FLIP ROBO

Customer Retention

Submitted by:

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ACKNOWLEDGMENT

This includes mentioning of all the references, research papers, data sources, professionals and other resources that helped you and guided you in completion of the project.

INTRODUCTION

- ## Business Problem Framing

  Customer satisfaction has emerged as one of the most important factors that guarantee the success of e-commerce store. It has been identified as a key stimulant of purchase, repurchase intentions and customer loyalty.

- ## Conceptual Background of the Domain Problem

  In this Fast paced world it has been evident that people want things at fingertip .It's often seen that most of the customer in retails stores complain about lack of designs to choose from .This problem is more ardent in Tier 2 and Tier 3 cities in India ,where people had to choose between the limited choice they had .Thus there has been a sustainable gap in demand and supply of items to choose from and of course in a attractive price range . Ecommerce sites tend to bridge this gap by providing a plethora to choose from and in competitive price. As the Ecommerce boom happened, the bigger challenge for the E-commerce firms is to maintain the customer base for growing revenues as most of the business comes from loyal customers.

  Thus the key factor to a continued growth in this domain is recurring customer and their loyalty

- ## Review of Literature

  This is a comprehensive summary of the research done on the topic. The review should enumerate, describe, summarize, evaluate and clarify the research done.

- ## Motivation for the Problem Undertaken

  The main objective of this Project is to identify the key factors which contribute more to attract customers and retain them via demographic based loyalty plans etcetera and also identifying the factors which drive them away to the competition Ecommerce has been one of the most booming industry in last decade where lot of Unicorns were established in INDIA, hence a analytical study based on customer research will contribute more towards customer retention

Analytical Problem Framing

- Mathematical/ Analytical Modeling of the Problem

- Data Sources and their formats

  The data was accumulated by a set of questionnaire. There were 47 questions with single answer and a set of 23 questions where the answer had multiple choices.

  This data was stacked in a spreadsheet with the original answers and the same was encoded in another sheet

- Data Preprocessing Done

  Following are the steps followed:

  1. Ensuring all the columns were filled up
  2. As the data was mostly in Word, we ensured whether same option was not multiple time listed due to difference in their case . If any such was found one of the values was replaced with another so that the count-plots are done only on diff categories

- Data Inputs- Logic- Output Relationships

  NA

- State the set of assumptions (if any) related to the problem under consideration

  All the data that has been collected was given based on personal experience. This data will be used to infer the reasons by which parameter the customer get more attrscted to a specific site

- Hardware and Software Requirements and Tools Used

  Hardware

  - Intel Core i5 3rd Gen.
  - Quad Core, 1.6 GHz Clock Speed.
  - 8 GB DDR4 RAM.
  - 1 TB Hard Disk.
  - 13.3 inches, 1920 x 1080 pixels, Touch Screen.
  - Windows 10 OS.

  Software

  - Junyper.
  - MS WORD.
  - MS Excel.

Model/s Development and Evaluation

- Identification of possible problem-solving approaches (methods)

  Approach

  1. Import the dataset
     a. Check the columns
     b. Check for size of the dataset
     c. Check for nulls if any
     d. Check for duplicate rows

     e. Check of identical columns or columns with constant values
2. Univariate Analysis
     a. Category wise counts
     b. Count plot
       Infer from the count plot
3. Bivariate Analysis
     a. Based on domain and univariate analysis infer based on scenarios

.

- Testing of Identified Approaches (Algorithms)

  NA.

- Run and Evaluate selected models
  NA

- Key Metrics for success in solving problem under consideration
  NA

- Visualizations

  Mention all the plots made along with their pictures and what were the inferences and observations obtained from those. Describe them in detail.

  If different platforms were used, mention that as well.

```
: #df['2 How old are you? '].value_counts()
plt.figure(figsize=(10,5))
sns.countplot(df['2 How old are you? '])
plt.show()
df['2 How old are you? '].value_counts()
```
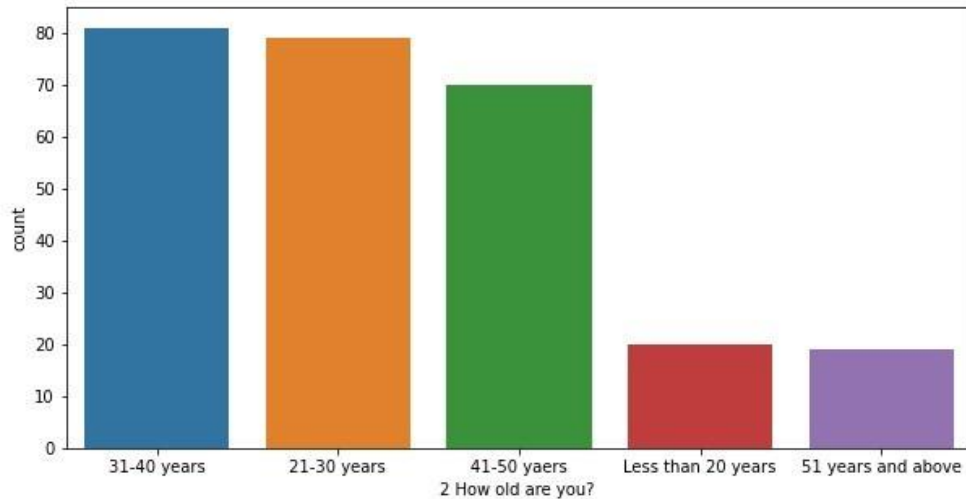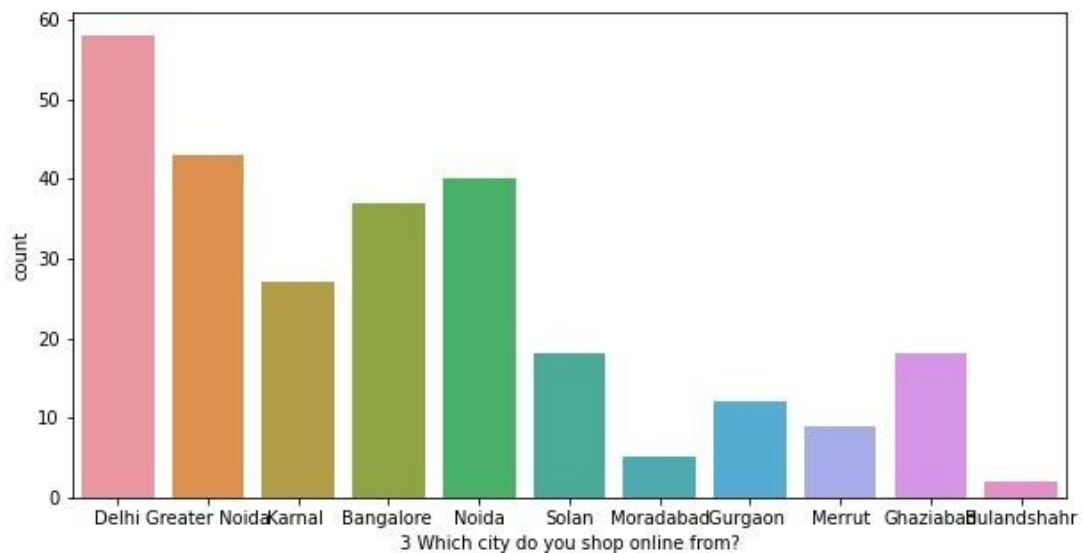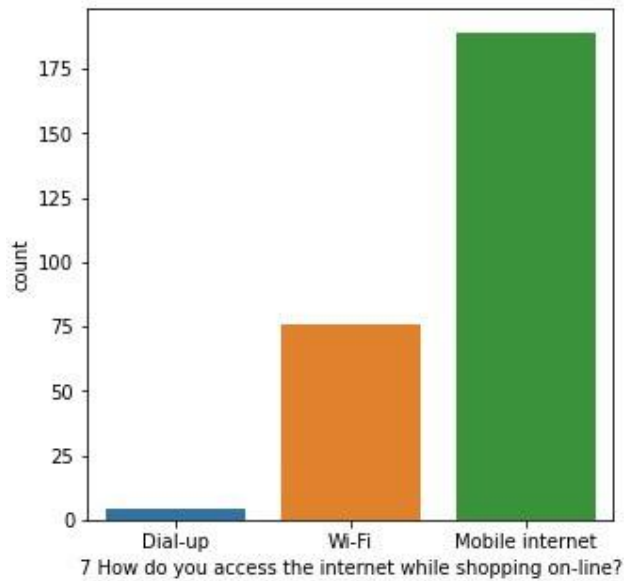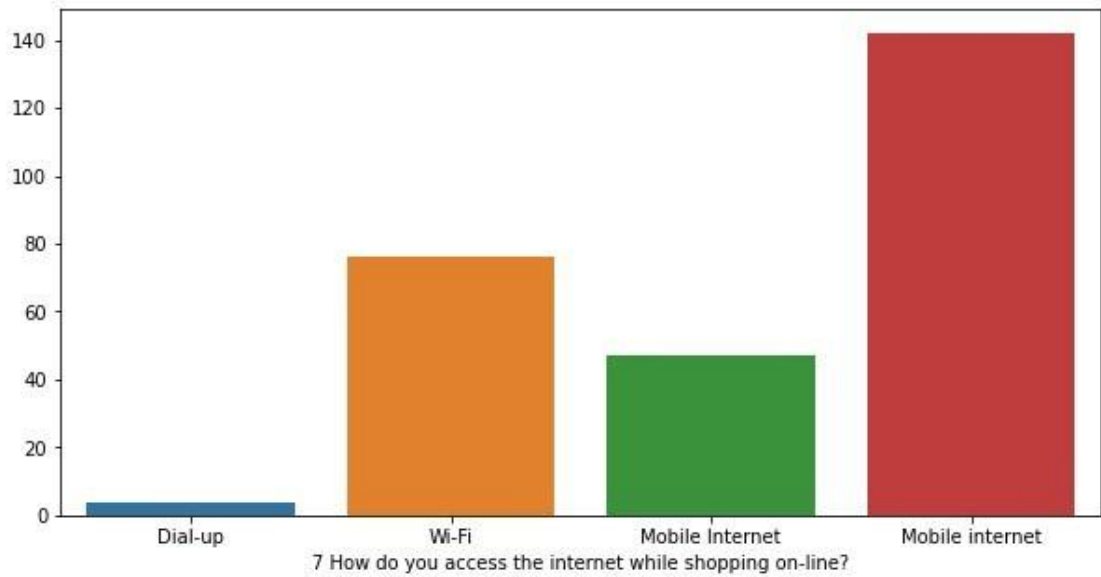


```
: 31-40 years           81
  21-30 years           79
  41-50 yaers           70
  Less than 20 years    20
  51 years and above    19
  Name: 2 How old are you? , dtype: int64
```

Most of the observations were taken from the demographic with age of 21-50 years old


Mostly Metro cities prefer the Online shopping as compared to the smaller cities as there are multiple reason , speed of delivery being the primary one

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

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The data was rectified as we can observe that Mobile Internet was there twice , Post processing we found the very few people use dial up internet and ,most user prefer Cellular internet

8 Which device do you use to access the online shopping?
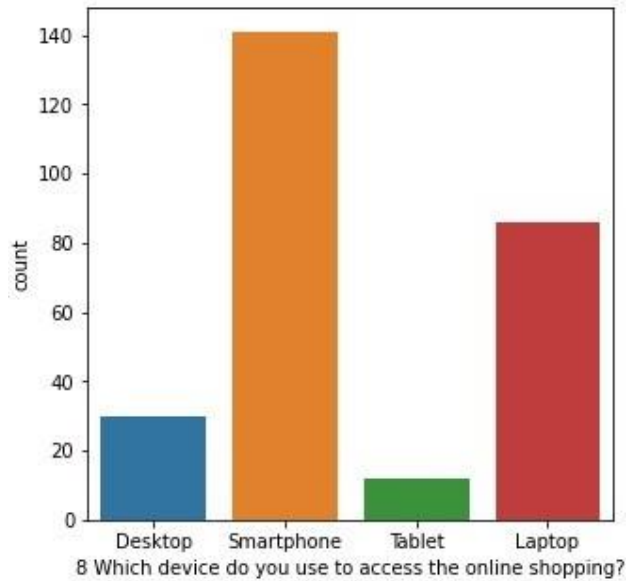
As we saw most of the users prefer to use cellular internet the devices like smartphone and tablet users will be more .
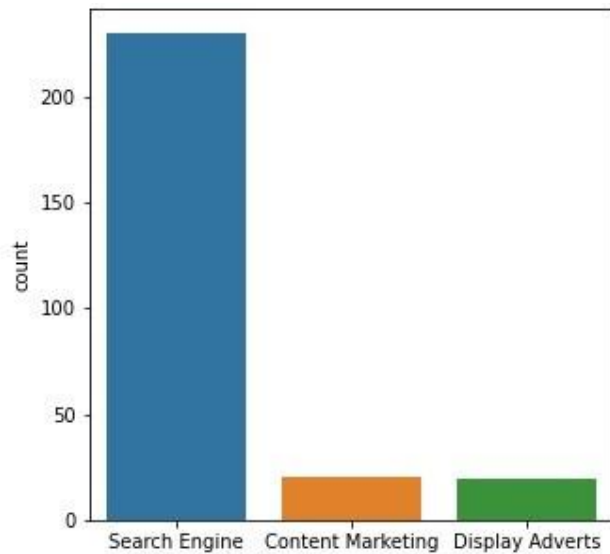

12 Which channel did you follow to arrive at your favorite online store for the first time?

Most of the customer relies on the search engine to land up to a shopping site for the first time. Hence to attract the First time customer the SEO should be done by the websites for better visibility
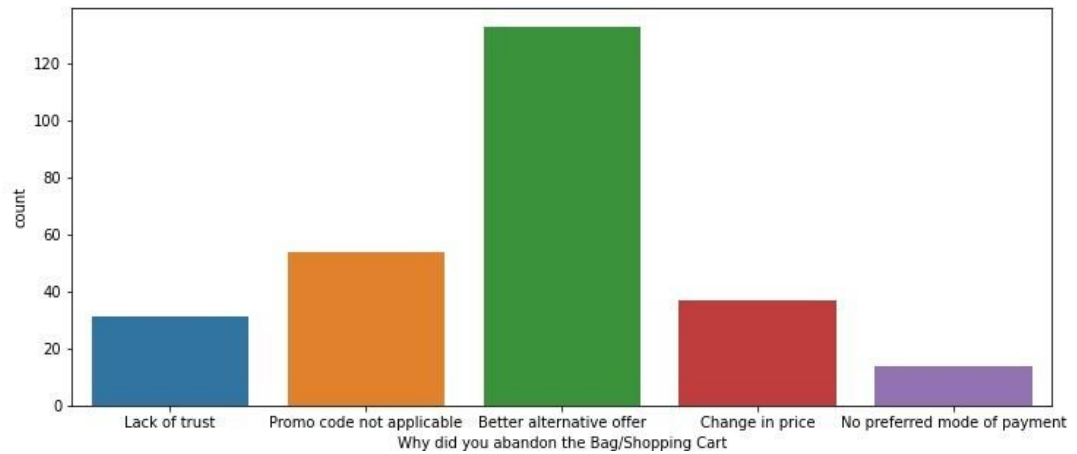
It has been observed most people abandon the cart due to availability in an alternative offer or rejection of Promo code .Thus Monetory benefits plays a crucial role while shopping online
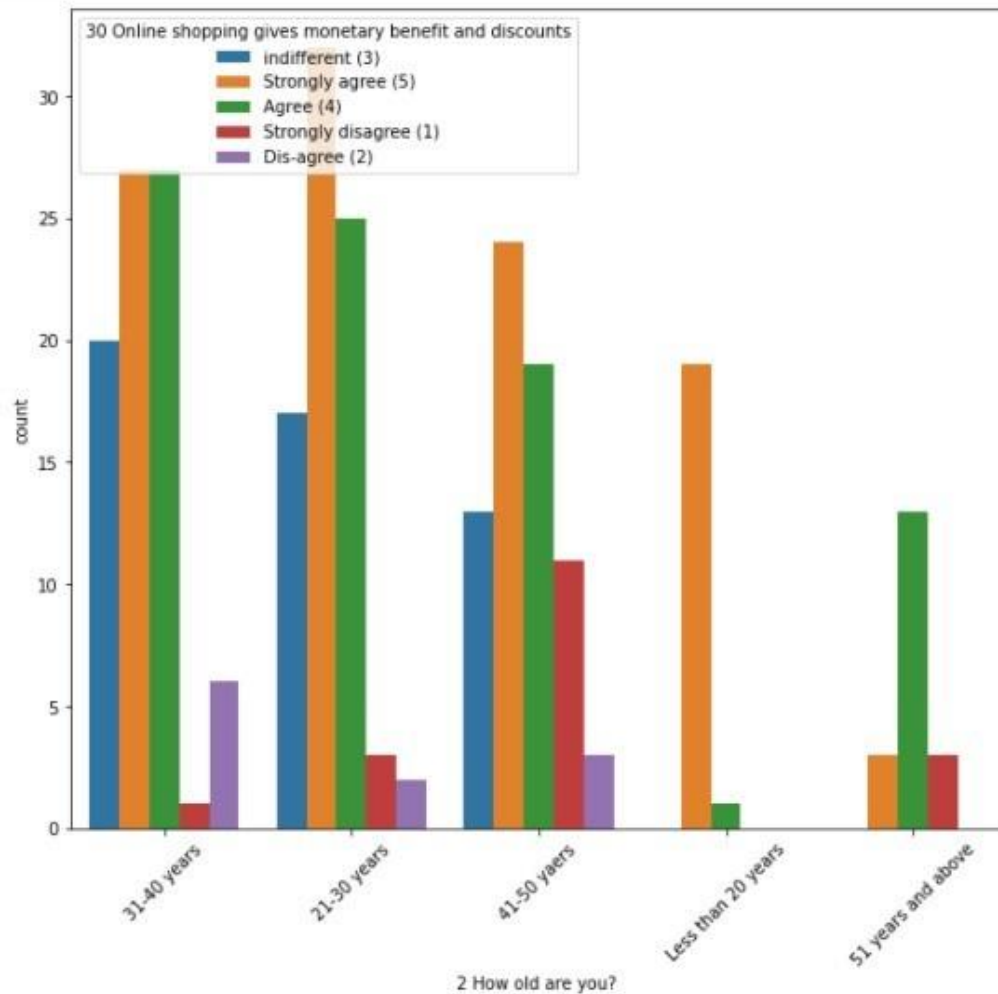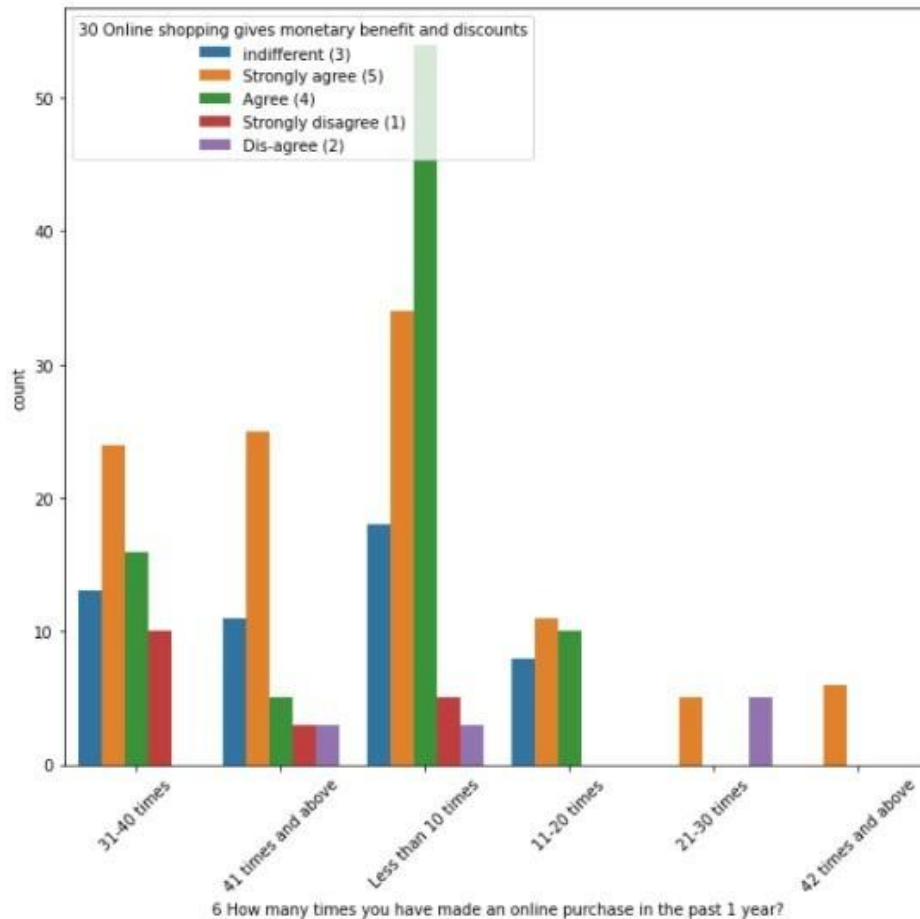
The monetary benefits is important to almost everyone, but its most important to the customers in the age range of 21-30 as mostly they are students or newly employed and pocket pinch factor is of very importance in this age .
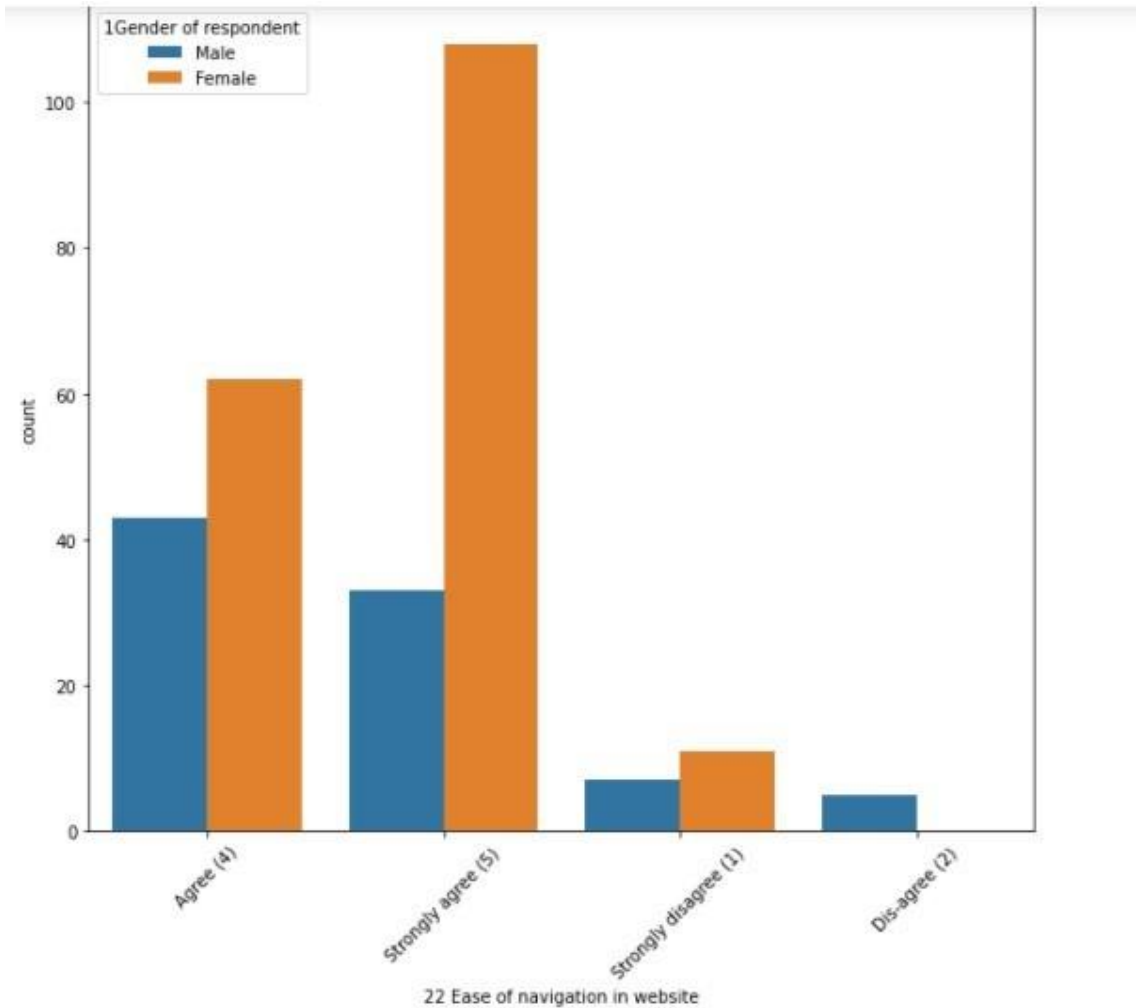
Most female customer prefer easy to navigate apps or interface as compared to male customers
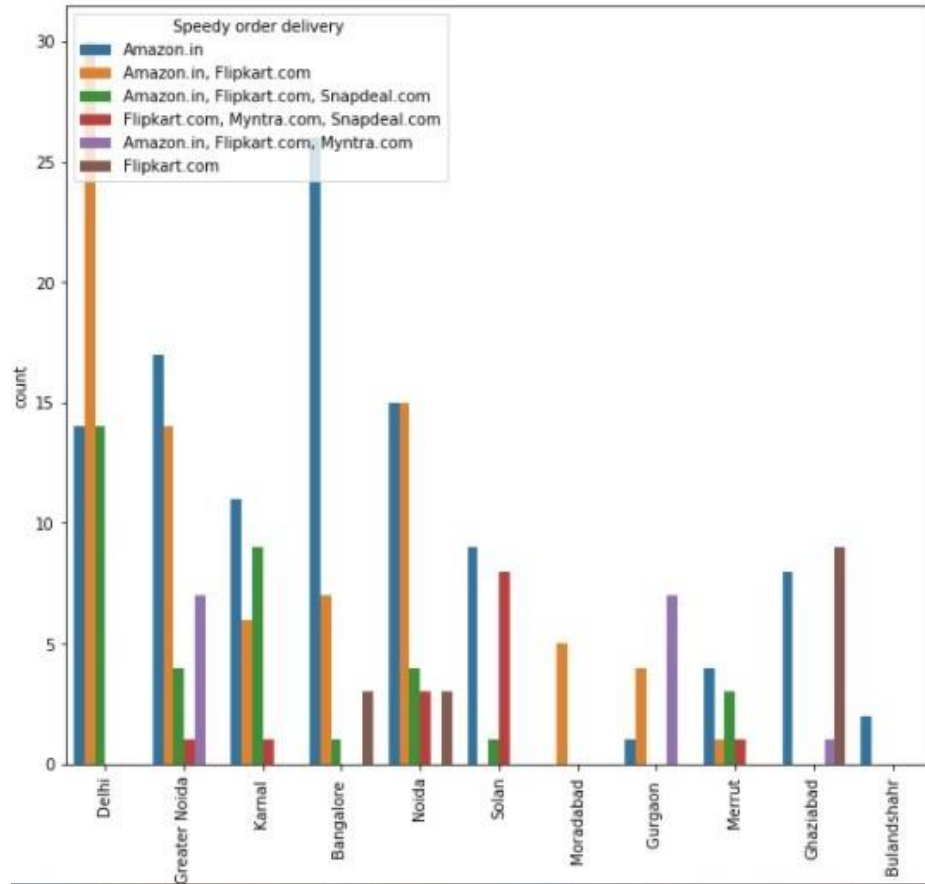
The Delivery speed is very fast in Metro cities and the logistic frequency decreases in Tier2 and Tier 3 cities

30 Online shopping gives monetary benefit and discounts
- indifferent (3)
- Strongly agree (5)
- Agree (4)
- Strongly disagree (1)
- Dis-agree (2)

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

Most of the people who shop occasionally shop for monetary benefits mostly

- # Interpretation of the Results

From the Statistical interpretation, following things can be inferred

1. Most user are using apps (android and apple)
2. Most user land on the site first time via Search engine
3. Customers primarily female prefer easy to use interface
4. The User base is dense in the range of 21-30 years
5. The customers prefer website which intimate about sale in advance so that customers can benefit more from them
6. The customers prefer the ecommerce platforms with a speedy delivery within competitive pricing

7. Customer prefer to use platforms which provide maximum discount and Credit card payment is mostly preferred by the customer as it could be saved for easy check outs
8. Easy returns is a very imp feature preferred by customers as it gives the freedom to choose as the size in apparel industry is semi-standardised thus a freedom on that encourages customer to buy more and return back for 2nd time
9. The customer with annual shopping frequency less than 10 , prefer to shop mostly for monitory benefits
10. The customer also prefer websites storing less data from Security point of vies
11. The Metro/Tier 1 cities prefer Speedy deliveries, Tier 2-3 cities prefer those customers most as the logistic coverage is high
12. 2 Ecommerce sites does more than 70 percent of the business and have more recurring customers

CONCLUSION

- Key Findings and Conclusions of the Study

The Customers prefer the Ecommerce channel , which provide

1. Easy to use interface and less loading time
2. Competitive discounts and Return facilities with speedy deliveries
3. Convenient payment options
4. Customer Data Privacy

- Learning Outcomes of the Study in respect of Data Science

- Limitations of this work and Scope for Future Work

  Future Scope of this Project is to build models to predict based on multiple factors to interpreter which Factor is contributing most