NAME OF THE PROJECT :-

E-retail factors for customer activation & retention

Submitted by:

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ACKNOWLEDGMENT

First and foremost, I would like to thank Flip Robo Technologies to provide me a chance to work on this project. It was a great experience to work on this project under your guidance. I would like to present my gratitude to the Datatrained Notes

These notes were of great help and due to this, I was able to complete my project effectively and efficiently.

INTRODUCTION

• Business Problem Framing This is a case study on Indian E-commerce customers to know which are the major factor for activation and retention of the customers, 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.

• Conceptual Background of the Domain Problem Basic EDA concepts must be known to work on this project. One should know what is customer retention and how it is going to affect the e-commerce business. Why customer retention is important and how can it have achieved by a company.

• Review of Literature Customer retention refers to a company's ability to turn customers into repeat buyers and prevent them from switching to a competitor. It indicates whether your product and the quality of your service please your existing customers. It is also the lifeblood of most subscription-based companies and service providers. Why customer retention is important? Keeping your current customers happy is generally more cost-effective than acquiring first-time customers. According to the Harvard Business Review, acquiring a new customer can be five to 25 times more expensive than holding on to an existing one. Loyal customers are more likely to give free recommendations to their colleagues, friends and family. Creating that cycle of retained customers and viral marketing is one way your company can cultivate customer loyalty for long-term success. Customer retention benefits

• Cost savings: Customer retention is generally more cost-effective than acquiring first-time customers

• Positive word of mouth marketing: Loyal customers are more likely to tell their friends and family about your brand

• A better bottom line: Increasing retention rates by just 5 percent can increase revenue by 25 percent to 95 percent 7 strategies to improve customer retention 1. Respond to customer support queries quickly 2. Use context to deliver personalised support interactions 3. Simplify customer service workflows 4. Offer omnichannel support to reach customers where they are 5. Consistently gather customer feedback 6. Incentivise loyalty 7. Educate your customer by offering great content Customer retention doesn't improve overnight. However, if you have a few solid strategies up your sleeve, you can coax your existing customers back for more. First, know your customers. Figure out what they want and need and where their pain points lie. Next, find ways to surprise, delight, and motivate them. Get in touch. Ask for feedback and testimonials. Help them realize you appreciate their patronage.

Conceptual Data Framing

In this case we have a dataset in which first 19 columns tell about the customers, in next 30 columns we will get know how users are being satisfied with online e-retail shops in different areas like payment, speed of the delivery etc, In next 22 columns we will get to know which is the users favourite online retail shop under different categories.

Literature Review

The data for this project is been provided from the client side, apart from that to accomplish this project in better way went through several websites like geeks for geeks, towards data science and many more for effective visualization and also took the help of datatrained institude. Read books like data visualization using python, and did some research over stack overflow subject on the same topic.

Motivation for Problem Analysis

The particular project is undertaken to advice our client regarding the factors that affect most for the activation and retention of the customers, adding to that we would always like to see our client at top of chart in this reckless competition.

Analytical Problem Framing

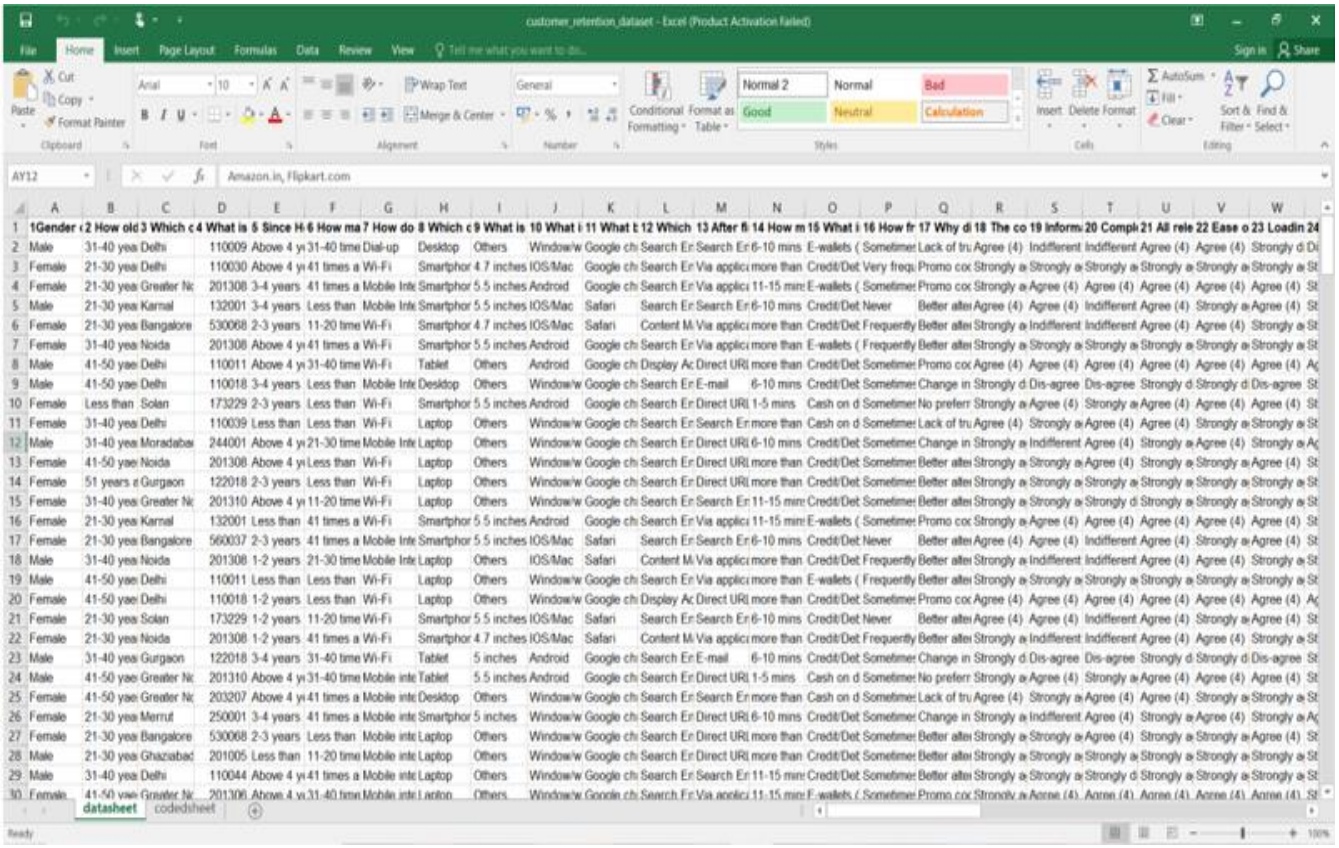
- Data Sources and their formats

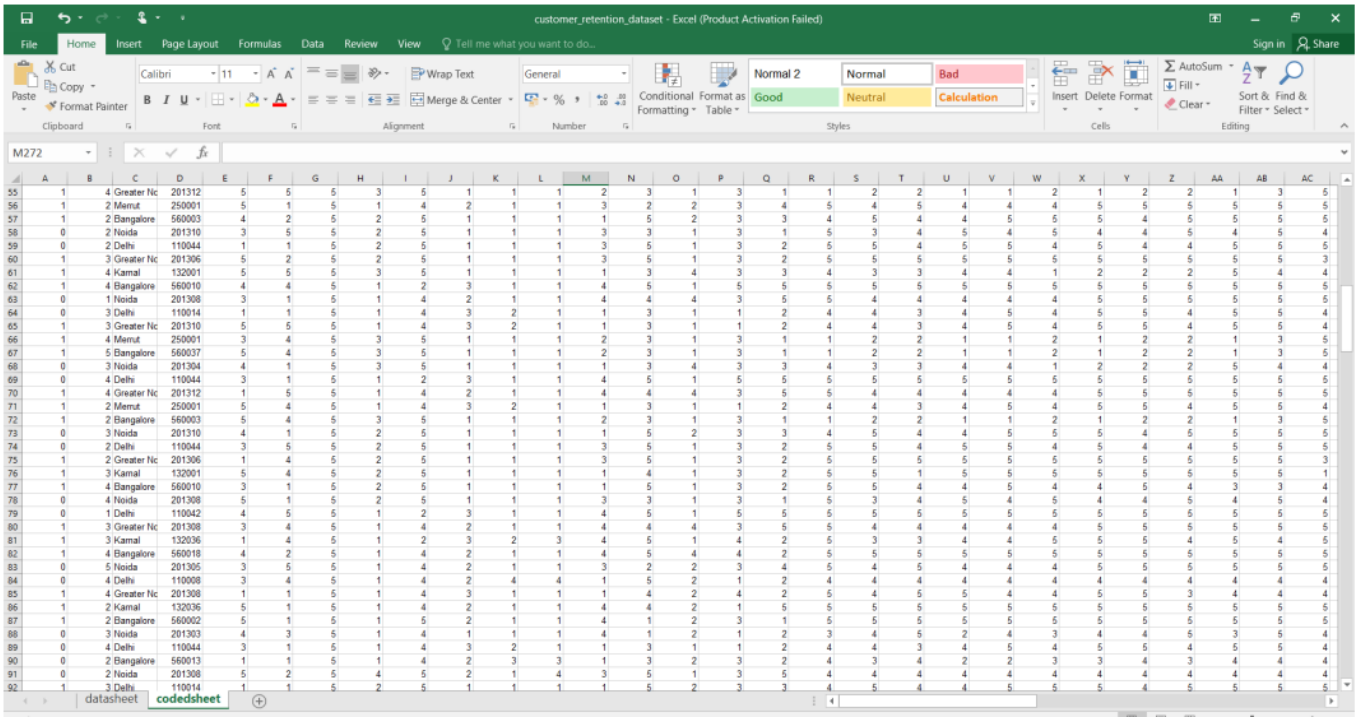
The dataset is provided the internship organization in an excel format which contains the data in both in code sheet and categorical data. It contains 71 columns and 269 rows. There are so many factors which can be used for the customer retention rate of an organization. It is a survey data in which different people puts their opinions regarding it. Every column is of object datatype except pin code column.

Since all most all columns are of type categorical, we label encoded them to make the machine undestand, As there was no response variable so we looked at the correlation between 2 independent variable if there is any significant correlation between those then we analyse that pair using suitable technique to derive maximum cooperative information

Hardware & Software tools used: -

We carried out this project in jupyter notebook of Anaconda Navigator For better visualization and for data processing we used libraries like pandas, matplotlib, seaborn and sklearn.





Libraries Used

I am using different libraries to explore the datatset.

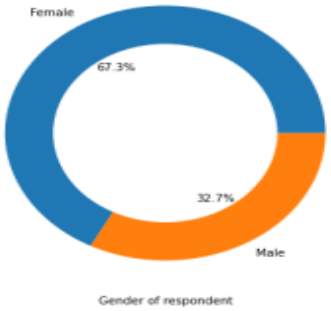
1. Pandas – It is used to load and store the dataset. We can discuss the dataset with the pandas different attributes like info, columns, shape

2. Seaborn – It is used to plot the different types of plots like cat plot, Line plot, count plot and more to have a better visualization of the dataset.

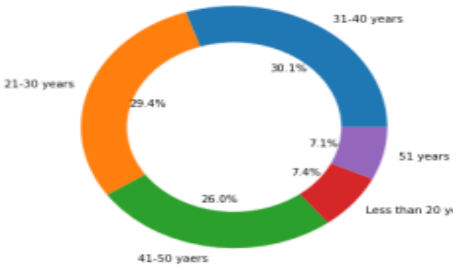
3. Matplotlib.pyplot – It helps to give a proper description to the plotted graph by seaborn and make our graph more informative.

4. Numpy – It is the library to perform the numerical analysis to the dataset

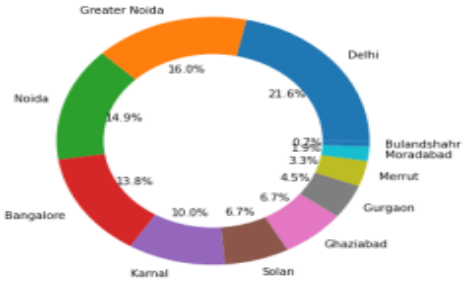
1. Personal Info



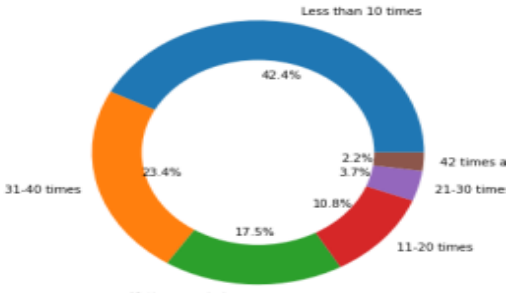
Gender of respondent



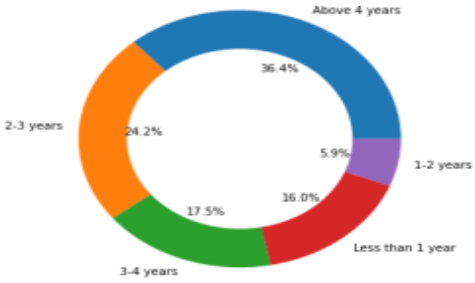
How old are you?



Which city do you shop online from?



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



Since How Long You are Shopping Online ?

Observation:

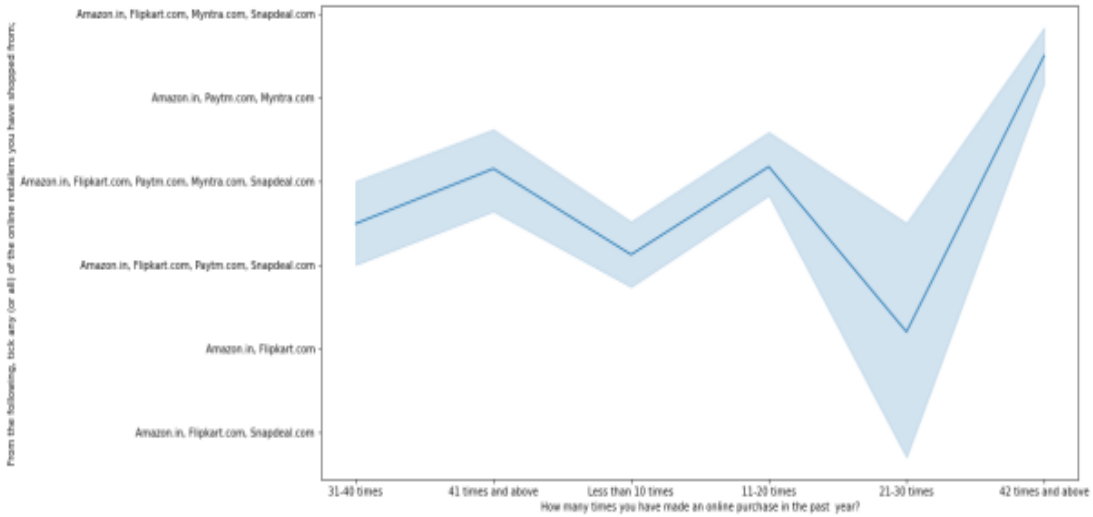
1. There is double the number of women than men who have taken this survey.
2. Most of the people are in their 30's followed by 20's, teenagers and senior citizen are the least in number.
3. Most of the people belong from delhi, noida and banglore, ambiguity can also be seen as noida has two categories (noida and grater noida) which need to be handled
4. Most of the people shopping online have been shopping from a long time.

5. Majority of people shop online 10 times a year, ambiguity can also be seen

for range 42 times and above which needs to be handled

2. Intention of repeat purchase

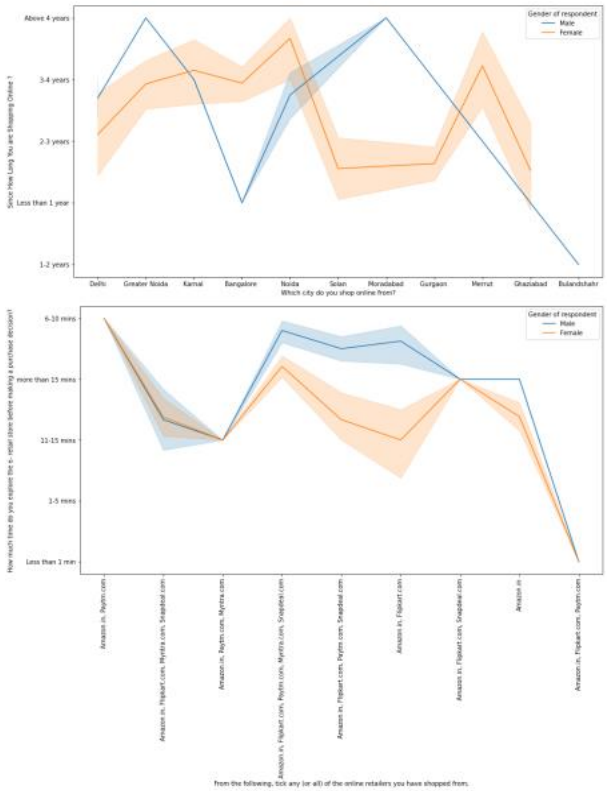
2. Intention of repeat purchase



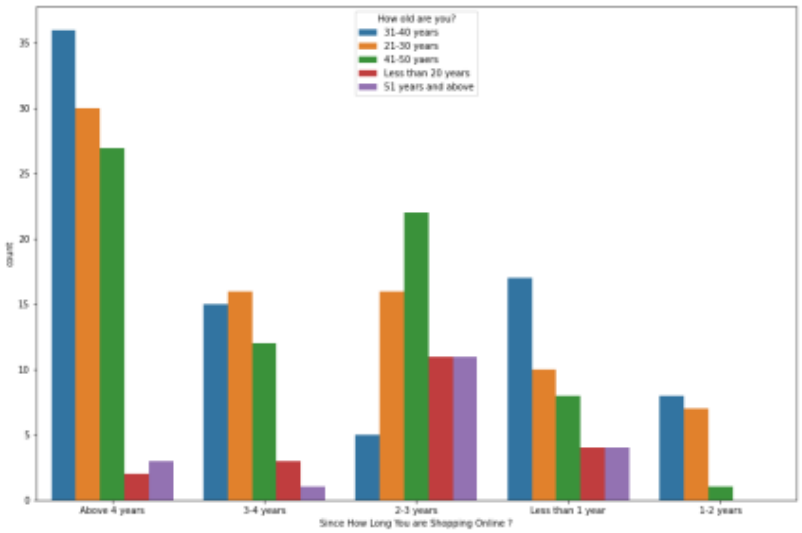
Observation:

Heavy shoppers who shop more than 41 times a year shop from all the online brands, some of the people who shop for 32-40 and less than 10 times a year seem to exclude Myntra.

People shop from Amazon and flipkart whatever be the case People shop from Amazon and flipkart whatever be the case. People shop from Amazon and flipkart whatever be the case People shop from Amazon and Myntra



3. Online retailing



Observation:

Highest number of people have been shopping online for above 4 years

except for the age group below 20 years and above 50 years. People who are

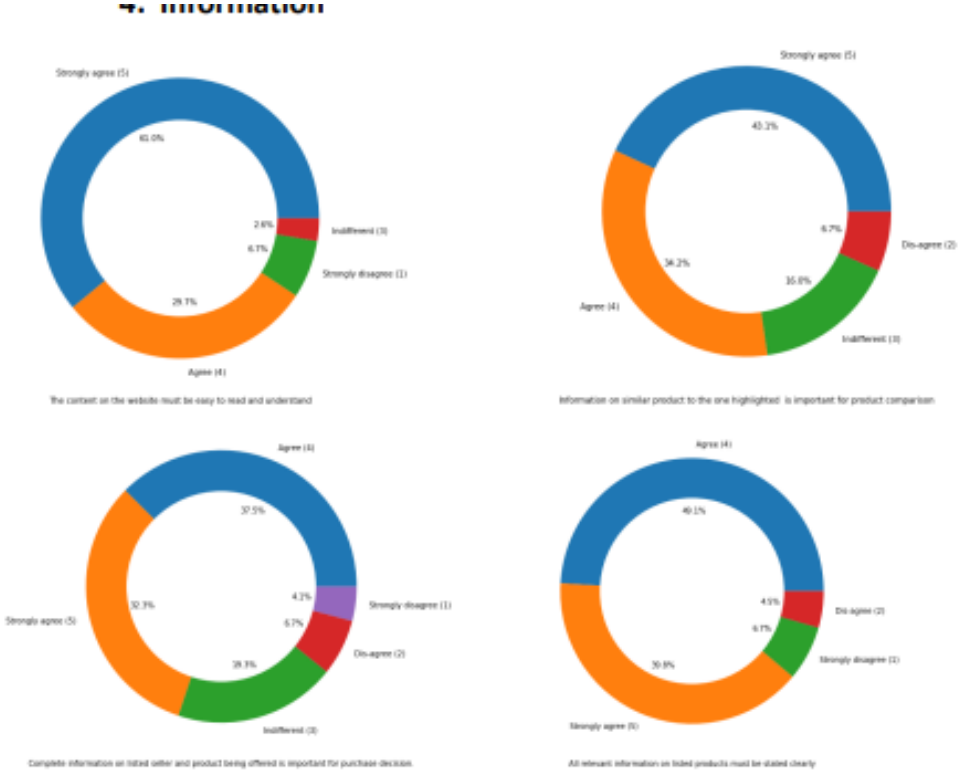
shopping online for 1-2 years does not include teenagers and elder people.

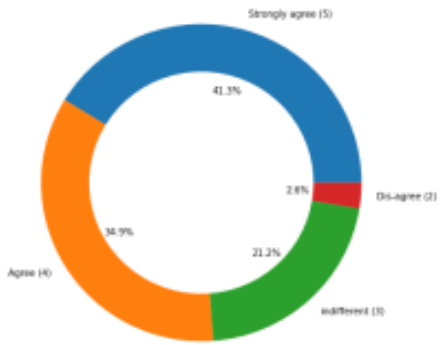
In lines, we can see that density of female customers is more than male. Men living in banglore and ghaziabad shop have shopped online for less than 1 year. Highest number of men shopping online belong from delhi and noida, while men from moradabad have been shopping online for the longest. Women from meerut and noida have shopped the longest.
Men & Women both spends a lot of time to make a purchase decision on

Amazon

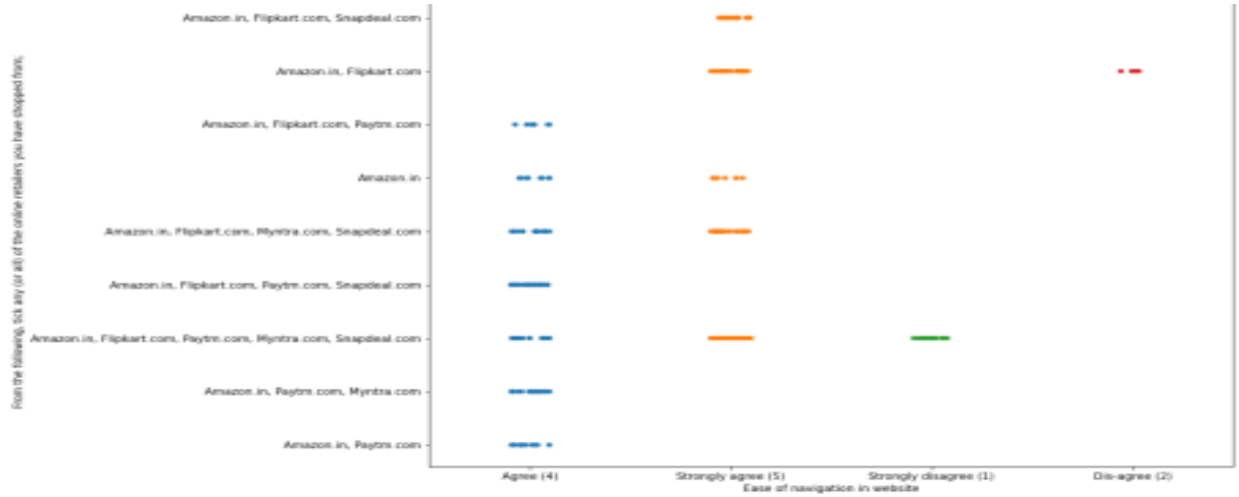
Also, they spend a less than 1 min before making a purchase decision on Amazon, Flipkart, Paytm They spend a lot while surfing through many websites.Even though people who are shopping online for more than 3 years use search engine in large number which indicates that first time users always tried the search engine to shop on their favourite online store for the first time.Even though people who are shopping online for more than 3 years donot use the application rather use search engine and direct url's in large number which indicates that online brands should update all their platforms rather than just application.

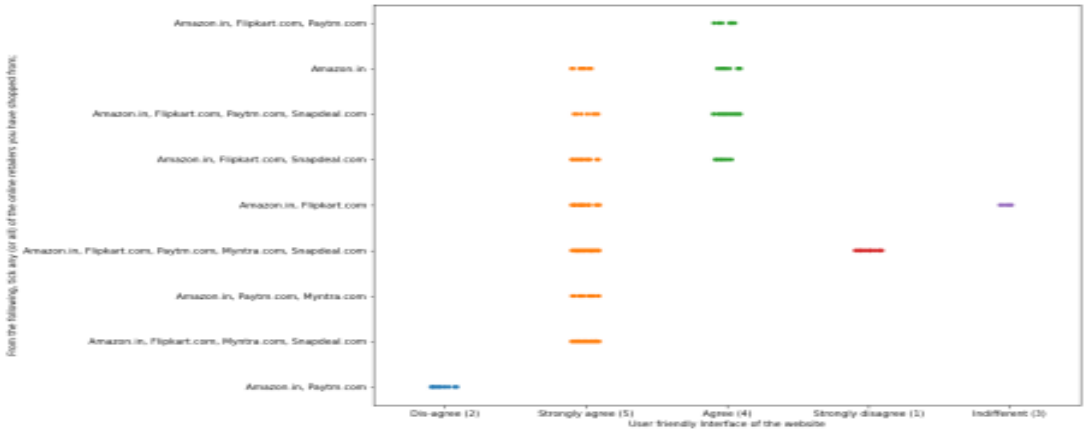
4. Information

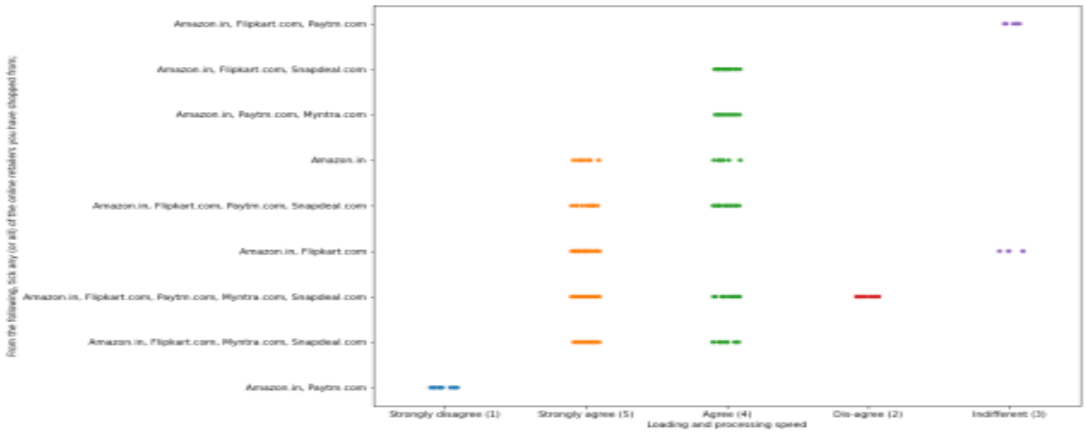


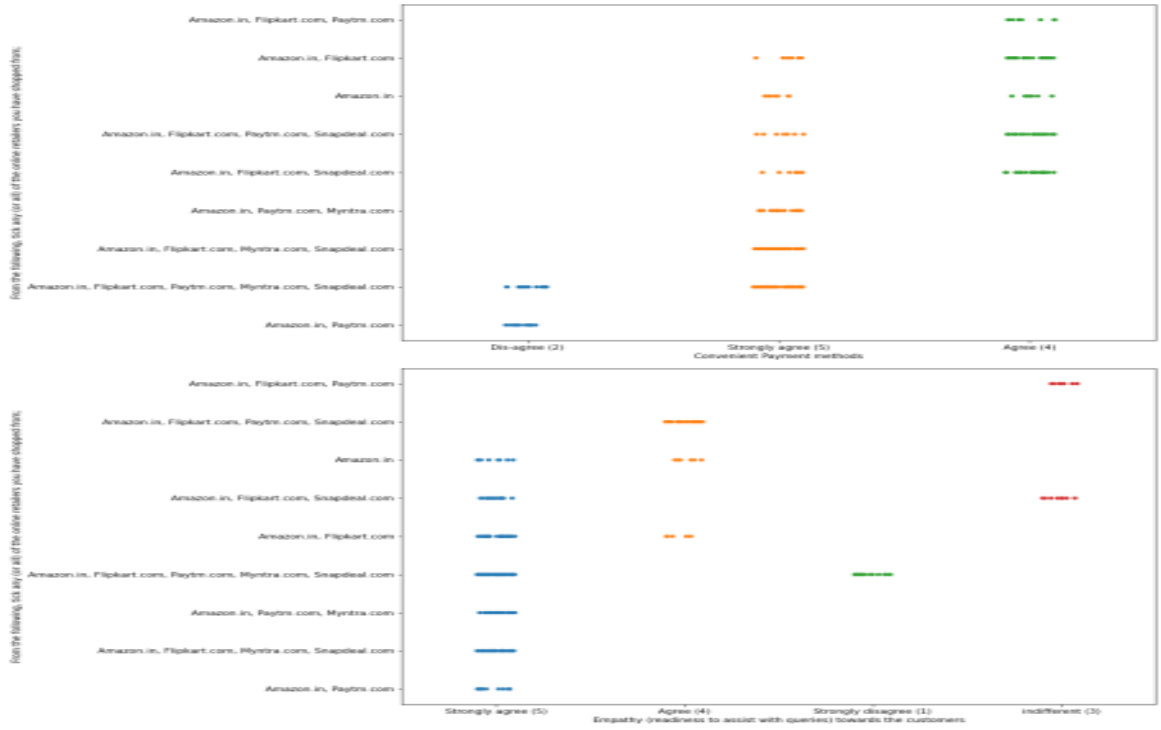


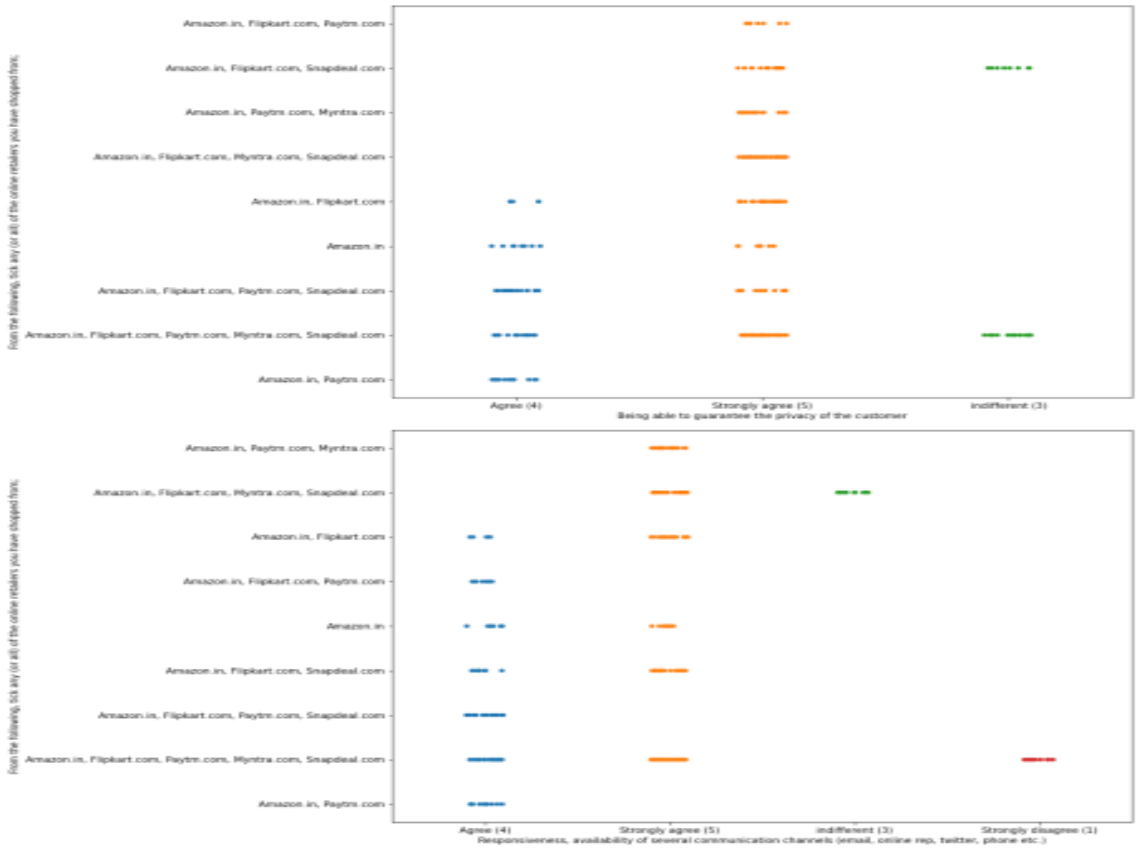
Observation: Above comparisons shows that both men or women strongly agree that online stores must mention a complete and relevant information about the product on their websites. Provision of complete information leaves a clear perception about the product.


From the following, tick any (or all) of the online retailers you have shopped from:
Amazon.in, Flipkart.com, Snapdeal.com
Amazon.in, Flipkart.com
Amazon.in, Flipkart.com, Paytm.com
Amazon.in
Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com
Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com
Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com
Amazon.in, Paytm.com, Myntra.com
Amazon.in, Paytm.com
Agree (4)
Strongly agree (5)
Strongly disagree (1)
Dis-agree (2)
Ease of navigation in website


From the following, tick any (or all) of the online retailers you have shopped from:
Amazon.in, Flipkart.com, Paytm.com
Amazon.in
Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com
Amazon.in, Flipkart.com, Snapdeal.com
Amazon.in, Flipkart.com
Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com
Amazon.in, Paytm.com, Myntra.com
Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com
Amazon.in, Paytm.com
Dis-agree (2)
Strongly agree (5)
Agree (4)
Strongly disagree (1)
Indifferent (3)
User friendly interface of the website


From the following, tick any (or all) of the online retailers you have shopped from:
Amazon.in, Flipkart.com, Paytm.com
Amazon.in, Flipkart.com, Snapdeal.com
Amazon.in, Paytm.com, Myntra.com
Amazon.in
Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com
Amazon.in, Flipkart.com
Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com
Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com
Amazon.in, Paytm.com
Strongly disagree (1)
Strongly agree (5)
Agree (4)
Dis-agree (2)
Indifferent (3)
Loading and processing speed


From the following, tick any (or all) of the online retailers you have shopped from:
Amazon.in, Flipkart.com, Paytm.com
Amazon.in, Flipkart.com
Amazon.in
Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com
Amazon.in, Flipkart.com, Snapdeal.com
Amazon.in, Paytm.com, Myntra.com
Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com
Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com
Amazon.in, Paytm.com
Dis-agree (2)
Strongly agree (5)
Agree (4)
Convenient Payment methods
From the following, tick any (or all) of the online retailers you have shopped from:
Amazon.in, Flipkart.com, Paytm.com
Amazon.in, Flipkart.com, Paytm.com, Snapdeal.com
Amazon.in
Amazon.in, Flipkart.com, Snapdeal.com
Amazon.in, Flipkart.com
Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com
Amazon.in, Paytm.com, Myntra.com
Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com
Amazon.in, Paytm.com
Strongly agree (5)
Agree (4)
Strongly disagree (1)
Indifferent (3)
Empathy (readiness to assist with queries) towards the customers



Observation:

1. There are peoples who are strongly disagree that there is an ease of navigation on the website in any of the online store

2. Loading & processing speed of any online shopping website can create a difference in the number of customers.

3. User friendly interface entact the customer

4. Most of the websites doesn't have the convinient payment method

5. Most of users trust that the online retail store will fulfill its part of the transaction at the stipulated time

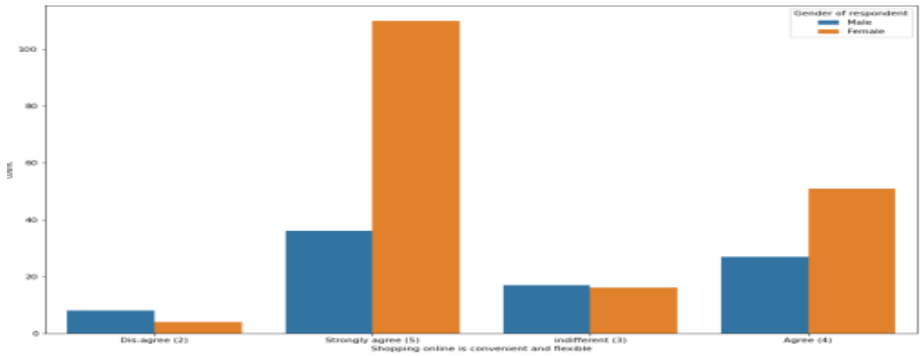
6. Online websites have a good backend customer care services to their customers 7. Online websites are able to provide the privacy to their customers 8. Most of the online stores have a good responsiveness

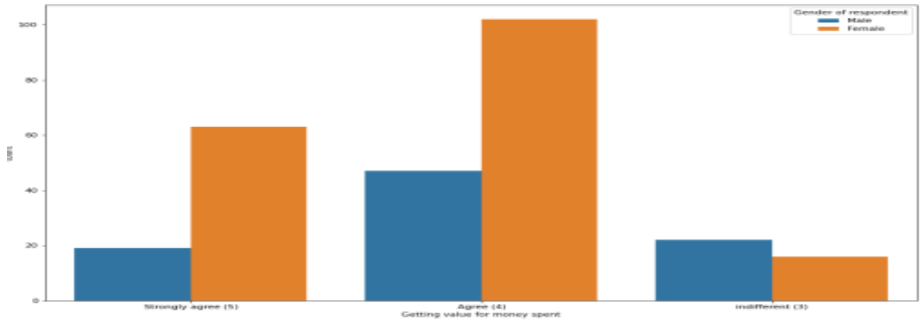
6. Satisfaction

Observation

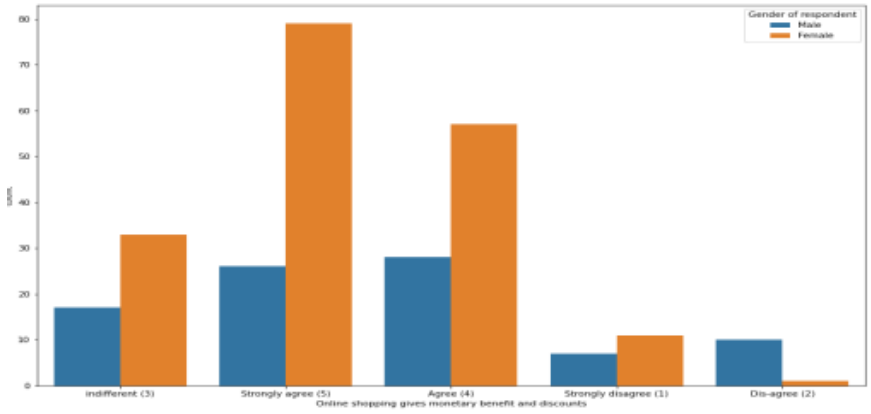
Observation From the following factors we can conclude that these 4 factors required to be fullfiled by the online stores to satisfiy their customers:

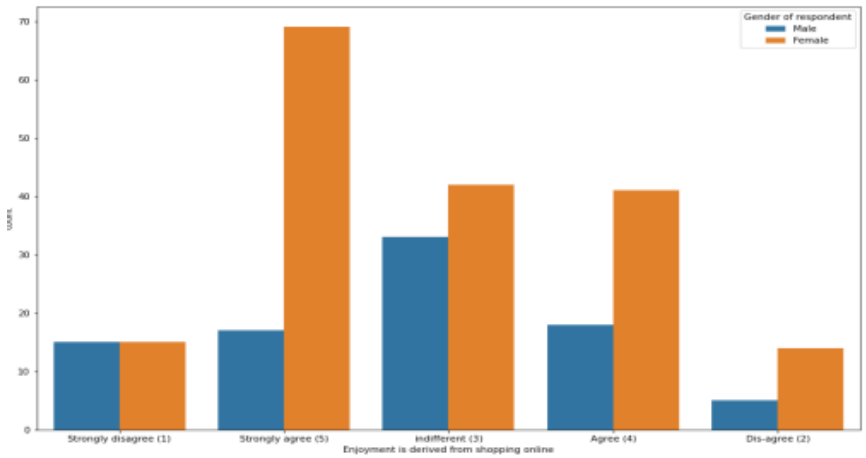
1. Displaying quality information
2. A good website with better system quality
3. Net Benefits from the online store 4. Trust on the website by the users





7. Net Benefits



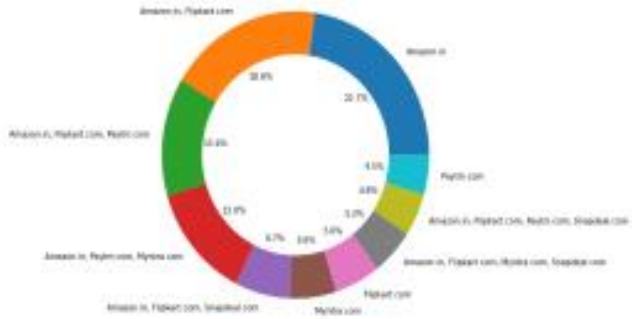


Observation:

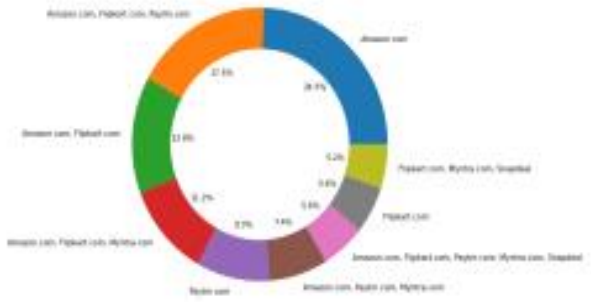
There are some benefits users expects after shopping online:

1. Online shopping gives monetary benefit and discount
2. Enjoyment is derived from shopping online
3. Shopping online is convenient and flexible
4. Return and replacement policy of the e-tailer is important for purchase decision
5. Gaining access to loyalty programs is a benefit of shopping online
6. Monetary savings with the above comparison we can conclude that Men's participated actively in the survey and there are some of the thing's peoples are indifferent with others more

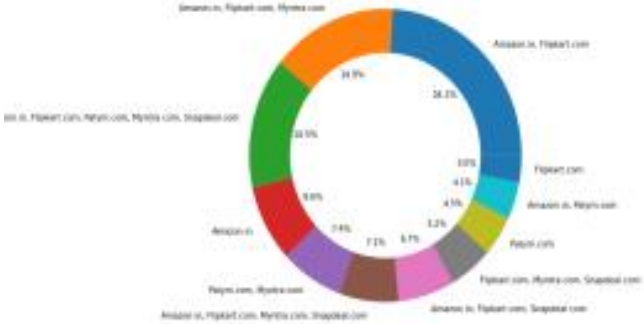
8. Brand Image



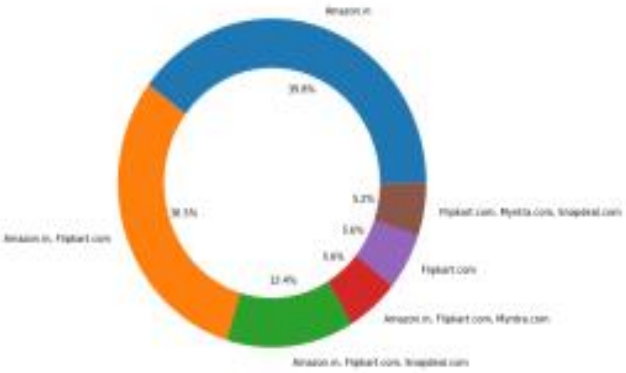
Reliability of the website or application



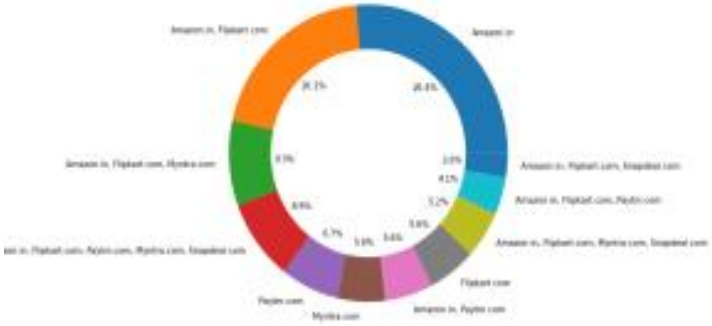
Quickness to complete purchase



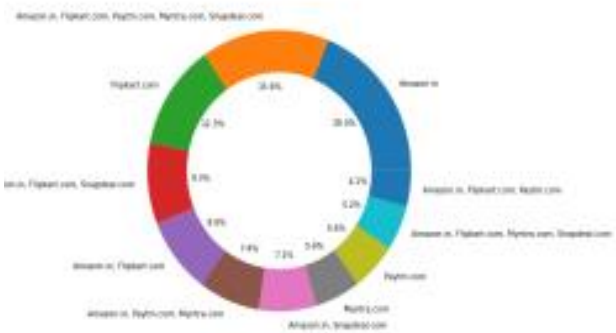
Availability of several payment options



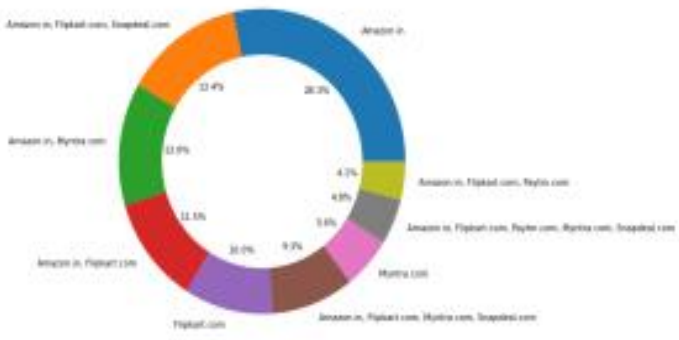
Speedy order delivery



Privacy of customers' information

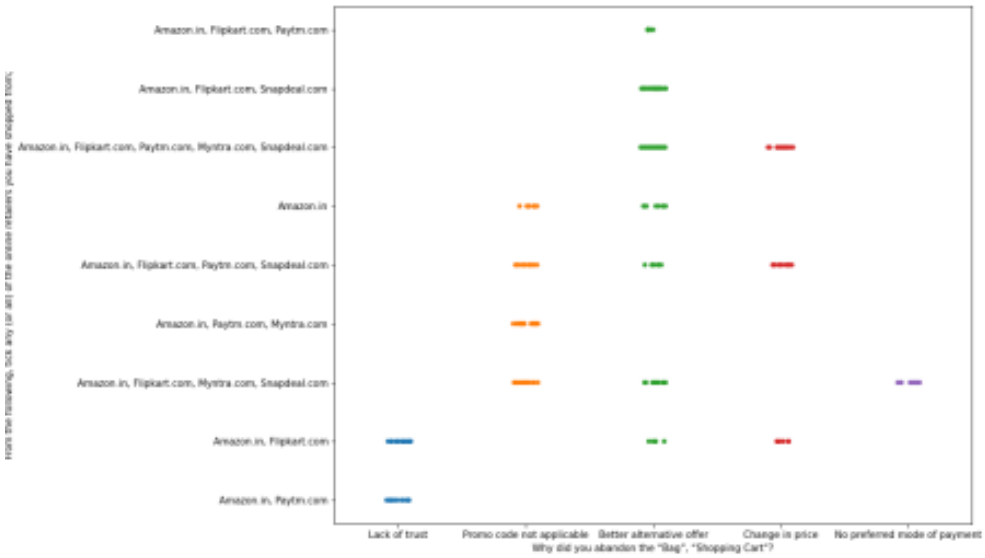


Security of customer financial information



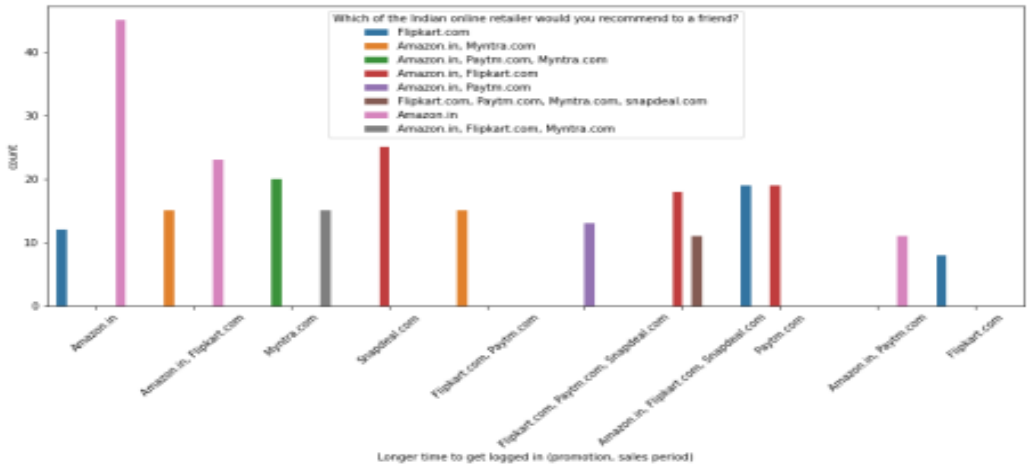
Perceived Trustworthiness

Amazon, Flipkart have been had the highest votes for having all the positive points and have maintained a very good brand image followed by paytm and the myntra.

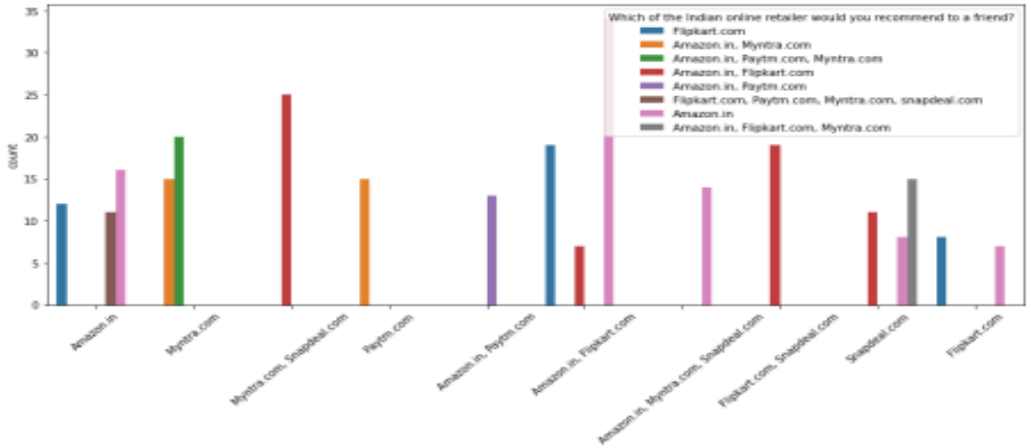


We can clearly see that most of the time people abandon the bag is beacuse they get a better alternative offer or promo code not applicable. There is also lack of trust seen in amazon, flipkart and paytm by some people

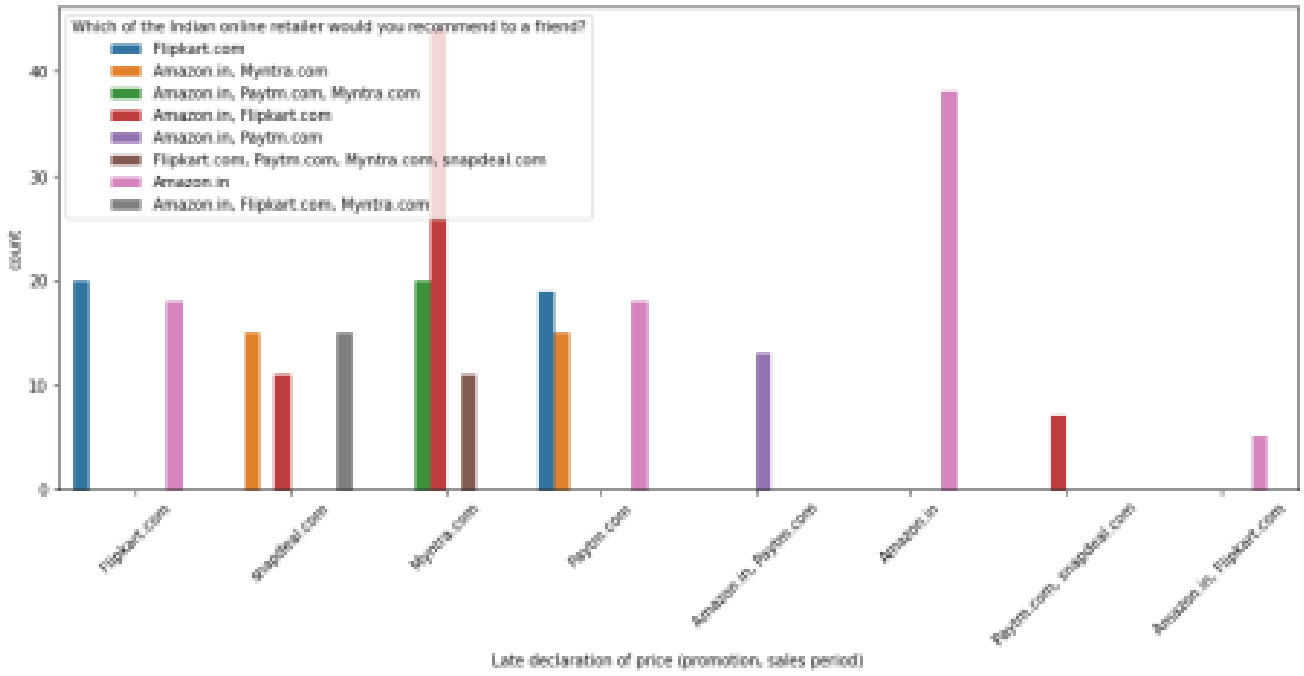
9. Loyalty

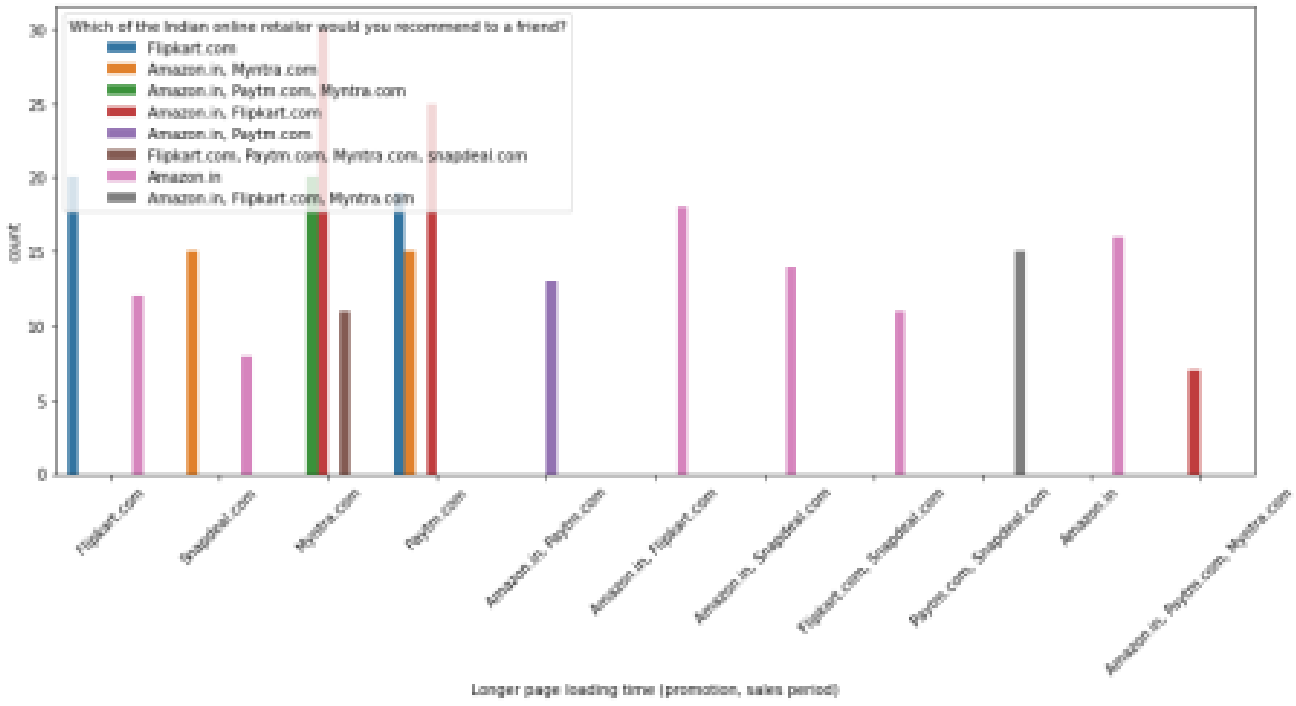


Longer time to get logged in (promotion, sales period)



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


Which of the Indian online retailer would you recommend to a friend?
Flipkart.com
Amazon.in, Myntra.com
Amazon.in, Paytm.com, Myntra.com
Amazon.in, Flipkart.com
Amazon.in, Paytm.com
Flipkart.com, Paytm.com, Myntra.com, snapdeal.com
Amazon.in
Amazon.in, Flipkart.com, Myntra.com
count
0
10
20
30
40
Flipkart.com
snapdeal.com
Myntra.com
Paytm.com
Amazon.in, Paytm.com
Amazon.in
Paytm.com, snapdeal.com
Amazon.in, Flipkart.com
Late declaration of price (promotion, sales period)


Which of the Indian online retailer would you recommend to a friend?
Flipkart.com
Amazon.in, Myntra.com
Amazon.in, Paytm.com, Myntra.com
Amazon.in, Flipkart.com
Amazon.in, Paytm.com
Flipkart.com, Paytm.com, Myntra.com, snapdeal.com
Amazon.in
Amazon.in, Flipkart.com, Myntra.com
count
0
5
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20
25
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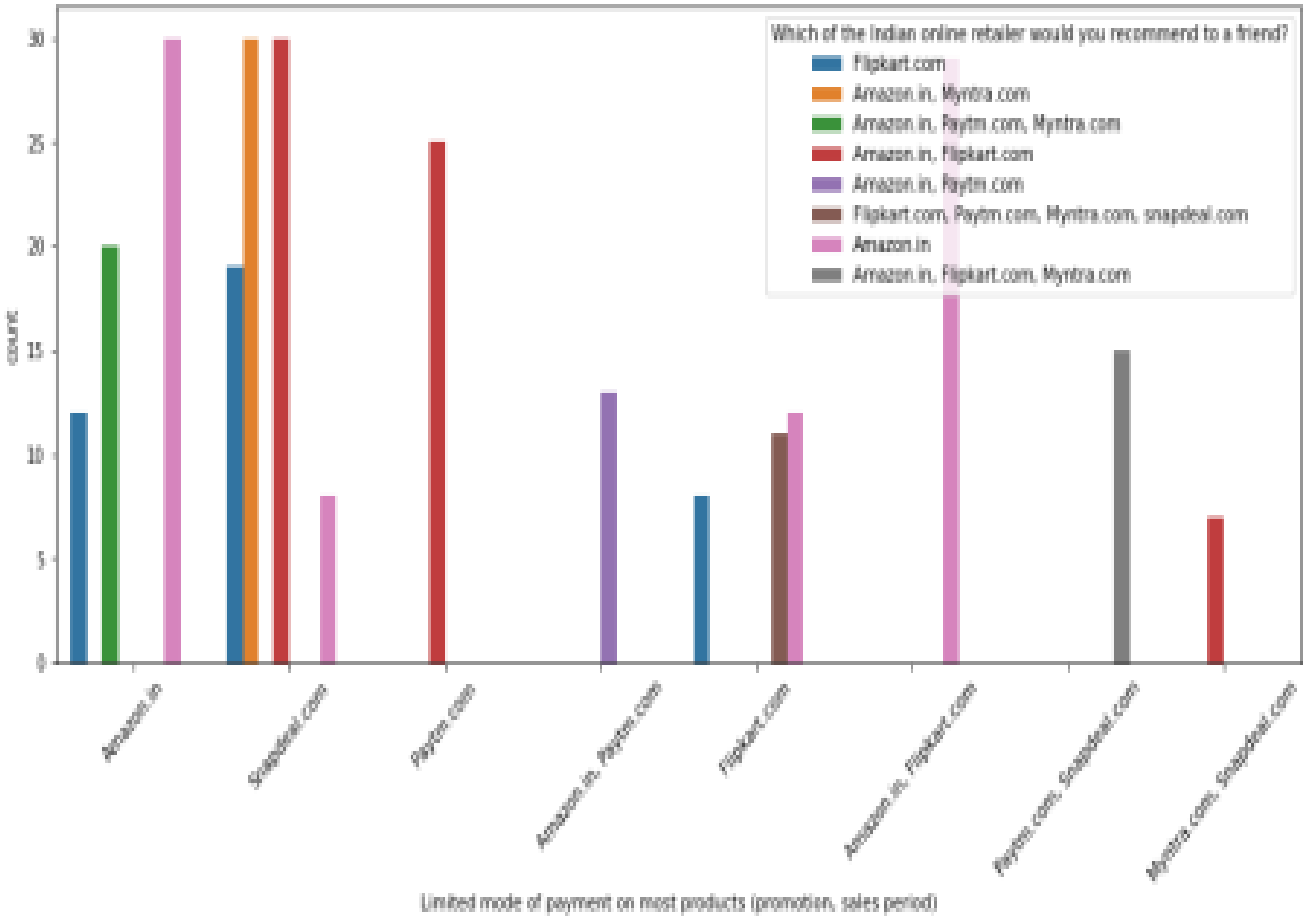
Flipkart.com
Snapdeal.com
Myntra.com
Paytm.com
Amazon.in, Paytm.com
Amazon.in, Flipkart.com
Amazon.in, Snapdeal.com
Flipkart.com, Snapdeal.com
Paytm.com, Snapdeal.com
Amazon.in
Amazon.in, Paytm.com, Myntra.com
Longer page loading time (promotion, sales period)


Which of the Indian online retailer would you recommend to a friend?
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Amazon.in, Myntra.com
Amazon.in, Paytm.com, Myntra.com
Amazon.in, Flipkart.com
Amazon.in, Paytm.com
Flipkart.com, Paytm.com, Myntra.com, snapdeal.com
Amazon.in
Amazon.in, Flipkart.com, Myntra.com
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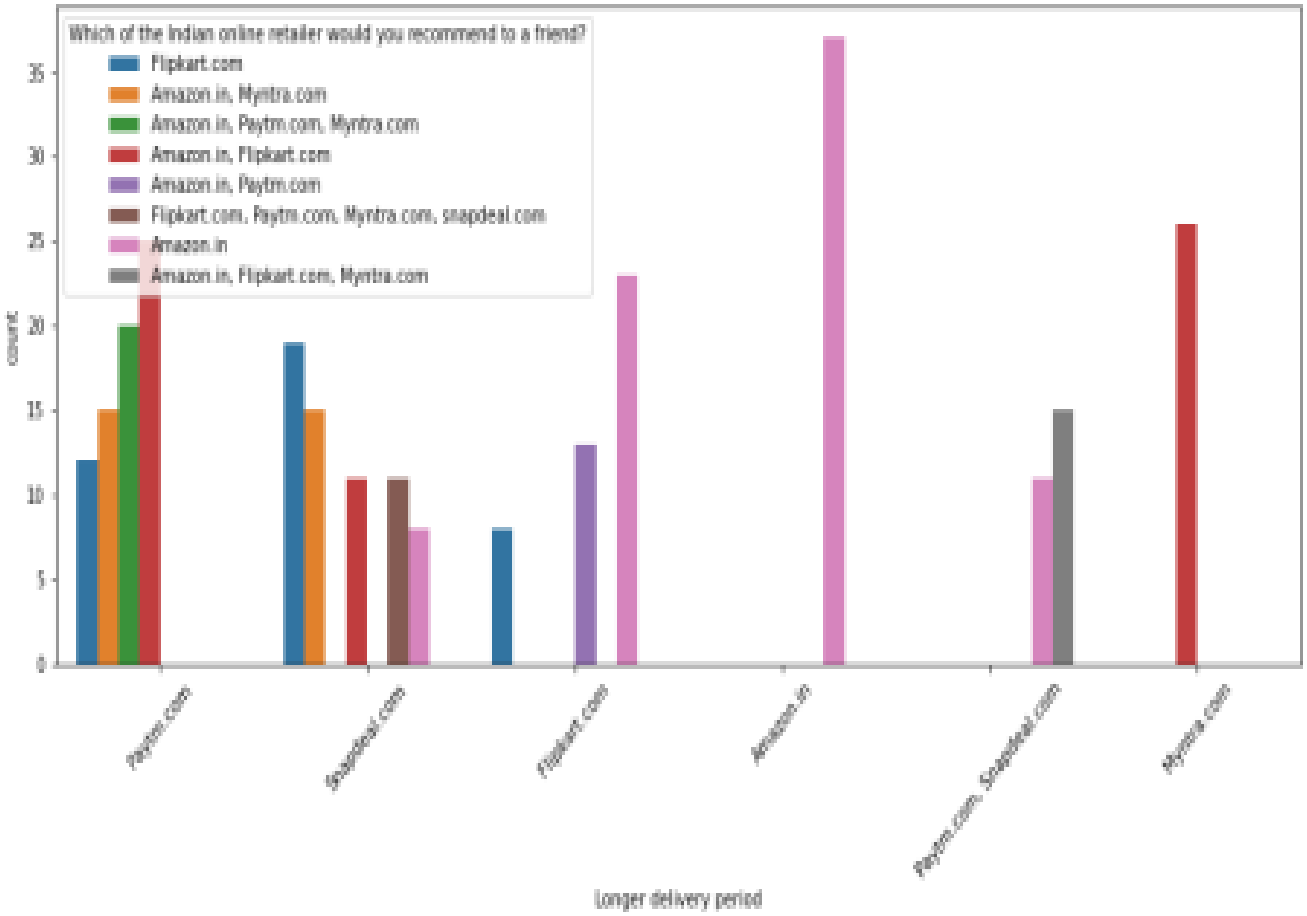
Amazon.in
Snapdeal.com
Paytm.com
Amazon.in, Paytm.com
Flipkart.com
Amazon.in, Flipkart.com
Paytm.com, Snapdeal.com
Myntra.com, Snapdeal.com
Limited mode of payment on most products (promotion, sales period)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Flipkart.com
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Amazon.in, Flipkart.com
Amazon.in, Paytm.com
Flipkart.com, Paytm.com, Myntra.com, snapdeal.com
Amazon.in
Amazon.in, Flipkart.com, Myntra.com
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Paytm.com
Snapdeal.com
Flipkart.com
Amazon.in
Paytm.com, Snapdeal.com
Myntra.com
Longer delivery period

CONCLUSION

Conclusion of the Study The results of this study suggest following outputs which might be useful for E-commerce websites to extend their business

1. The cost of the product, the reliability of the E-commerce company and the return policies all play an equally important role in deciding the buying behaviour of online customers. The cost is an important factor as it was the basic criteria used by online retailers to attract customers. The reliability of the E-commerce company is also important, as it is even required in offline retail. It is important because customers are paying online, so they need to be sure of security of the online transaction. The return policies are important because in online retail customer does not get to feel the product. Thus, he wants to be sure that it will be possible to return the product if he does not like it in real. Whereas, the logistics factor, which included Cash on delivery option, One day delivery and the quality of packaging plays a secondary role in this process though these are Must-be-quality. This is so because these all does not interfere with the real product and people believe that this is the basic value that Ecommerce websites provide.

2. All the websites were not equally preferred by online customers. Amazon was the most preferred followed by Flipkart. This can be explained easily by previous result that we got. These two companies are most trusted in the industry and hence, have a huge reliability. Also, the sellers listed on these websites are generally from Tier 1 cities as compared to Snapdeal and PayTM which have more sellers from tier 2 and 3 cities. Also, these websites have the most lenient return policies as compared to others and also the time required to process a return is low for these.

- Learning Outcomes of the Study in respect of Data Science List down your learnings obtained about the power of visualization, data cleaning and various algorithms used. You can describe which algorithm works best in which situation and what challenges you faced while working on this project and how did you overcome that.

Thank you