## Customer Retention-A Case study

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Internship by Flip robo Technologies



## PROBLEM STATEMENT

- E-retail factors for customer activation and retention: A case study from Indian e-commerce 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.
- Be careful: There are two sheets (one is detailed) and second is encoded in the excel file. You may use any of them by extracting in separate excel sheet. The number of column(s) is more than 47. Read the column header carefully. Note: Data Scientists have to apply their analytical skills to give findings and conclusions in detailed data analysis written in jupyter notebook. Only data analysis is required.
- Need not to create machine learning models /but still if anybody comes with it that is welcome.

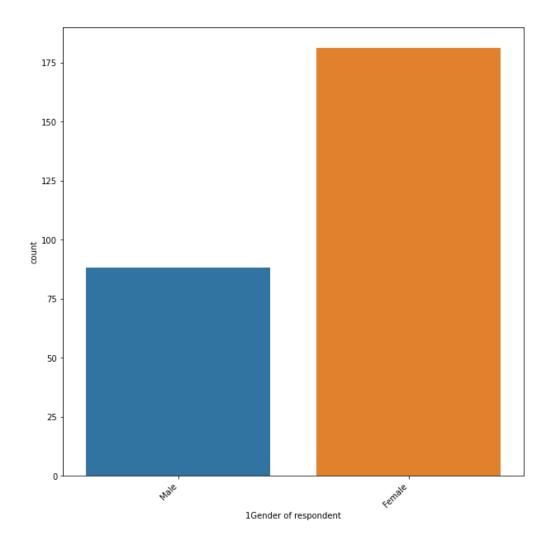
## NULL DATA SET AND TYPES OF DATA

Number of variables	71
Number of observations	269
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	60
Duplicate rows (%)	22.3%
Total size in memory	149.3 KiB
Average record size in memory	568.5 B

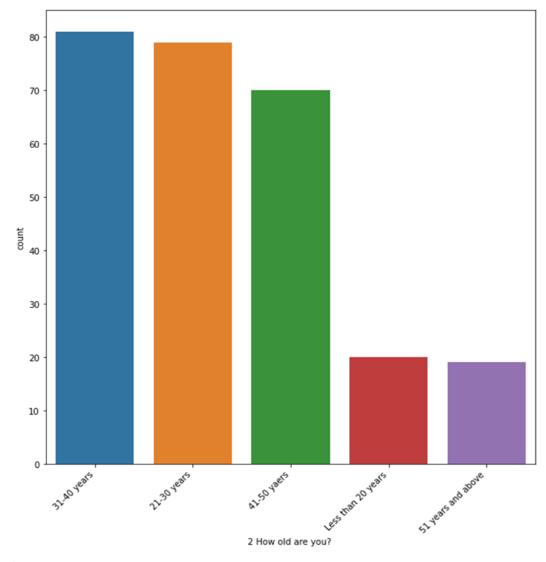
Categorical	70
Numeric	1

I think is the find t

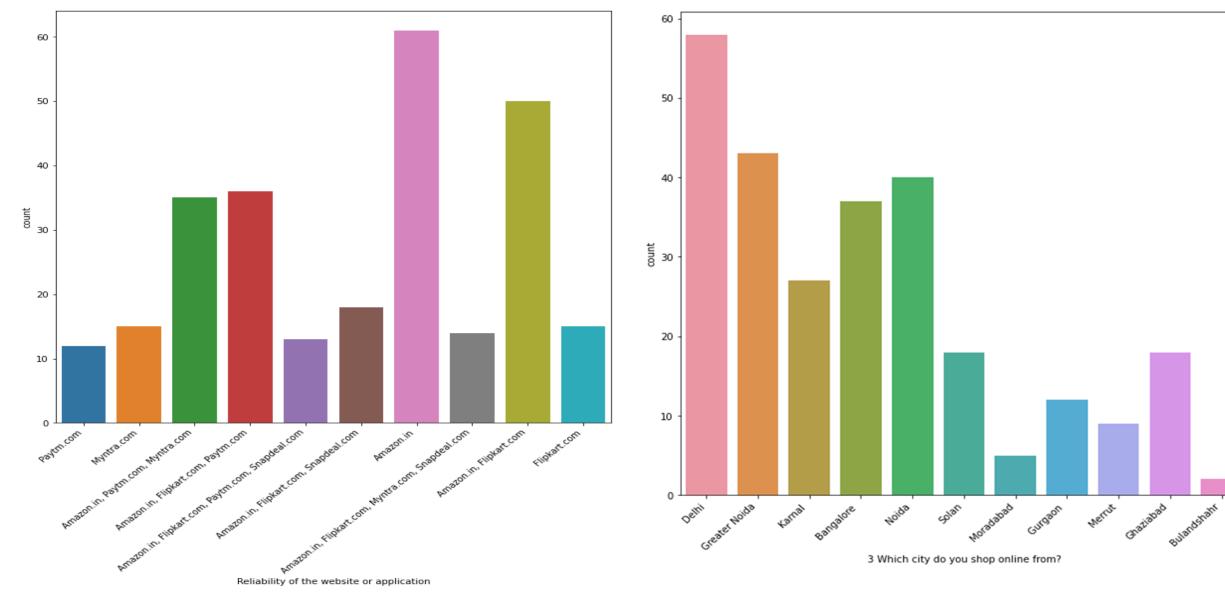
## UNIVALENT ANALYSIS



The female population of the dataset is more than male population

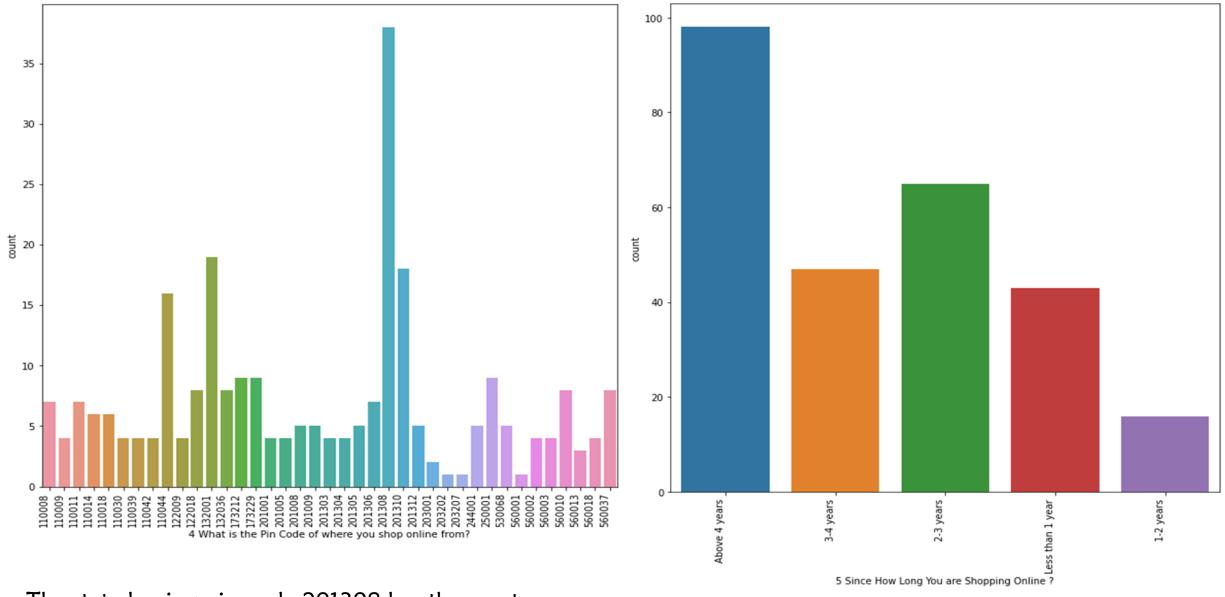


The 31-40 yrs. and 21-30 yrs. of the dataset does more shopping than other age limit people



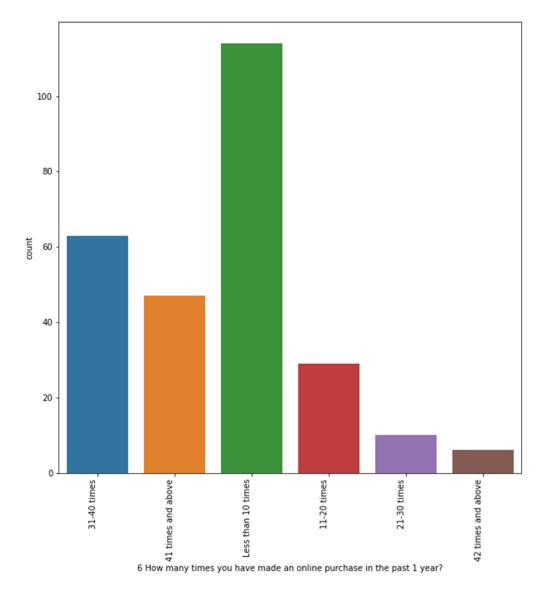
The Amazon.in has the most shopping count

The states like Delhi has the most shopping count followed by Greater Noida, Noida and Bangalore

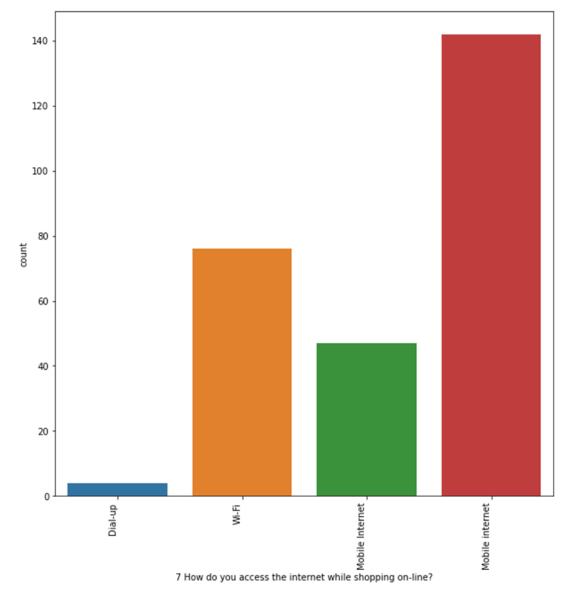


The state having pin code 201308 has the most shopping count followed by 132001, 201310 and 110044

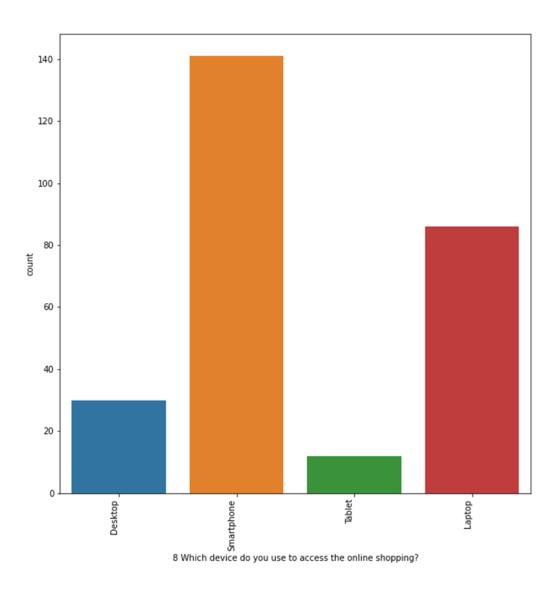
People having 4yrs counted highest followed by 2-3yrs, 3-4yrs



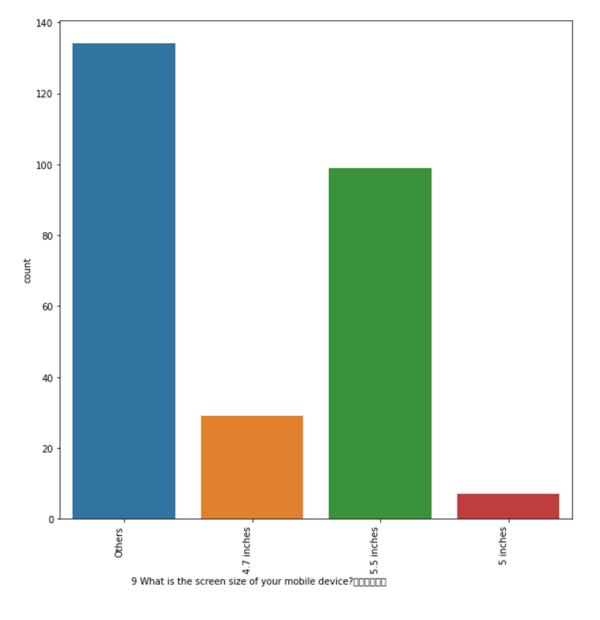
The people with less than 10 times more followed by 31-40 times.



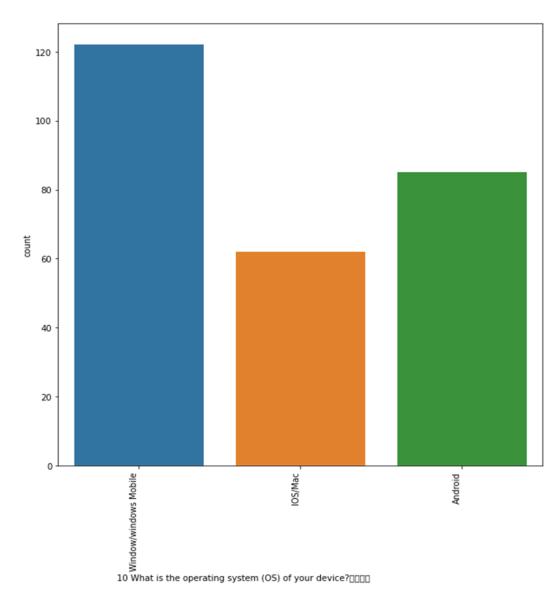
The people order with mobile internet most of the time followed by Wi-fi.



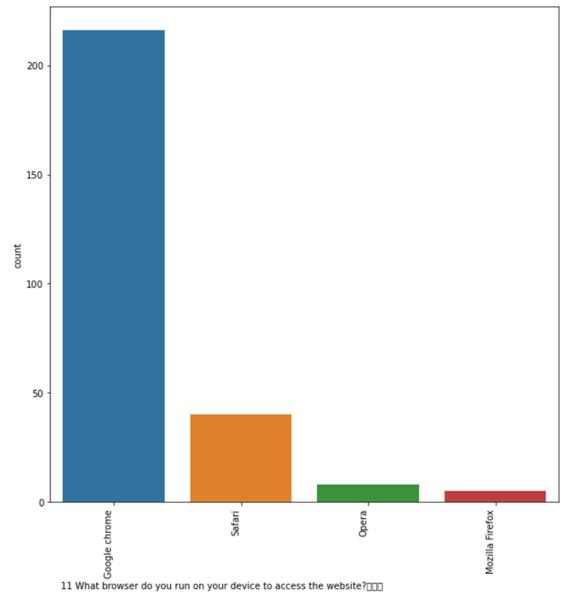
The smart phone device is used by the people followed by Laptop, Desktop.



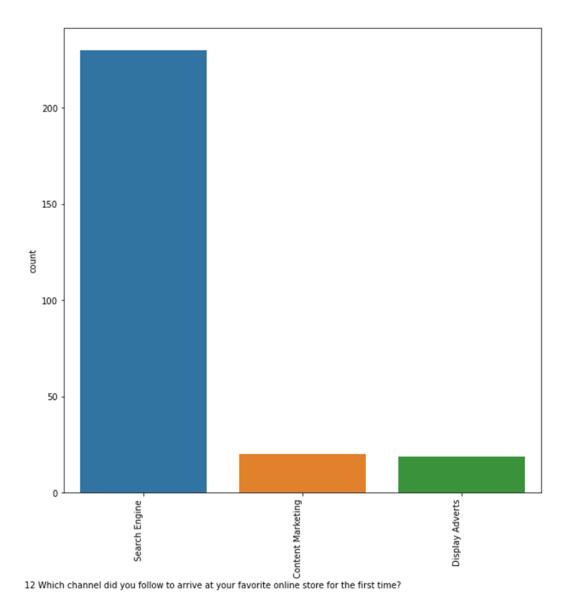
The device with higher screen is used by the people followed by 5.4, 4.7.



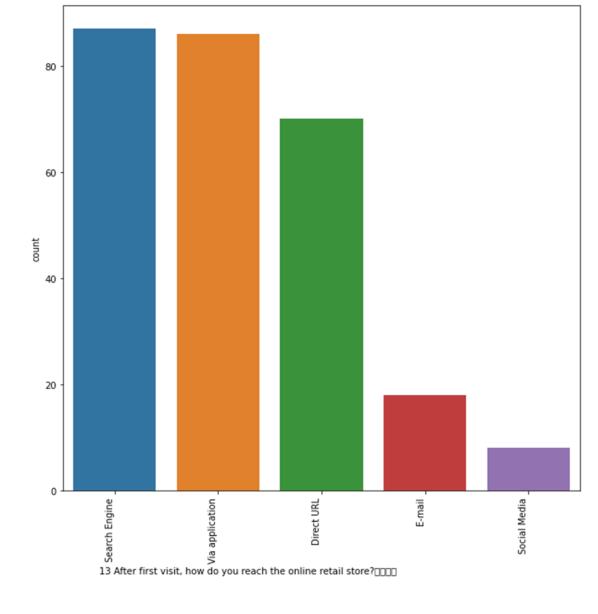
The smart phone device with the operating system windows mobile is used highest followed by the IOSMac and android.



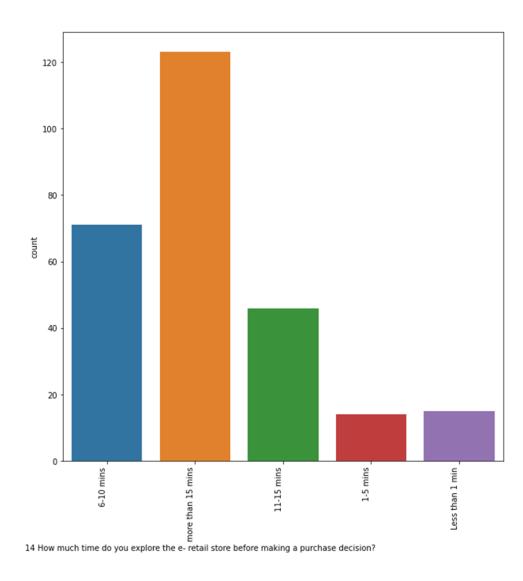
The google chrome is the highest used browser followed by safari and opera.



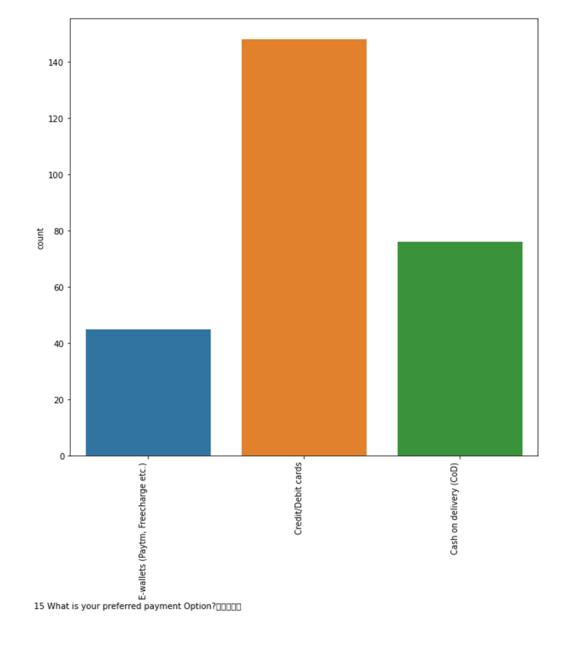
The search Engine is most used for the online shopping.



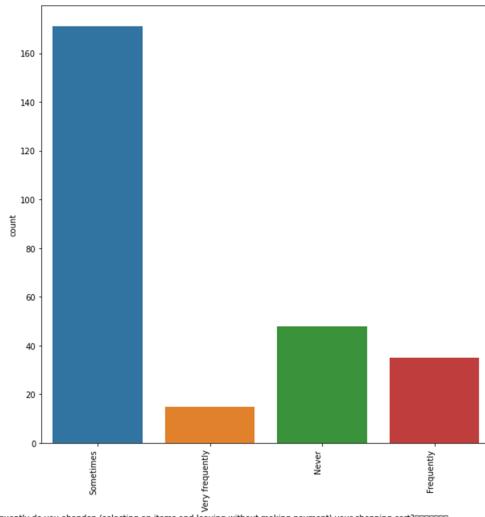
The search Engine is most used and reached for the online shopping.



People search more than 15 times before buying the product

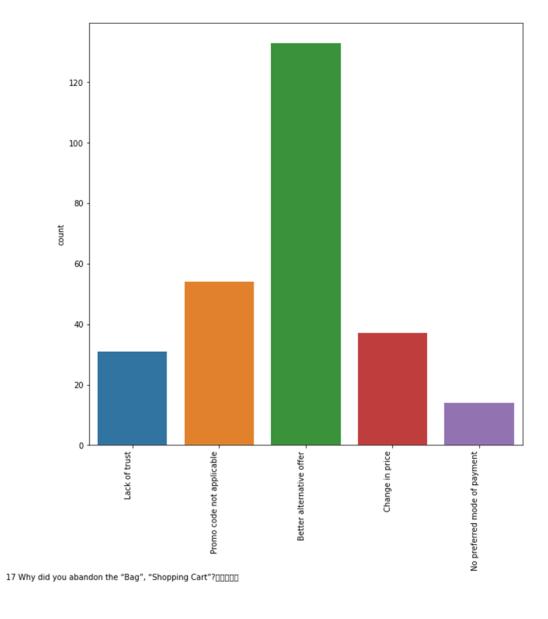


Most people use credit/Debit cards for purchases

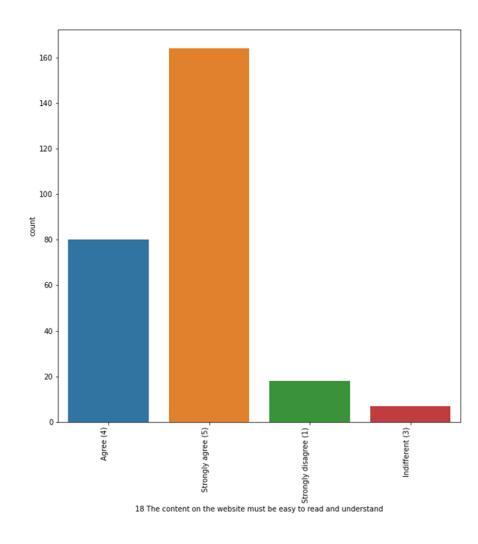


16 How frequently do you abandon (selecting an items and leaving without making payment) your shopping cart?

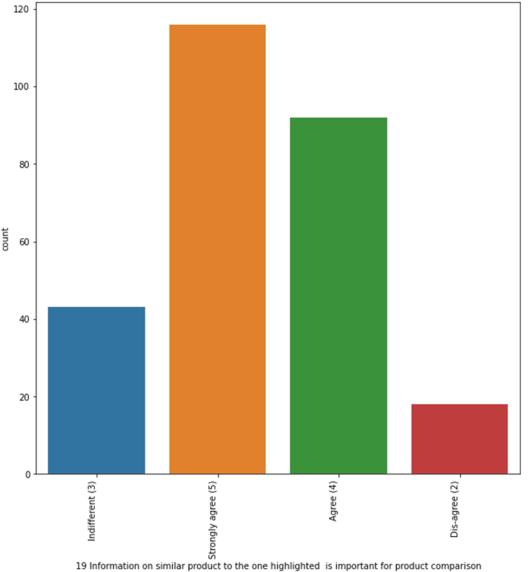
People buy the product sometimes which is picked in the cart



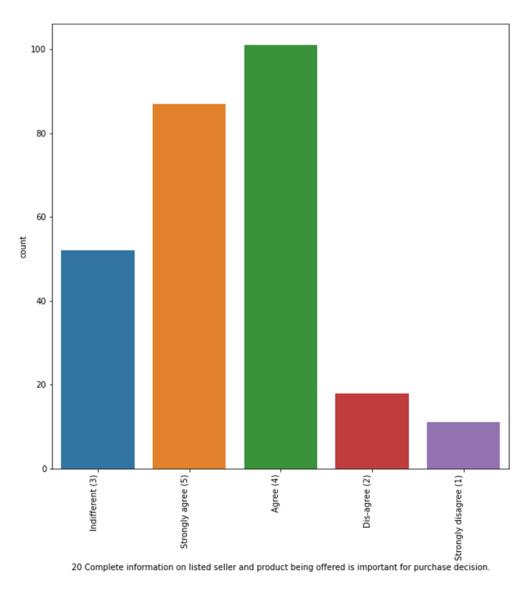
Most of the people abandon the cart because of better offers

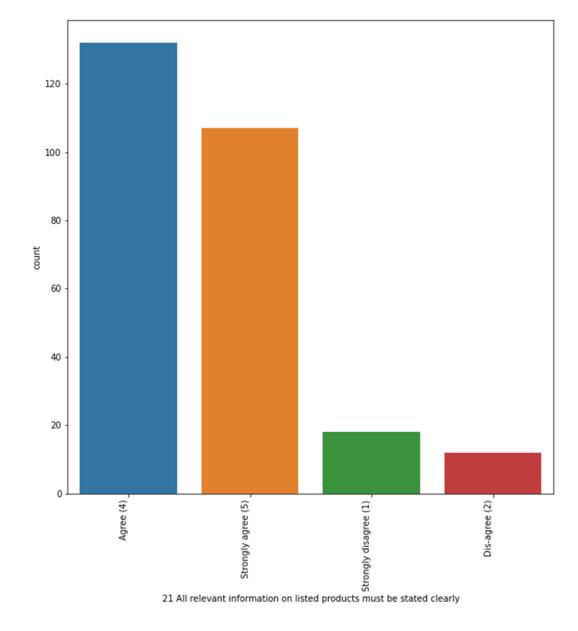


People buy the product sometimes which is picked in the cart

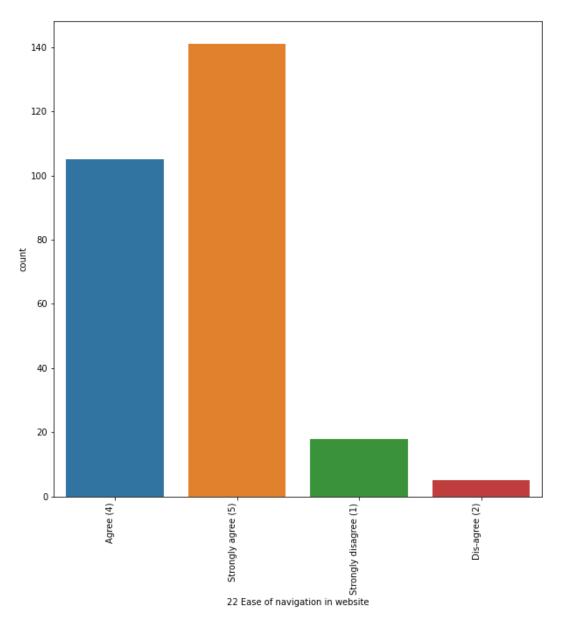


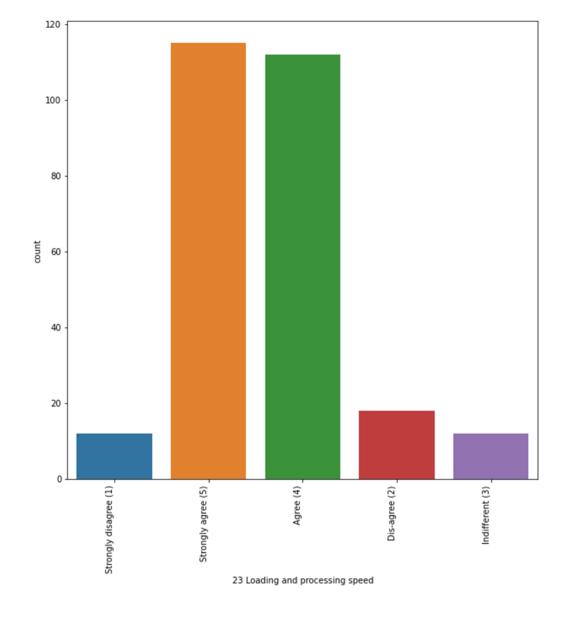
Most people want alternative product with same specification so they want to compare with product of same specification.



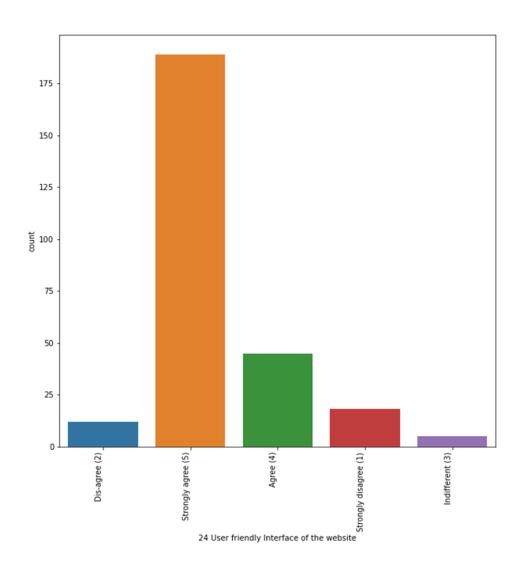


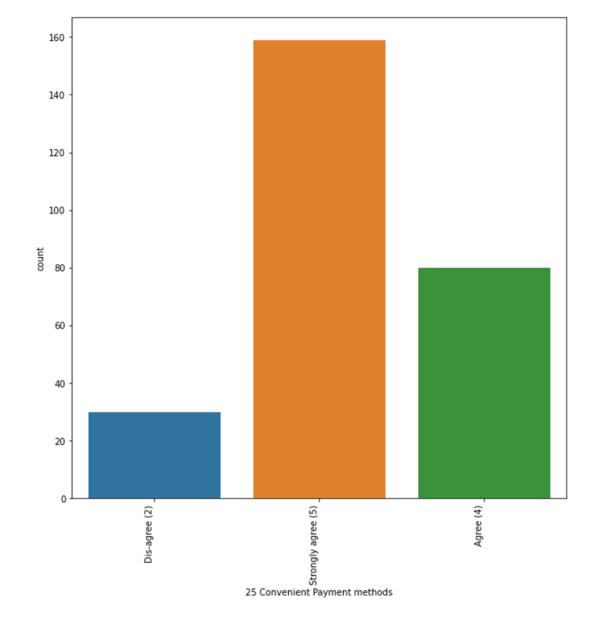
Most of the people agree for shopping online gives all the information on the products



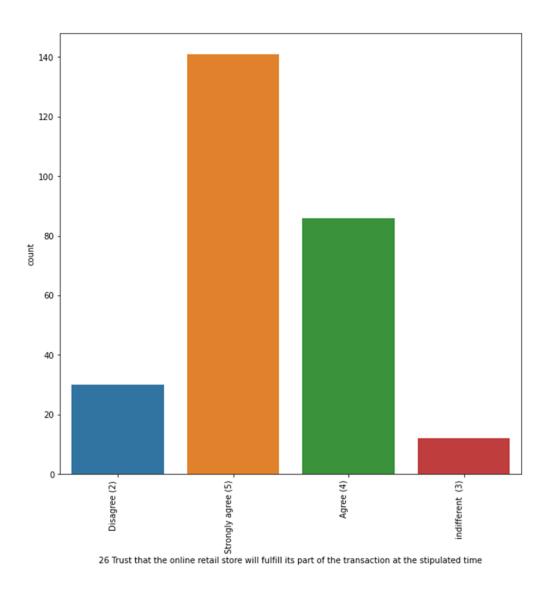


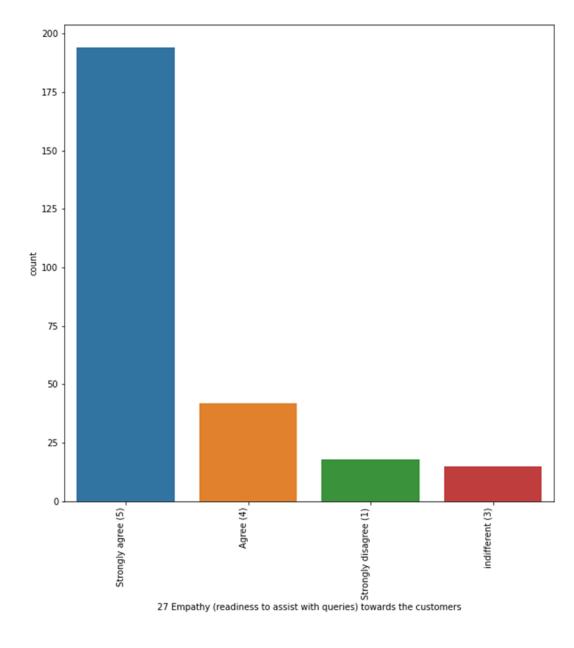
Most of the people agree for shopping online gives ease of navigation and loading speed



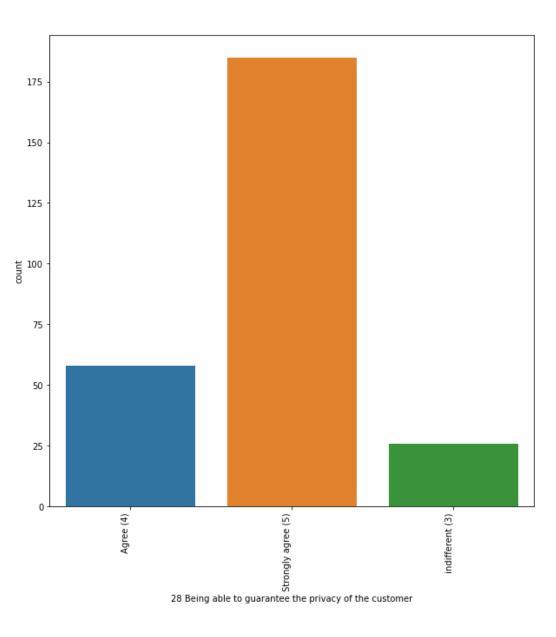


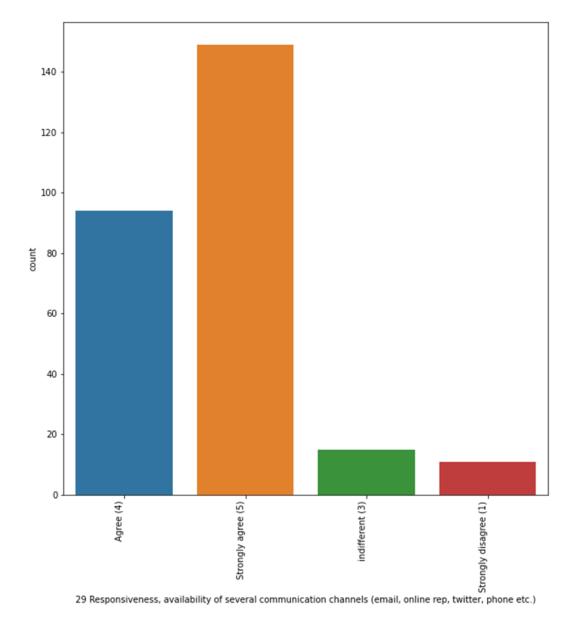
Most of the people agree for shopping online gives user friendly website and convenient payment methods



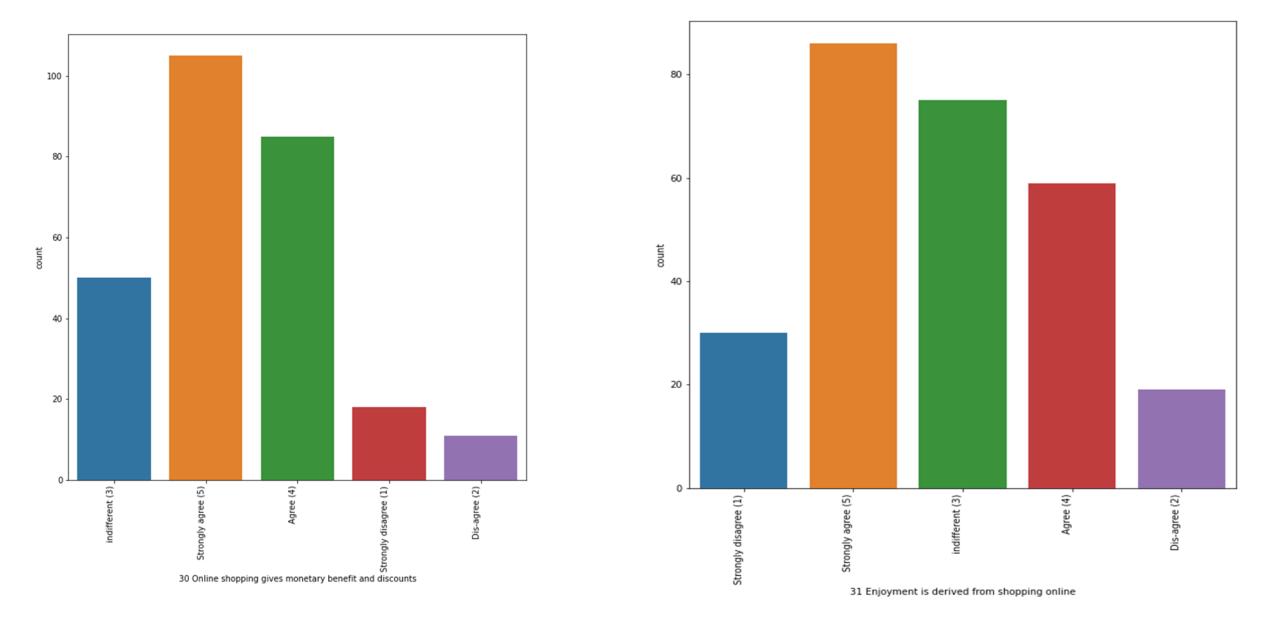


Most of the people agree for shopping online gives trust and empathy towards customers

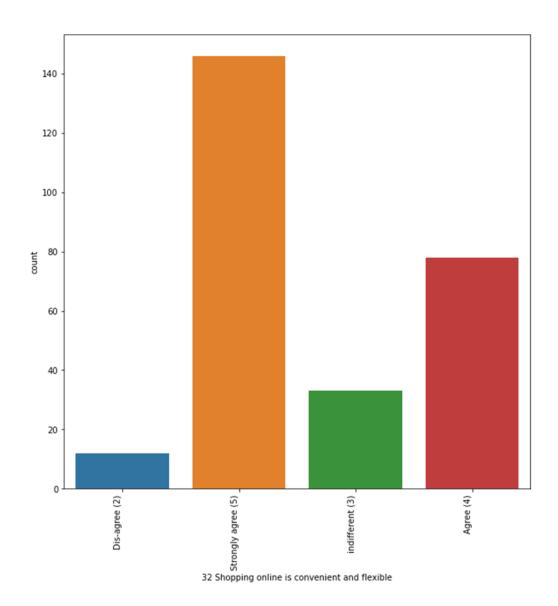


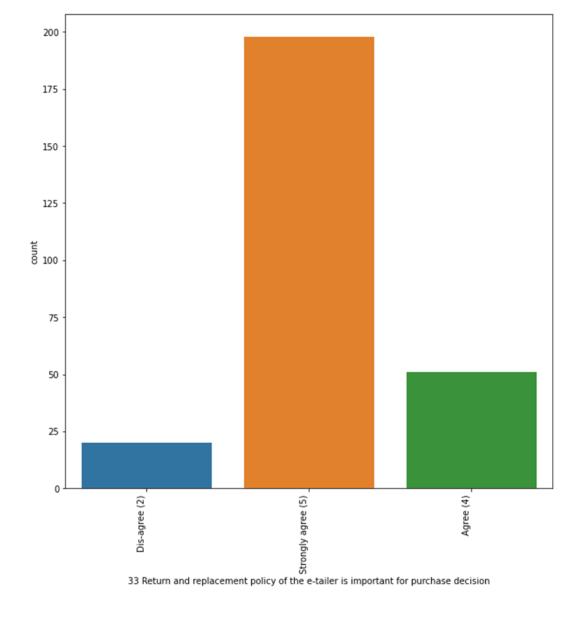


Most of the people agree for shopping online gives trust and empathy towards customers

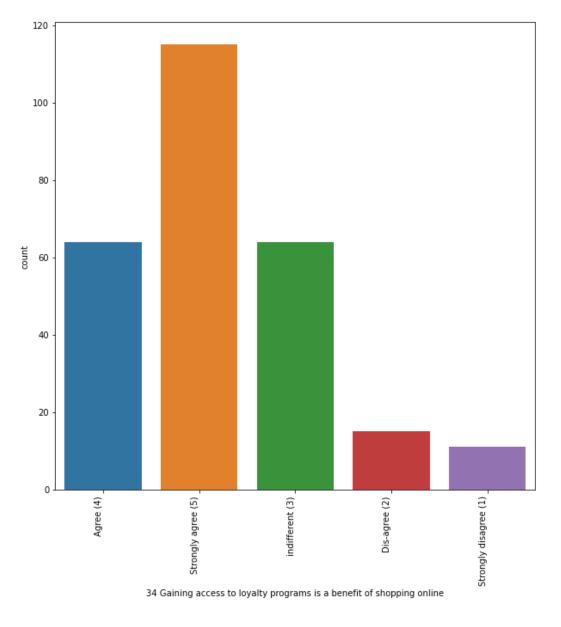


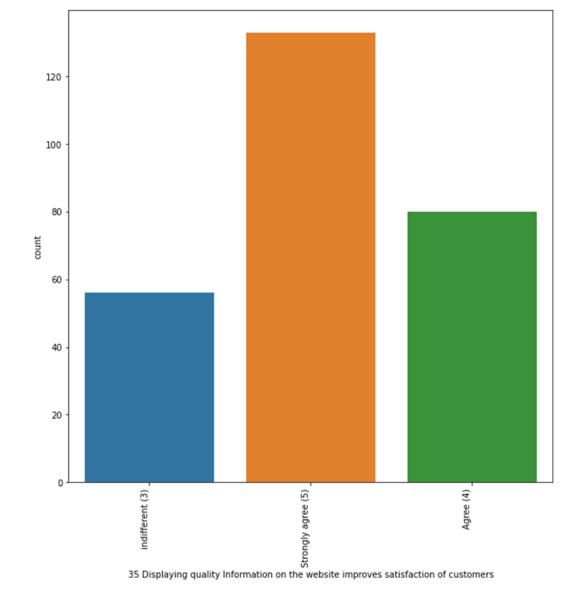
Most of the people agree for shopping online gives enjoyment and monetary benefits to customers



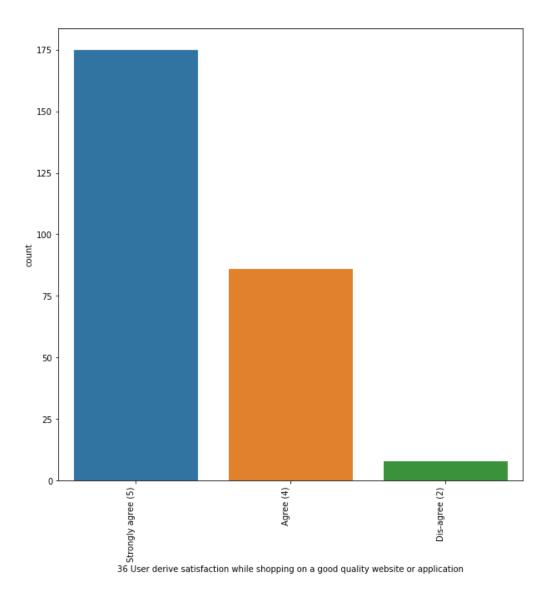


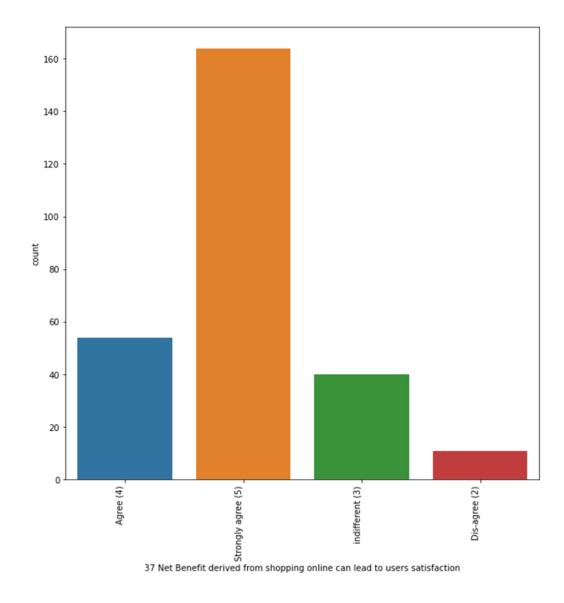
Most of the people agree for shopping online ease in exchange and flexible



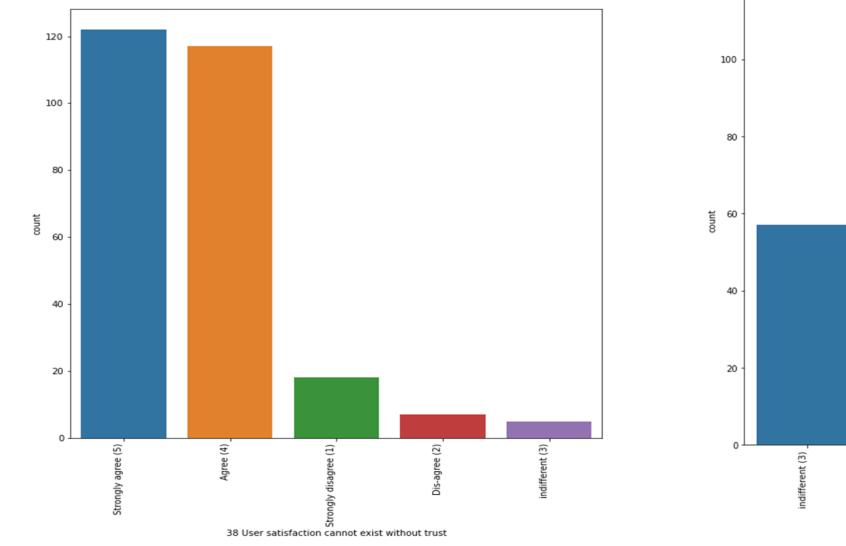


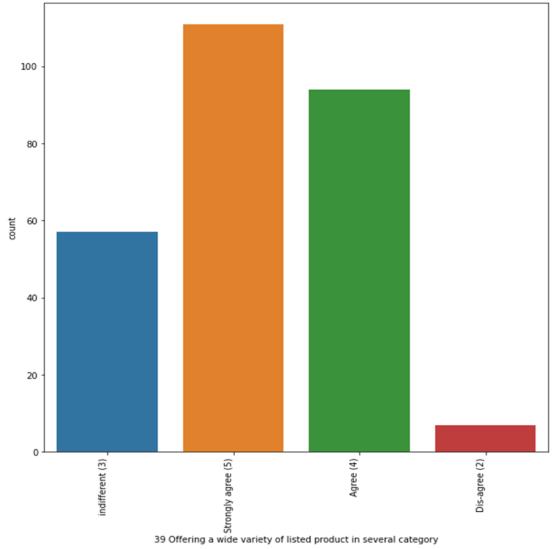
Most of the people agree for shopping satisfaction of the customers



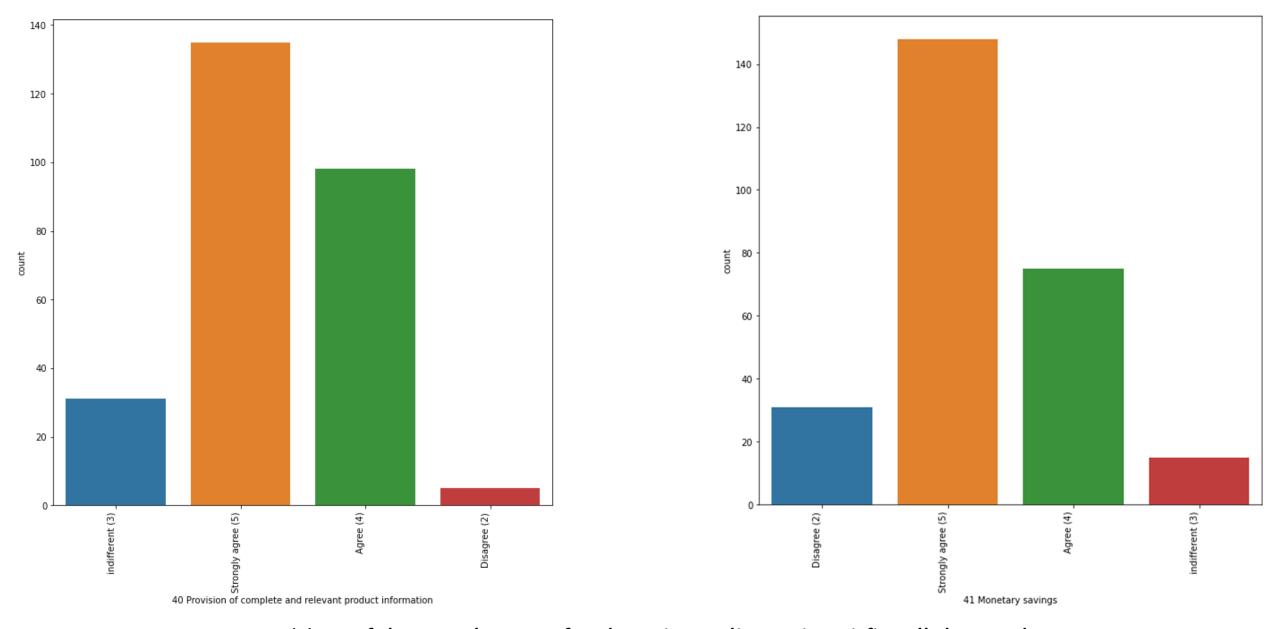


Most of the people agree for shopping online gives satisfaction and good quality website

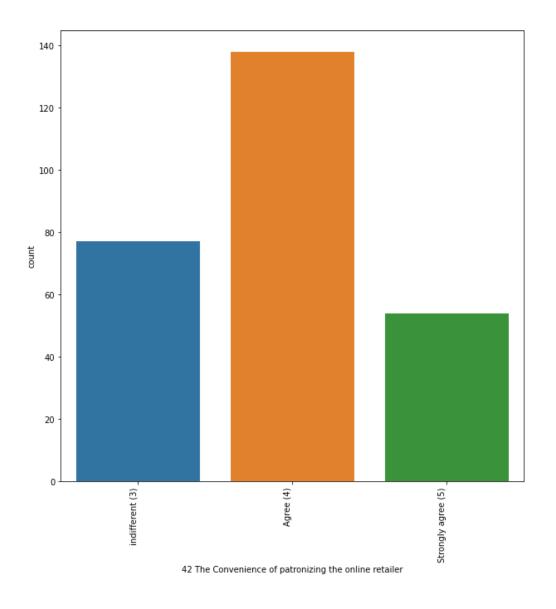


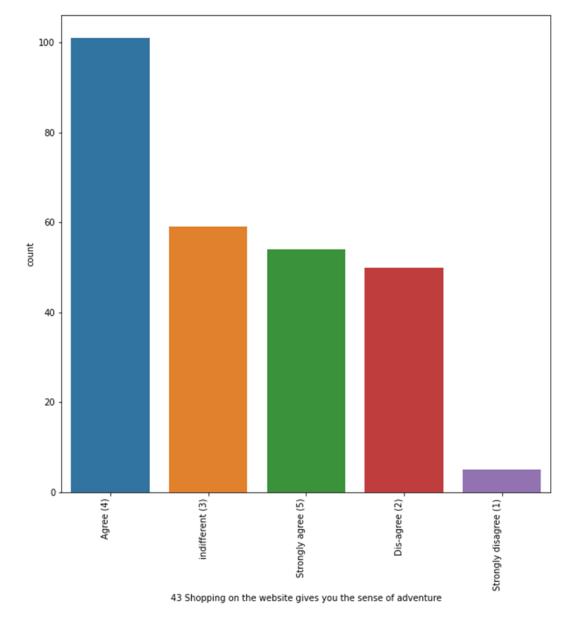


Most of the people agree for shopping online gives wide variety of list and induces trust

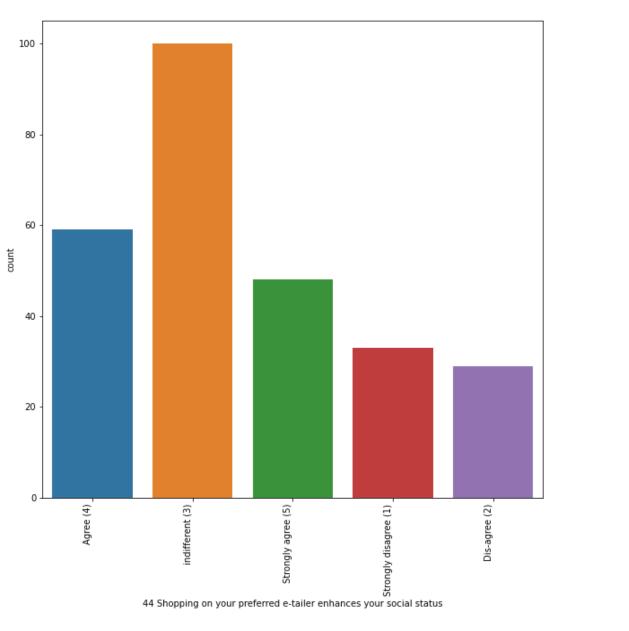


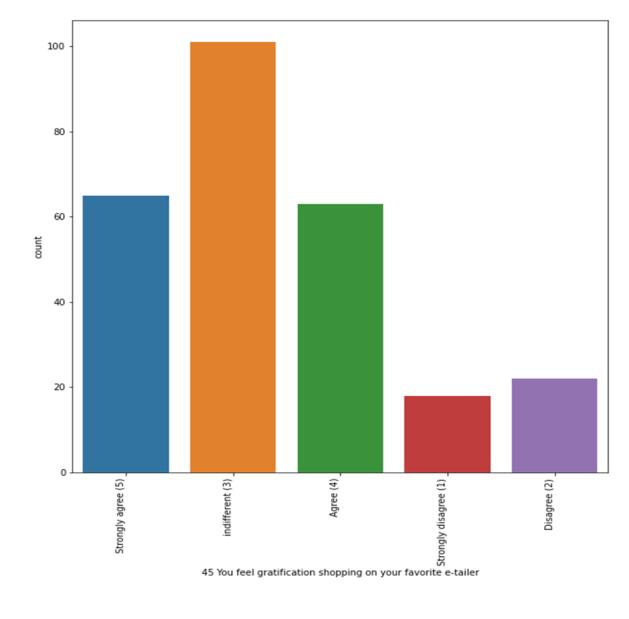
Most of the people agree for shopping online as it satisfies all the needs



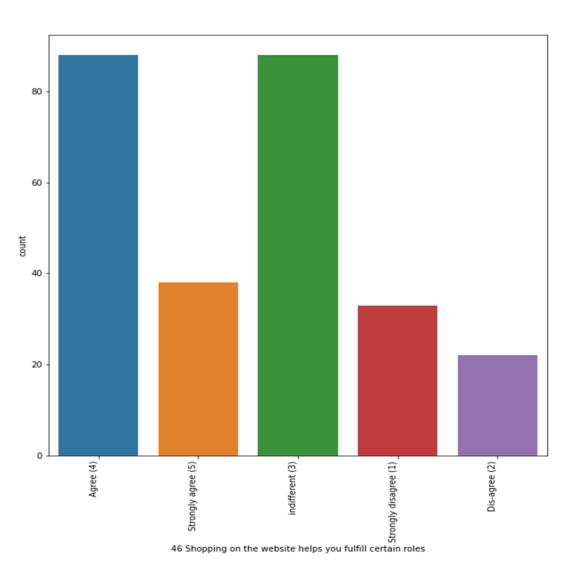


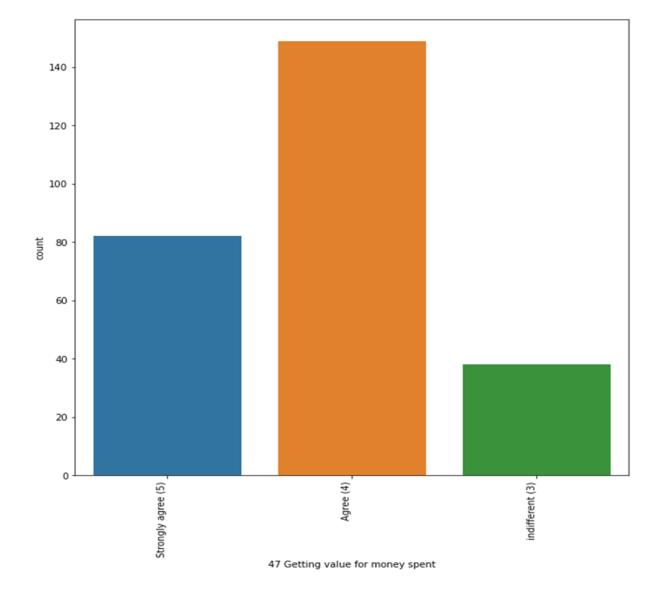
Most of the people agree for shopping online as it satisfies the sense of adventures



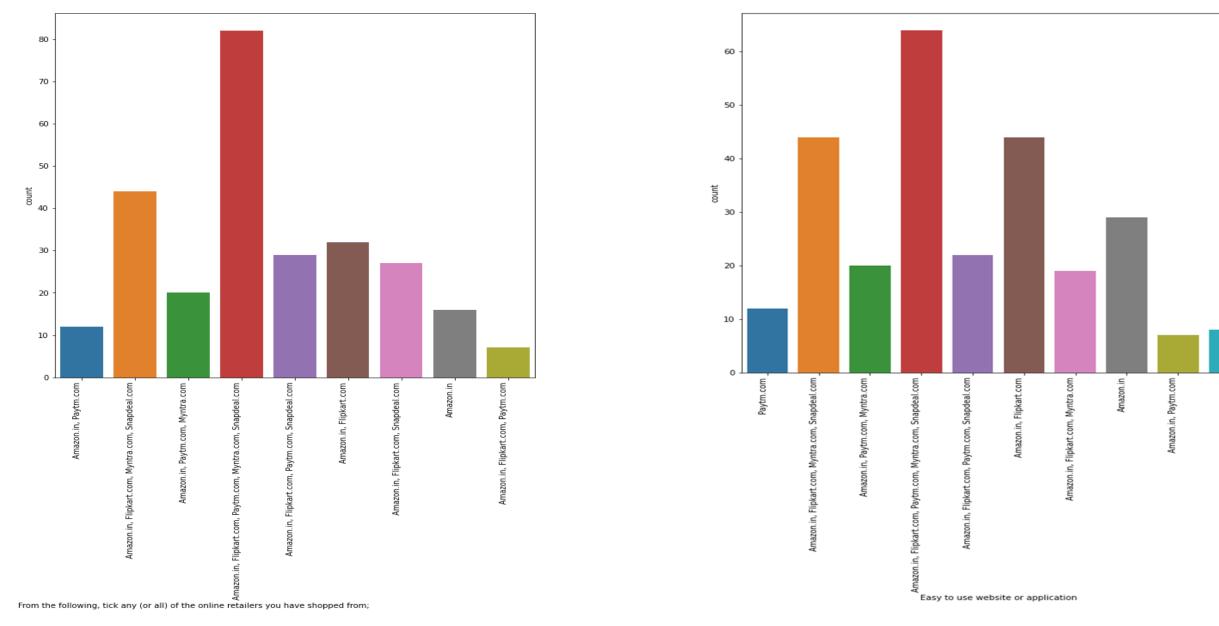


Most of the people agree for shopping online as it satisfies the human requirements

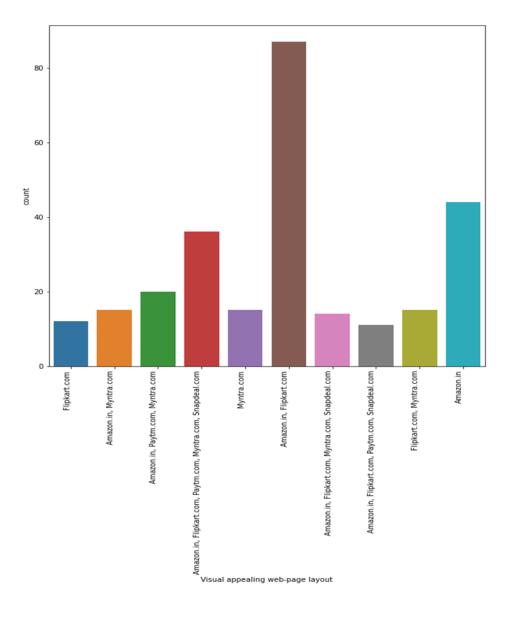


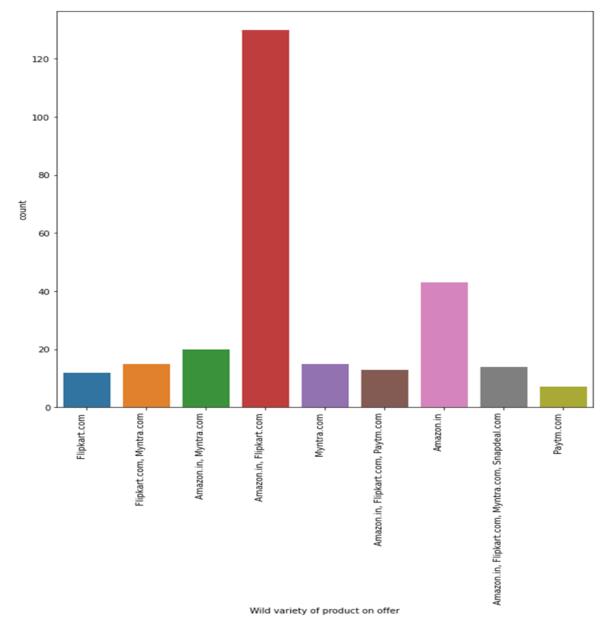


Most of the people agree for shopping online as it is value and helps in certain roles

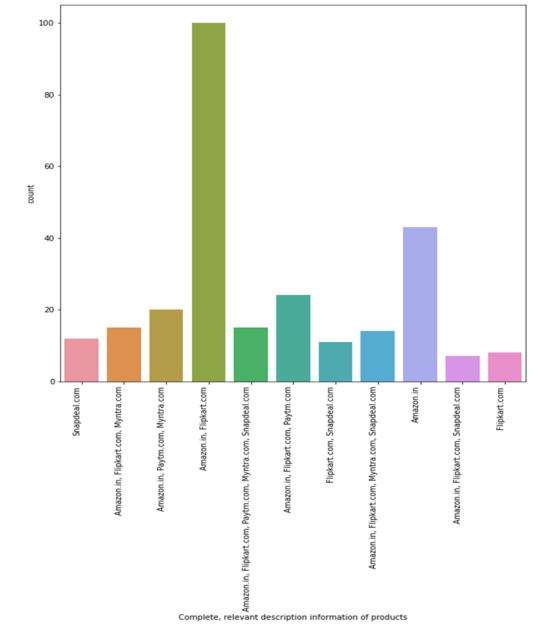


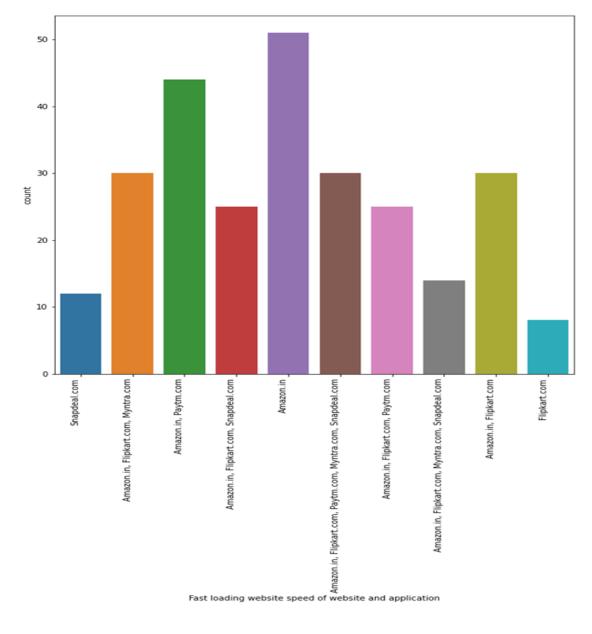
Amazon, flipkart, snapdeal and mytra easy to use applications among all the ecommerce software's



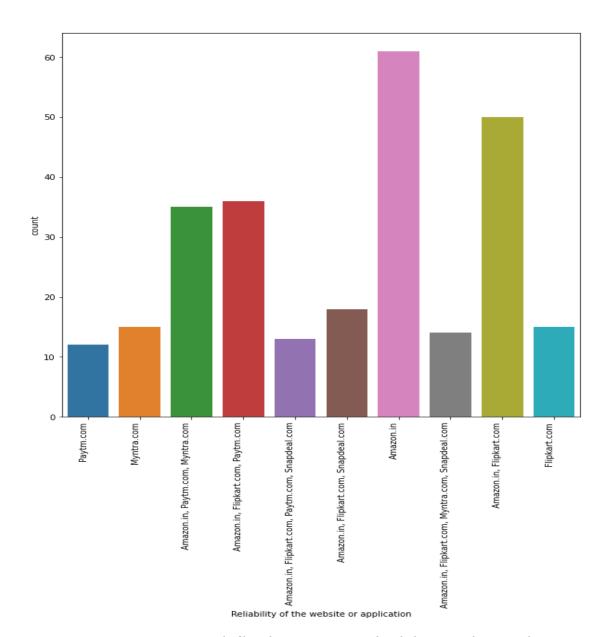


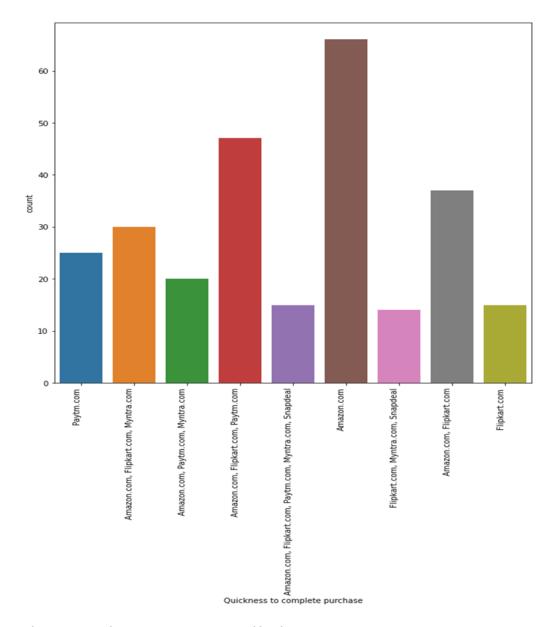
Amazon, flipkart are displaying variety of product and appealing page layout among all the ecommerce software's



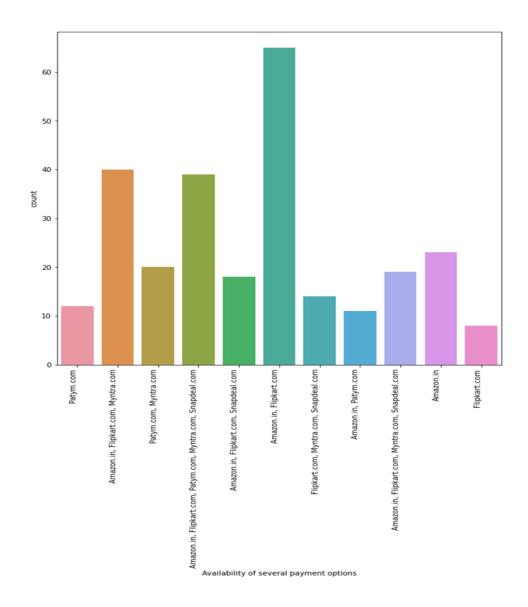


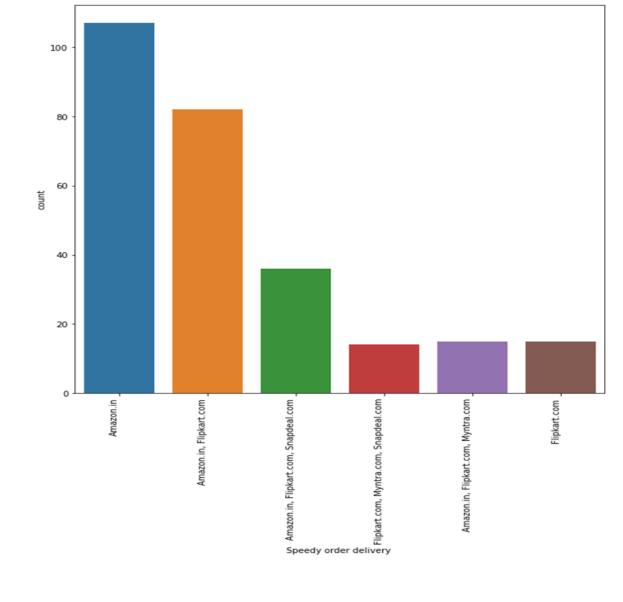
Amazon, flipkart and payth are displaying product information and fast loading speed among all the ecommerce software's



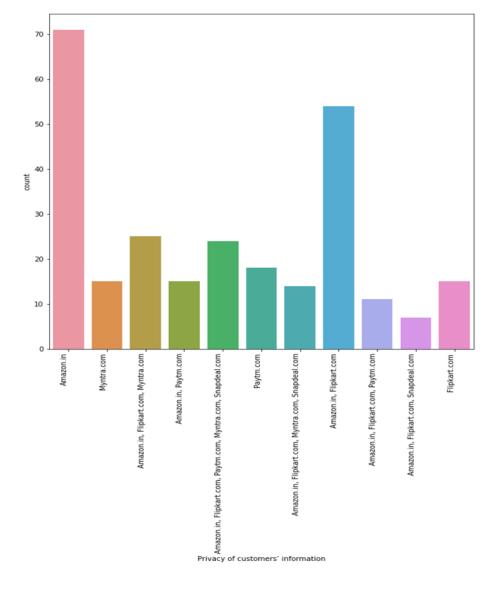


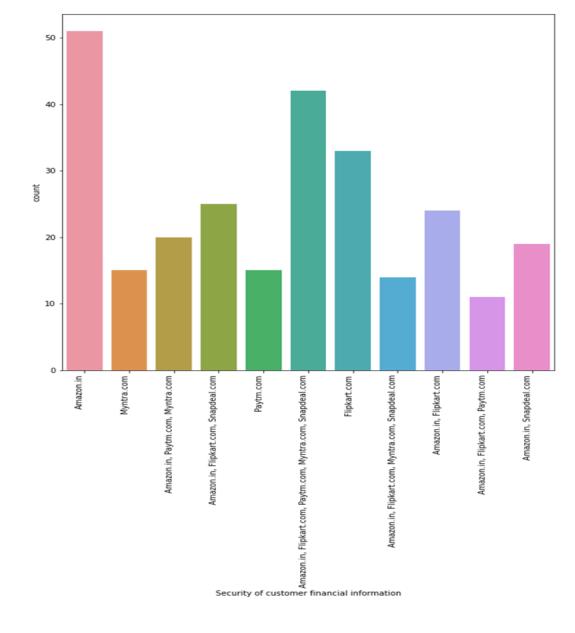
Amazon and flipkart are reliable and quickness to complete the purchase among all the ecommerce software's



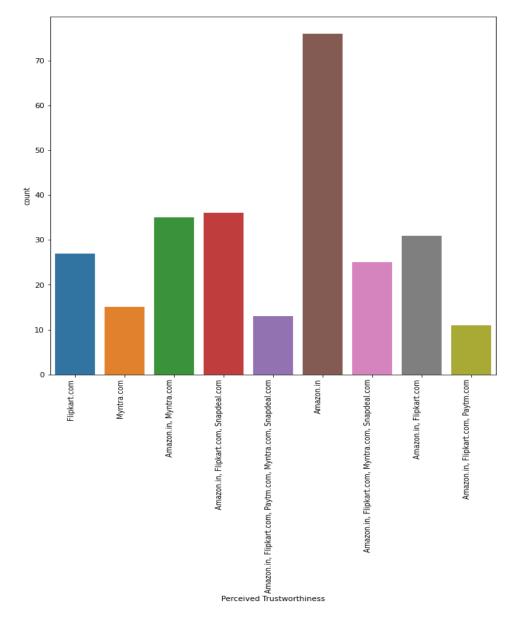


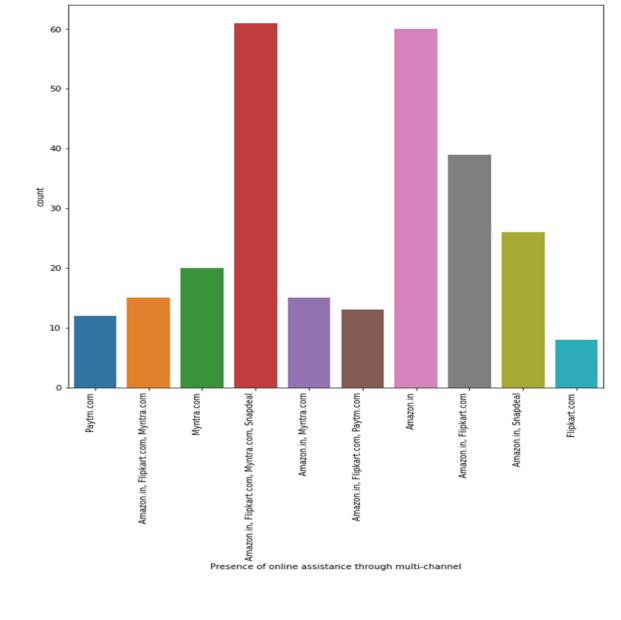
Amazon and flipkart are available for several payment options and quick delivery among all the ecommerce software's



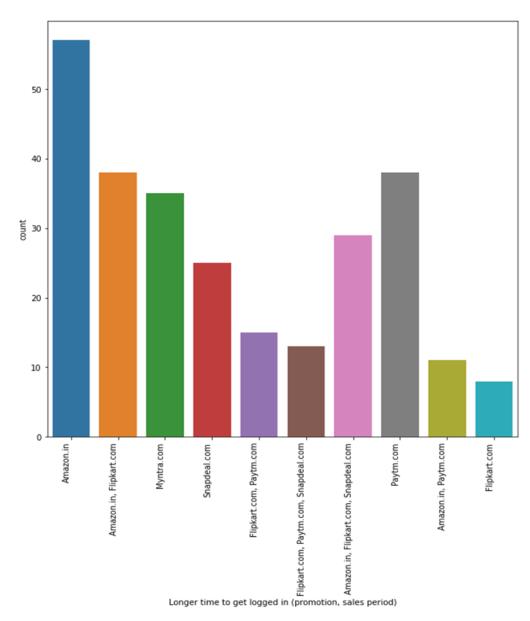


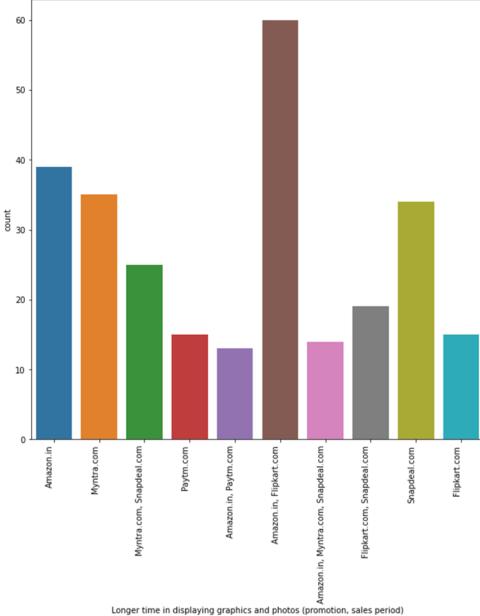
Amazon and flipkart are most trustworthy because of privacy of customer information and financial information among all the ecommerce software's



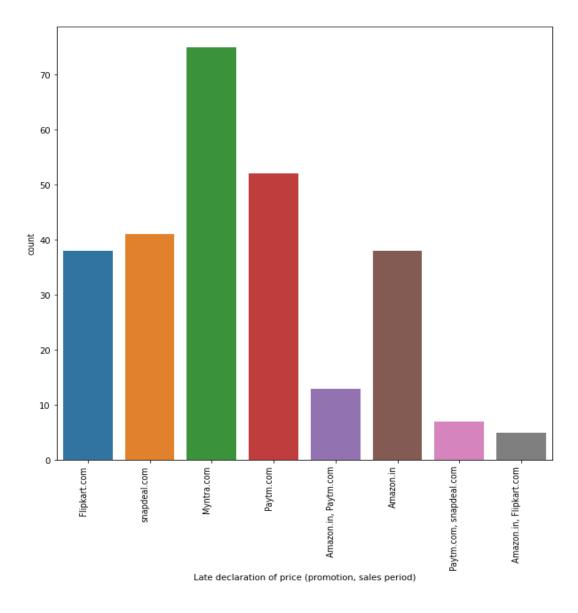


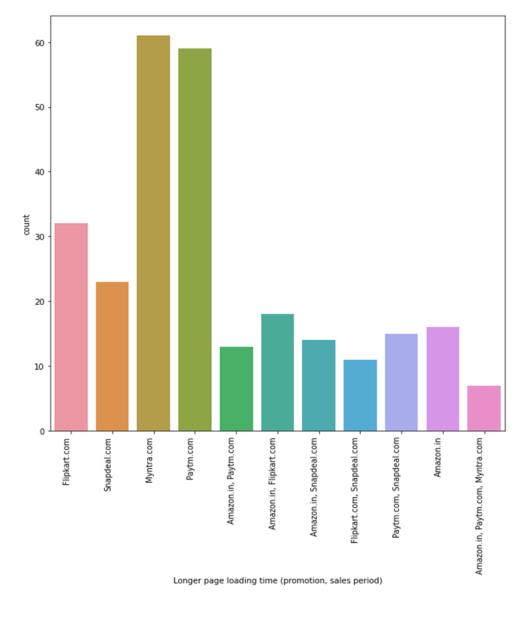
Amazon and flipkart are most trustworthy and online assistance is available by multichannel among all the ecommerce software's



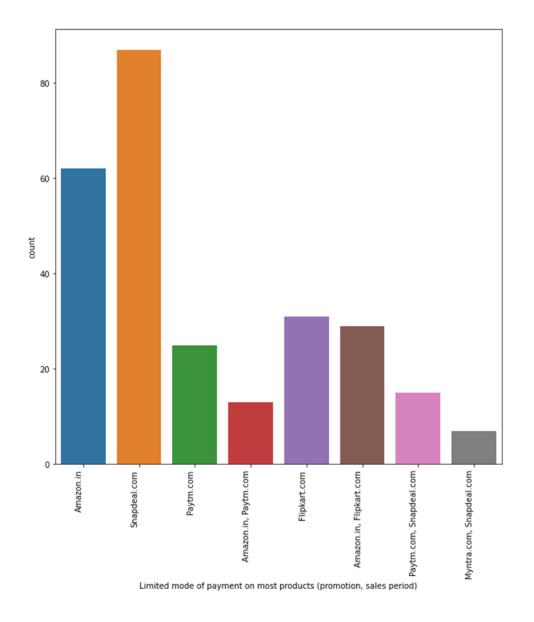


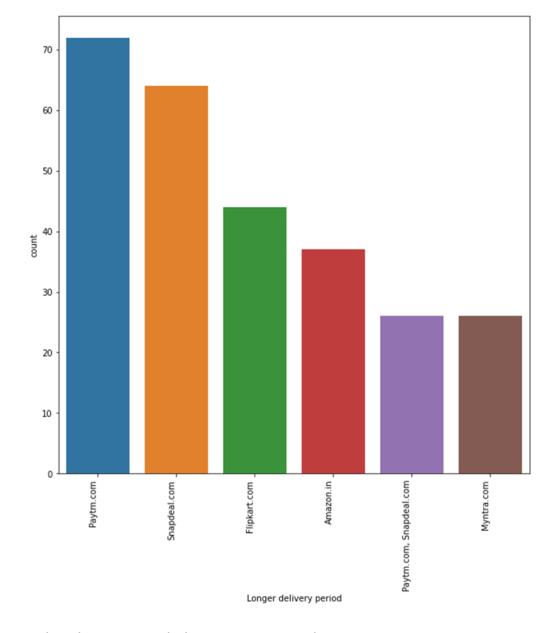
Amazon and flipkart have longer logging in time and loading time among all the ecommerce software's



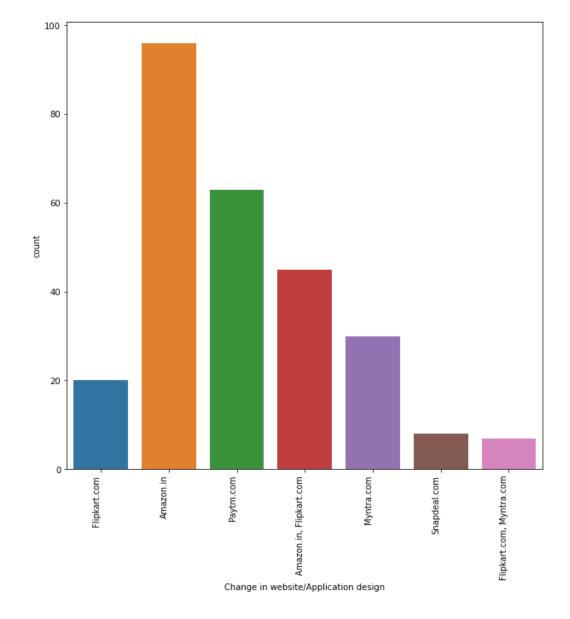


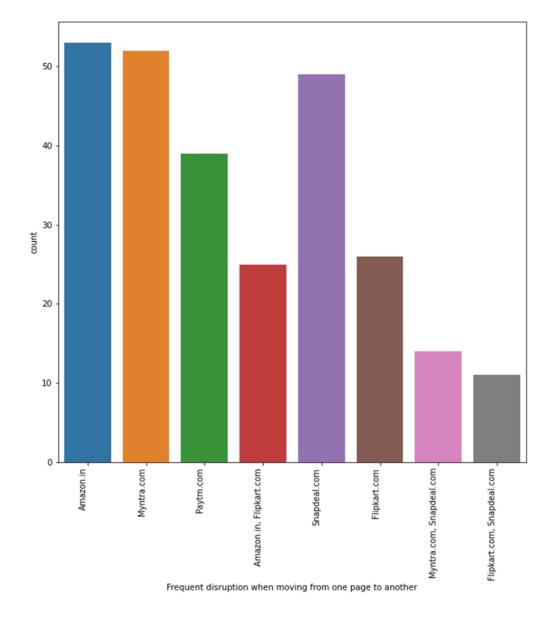
Myntra and paytm has the most late declaration of price and longest loading time among all the ecommerce software's



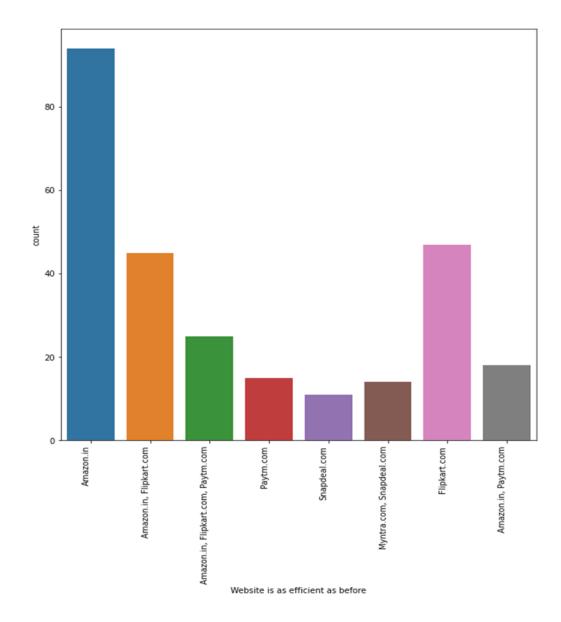


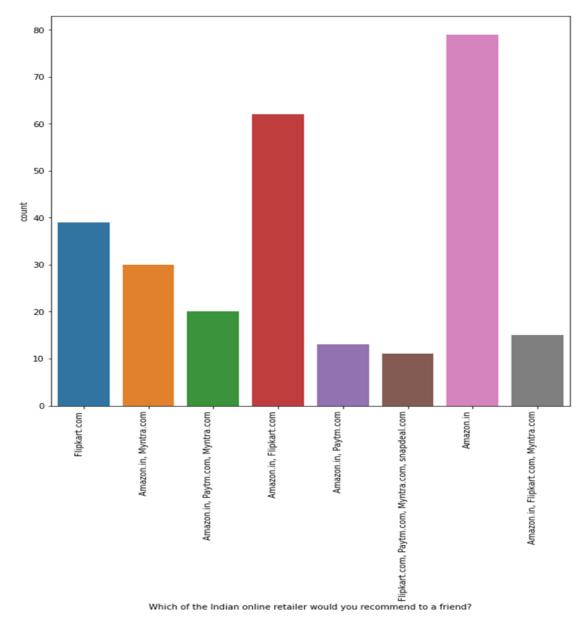
Snapdeal.com has the most count for promotions and paytm is the longest delivery period among all the ecommerce software's





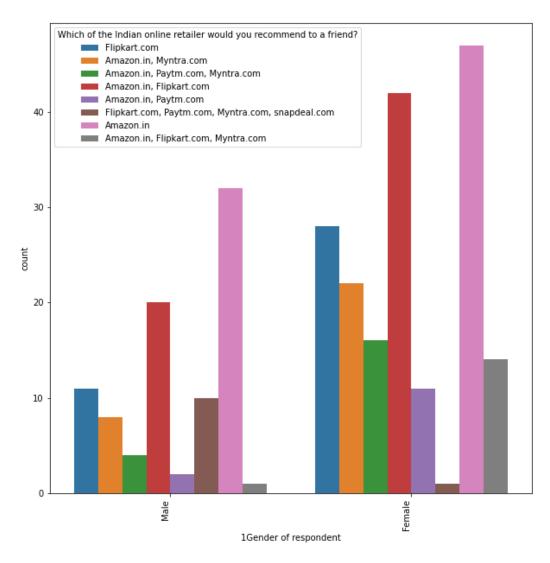
Amazon.in has the most count for change in website and disruption among all the ecommerce software's

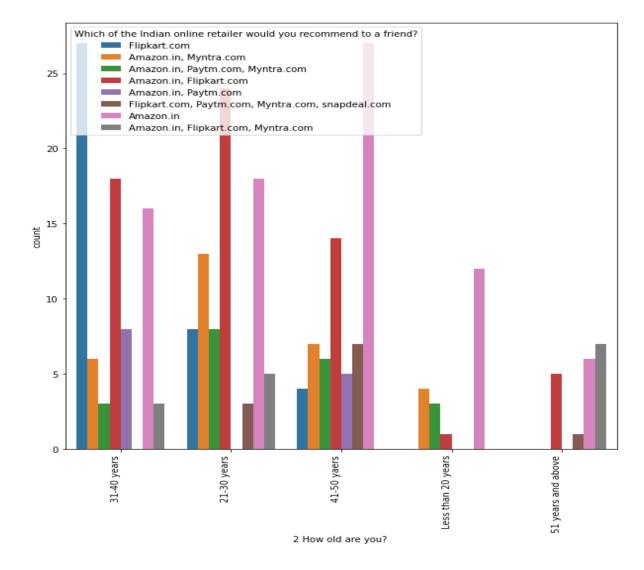


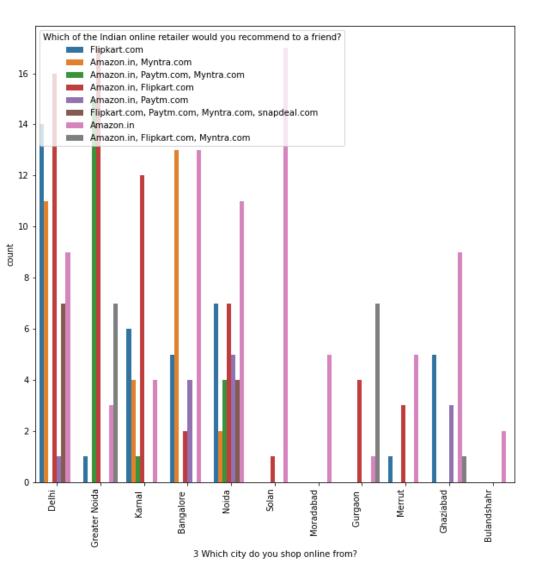


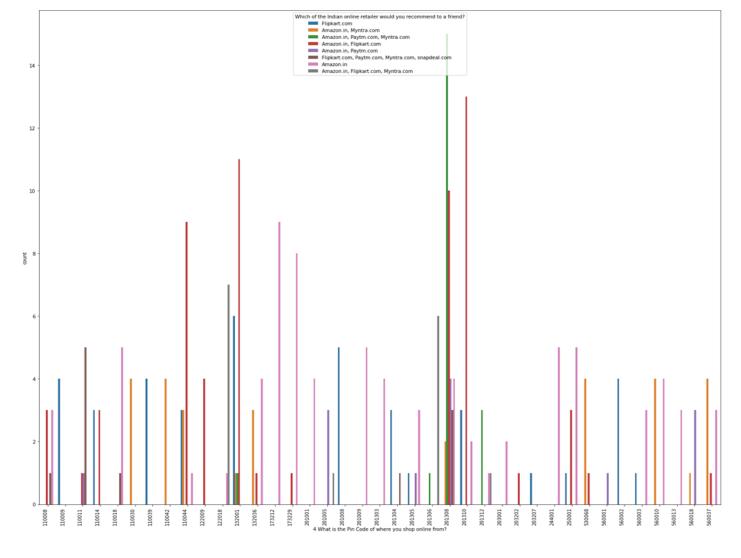
Amazon.in is the most efficient and recommended website among all the ecommerce software's

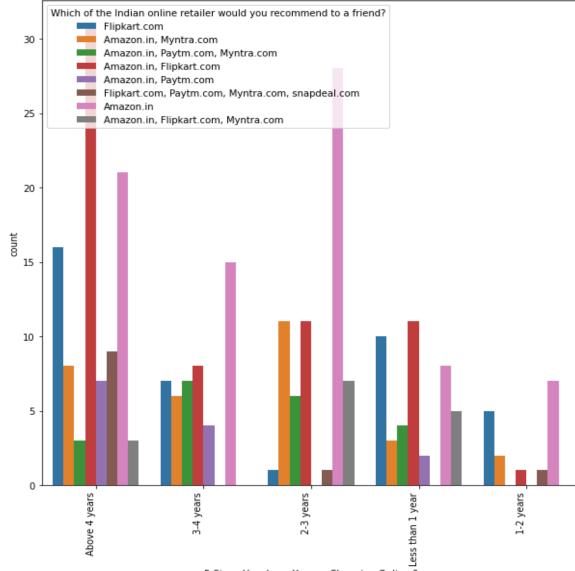
## BIVARIATE ANALYSIS



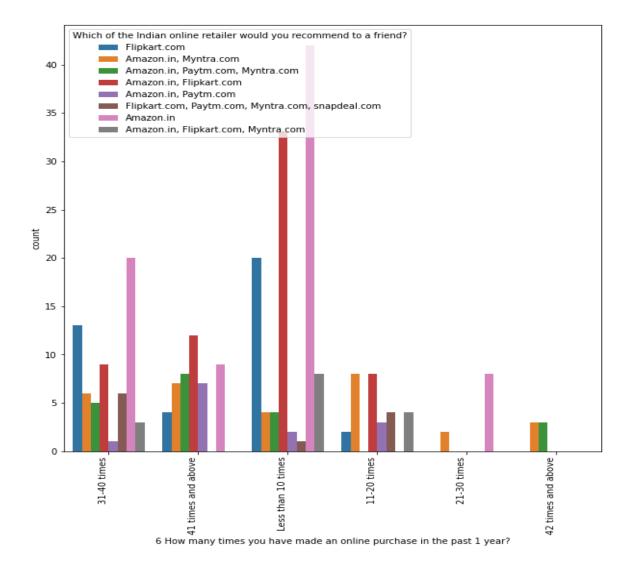


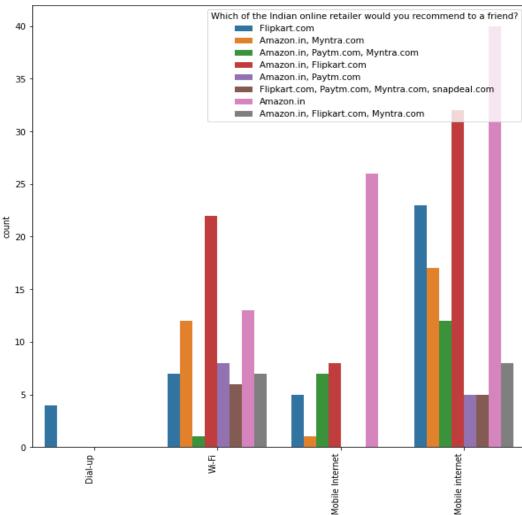




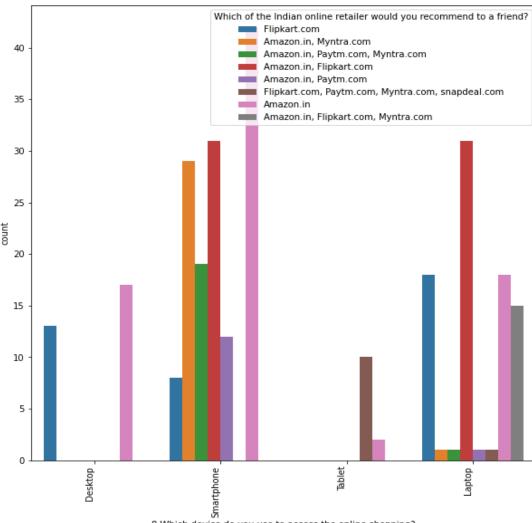


5 Since How Long You are Shopping Online?

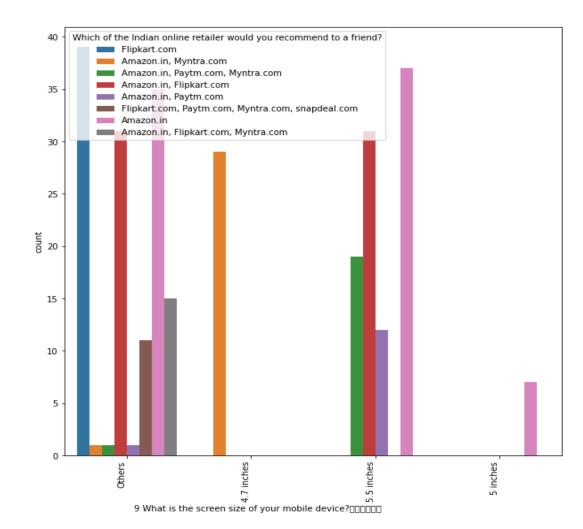


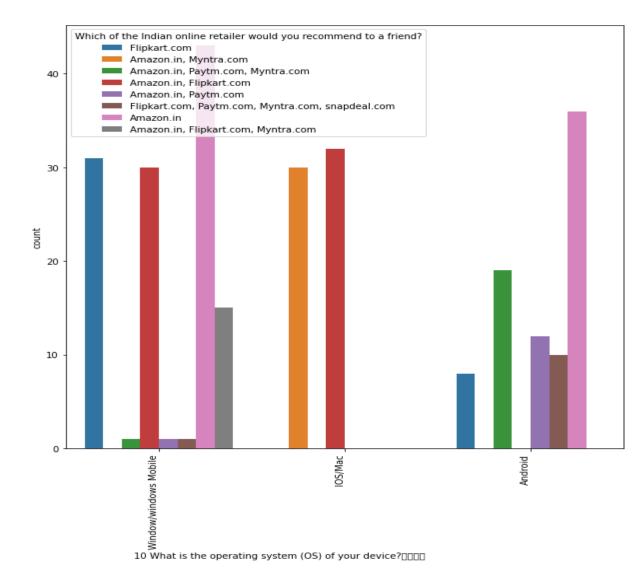


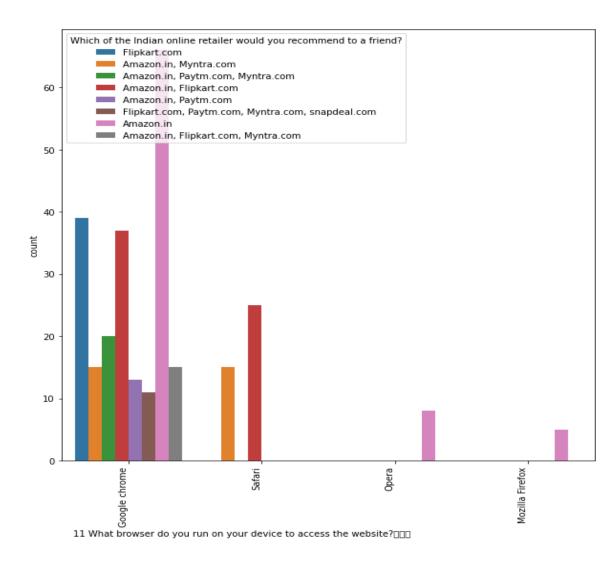
7 How do you access the internet while shopping on-line?

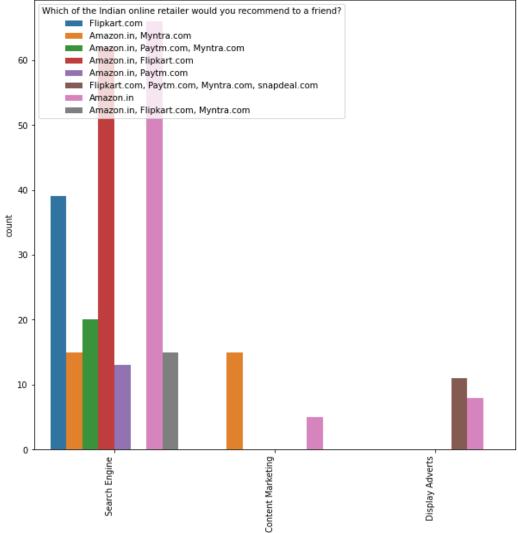


8 Which device do you use to access the online shopping?

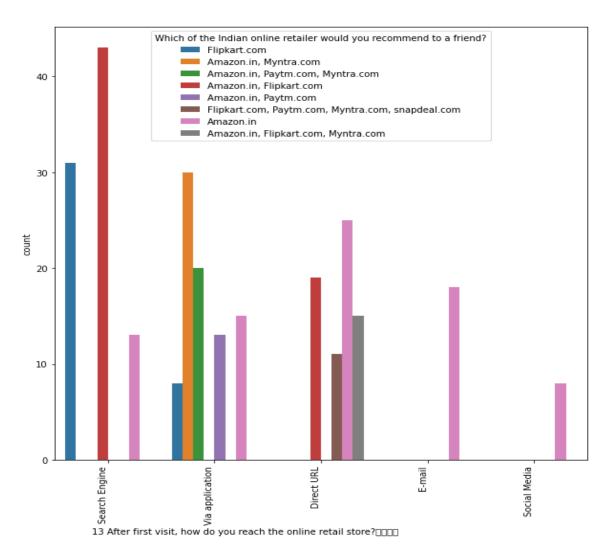


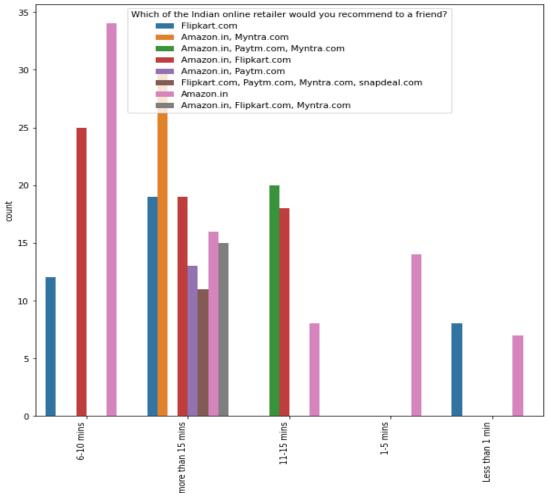




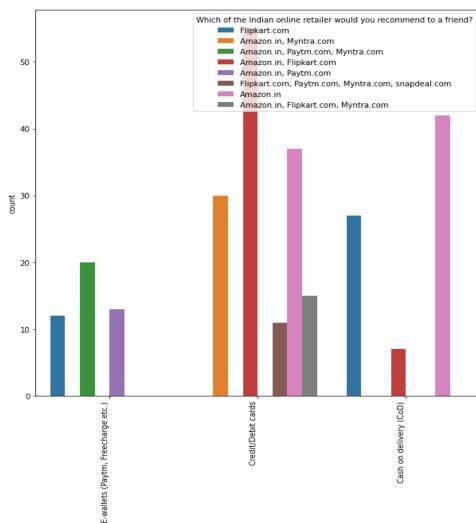


12 Which channel did you follow to arrive at your favorite online store for the first time?

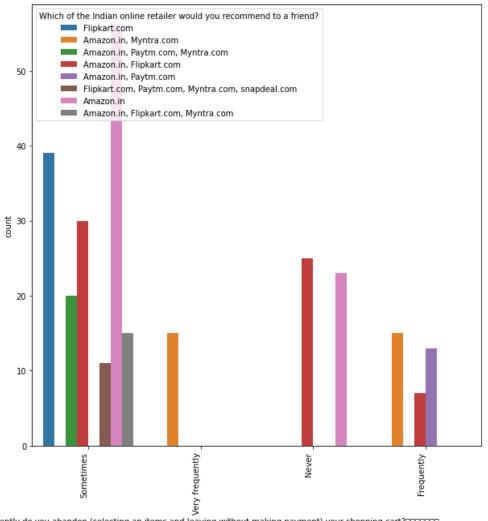




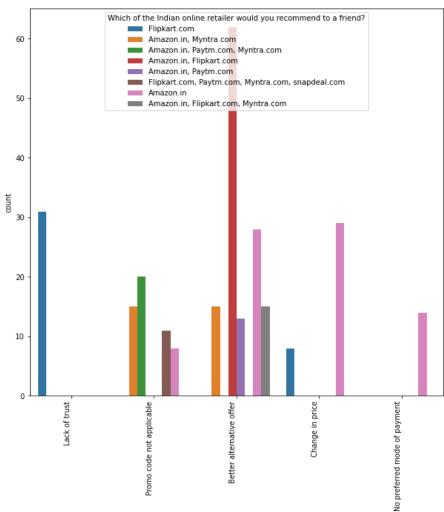
14 How much time do you explore the e- retail store before making a purchase decision?



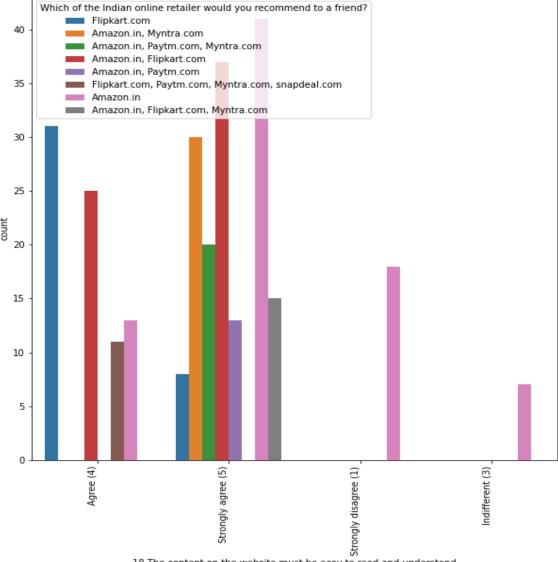
ப் 15 What is your preferred payment Option?



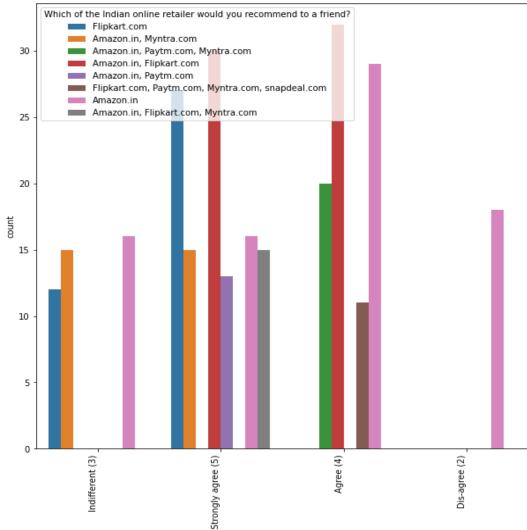
16 How frequently do you abandon (selecting an items and leaving without making payment) your shopping cart?



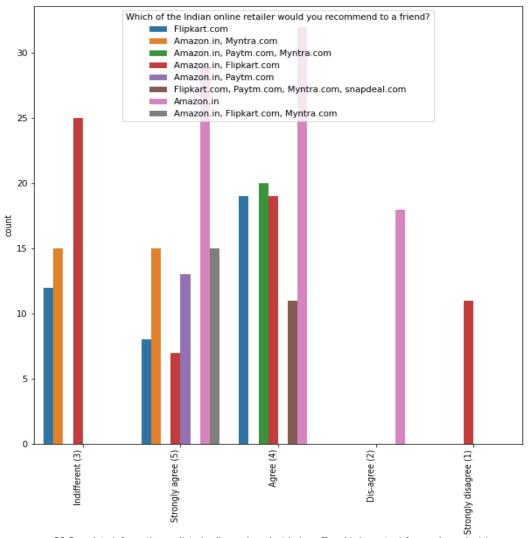
17 Why did you abandon the "Bag", "Shopping Cart"?[[[[[[[



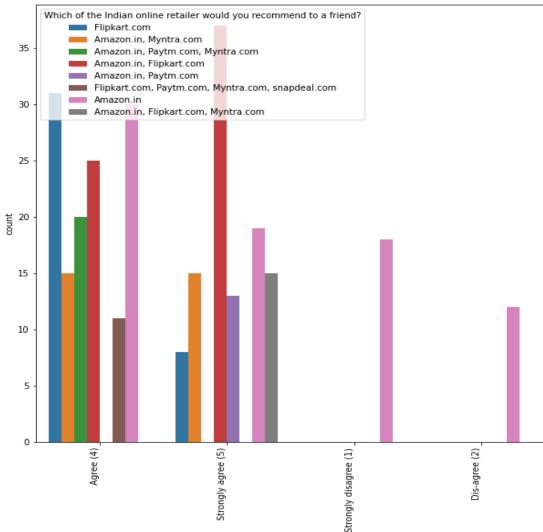
18 The content on the website must be easy to read and understand



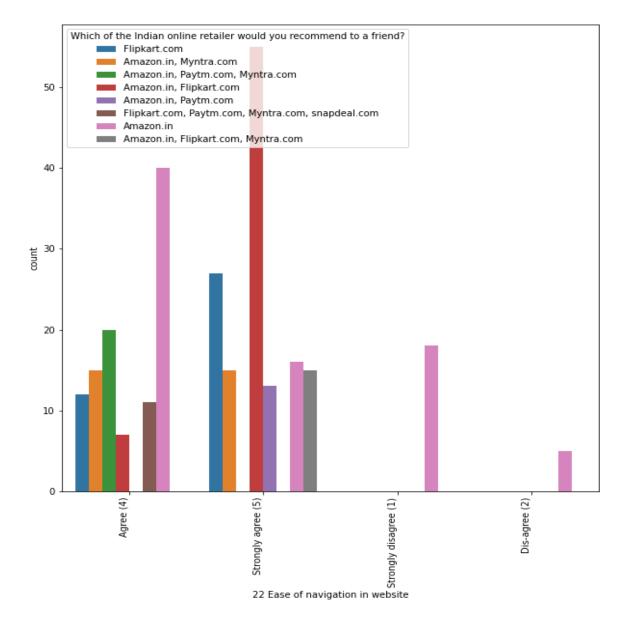
19 Information on similar product to the one highlighted is important for product comparison

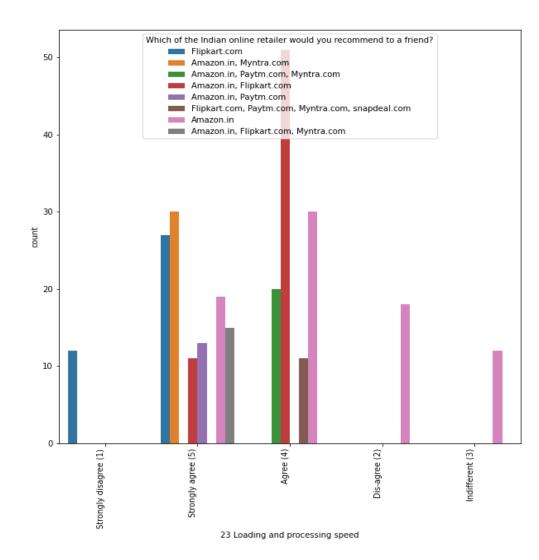


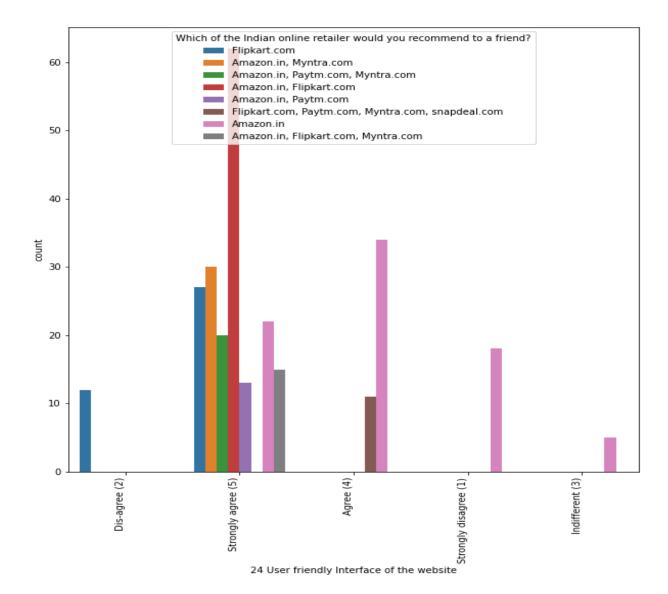
20 Complete information on listed seller and product being offered is important for purchase decision.

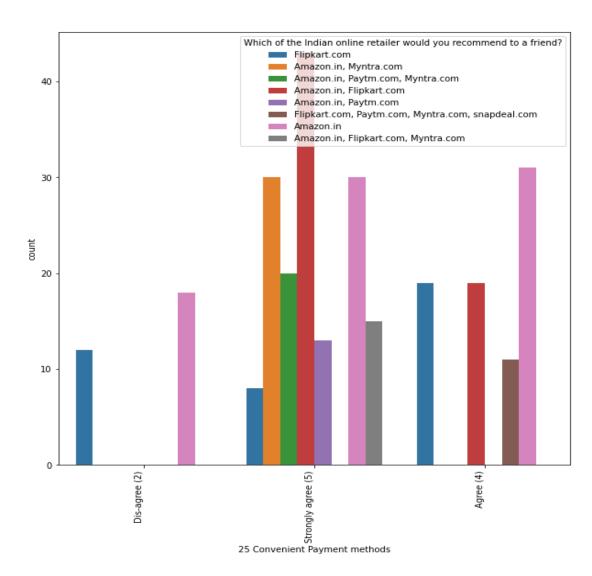


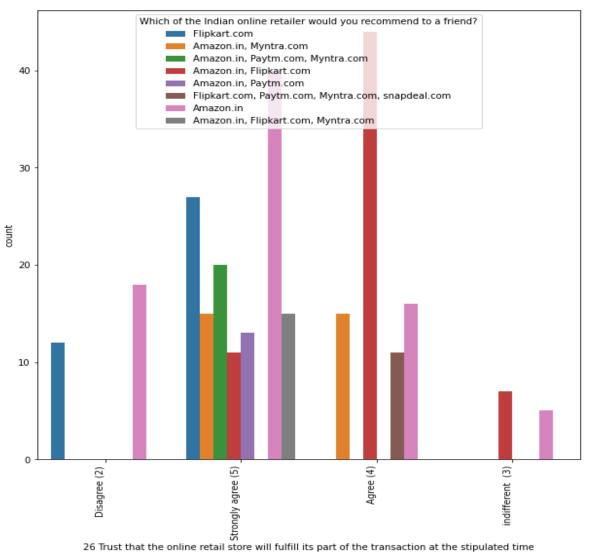
21 All relevant information on listed products must be stated clearly

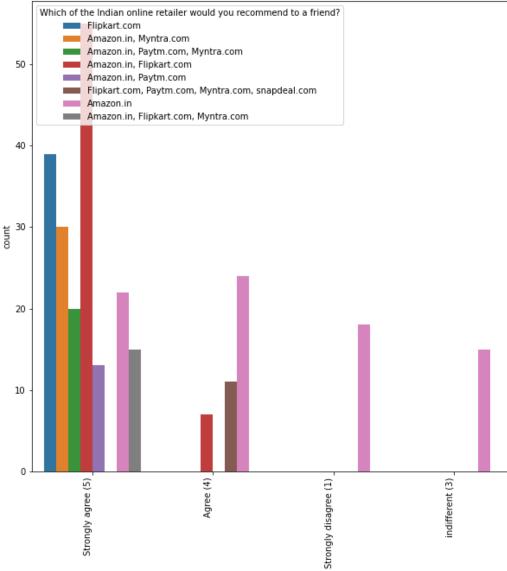




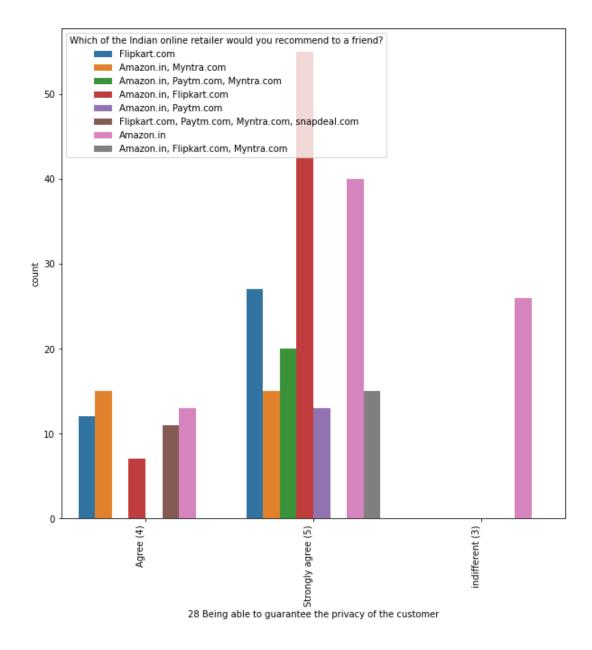


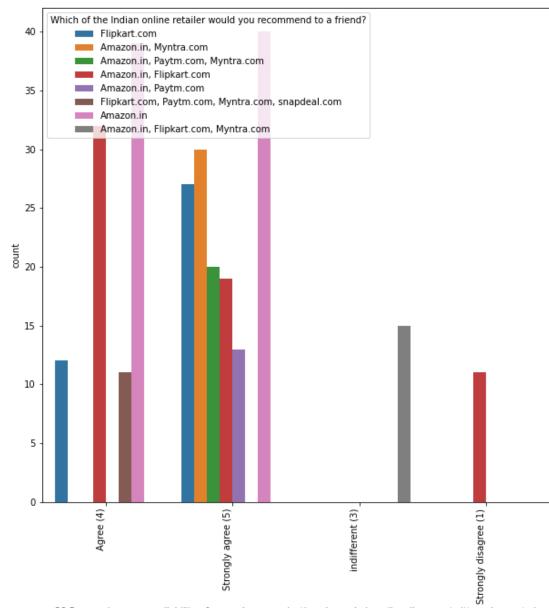




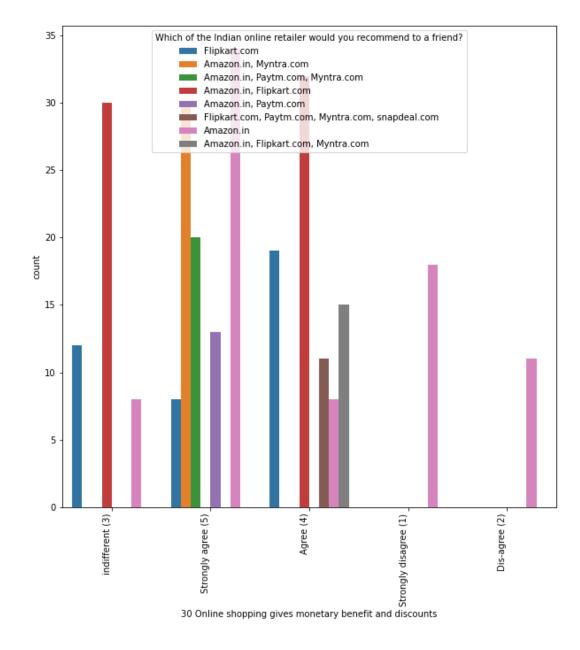


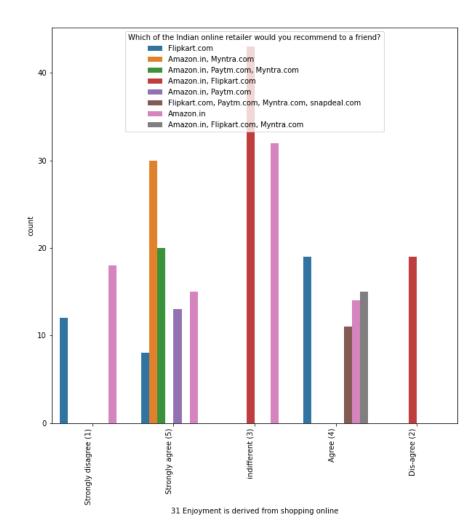
27 Empathy (readiness to assist with queries) towards the customers



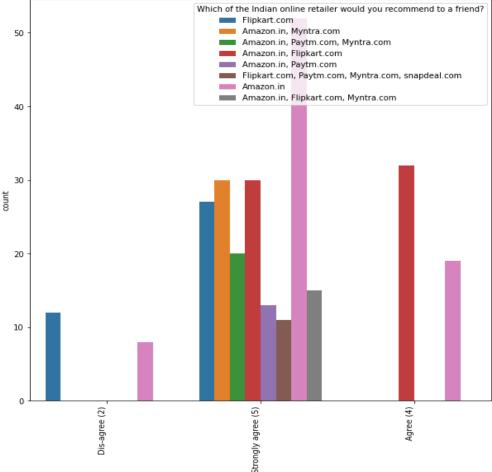


29 Responsiveness, availability of several communication channels (email, online rep, twitter, phone etc.)

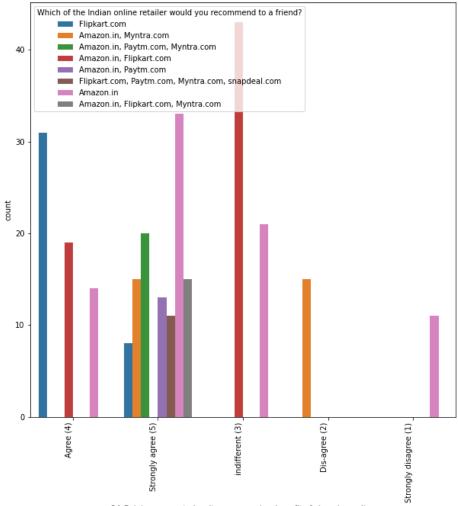




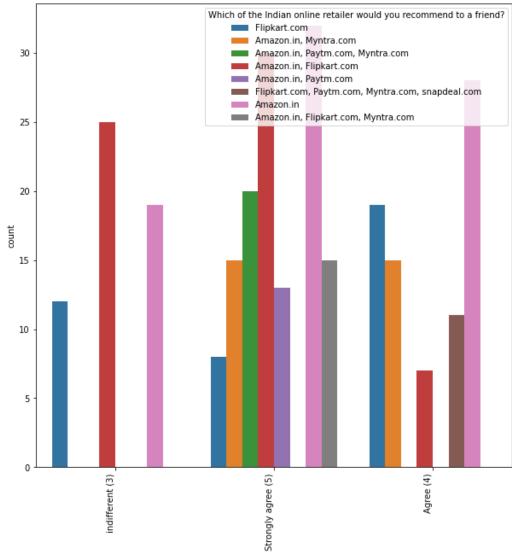
Which of the Indian online retailer would you recommend to a friend? Flipkart.com Amazon.in, Myntra.com Amazon.in, Paytm.com, Myntra.com Amazon.in, Flipkart.com Amazon.in, Paytm.com Flipkart.com, Paytm.com, Myntra.com, snapdeal.com Amazon.in Amazon.in, Flipkart.com, Myntra.com 30 10 32 Shopping online is convenient and flexible



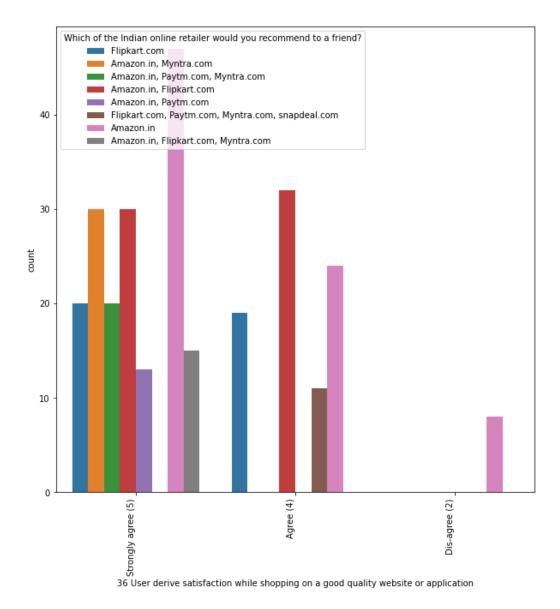
33 Return and replacement policy of the e-tailer is important for purchase decision

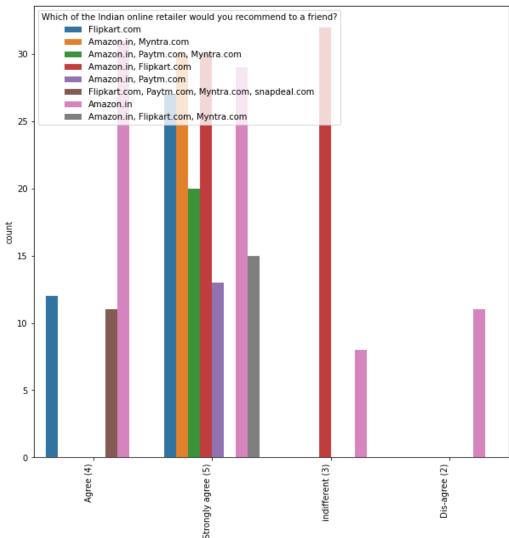


34 Gaining access to loyalty programs is a benefit of shopping online

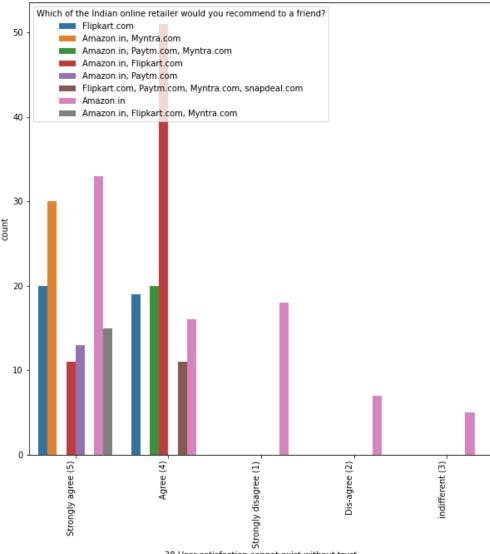


35 Displaying quality Information on the website improves satisfaction of customers

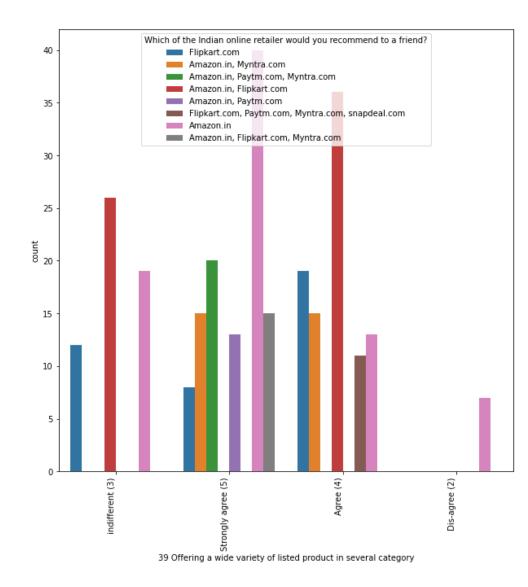




37 Net Benefit derived from shopping online can lead to users satisfaction

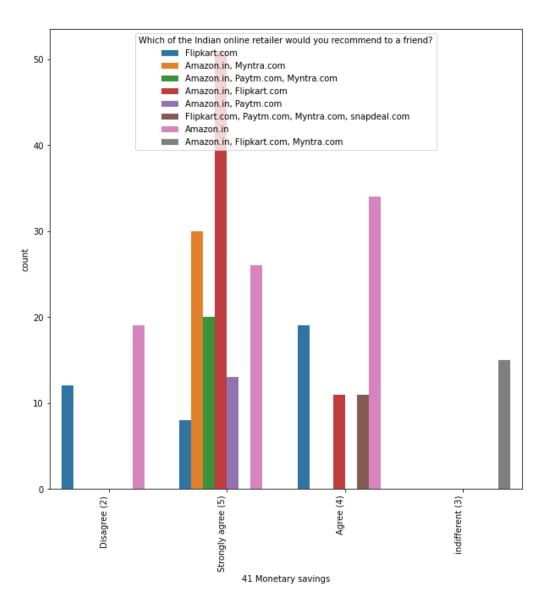


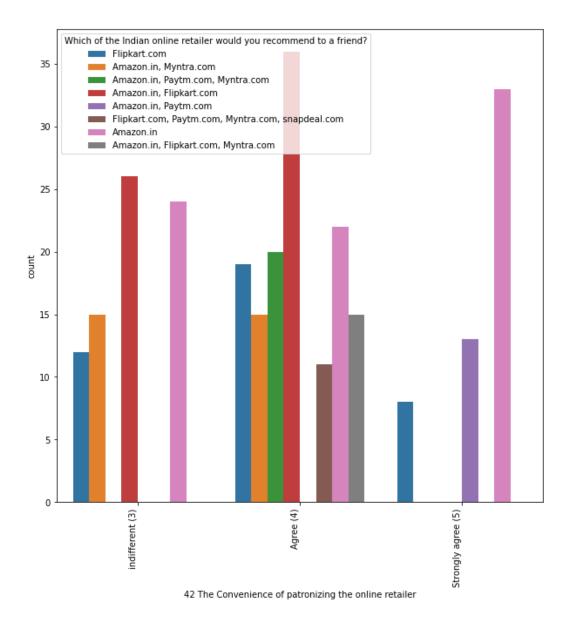
38 User satisfaction cannot exist without trust

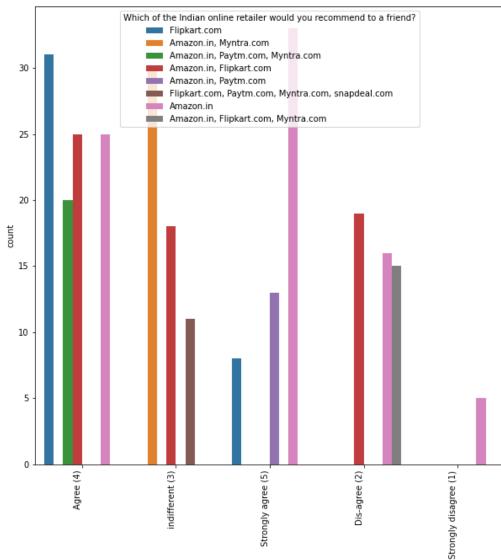


35 Which of the Indian online retailer would you recommend to a friend? Flipkart.com Amazon.in, Myntra.com Amazon.in, Paytm.com, Myntra.com Amazon.in, Flipkart.com 30 Amazon.in, Paytm.com Flipkart.com, Paytm.com, Myntra.com, snapdeal.com Amazon.in Amazon.in, Flipkart.com, Myntra.com 25 20 15 10 Disagree (2)

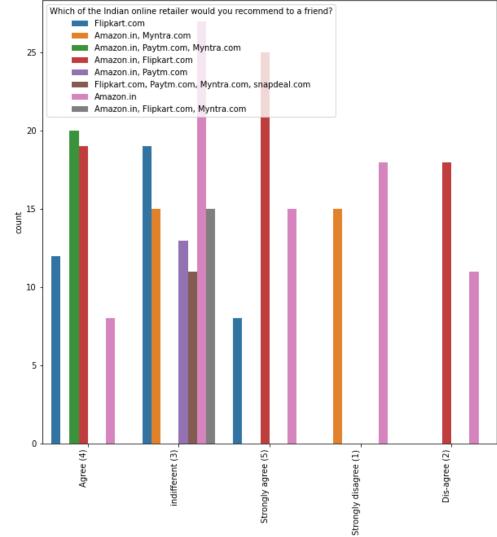
40 Provision of complete and relevant product information



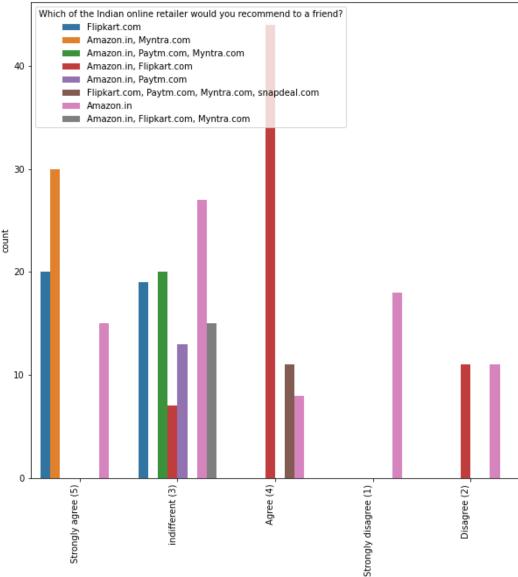




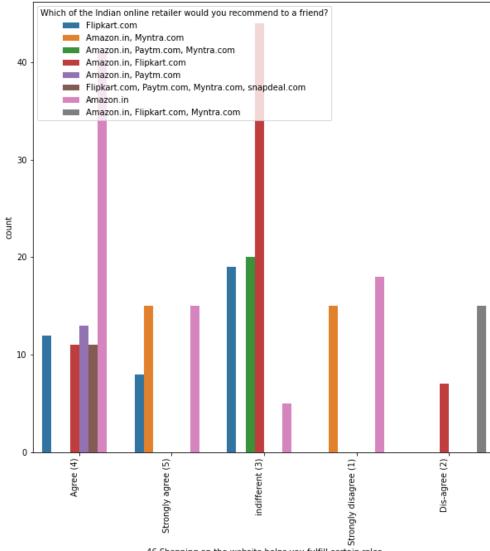
43 Shopping on the website gives you the sense of adventure



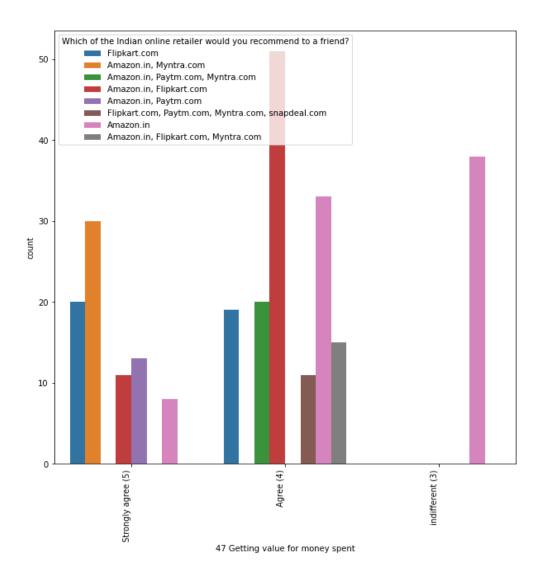
44 Shopping on your preferred e-tailer enhances your social status



45 You feel gratification shopping on your favorite e-tailer



46 Shopping on the website helps you fulfill certain roles



## Automatic report Generation

Pandas Profiling Report: <a href="http://localhost:8888/view/your-report.html">http://localhost:8888/view/your-report.html</a>

Dtale: <a href="http://vishal:40000/dtale/main/2">http://vishal:40000/dtale/main/2</a>

## **CONCLUSIONS**

- Amazon.in is the most efficient and recommended website among all the ecommerce software's
- People prefer mobile internet for shopping.

Paytm and snapdeal.com is the longest delivery period among all the ecommerce software's

Amazon and flipkart have longer logging in time and loading time among all the ecommerce software's

• Amazon and flipkart are available for several payment options and quick delivery among all the ecommerce software's