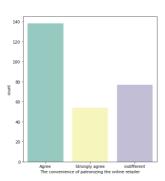
1.people who strongly agree on the Provision of complete and relevant product information are 135

- 2.people who agree on the Provision of complete and relevant product information are 98
- 3.people who are in different on the Provision of complete and relevant product information are 31
- 4.<br/>people who are disagree on the Provision of complete and relevant product information are<br/>  ${\bf 5}$



Monetary savings

- 1.people who are strongly agree on the monetary savings are 148 2.people who are agree on the monetary savings are 75
  - 3.people who are disagree on the monetary savings are 31
  - 4.people who are indifferent on the monetary savings are 15

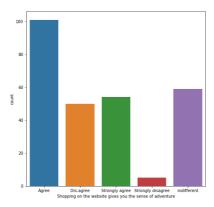


The convenience of patronizing the online retailer

1.people who are strongly agree on The convenience of patronizing the online retailer are 138

2.people who are indifferent on The convenience of patronizing the online retailer are 77

3.people who are strongly agree on The convenience of patronizing the online retailer are 54

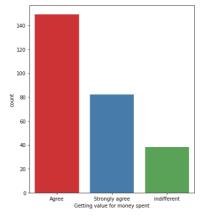


Shopping on the website gives you the sense of adventure

#### Observation:-

1.people who agree on Shopping on the website gives you the sense of adventure are 101

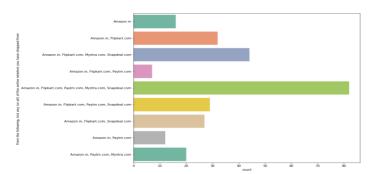
- 2. people who are indifferent on Shopping on the website gives you the sense of adventure are 59
- 3. people who strongly-agree on Shopping on the website gives you the sense of adventure are 54
- 4. people who dis-agree on Shopping on the website gives you the sense of adventure are 50.
- 5. people who strongly disagree on Shopping on the website gives you the sense of adventure are 5



Getting value for money spent

#### Observation:-

1.people who are agree on Getting value for money spent are 149 2.people who are strongly agree on Getting value for money spent are 82 3.people who are indifferent on Getting value for money spent are 38



From the following, tick any (or all) of the online retailers you have shopped from ?

## Observation:-

1. From the following, the online retailers people have shopped from Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com

are 82

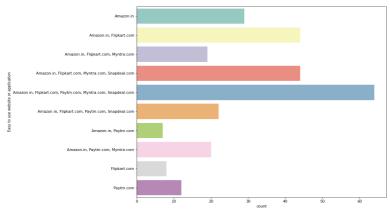
2. From the following, the online retailers people have shopped from Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com

are 44

- 3. From the following, the online retailers people have shopped from Amazon.in, Flipkart.com, are 32
- 4. From the following, the online retailers people have shopped from Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com are 29
- 5. From the following, the online retailers people have shopped from Amazon.in, Flipkart.com, Snapdeal.com are 27
- 6. From the following, the online retailers people have shopped from Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com

are 20.

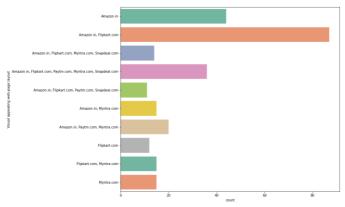
- 7. From the following, the online retailers people have shopped from Amazon.in are 16.
- 8.From the following, the online retailers people have shopped from Amazon.in, Flipkart.com, Paytm.com are 12.
- 9.From the following, the online retailers people have shopped from Amazon.in, Flipkart.com, Paytm.com are 7



Easy to use website or application

1.people Easy to use website or application in Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are 64

- 2.people Easy to use website or application in Amazon.in, Flipkart.com are 44
- 3.people Easy to use website or application in Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com are 44.
  - 4. people Easy to use website or application in Amazon.in are 29.
- 5. people Easy to use website or application in Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com are 22.
  - 6. people Easy to use website or application in Amazon.in, Paytm.com, Myntra.com are 20
- 7.people Easy to use website or application in Amazon.in, Flipkart.com, Myntra.com are 19.
  - 8.people Easy to use website or application in paytm.com are 12
  - 9.people Easy to use website or application in Flipkart.com are 8
  - 10.people Easy to use website or application in Amazon.in, paytm.com are 7

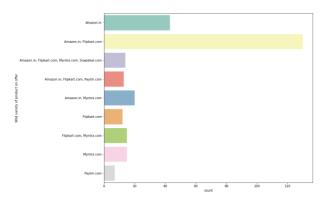


Visual appealing web-page layout

## Observation:-

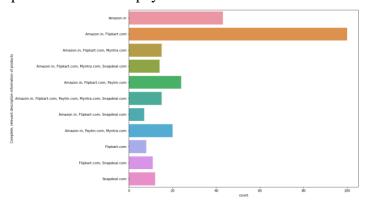
1.people who visual appealing the web page layout in Amazon.in, Flipkart.com are 87

- 2. people who visual appealing the web page layout in Amazon.in, Flipkart.com, paytm.com, myntra.com, snapdeal.com are 44.
- 3. people who visual appealing the web page layout in Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are 36
- 4. people who visual appealing the web page layout in Amazon.in, Paytm.com, Myntra.com are 20
  - 5. people who visual appealing the web page layout in Amazon.in, Myntra.com are 15
  - 6.people who visual appealing the web page layout in Myntra.com are 15.
  - 7.people who visual appealing the web page layout in Flipkart.com, Myntra.com are 15
- 8.people who visual appealing the web page layout in Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com are 14
  - 9.people who visual appealing the web page layout in Flipkart.com are 12
- 10.people who visual appealing the web page layout in Amazon.in, Flipkart.com, paytm.com, Snapdeal.com are 11



Wide variety of product on offer

- 1.wide variety of product on offer in Amazon.in, Flipkart.com are 130 2.wide variety of product on offer in Amazon.in are 43
  - 3.wide variety of product on offer in Amazon.in, myntra.com are 20
  - 4.wide variety of product on offer in Myntra.com, Flipkart.com are 15
  - 5. wide variety of product on offer in Myntra.com are 15
- 6. wide variety of product on offer in Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com are 14
  - 7. wide variety of product on offer in Amazon.in, Flipkart.com, Paytm.com are 13
  - 8.wide variety of product on offer in flipkart.com are 12
  - 9.wide variety of product on offer in paytm.com are 7

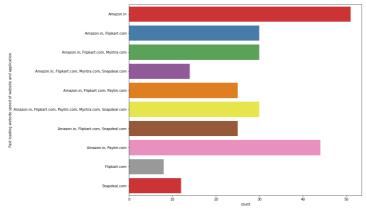


Complete, relevant description information of products

- 1.-people know the Complete, relevant description information of products on Amazon.in, Flipkart.com are 100
- 2. people know the Complete, relevant description information of products on Amazon.in are 43
- 3. people know the Complete, relevant description information of products on Amazon.in, Flipkart.com, paytm.com are 24
- 4. people know the Complete, relevant description information of products on Amazon.in, Paytm.com, Myntra.com are 20
- 5. people know the Complete, relevant description information of products on Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are 15
- 6. people know the Complete, relevant description information of products on Amazon.in, Flipkart.com, Myntra.com are 15.

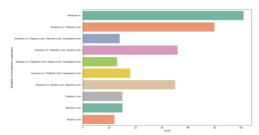
- 7. people know the Complete, relevant description information of products on Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are 14.
- 8. people know the Complete, relevant description information of products on Snapdeal.com are 12.
- 9. people know the Complete, relevant description information of products on Flipkart.com, Snapdeal.com are 11.
- 10. people know the Complete, relevant description information of products on Flipkart.com are 8
- 11. people know the Complete, relevant description information of products on Amazon.com, Flipkart.com, Snapdeal.com are 7





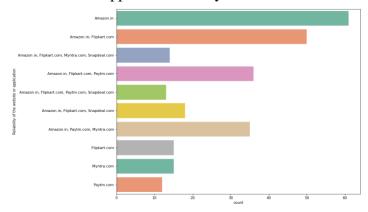
Fast loading website speed of website and application

- 1. fast loading website speed of website and application in Amazon.in are 51
- 2. fast loading website speed of website and application in Amazon.in, Paytm.com are 44
- 3. fast loading website speed of website and application in Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com are 30
- 4. fast loading website speed of website and application in Amazon.in, Flipkart.com, Snapdeal.com are 25
- 5. fast loading website speed of website and application in Amazon.in, Flipkart.com, Paytm.com are 25
- 6. fast loading website speed of website and application in Amazon.in, Flipkart.com, Paytm.com.com, Myntra.com are 14
- 7. fast loading website speed of website and application in snapdeal.com are 12.
- 8.fast loading website speed of website and application in Flipkart.com are 8



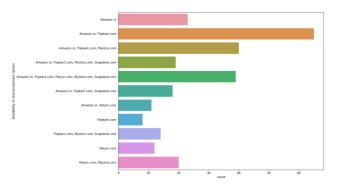
Reliability of the website or application

- 1.Reliability of the website or application on Amazon.in are 61 2.Reliability of the website or application on Amazon.in, flipkart.com are 50
  - 3.Reliability of the website or application on Amazon.in, Flipkart.com, Paytm.com are 36
  - 4.Reliability of the website or application on Amazon.in, Paytm.com, Myntra.com are 35
- 5.Reliability of the website or application on Amazon.in, Flipkart.com, Snapdeal.com are 18
  - 6.Reliability of the website or application on Flipkart.com are 15
  - 7.Reliability of the website or application on Myntra.com are 15
- 8. Reliability of the website or application on Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com are 14
- 9. Reliability of the website or application on Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com are 13
  - 10. Reliability of the website or application on Paytm.com are 12



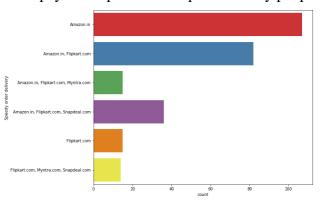
Quickness to complete purchase

- 1. Quickness to complete purchase on Amazon.in are 66
  - 2.Quickness to complete purchase on Amazon.com, Flipkart.com, Paytm.com are 37
  - 3. Quickness to complete purchase on Amazon.com, Flipkart.com are 30.
  - 4. Quickness to complete purchase on Amazon.com, Flipkart.com, Paytm.com are 20
  - 5. Quickness to complete purchase on Amazon.com, Flipkart.com, Myntra.com are 30.
  - 6.Quickness to complete purchase on Paytm.com are 25.
  - 7. Quickness to complete purchase on Amazon.com, Flipkart.com, Myntra.com are 30
  - 8. Quickness to complete purchase on Amazon.com, Flipkart.com, Myntra.com are 30



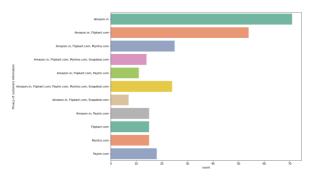
Availability of several payment options

- 1. Availability of several payment options on Amazon.in, Flipkart.com by people is 65
- 2. Availability of several payment options on Amazon.in, Flipkart.com, Myntra.com by people is 40.
- 3. Availability of several payment options on Amazon.in, Flipkart.com, Patym.com, Myntra.com, Snapdeal.com by people is 39.
  - 4. Availability of several payment options on Amazon.in by people is 23
  - 5. Availability of several payment options on Patym.com, Myntra.com by people is 20.
- 6.Availability of several payment options on Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com by people is 19
- 7. Availability of several payment options on Amazon.in, Flipkart.com, Snapdeal.com by people is 18.
- 8. Availability of several payment options on Flipkart.com, Myntra.com, Snapdeal.com by people is 14.
  - 9. Availability of several payment options on paytm.com by people is 12.
  - 10. Availability of several payment options on Amazon.in, Patym.com by people is 11.
  - 11. Availability of several payment options on Flipkart.com by people is 8.



Speedy order delivery

- 1.speedy order delivery on Amazon.in are 107. 2.speedy order delivery on Amazon.in, Flipkart.com are 82.
  - 3.speedy order delivery on Amazon.in, Flipkart.com, Snapdeal.com are 36.
  - 4.speedy order delivery on Flipkart.com are 36.
  - 5.speedy order delivery on Amazon.in, Flipkart.com, Myntra.com are 15.
  - 6.speedy order delivery on Flipkart.com, Myntra.com, Snapdeal.com are 14.



Privacy of customers information

privacy of customers information by people in Amazon.in are 71 privacy of customers information by people in Amazon.in, Flipkart.com are 54 privacy of customers information by people in Amazon.in, Flipkart.com, Myntra.com are 25

privacy of customers information by people in Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are 24

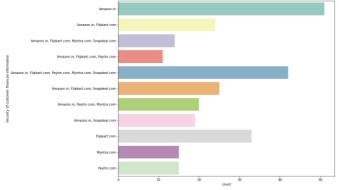
privacy of customers information by people in Paytm.com are 18 privacy of customers information by people in Flipkart.com are 15 privacy of customers information by people in Myntra.com are 15

privacy of customers information by people in Amazon.in, Paytm.com are 15. privacy of customers information by people in Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com are 14

privacy of customers information by people in Amazon.in, Flipkart.com, Paytm.com are 11

privacy of customers information by people in Amazon.in, Flipkart.com, Snapdeal.com are 7

## Observation:-



Security of customer financial information

Security of customer financial information on Amazon.in is 51

Security of customer financial information on Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com is 33

Security of customer financial information on Flipkart.com is 33

Security of customer financial information on Amazon.in, Flipkart.com, Snapdeal.com is 25

Security of customer financial information on Amazon.in, Flipkart.com is 24

Security of customer financial information on Amazon.in, Paytm.com, Myntra.com is 20

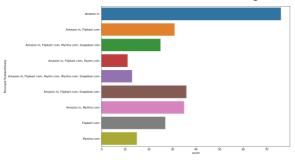
Security of customer financial information on Amazon.in, Snapdeal.com is 19

Security of customer financial information on Myntra.com is 15

Security of customer financial information on paytm.com is 15.

Security of customer financial information on Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com is 14.

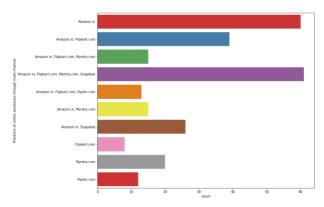
Security of customer financial information on Amazon.in, Flipkart.com, paytm.com is 11.



Perceived Trustworthiness

## Observation:-

- 1. perceived trustworthiness on Amazon.in are 76
  - 2. perceived trustworthiness on Amazon.in, Flipkart.com, Snapdeal.com are 36
  - 3.perceived trustworthiness on Amazon.in, Myntra.com are 35
  - 4.perceived trustworthiness on Amazon.in, flipkart.com are 31
  - 5.perceived trustworthiness on flipkart.com are 27
- 6. perceived trustworthiness on Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com are 25
- 7. perceived trustworthiness on Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are 13
  - 8. perceived trustworthiness on Amazon.in, Flipkart.com, Paytm.com are 11



Presence of online assistance through multi-channel

## Observation:-

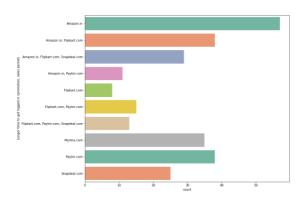
Presence of online assistance through multi-channel on Amazon.in, Flipkart.com, Myntra.com, Snapdeal are 61

Presence of online assistance through multi-channel on Amazon.in is 60

Presence of online assistance through multi-channel on Amazon.in, Flipkart.com is 39 Presence of online assistance through multi-channel on Amazon.in, Snapdeal.com is 26 Presence of online assistance through multi-channel on Myntra.com is 20 Presence of online assistance through multi-channel on Amazon.in, Flipkart.com, Myntra.com is 15

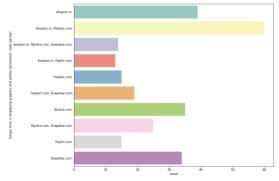
presence of online assistance through multi-channel on Amazon.in, Myntra.com is 15 presence of online assistance through multi-channel on Amazon.in, Flipkart.com, Paytm.com is 13

presence of online assistance through multi-channel on Flipkart.com is 8



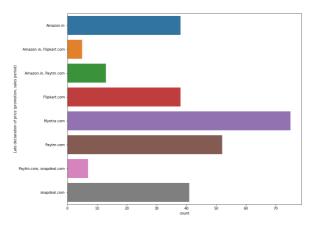
Longer time to get logged in (promotion, sales period)

- 1.Longer time to get logged in Amazon.in are 57 2.Longer time to get logged in paytm.com are 38
- 3. Longer time to get logged in Amazon.in, Flipkart.com are 38
- 4. Longer time to get logged in Myntra.com are 35
- 5. Longer time to get logged in Amazon.in, Flipkart.com, Snapdeal.com are 29
- 6.Longer time to get logged in Flipkart.com, Paytm.com are 15
- 7.Longer time to get logged in Flipkart.com, Paytm.com, Snapdeal.com are 13
- 8.Longer time to get logged in Amazon.in, Paytm.com are 11
- 9. Longer time to get logged in Flipkart.com are 8



Longer time in displaying graphics and photos (promotion, sales period)

- 1. Longer time in displaying graphics and photos on Amazon.in, Flipkart.com are 60
- 2.Longer time in displaying graphics and photos on Amazon.in are 39
- 3.Longer time in displaying graphics and photos on Myntra.com are 35
- 4.Longer time in displaying graphics and photos on snapdeal.com are 34
- 5.Longer time in displaying graphics and photos on Myntra.com snapdeal.com are 25
- 6.Longer time in displaying graphics and photos on Flipkart.com snapdeal.com are 19
- 7.Longer time in displaying graphics and photos on paytm.com are 15
- 8. Longer time in displaying graphics and photos on Amazon.in, Myntra.com, Snapdeal.com are 14
  - 9. Longer time in displaying graphics and photos on Amazon.in, paytm.com are 13



Late declaration of price (promotion, sales period)

#### Observation:-

Late declaration of price (promotion, sales period) on Myntra.com are 75 Late declaration of price (promotion, sales period) on paytm.com are 41

Late declaration of price (promotion, sales period) on paytm.com are 52

Late declaration of price (promotion, sales period) on snapdeal.com are 41

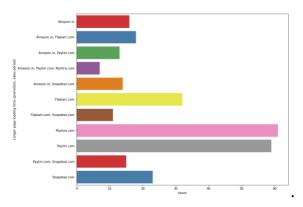
Late declaration of price (promotion, sales period) on flipkart.com are 38

Late declaration of price (promotion, sales period) on Amazon.in are 38

Late declaration of price (promotion, sales period) on Amazon.in, Paytm.com are 13.

Late declaration of price (promotion, sales period) on Paytm.com, snapdeal.com are 7.

Late declaration of price (promotion, sales period) on Amazon.in, Flipkart.com are 5



Longer page loading time (promotion, sales period

Longer page loading time (promotion, sales period) on Myntra.com are 61 Longer page loading time (promotion, sales period) on paytm.com are 59 Longer page loading time (promotion, sales period) on FlipKart.com are 32

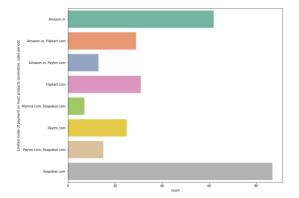
Longer page loading time (promotion, sales period) on snapdeal.com are 23

Longer page loading time (promotion, sales period) on Amazon.in, Flipkart.com are 18

Longer page loading time (promotion, sales period) on Amazon.in are 16

Longer page loading time (promotion, sales period) on Paytm.com, Snapdeal.com are 15 Longer page loading time (promotion, sales period) on Amazon.in, Snapdeal.com are 14 Longer page loading time (promotion, sales period) on Amazon.in, Paytm.com are 13

Longer page loading time (promotion, sales period) on Flipkart.com, Snapdeal.com are 11 Longer page loading time (promotion, sales period) on Amazon.in, Paytm.com, Myntra.com are 7



Limited mode of payment on most products (promotion, sales period)

## Observation:-

Limited mode of payment on most products (promotion, sales period) on Snapdeal.com are 87

Limited mode of payment on most products (promotion, sales period) on Amazon.in are 62

Limited mode of payment on most products (promotion, sales period) on Flipkart.com are 31

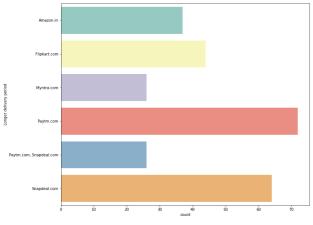
Limited mode of payment on most products (promotion, sales period) on Amazon.in, Flipkart.com are 29

Limited mode of payment on most products (promotion, sales period) on paytm.com are 25

Limited mode of payment on most products (promotion, sales period) on Paytm.com, Snapdeal.com are 15

Limited mode of payment on most products (promotion, sales period) on Amazon.in, Paytm.com are 13

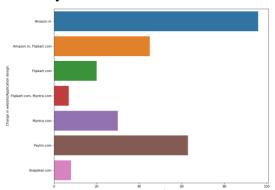
Limited mode of payment on most products (promotion, sales period) on Myntra.com, Snapdeal.com are 7



Longer delivery period

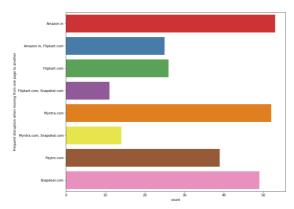
#### Observation:-

- 1.Longer delivery period on paytm.com are 72
- 2. longer delivery period on snapdeal.com are 64
  - 3.longer delivery period on Flipkart.com are 44
  - 4.longer delivery period on Amazon.in are 37
  - 5.longer delivery period on Paytm.com, Snapdeal.com are 26
  - 6.longer delivery period on myntra.com are 26



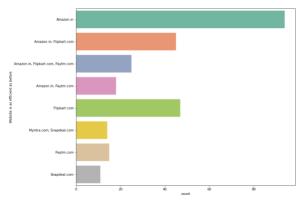
Change in website/Application design

- 1. Change in website/Application design in Amazon.com is 96
- 2. Change in website/Application design in Paytm.com is 63
- 3. Change in website/Application design in Amazon.in, Flipkart.com is 45
- 4. Change in website/Application design in Myntra.com is 45
- 5. Change in website/Application design in Flipkart.com is 20.
- 6. Change in website/Application design in Snapdeal.com is 8.
- 7. Change in website/Application design in Flipkart.com, Myntra.com is 7.



Frequent disruption when moving from one page to another

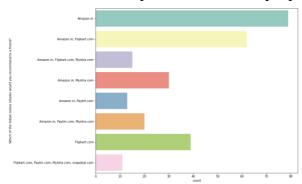
- 1. Frequent disruption when moving from one page to another in Amazon.in are 53
  - 2. Frequent disruption when moving from one page to another in Myntra.com are 52
  - 3. Frequent disruption when moving from one page to another in snapdeal.com are 49
  - 4. Frequent disruption when moving from one page to another in paytm.com are 39
  - 5. Frequent disruption when moving from one page to another in Flipkart.com are 26
- 6. Frequent disruption when moving from one page to another in Amazon.in, Flipkart.com are 25
- 7.Frequent disruption when moving from one page to another in Myntra.com, Snapdeal.com are 14
- 8.Frequent disruption when moving from one page to another in Flipkart.com, Snapdeal.com are 11



Website is as efficient as before

- 1. Website is as efficient as before in Amazon.in for 94 peoples 2. Website is as efficient as before in Flipkart.com for 47 peoples
  - 3. Website is as efficient as before in Amazon.in, Flipkart.com for 45 peoples
  - 4. Website is as efficient as before in Amazon.in, Flipkart.com, paytm.com for 25 peoples
  - 5. Website is as efficient as before in Amazon.in, paytm.com for 18 peoples
  - 6. Website is as efficient as before in paytm.com for 15 peoples
  - 7. Website is as efficient as before in amazon.in, Paytm.com for 18 peoples
  - 8. Website is as efficient as before in Paytm.com for 15 peoples
  - 9. Website is as efficient as before in Paytm.com for 15 peoples

- 10. Website is as efficient as before in Myntra.com, Snapdeal.com for 14 peoples
- 11. Website is as efficient as before in Snapdeal.com for 11 peoples



Which of the Indian online retailer would you recommend to a friend

- 1.the Indian online retailer would you recommend to a friend by people in Amazon.in are 79
- 2. the Indian online retailer would you recommend to a friend by people in Amazon.in, Flipkart.com are 39
- 3. the Indian online retailer would you recommend to a friend by people in Amazon.in, Flipkart.com are 62
- 4. the Indian online retailer would you recommend to a friend by people in Flipkart.com are 39
- 5. the Indian online retailer would you recommend to a friend by people in Amazon.in, Myntra.com are 30
- 6. the Indian online retailer would you recommend to a friend by people in Amazon.in, Paytm.com, Myntra.com are 20
- 7. the Indian online retailer would you recommend to a friend by people in Amazon.in, Flipkart.com, Myntra.com are 15
- 8. the Indian online retailer would you recommend to a friend by people in Amazon.in, Paytm.com are 13
- 9. the Indian online retailer would you recommend to a friend by people in Flipkart.com, Paytm.com, Myntra.com, snapdeal.com are 11

# **CONCLUSION**

This study helped in demonstrating proficiency with statistical analysis of data. This study helped in developing the ability to build and assess data-based models. This study helped in executing statistical analyses with professional statistical software. It also gave a deep understanding of EDA process, handling and cleaning data. This study also helped in demonstrating skill in data management.