



# **E-retail factors for customer activation and retention: A case study from Indian e-commerce customers**

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## **ACKNOWLEDGMENT**

In this article I have investigated the different E-Retail factors that affect the consumers buying decision and their retention. I have analyzed all the factors that affect the consumers buying decision. For this purpose, we have used the survey of 269 online shoppers from different regions of India.

I am very thankful to my friends and family who helped me through this study.

## **ABSTRACT**

Retaining good customers (or those that may become good) is one of the most important topics in customer relationship marketing (CRM). Its importance is not confined to CRM — customer retention has a pedigree that goes back to the era of classic direct marketing and branding.

Since loyal customers are the most important assets of a company, companies have been giving attention to developing customer retention and loyalty programs. The fundamental purpose of customer retention efforts is to ensure maintaining relationships with value-adding customers by reducing their defection rate. Creating customer loyalty is essential for the survival of the company in highly competitive markets. Thus, this analysis starts with customer retention marketing strategies by the companies. Requirements for developing effective customer retention strategies are explained.

# INTRODUCTION

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.

In this article we will investigate various e-retail factors which affect the consumers buying decision. Due to advancement in the technology and easy to access internet services e-retails industry in India has emerged one of the most dynamic and fast-growing industry.

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.

According to a Cyber Media Research (CMR) report, the average usage of smartphones in India is estimated to have increased by 25% to almost seven hours a day, as people depend on gadgets for work/study from home and entertainment amidst the pandemic. With growing use of internet and mobiles, consumers have switched from shopping malls, shops and supermarkets to online marketplace for the purchase of products from basic commodities to branded goods. Various online retailers like Amazon, Flipkart etc. are enticing customers through innovative marketing strategies and services. In this fast growing and competitive industry making trust and retaining customers is very big deal for e-retailers. In this article we will mainly focus on the factors which make the trust of the customers and help the customers to make a buying decision.

## **Problem Statement**

E-Retail industries emerged rapidly from past decades and it has grown faster during Covid-19 pandemics. The completion has increased. We have giants like Amazon, Flipkart, Myntra, Snap deal and Big Basket etc. who are capturing Indian market rapidly through their online platform.

- In such competitive market retaining customers and winning trust is very big challenge for e-retailers.
- Understanding various factors that influence buying decision
- Understanding customer's perception regarding selected online retailers.

## **Conceptual Background of the Domain Problem**

Our main problem statement is to investigate the factors affecting the customer's retention and buying decision. Due to competitive market it becomes more challenging for e-retailers to retain the customers. During investigation we will study factors like Return and replacement policy, webpage content easiness, website and application interface etc. which are more important for attracting customers and retaining.

## **Review of Literature**

In this section of the article we will investigate the literature from online sources and make some relevant conclusion.

The using of information technology in business applications is not only able to change the nature of the services that provided by the company but has also been able to make changes to the process of providing services. Factors that influence decisions of online shopping, are trust factor, which comprises the trust factor, security, e-service quality, and the convenience factor, price factor, which

comprises price factor and web quality factors; and time factor which consisting of time and convenience [6].

The rapid changing Internet environment has formed a competitive business setting, which provides opportunities for conducting businesses online. Availability of online transaction systems enable users to buy and make payment for products and services using the Internet platform. Customers' involvements in online purchasing have become an important trend. According to author there are various factor which affect the buying decision but there are eight factors, return policy, trust, cash back warranty and cash on delivery are factors that affect consumers purchase decision strongly. According to author e-retailers need to focus on trust, after sale service, cash back warranty and management of return in order to attract more consumers to transact on their site [7].

Main factors influencing consumers to shop online are convenience, simplicity and better price. Analysis of socio-demographical characteristics such as gender has shown that men shop more often online because of the lower price. The most beneficial factor of shopping online was identified as a possibility to compare prices and buy at a lower price. [1]

With the fast development of the web, sellers think that it is simpler to sell their products and services on the web. In the Indian e-retail area a great deal of changes has come up because of the organizations like Flipkart, Jobong, Olx, and so forth offering their product and services to the buyers over the web. Brand information, the safety of online transaction processing mechanism, and COD facility attract and retains customers for online shopping. [2]

In order for e-vendors to gain market shares and utilize the market capacity of the hyper-competitive emerging markets, the factors web site design, e-marketing and vendor contact alternatives are essential to address due to their positive impact on the consumers purchase decision. Here author used SPSS software to analyze the collected data [3].

Study shows that internet consumer trust and perceived risk have strong impacts on their purchasing decisions. Consumer's trust, privacy concerns, security concerns are the major factors for using internet for shopping, the trust on websites influence to the purchasing decision of any consumer. More specifically, the empirical result suggests how the E-commerce companies make marketing strategies according to the research data and analyzing result [5].

From the literature search we came to conclusion that majority of the shoppers believe trust, privacy, support after and before service are main factors which lead to make buying decision. Other factors which affect buying decisions are websitedesign, Assurance of security and confidentiality of data.

## **Motivation for the Problem Undertaken**

The main aim is to investigate the E-retailer's factors which lead to customer's retention and Influence the buying decision. With increase in the various online platforms like Amazon, Flipkart, Myntra, Olx, and Snapdeal etc. shoppers are having multiple choice. These days' shoppers compare price and all the services provided by the E-retailers before making online purchase. In such situation it become more interesting to study the factors which influence shoppers to make buying decision.

# **Analytical Problem Framing**

## **Data Sources and Format:**

The data was collected from Indian online shoppers from different regions of India. Data set consist entry of 269 online shoppers which represent the raw of the data and the question asked from the shoppers are the columns of the dataset. Dataset having 71 columns which are the questions asked during the survey. These questions include some personal information questions, Recommendation questions, personal views and questions related to marketplaces. All the data is of object type. We have two type of data files normal file which having object type data and encoded format file with encoded data. Data consist of the customer's ratings and some recommendation made by the online shoppers.

## **Data Inputs- Logic- Output Relationships**

In this article we are investigating e-retailers factors which affect the customer's retention and influence the buying decision. So the factors described in the data set are input factors to investigate the buying decision.

## **Assumptions:**

- As we have not collected the data, we are assuming it was collected from actual online shoppers.
- All the ethical measure followed during data collection process.

## **Hardware and Software Requirements and Tools Used**

Hardware Requirements: We need a laptop with minimum 4 GB RAM and 500 GB of heard dish.

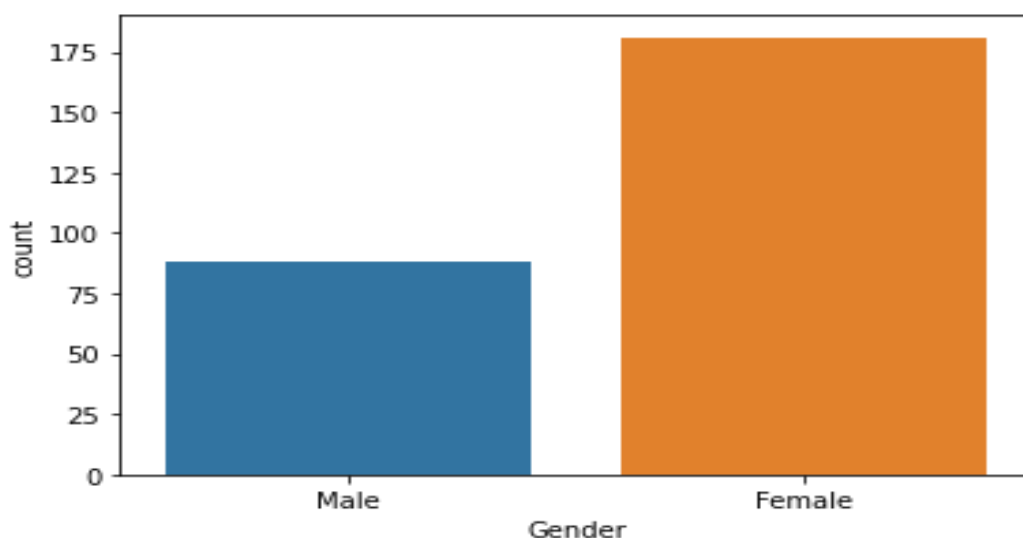
**Software Requirement:** we need anaconda installed in our hardware. It comes with all the packages required for data analysis and visualization. Anaconda having Jupyter Notebook, the best environment for data analysis.

**Library Used:** We have used mainly four libraries for data analysis, mathematical calculation and Visualization of data. Numpy is used for Numerical calculation and pandas is used for making data frame and pre-processing of the data. For visualization part we have used Matplotlib and Seaborn package. Both the package provides a wide variety of the graphs for data visualization and analysis. Coding Language: Python

### **Data Analysis and Visualization:**

In this section of the report we will analyze the data and visualize it using tools available in python. In Jupyter Notebook we first import all the required libraries. Our dataset having 269 rows and 71 columns. All the data is of object type except PIN. Data is not having any null values.

1. We have seen from 269 online shoppers 67.3% shoppers are female and 32.7% are male. Which indicates females prefer online shopping.

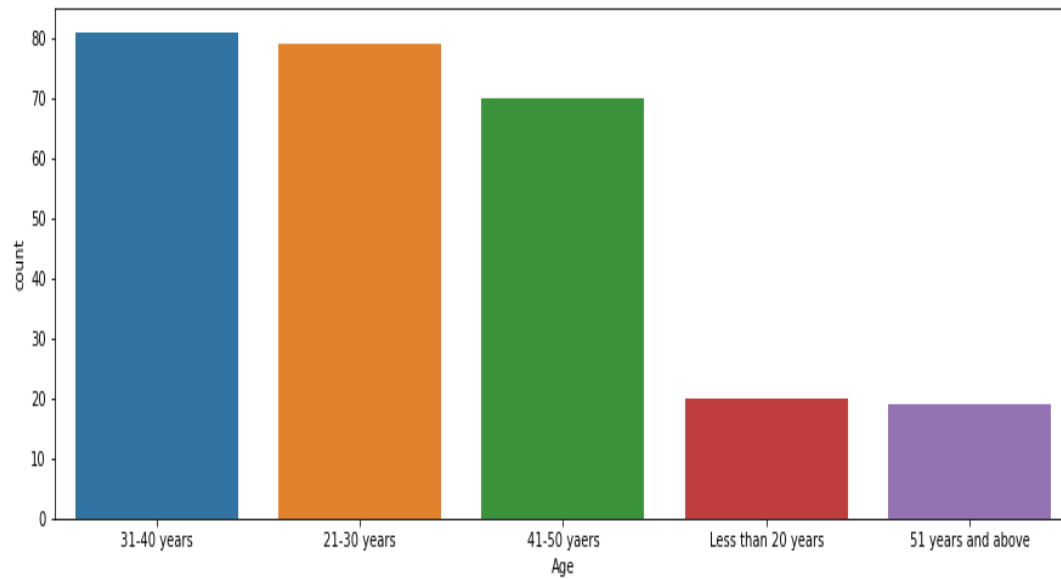


*Figure 1: Gender*

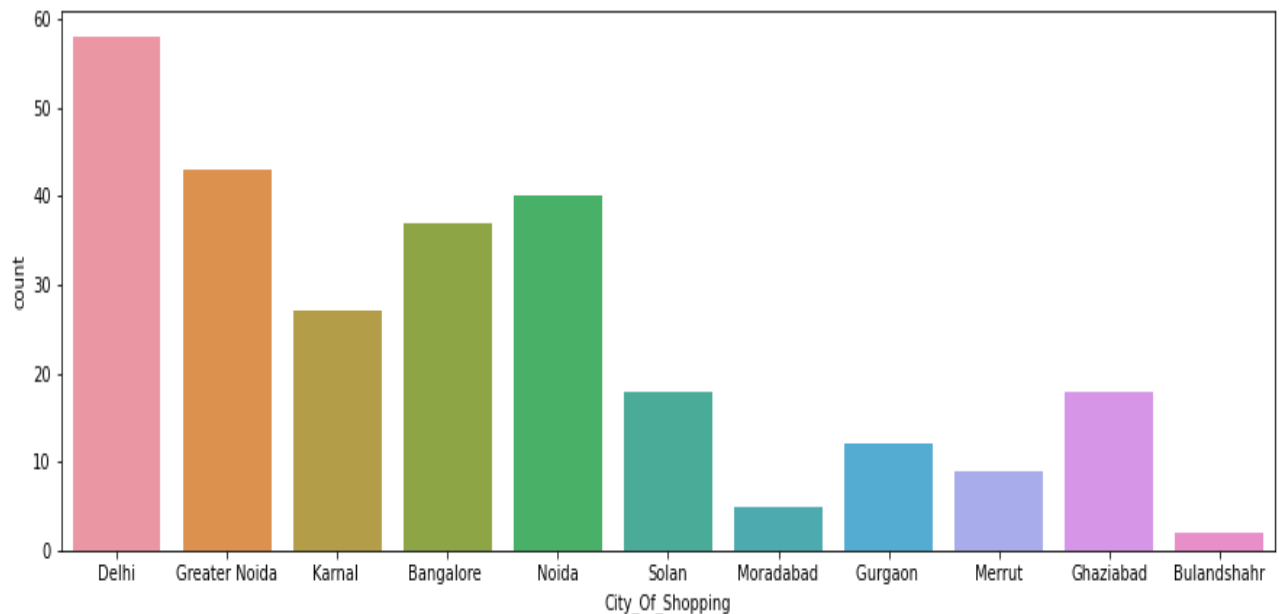


2. Majority of the online shoppers are between 21 years to 50 years. People below 20 years and above 51 years shop less.

*Figure 2 Age*



3.If we see the city wise from "Delhi" Online Shopping was done most (Total Number= 58) and from "Bulandshahar" Online Shopping was done least (Total Number= 2).



*Figure 3: City*

More than 63% of the shoppers are from Delhi, Noida and Bangalore.

4. Doing Online Shopping from Above 4 years (Total No. 98) are most and doing Online Shopping from 1-2 years are least (Total No. 16)

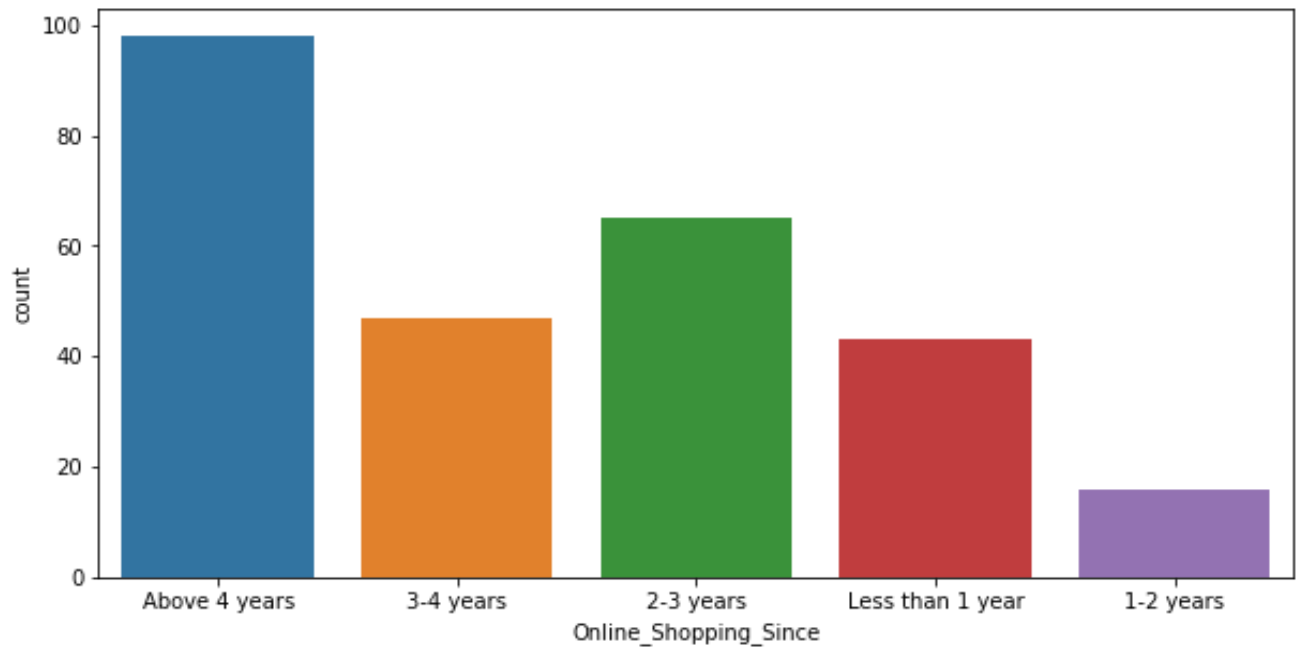
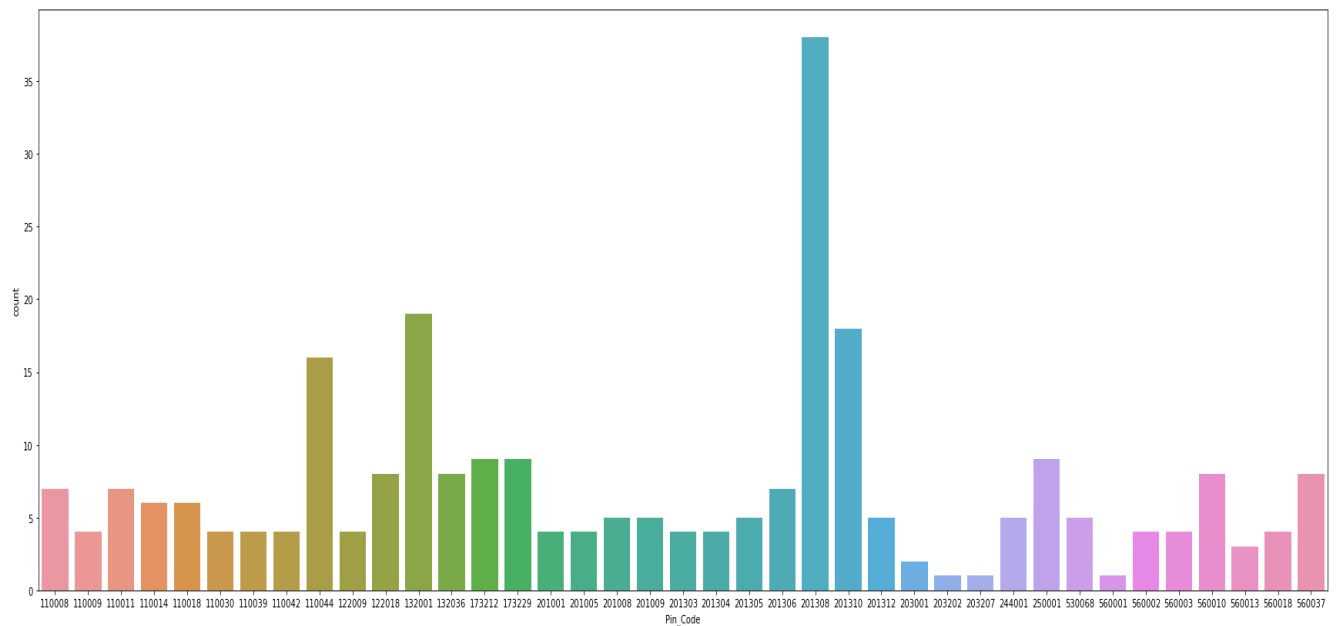


Figure 4: Years of Shopping

5. City having Pin code -201308 from where Online shopping is done most and Online shopping is done least from cities having pin code: "203202", "560001" & "203207"



6.If we talk about internet access 70 percent shoppers use mobile internet forshopping online. We can see this in Figure 5.

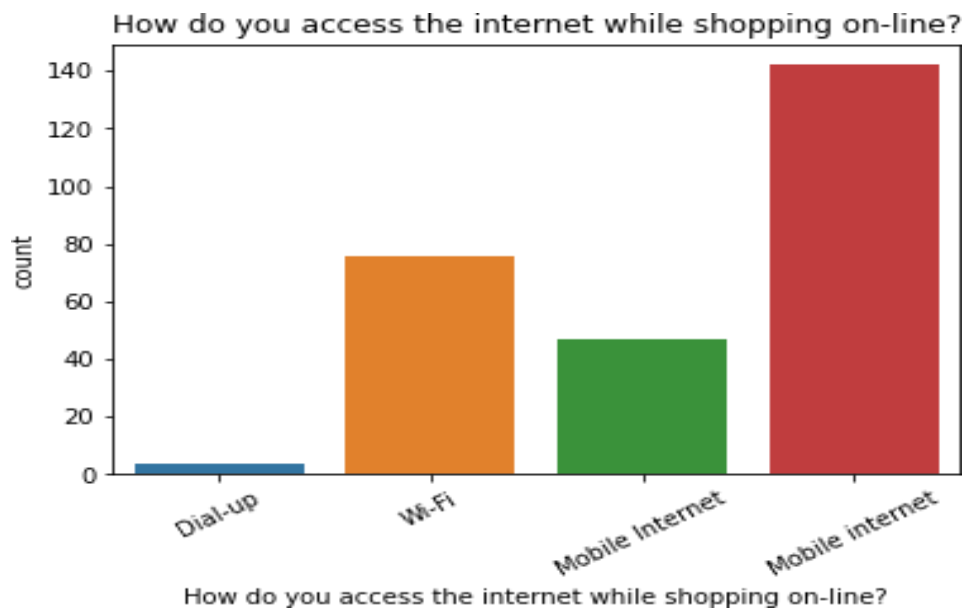


Figure 5: Internet Access

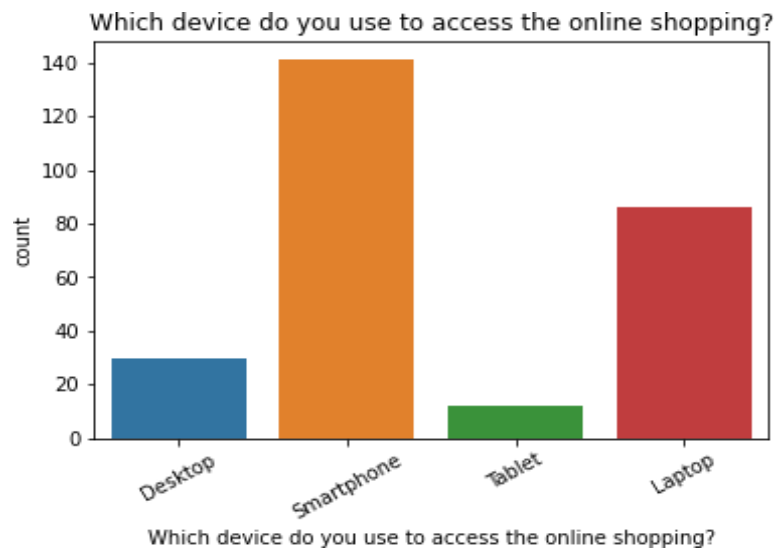


Figure 6: Device

7. From the above Figure 6 we can see majority of the people use smartphone for shopping online. Let's check the decision time for making purchase decision. Figure 7 showing the graphs for decision time which indicates



majority of the shoppers take more than 15 mins to make a purchase decision.

Figure 7: Decision Time

8. Here more interesting thing is to analyze who take more time to make buying decision. Figure 8 showing the graphs for male and female with their decision time.

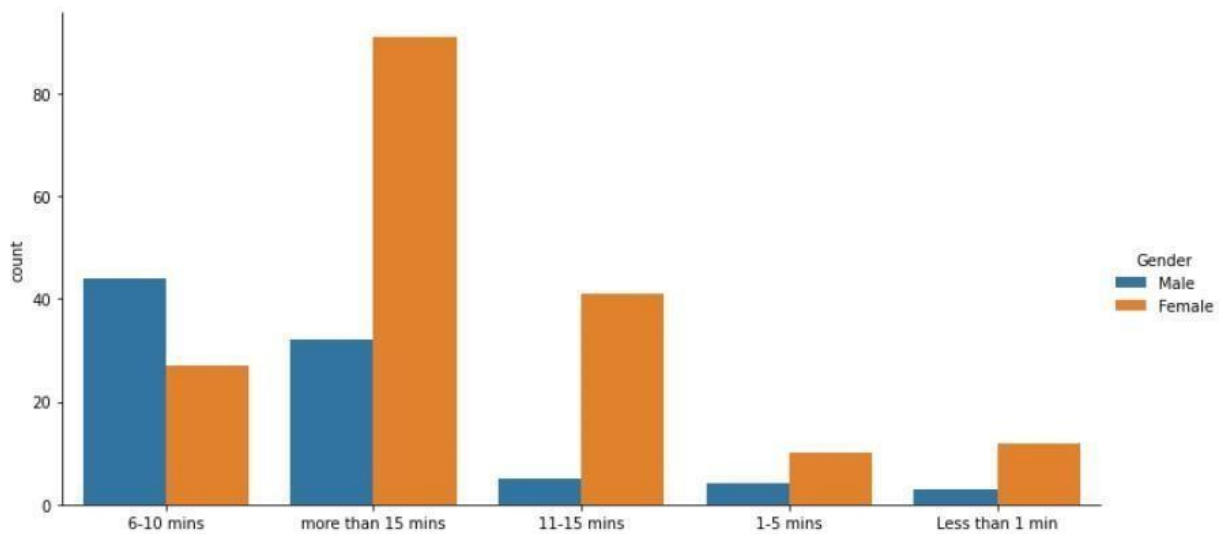
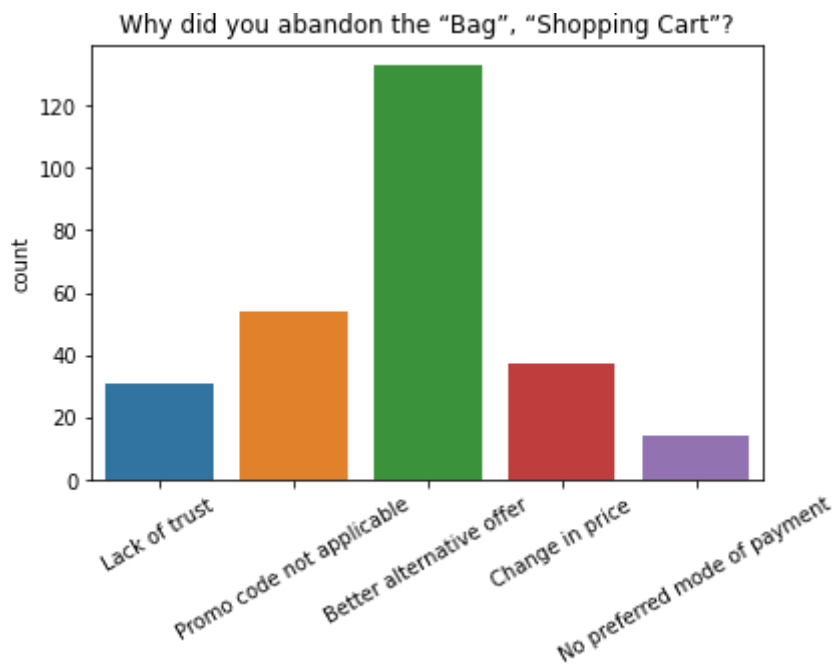


Figure 8: Decision Time for male and Female

We can see females are more as compare to male who take more than 15 min before making any purchase.

Let's analyze the reason for abandon during shopping. Figure 9 showing the reason for abandon. Majority of the shoppers having Better alternative as reason for abandon.



Why did you abandon the "Bag", "Shopping Cart"?

Figure 9: Reason of Abandon

In our literature we have seen shopper's decision is depend on the content and web information. Let's visualize.

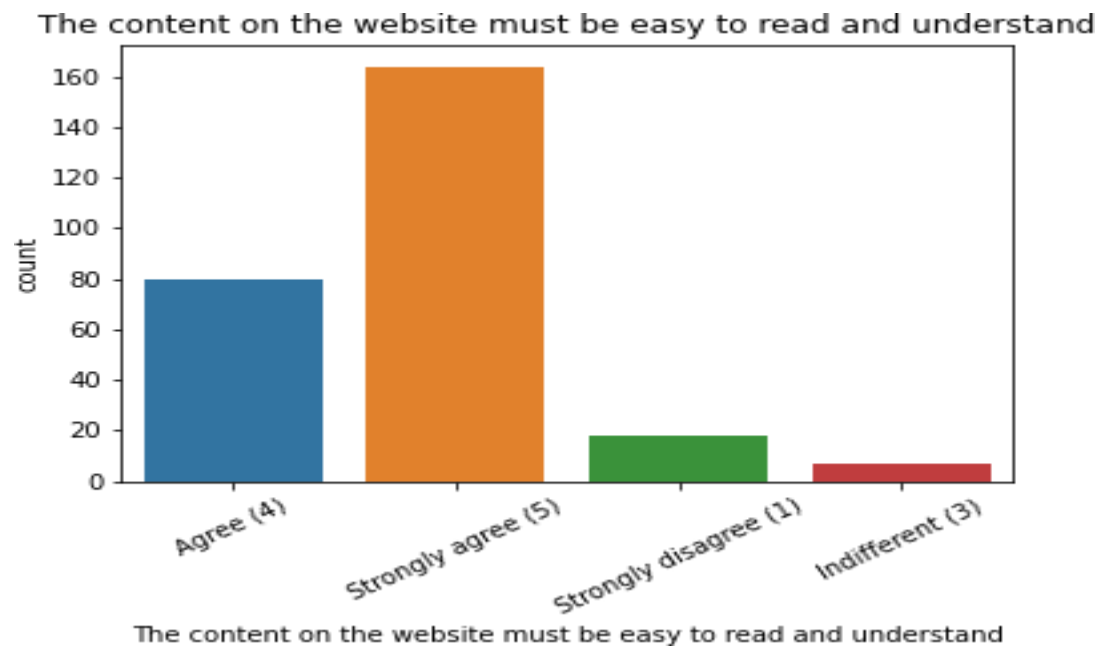


Figure 10: Content Easiness

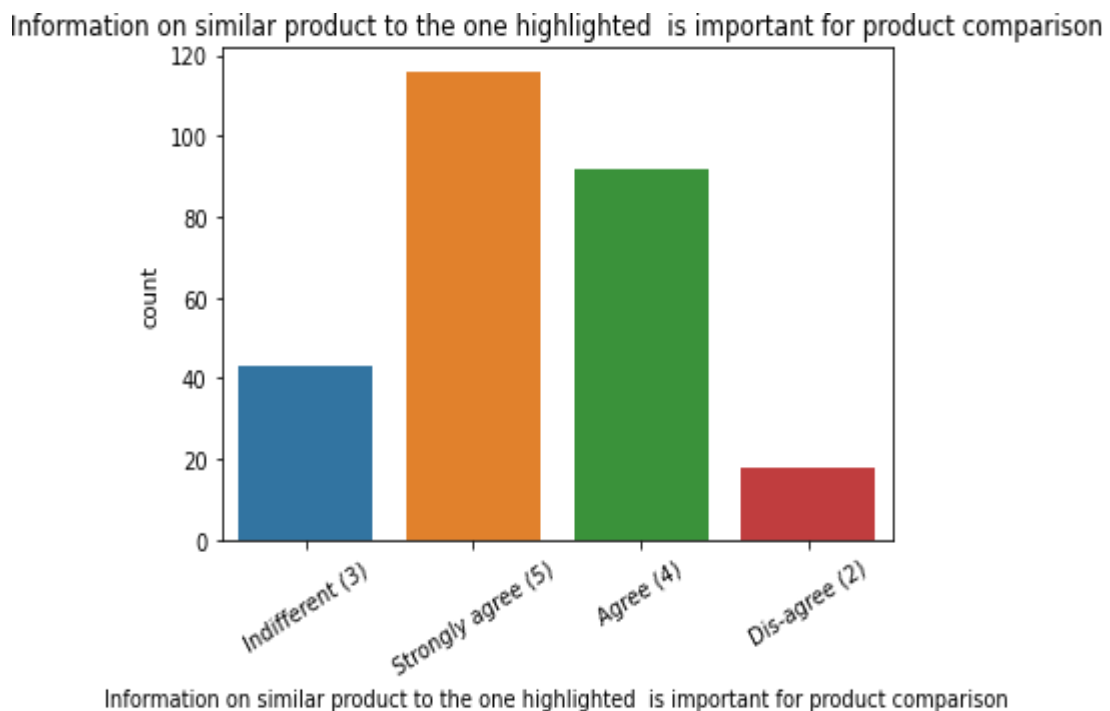
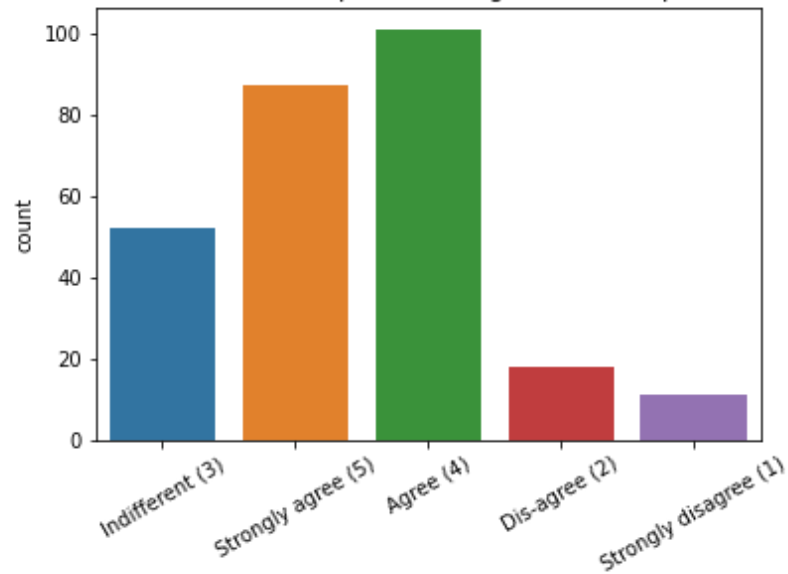


Figure 11: Information for Comparison

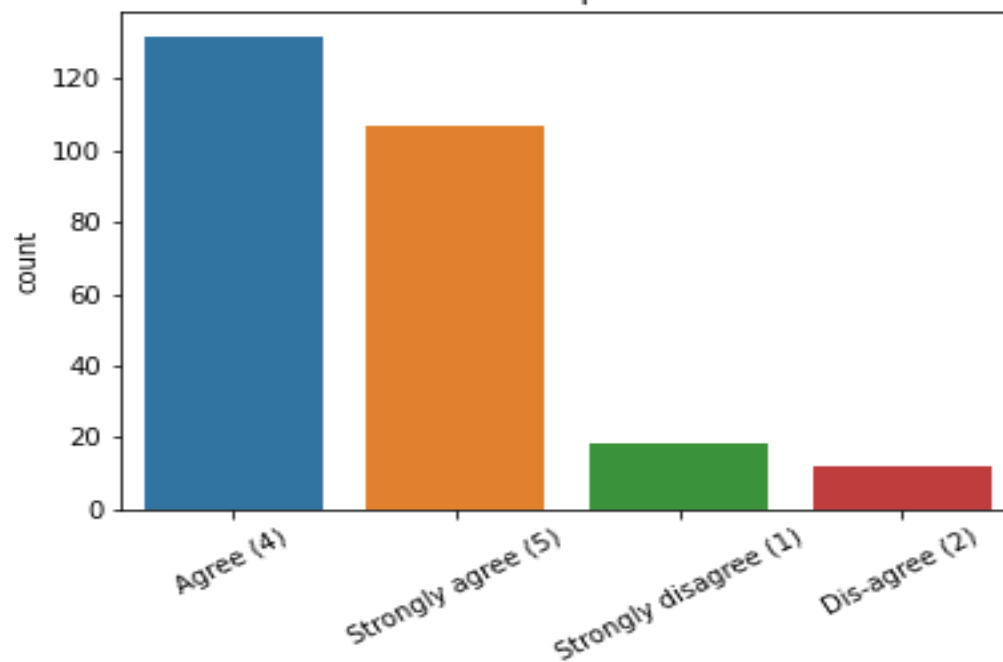
Complete information on listed seller and product being offered is important for purchase decision.



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Figure 12: Seller Product Information

All relevant information on listed products must be stated clearly



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Figure 13: Clear Information



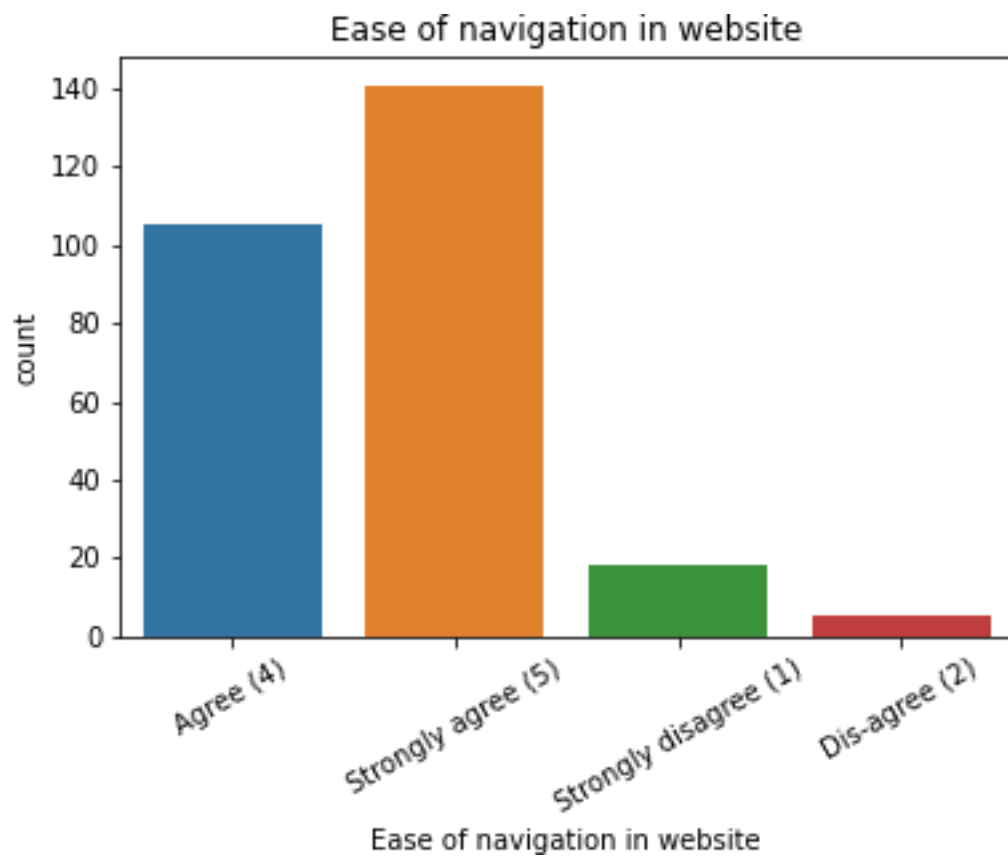


Figure 14: Ease of Navigation

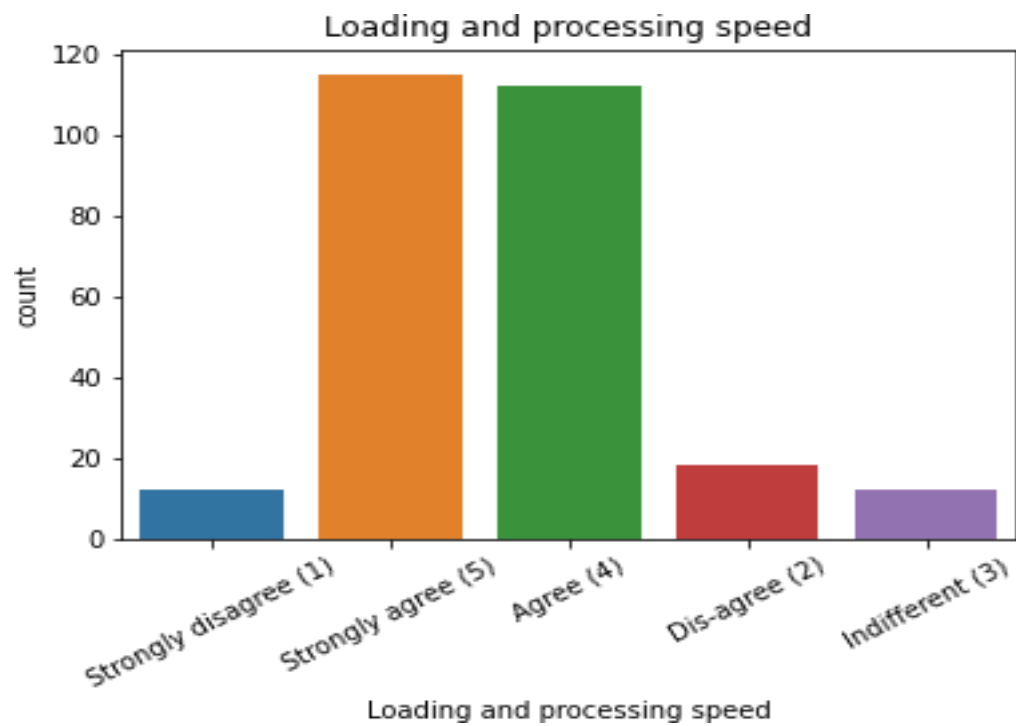
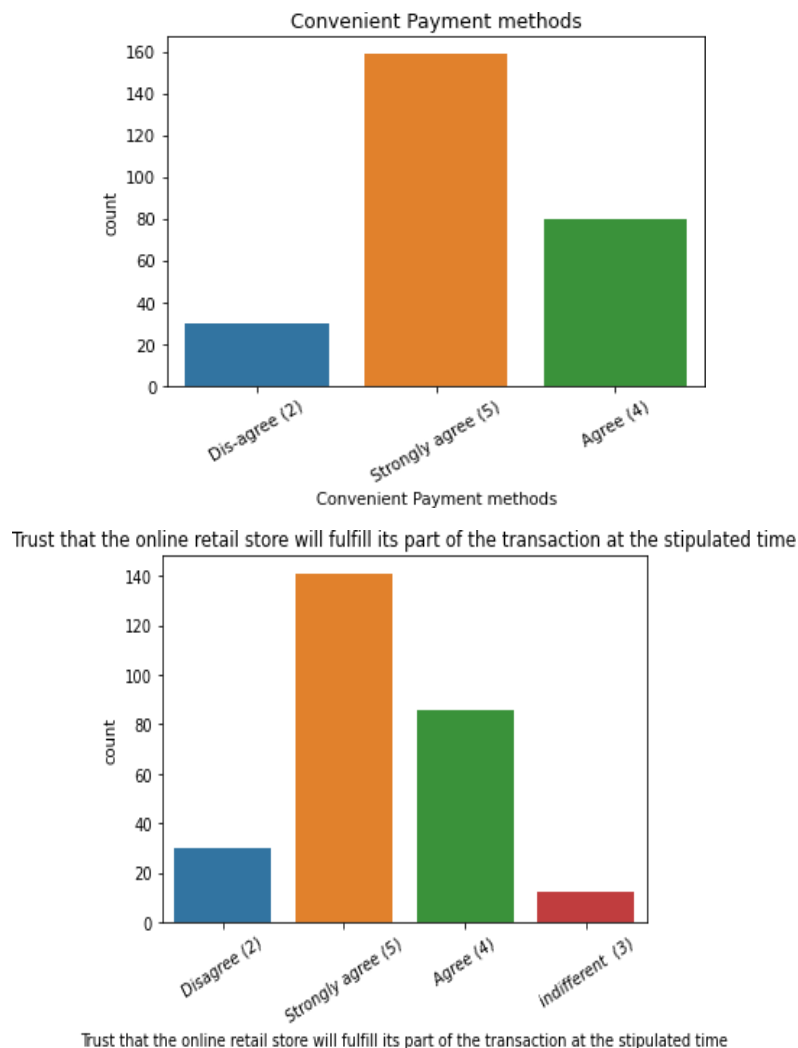


Figure 15: Loading and Processing Speed

In above graphs we can see shoppers are strongly agree that website should be easy to navigate, content should be easy , loading and processing speed should be fast and in the end product and seller information. All these factors affect

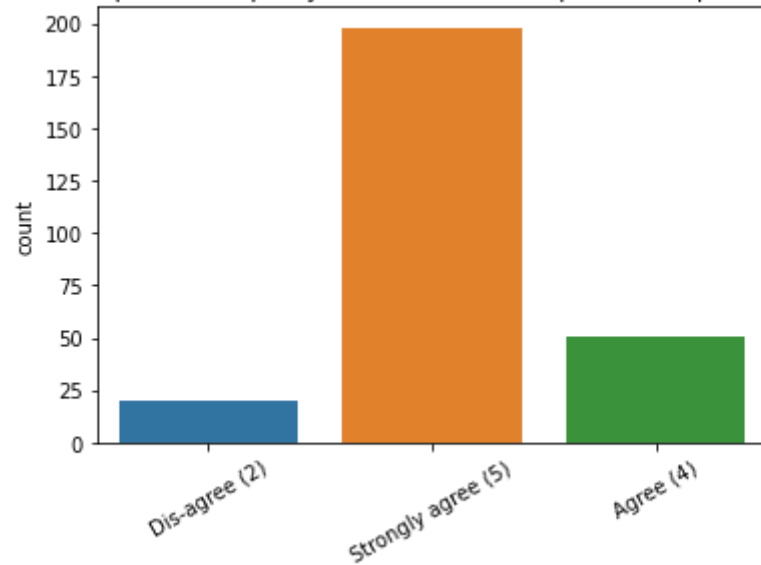


the buying design and retention of the shoppers.

*Figure 16: Payment Mode and Trust*

Figure 16 shows convenient payment mode and Trust during payment is very important factor for shopper's retention and making a buying decision. Majority of the shoppers are strongly agree on factors like, Empathy to Customers, Privacy of the customers, Communication channel responsiveness, monetary benefits and discounts, Enjoyment and Convenient and flexible affect the buying decision. The most important is return policy and loyalty program.

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



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Figure 17: Return Policy

Majority of the shoppers are strongly agree a good return policy have higher impact on buying decision.

Let's analyze some recommendation made by the shoppers.

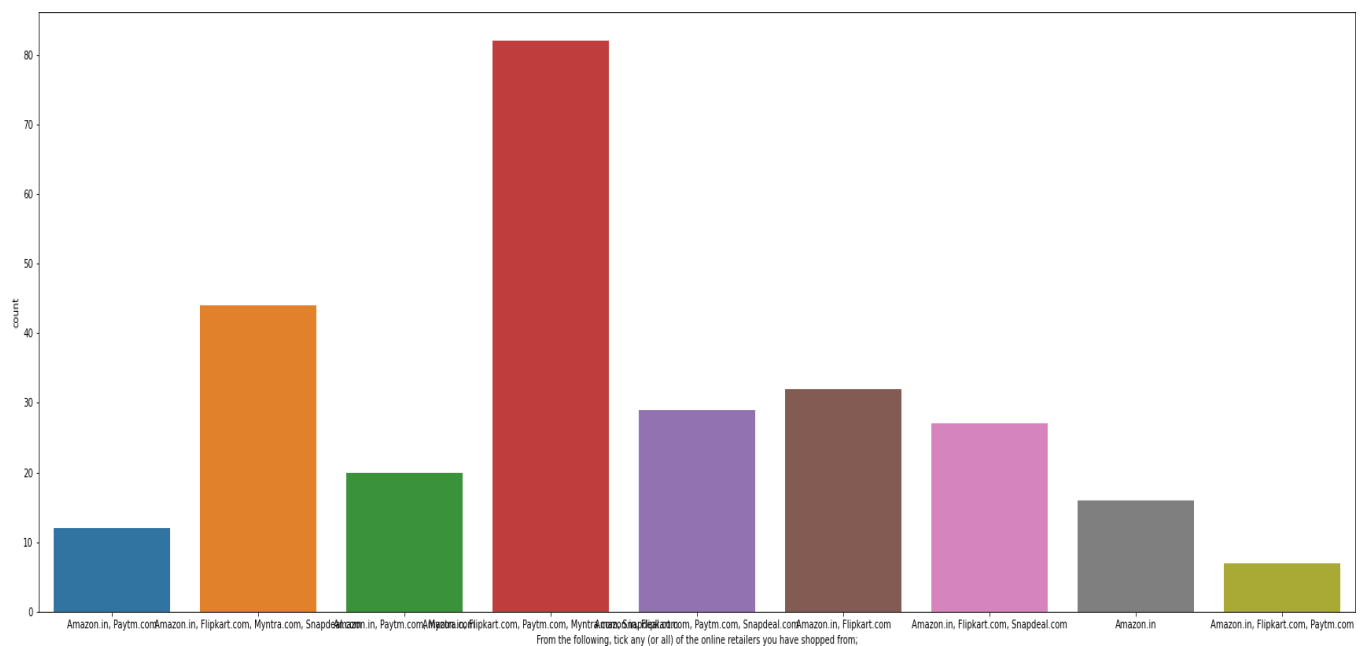


Figure 18: Recommended Retailers

From figure 18 we can see majority of the customer's first choice is Amazon and second choice is Flipkart.

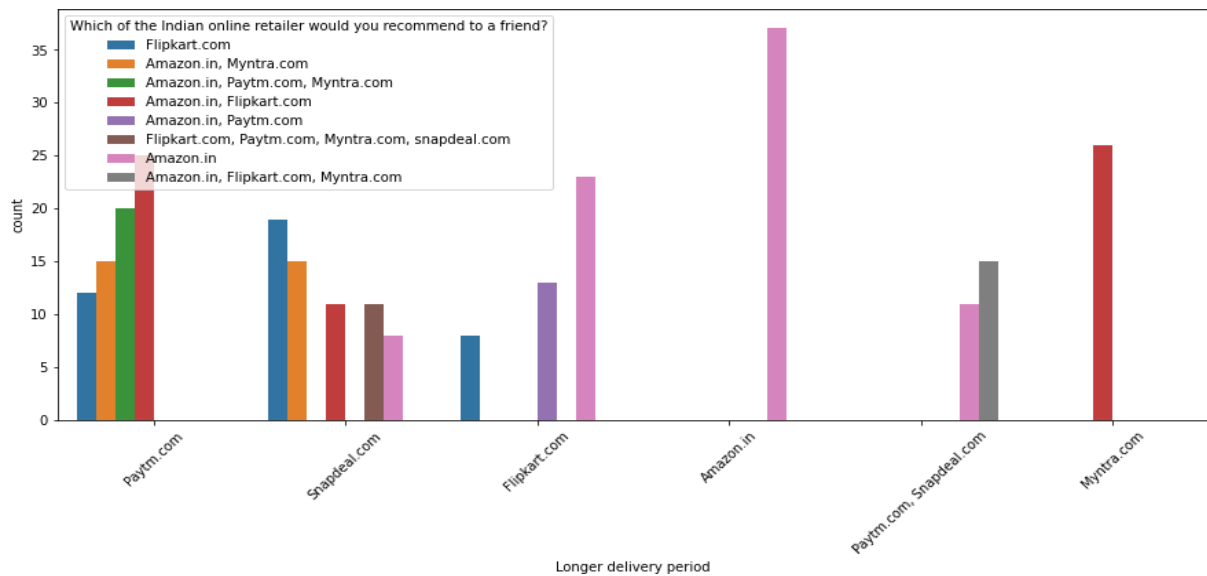


Figure 19: Speedy Delivery

Majority of the shoppers recommend Amazon for speedy delivery.

Majority of the customers are satisfied with services provided by the Amazon and Flipkart.

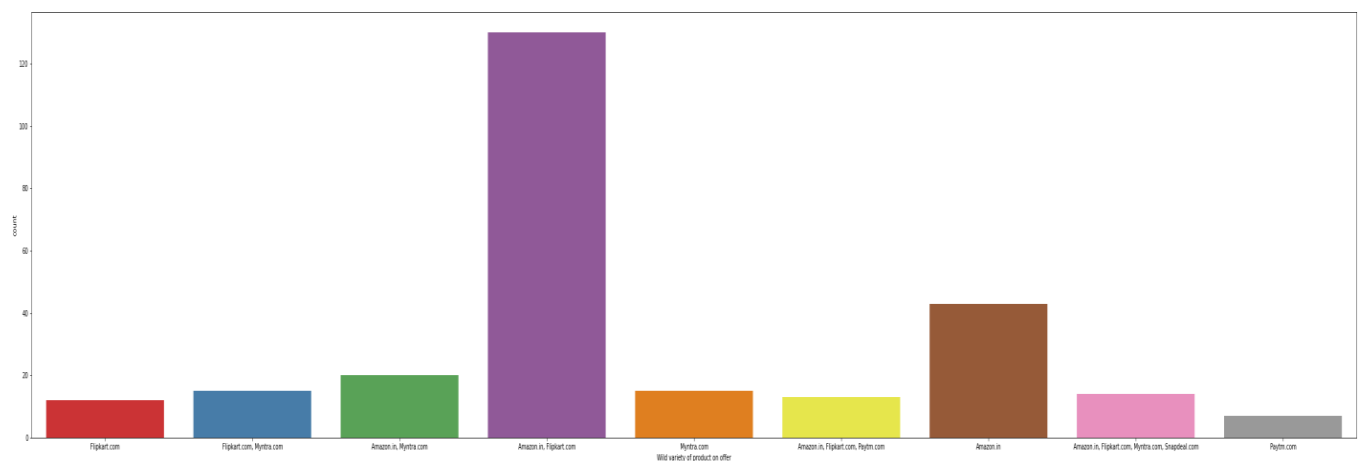
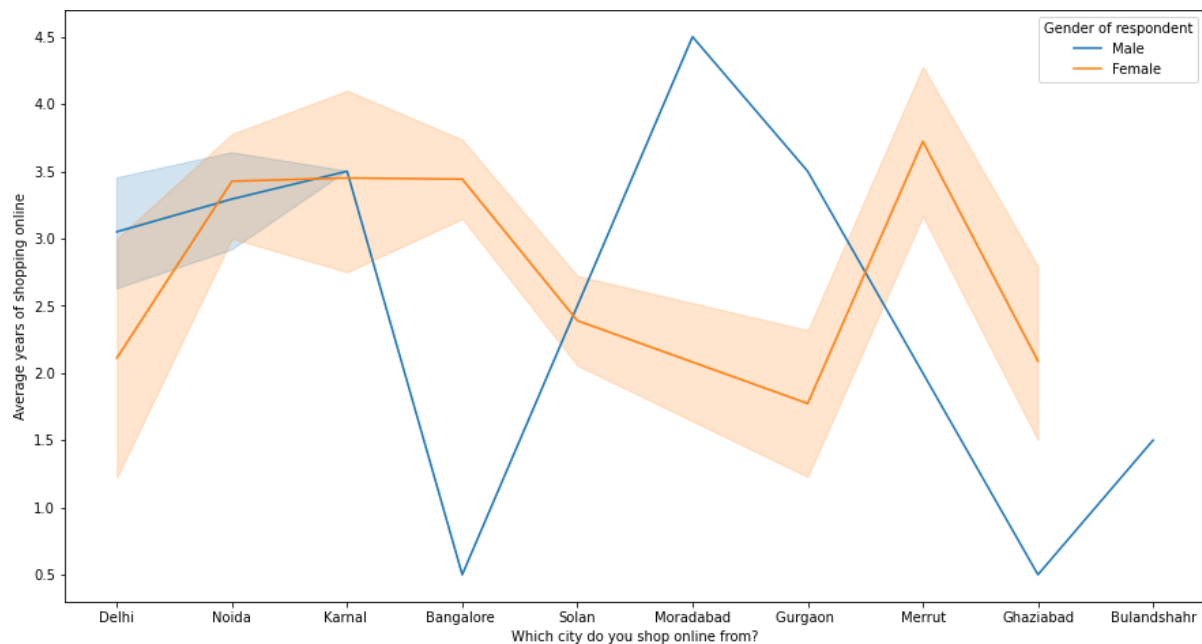


Figure 20: Wild variety of product on offer

Amazon provides a wide range of product to choose.



*Figure 21: Relation between website and years of shopping for male and female*

density of female customers is more than male. Men living in Bangalore and Ghaziabad shop have shopped online for less than 1 year. Highest number of menshopping 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.

### **Interpretation of the Results:**

We have seen in our survey and data analysis majority of the shoppers are females and majority of the shoppers come from Delhi, Noida, Bangalore and Karnal. The online shopping increased due to use of mobile because majority of the shopper are using mobile phone for accessing internet service. A very good insights we can see for Decision time, majority of the shoppers take more than 15 min to make a buying decision and shoppers abandon shopping because they find better alternative.

When it comes about the content and website easiness, shoppers are strongly agree that website content easiness, loading speed, seller product information, ease of navigation, User friendly interface and convenient pay mode and trust are important to make buying decision, which lead to customer's retention also.

Support before and after purchase, communication channel responsive also play a big role in customer satisfaction. Last but not the least is return policy, a better return policy increase the trust and retention of the customers.

Majority of the shoppers doing online shopping because they are agree that online shopping gives value of money, convenience of patronizing, Monetary saving, wide variety and satisfaction and trust.

Majority of the shoppers are recommending Amazon, Flipkart and Myntra. Amazon is the first choice for majority of the customers due to wild variety of product, timely delivery, website easiness, variety of payment options and quickness purchase. Return policy also making Amazon the first choice for majority of the customers. After Amazon Flipkart is the second choice of the shoppers, they prefer Flipkart and Myntra.

## **CONCLUSION**

- **Key Findings and Conclusions of the Study**

With increase in the internet access and mobile shoppers are switching form offline mode of shopping to online mode of shopping. Majority of the shoppers find it adventures, time saving and value of money. The main factors which affect the customer's retentions are Trust, return policy, privacy of the user payment details, Fast delivery and return policy.

- **Learning Outcomes of the Study in respect of Data Science**

It was very interesting to study and visualize the data using tool available in python. We have visualized the data very deeply and cometo conclusion what customer need and what factor cause the retentionof the shoppers.

- Limitations of this work and Scope for Future Work

The data set was very small and the all the conclusion are based on this small dataset. For better and more clarity, we can perform same steps on big dataset to make some clear and more accurate decision.