

The background is a light blue gradient with various e-commerce related icons. At the top, there's a semi-circle of icons including a shopping basket, a magnifying glass, a credit card, a globe, a gift box, a money bag, and an envelope. Below this, a large yellow shopping cart is filled with several boxes. In the bottom left corner, there's a computer monitor displaying the text 'E-COMMERCE' in a stylized font.

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

# Introduction

Over the years with advancement of technology, the demand for online shopping and e-commerce websites have increased significantly. In the Indian online retail industry, some of the major players are Amazon, Myntra, Flipkart, Snapdeal and Paytm. They are strongly competing with each other and implementing effective strategies to enhance customer acquisition. The project will explore the insights drawn from the data collected from the customers.



E-COMMERCE



# 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.

# Step 1: importing the libraries

## importing necessary libraries

```
: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import warnings
warnings.filterwarnings("ignore")
import seaborn as sns
from scipy.stats import zscore
```

## step 2: loading the dataset

### loading the dataset

```
df=pd.read_csv("cr_dataset.csv")
```

```
df.head(10)
```

	1 Gender of respondent	2 How old are you?	3 Which city do you shop online from?	4 What is the Pin Code of where you shop online from?	5 Since How Long You are Shopping Online ?	6 How many times you have made an online purchase in the past 1 year?	7 How do you access the internet while shopping on-line?	8 Which device do you use to access the online shopping?	9 What is the screen size of your mobile device?	10
0	Male	31-40 years	Delhi	110009	Above 4 years	31-40 times	Dial-up	Desktop	Others	Win
1	Female	21-30 years	Delhi	110030	Above 4 years	41 times and above	Wi-Fi	Smartphone	4.7 inches	
2	Female	21-30 years	Greater Noida	201308	3-4 years	41 times and above	Mobile Internet	Smartphone	5.5 inches	
3	Male	21-30 years	Karnal	132001	3-4 years	Less than 10 times	Mobile Internet	Smartphone	5.5 inches	
4	Female	21-30	Bangalore	530068	2-3 years	11-20 times	Wi-Fi	Smartphone	4.7 inches	

### step 3:

## Checking shape of the dataset

```
df.shape
```

```
(269, 71)
```

in this dataset, there are 269 rows and 71 columns. it suggests that the data has been collected from 269 respondents

## Checking number of unique values in the columns

checking the number of unique values in the columns

```
df.nunique()
```

3  
16 How frequently do you abandon (selecting an items and leaving without making payment) your shopping cart?\t\t\t\t\t\t\t

4  
17 Why did you abandon the ?Bag?, ?Shopping Cart??\t\t\t\t\t

5  
18 The content on the website must be easy to read and understand

4  
19 Information on similar product to the one highlighted is important for product comparison

4  
20 Complete information on listed seller and product being offered is important for purchase decision.

5  
21 All relevant information on listed products must be stated clearly

4  
22 Ease of navigation in website

4

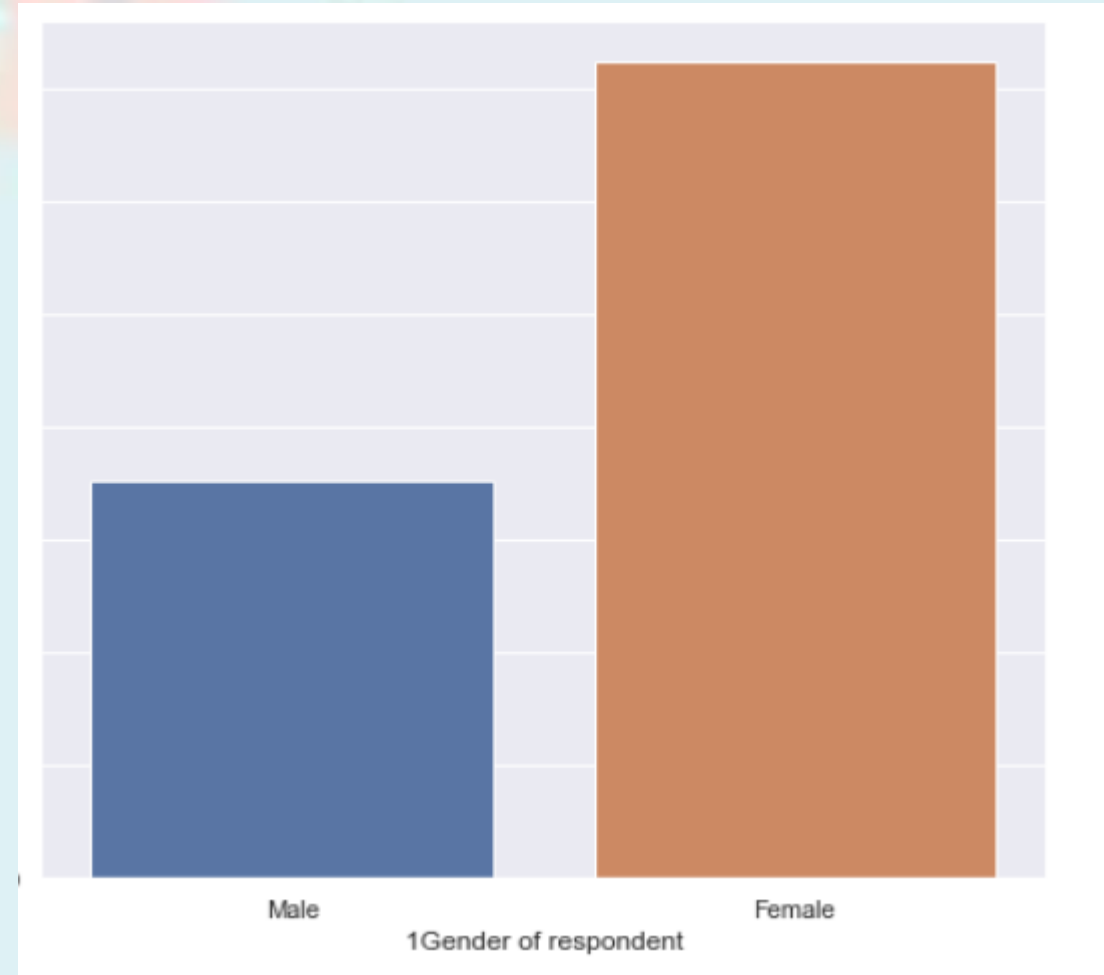


## **Step 7: EDA and visualisation**



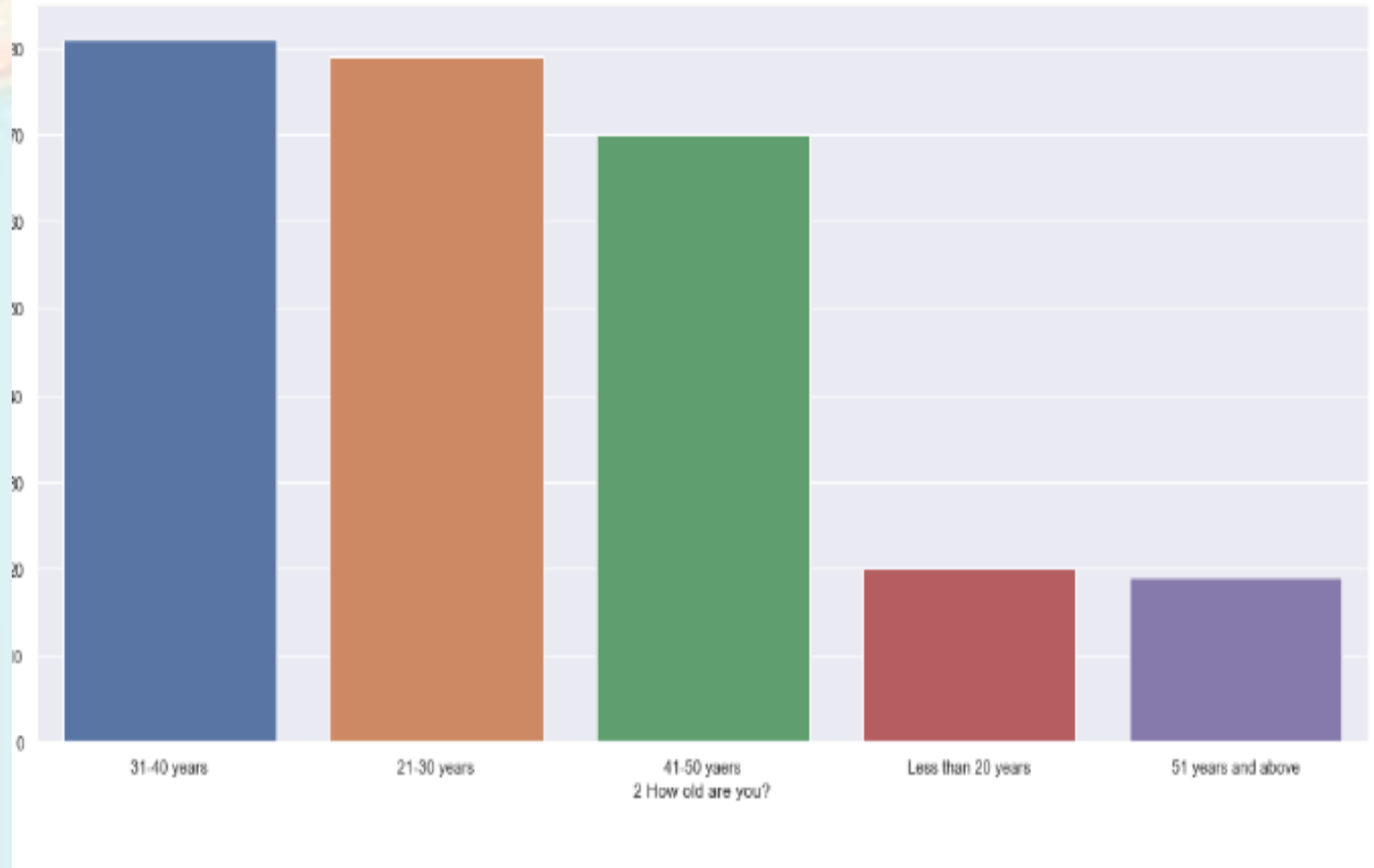


Number of female respondents is more than male counterparts

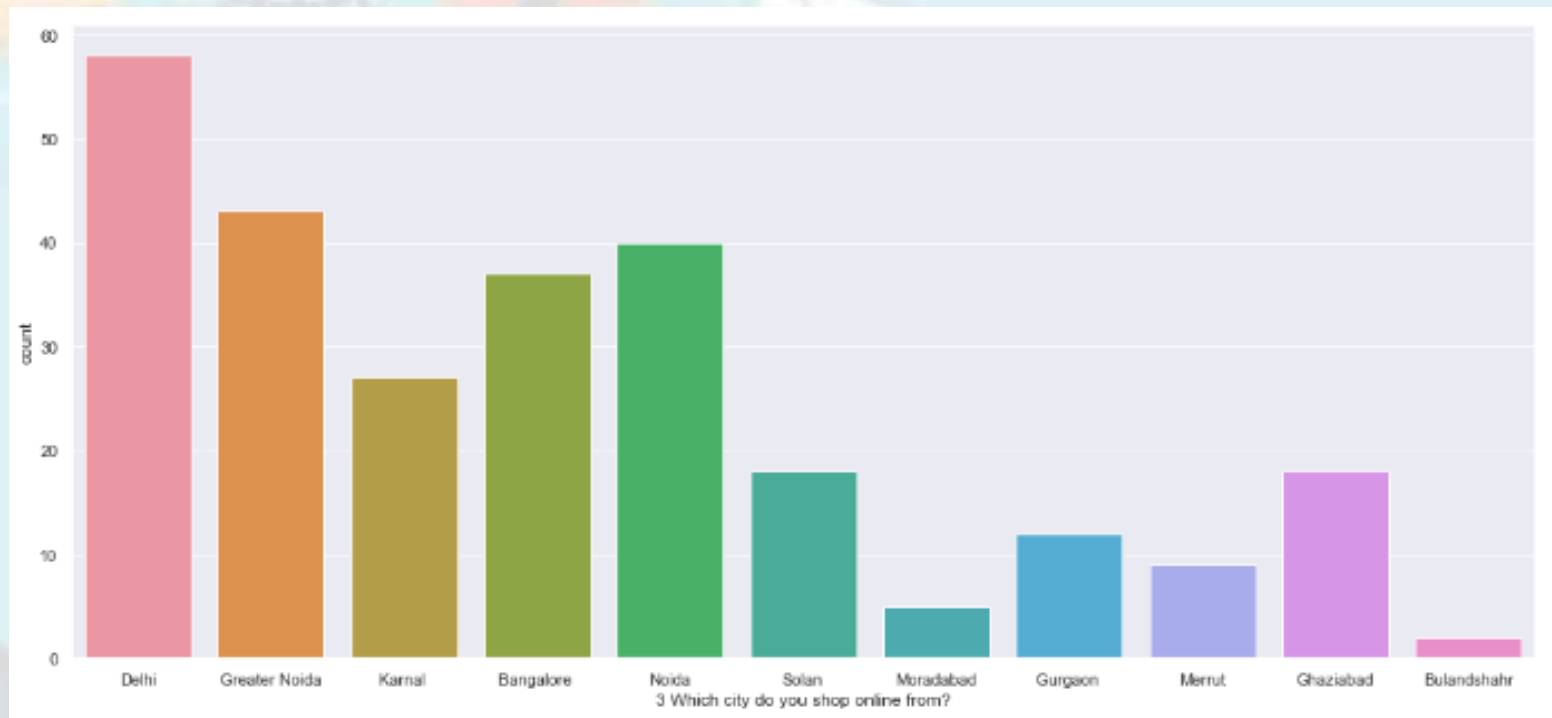


1. majority of the participants are in the age group of 31-40 years, and minimum participants are above age 51 years, who shop e-commerce.

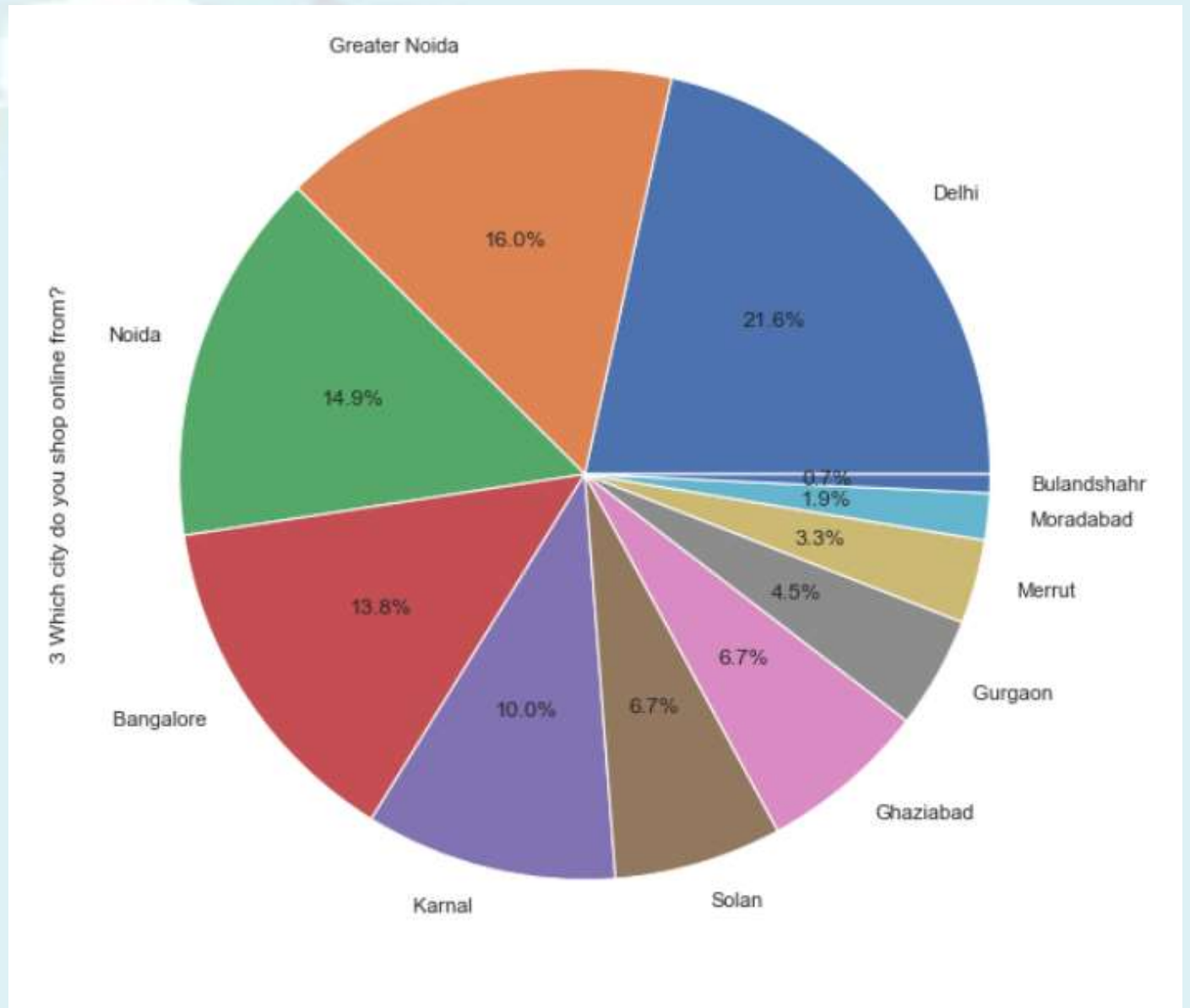
2. people of age below 20 years also shop less from e-commerce or online stores



maximum e-commerce shoppers are from Delhi and the minimum shoppers are from Bulandshahr, it can also be abbreviated that in the regions of Moradabad, Merut, Bulandshahr people are reluctant to use online store



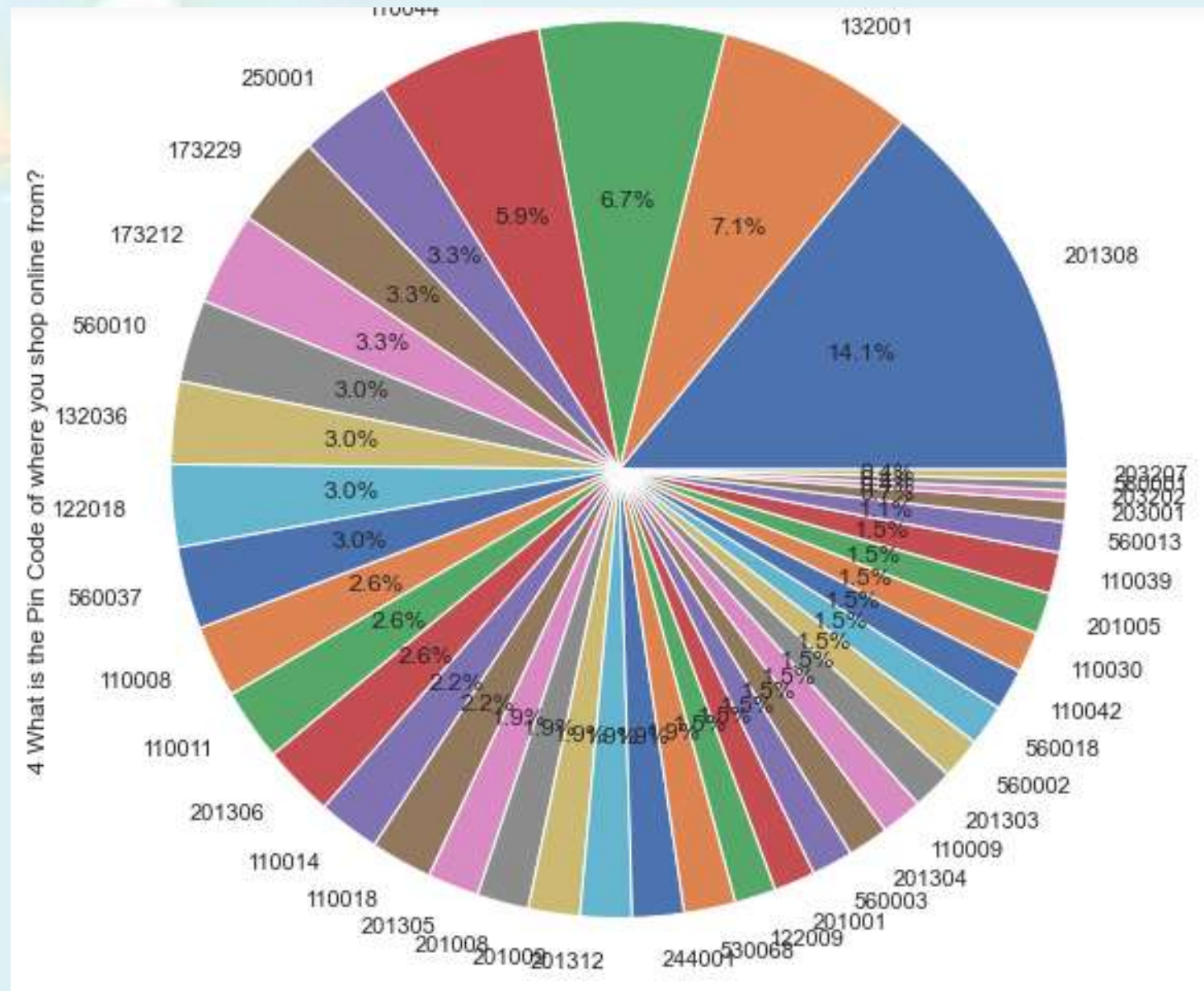
21.6% of online shoppers are from Delhi, after Delhi, maximum shoppers are from Noida, Greater Noida, Bangalore



from the pie plot, we can observe that maximum online shoppers are from pincode 201308.

below the above pincode, majority shoppers are from 132001 and 201310.

the online retailers need to focus more on retention of the customers residing in these pincode





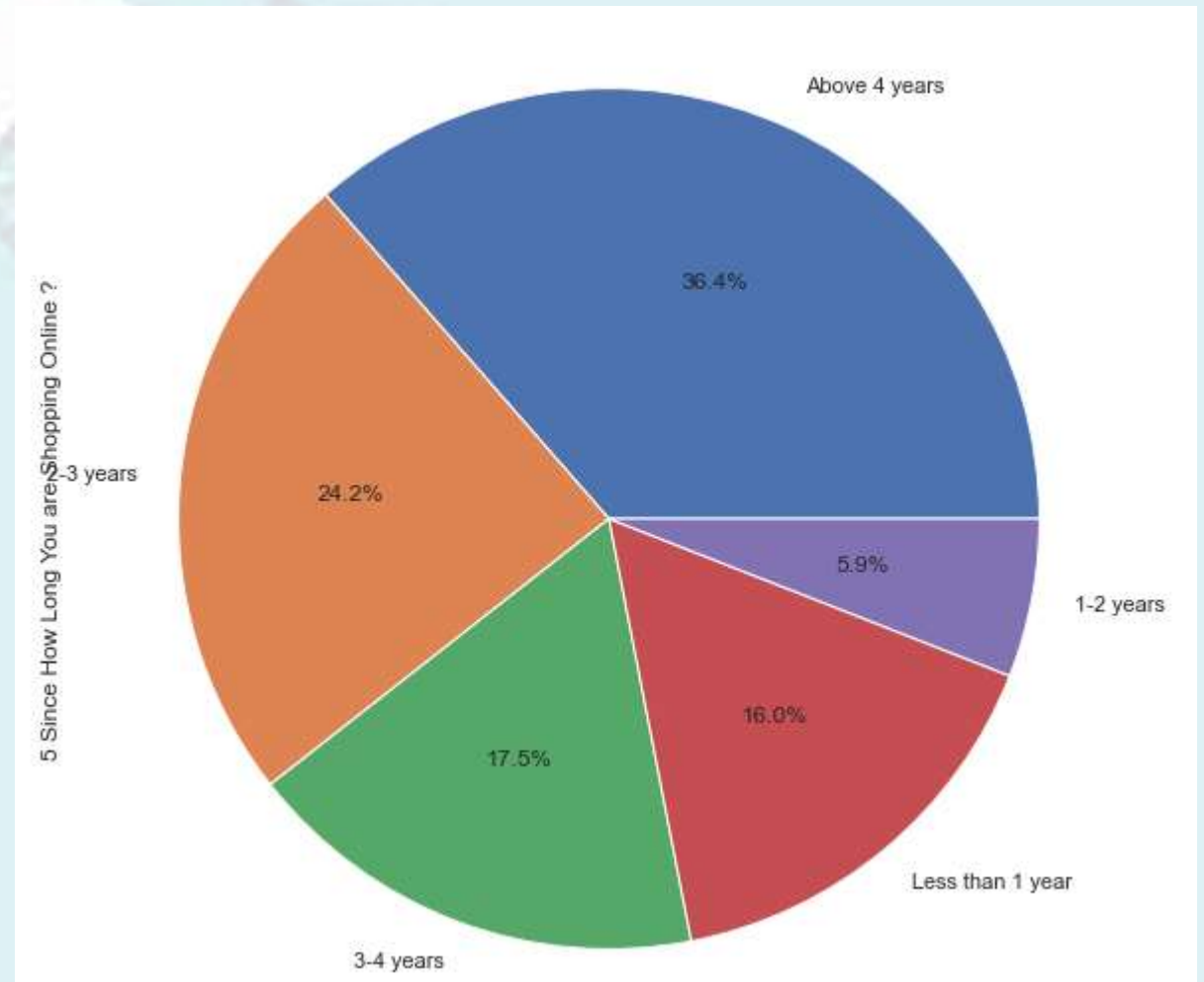
observation: more than 36.4% of the respondents are shopping online for more than 4 years,

24.2% of them for 2 to 3 years,

17.5 % for 3-4years,

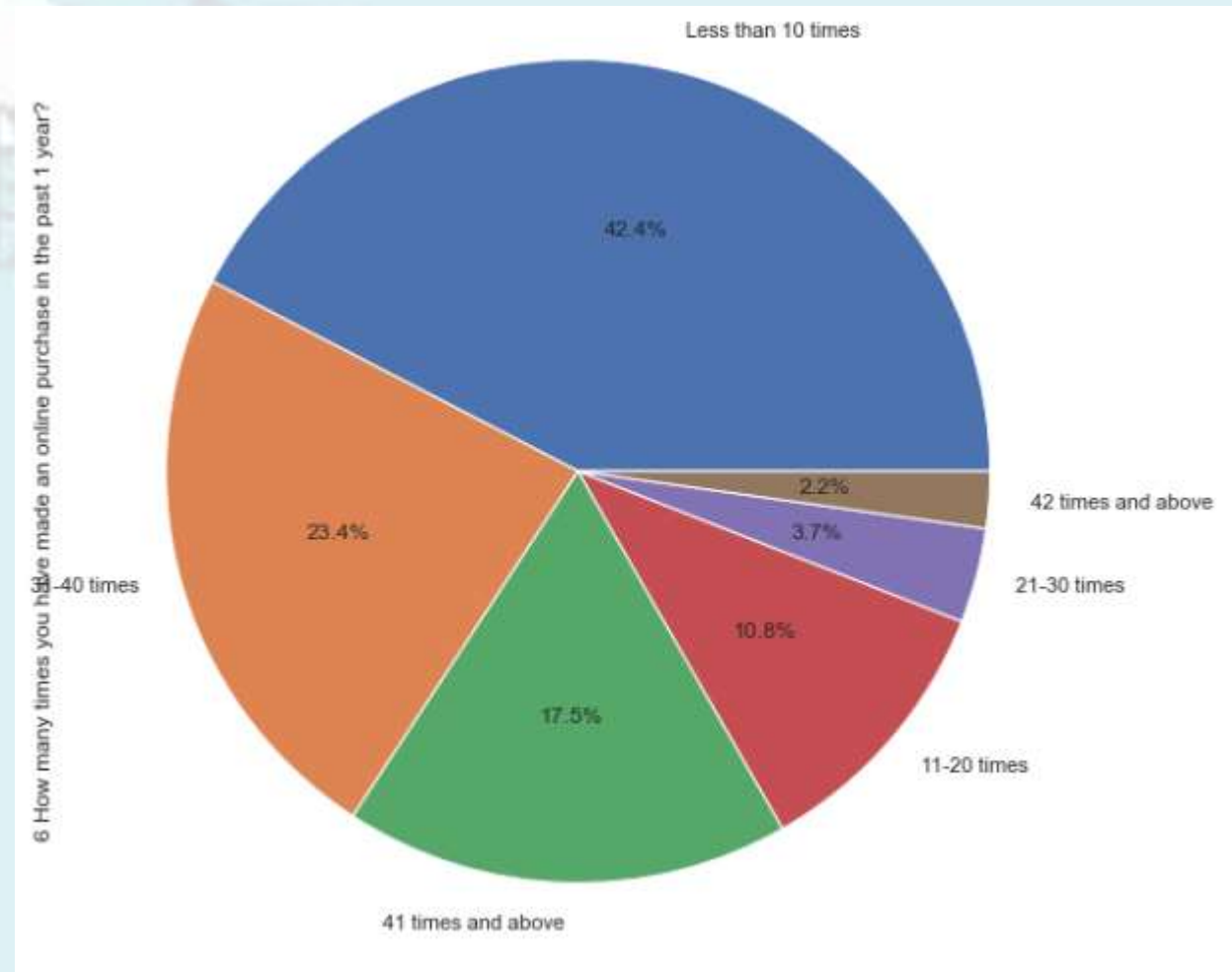
5.9% for 1 to 2 years

16% of them for less than 1 year



maximum of the respondents (42.4%) shop online for less than 10 times in a year

a small portion of respondents of nearly 2.2% shop online for more than 42 times

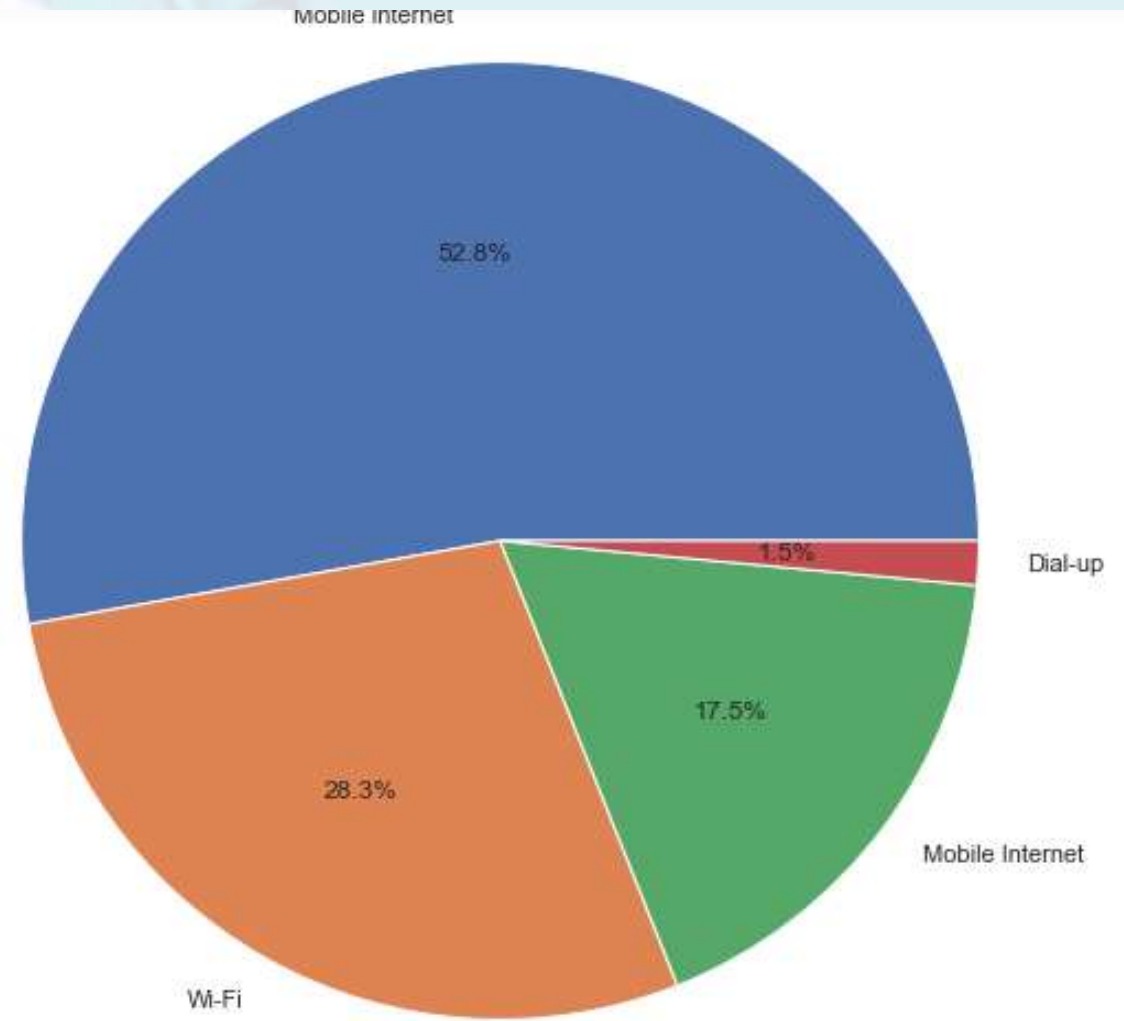




52.8% of the online shoppers use mobile data for online shopping

28.3 % uses wifi connection

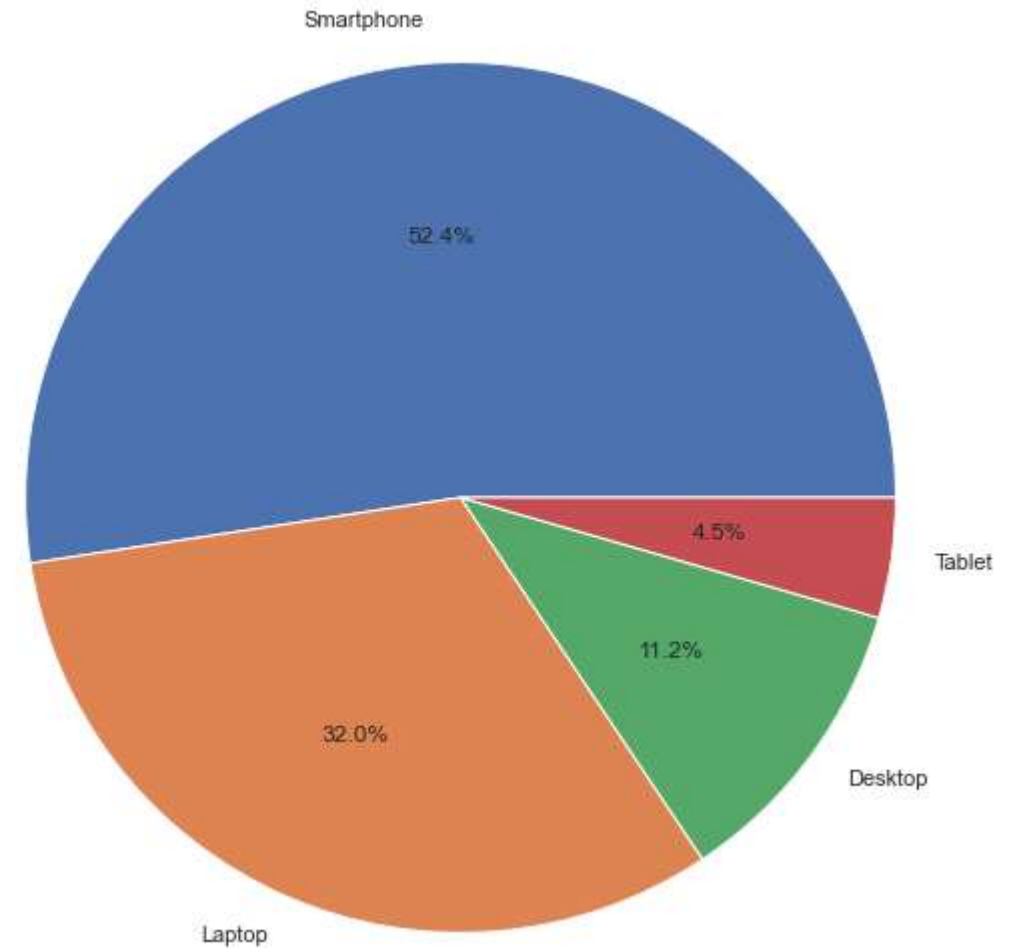
7 How do you access the internet while shopping on-line?



majority of the shoppers uses mobilephone (52.4%) for online shopping 32% uses laptop, 11.2 % uses desktop and 4.5% uses tablet

the companies need to focus on improvement and further development of their mobile applications

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

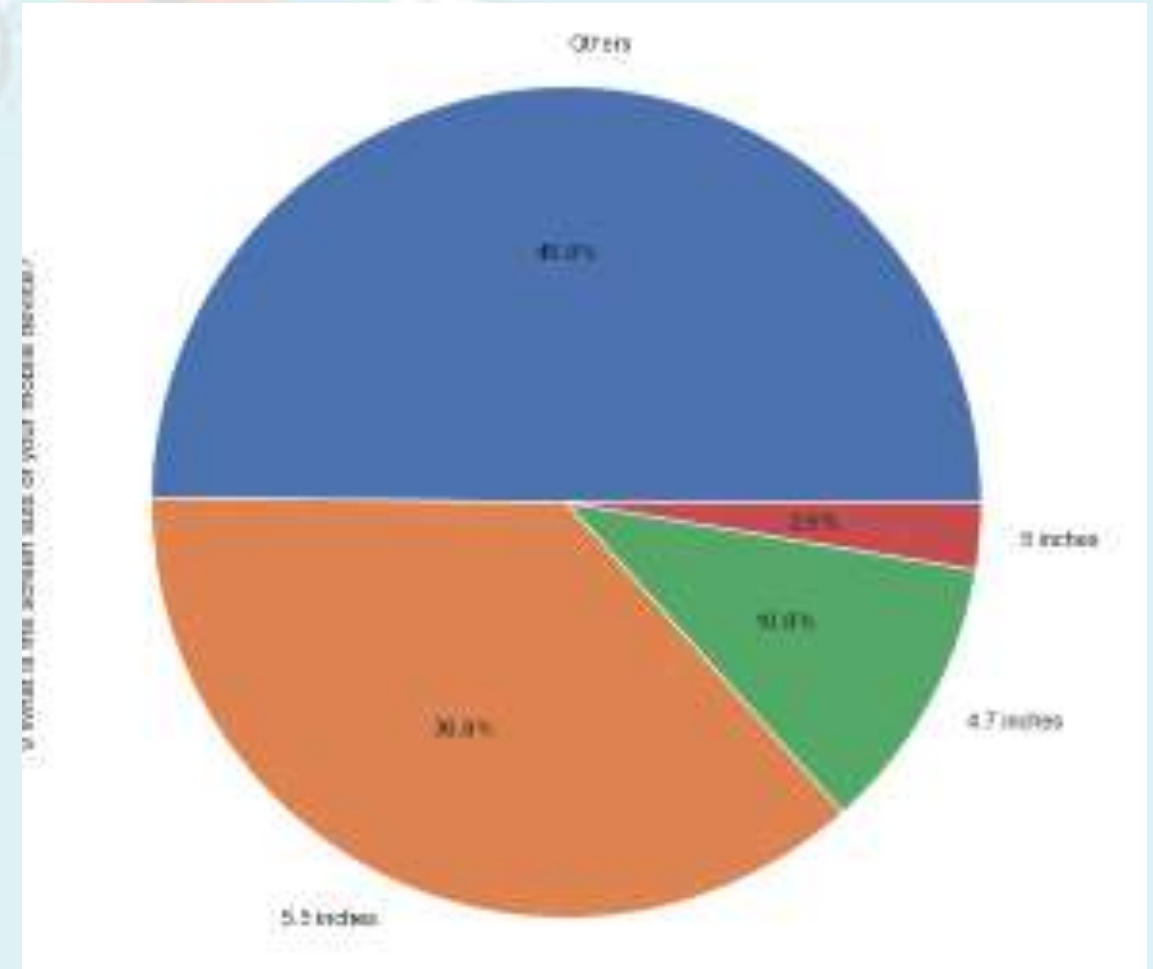


36.8% of the respondents uses mobiles of screen size 5.5 inches,

10.8% of the respondents uses mobiles of screen size 4.7 inches,

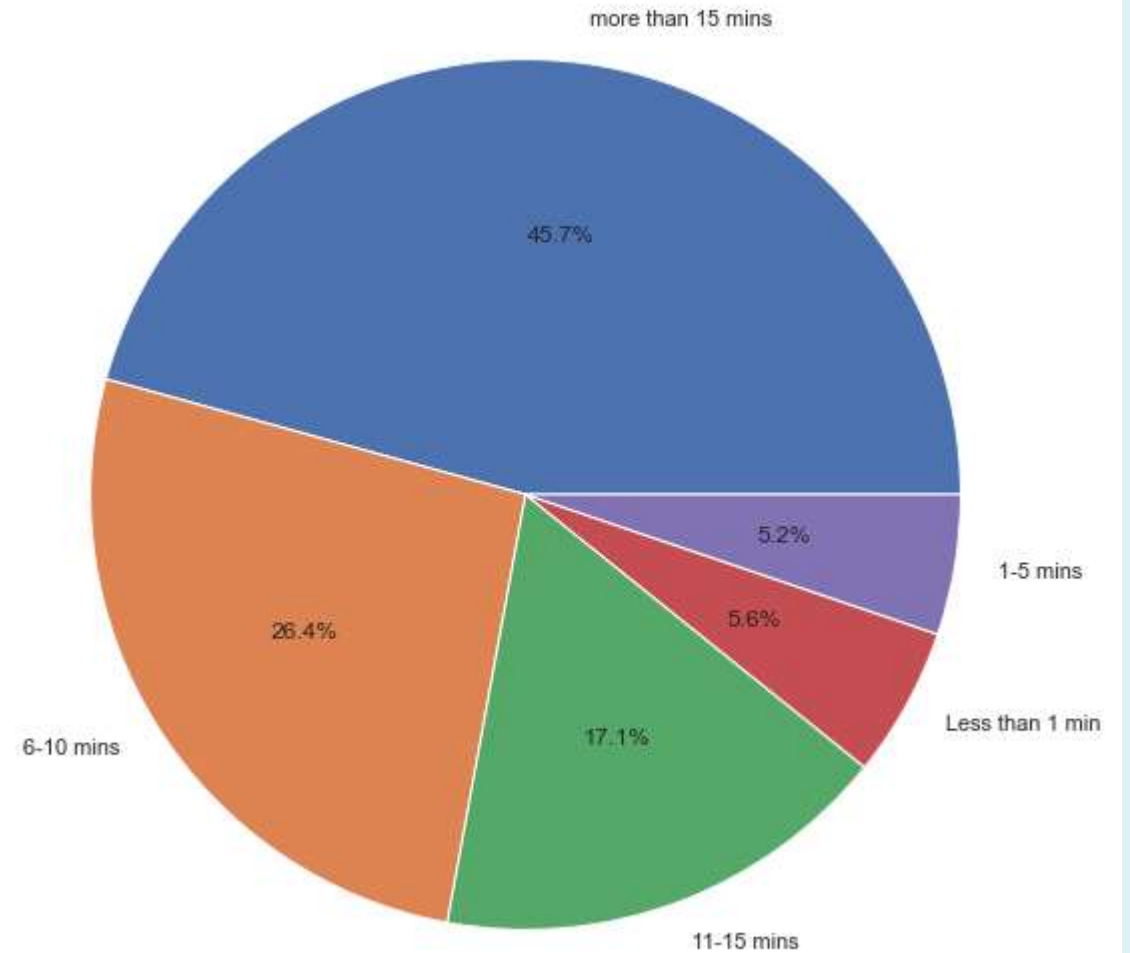
2.6% of the respondents uses mobiles of screen size 5 inches,

however, majority uses mobile devices of other display size, it can be abbreviated that the users uses devices of screen size greater than 5.5 inches because in the market majority of smartphones have size greater than 5.5 inches

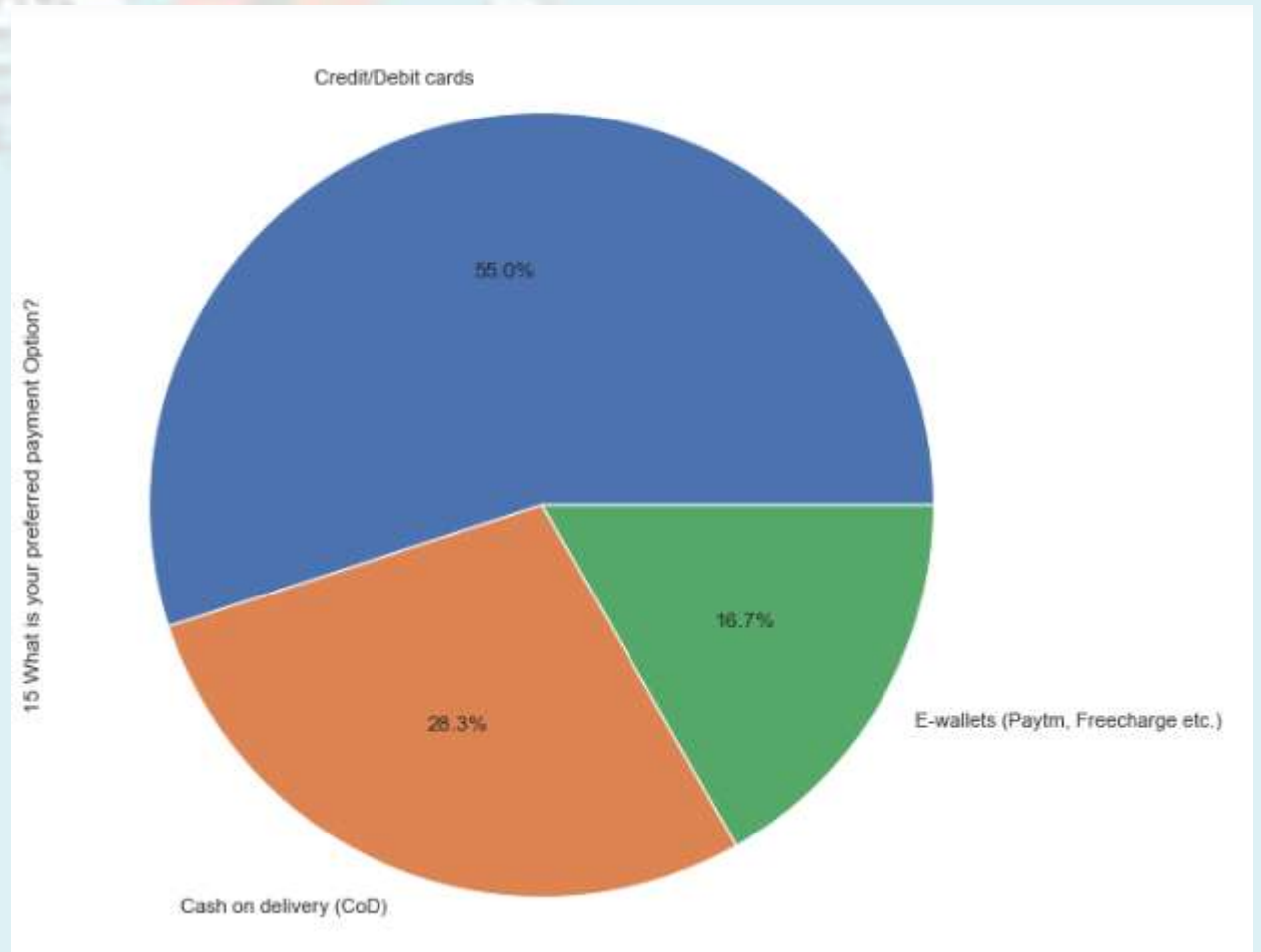


majority of the online shoppers explore the e-retail store for making their purchase decision, this means that they focus on product research and product comparison.

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



the most preferred payment option of the online shoppers is credit and debit cards. this suggests that the e-retail stores have established trust among the customers

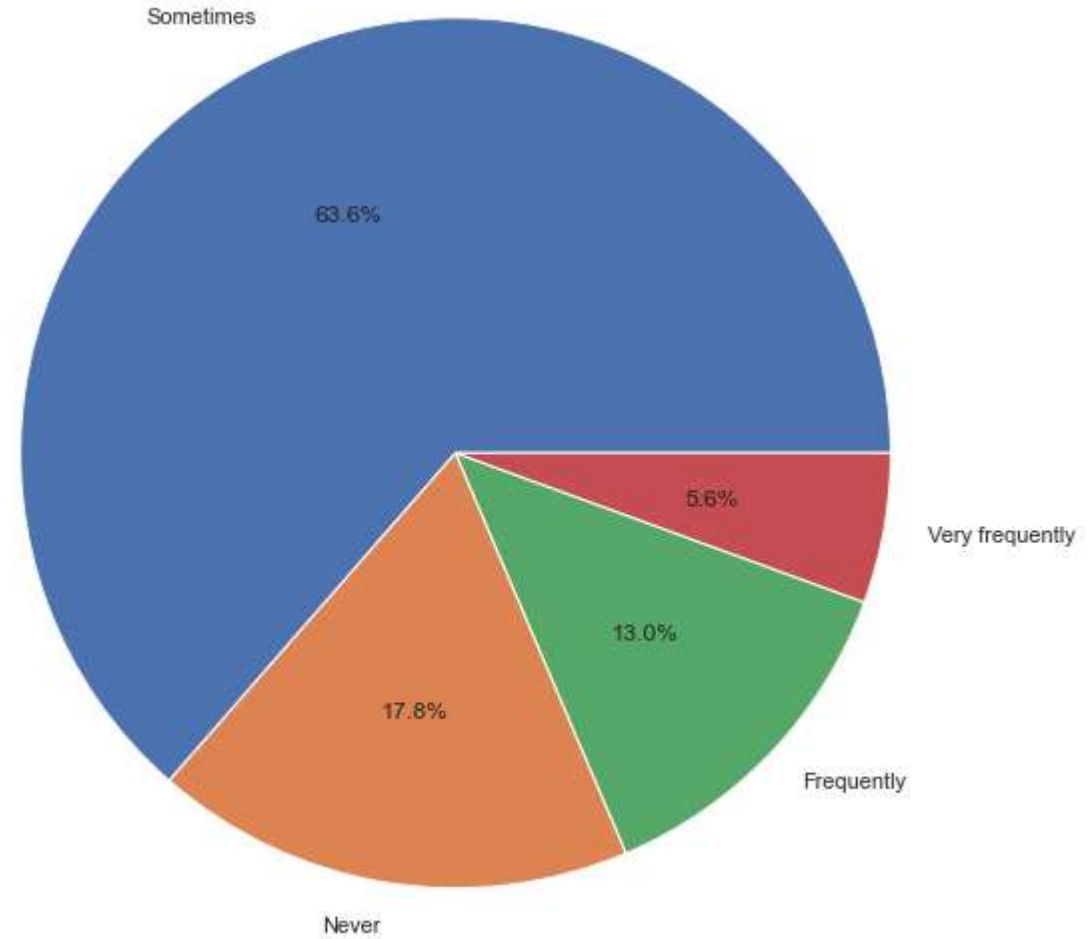


very few customers selects an item and nevers proceeds for payment

17.8% of the respondants always purchases as they adds product to cart

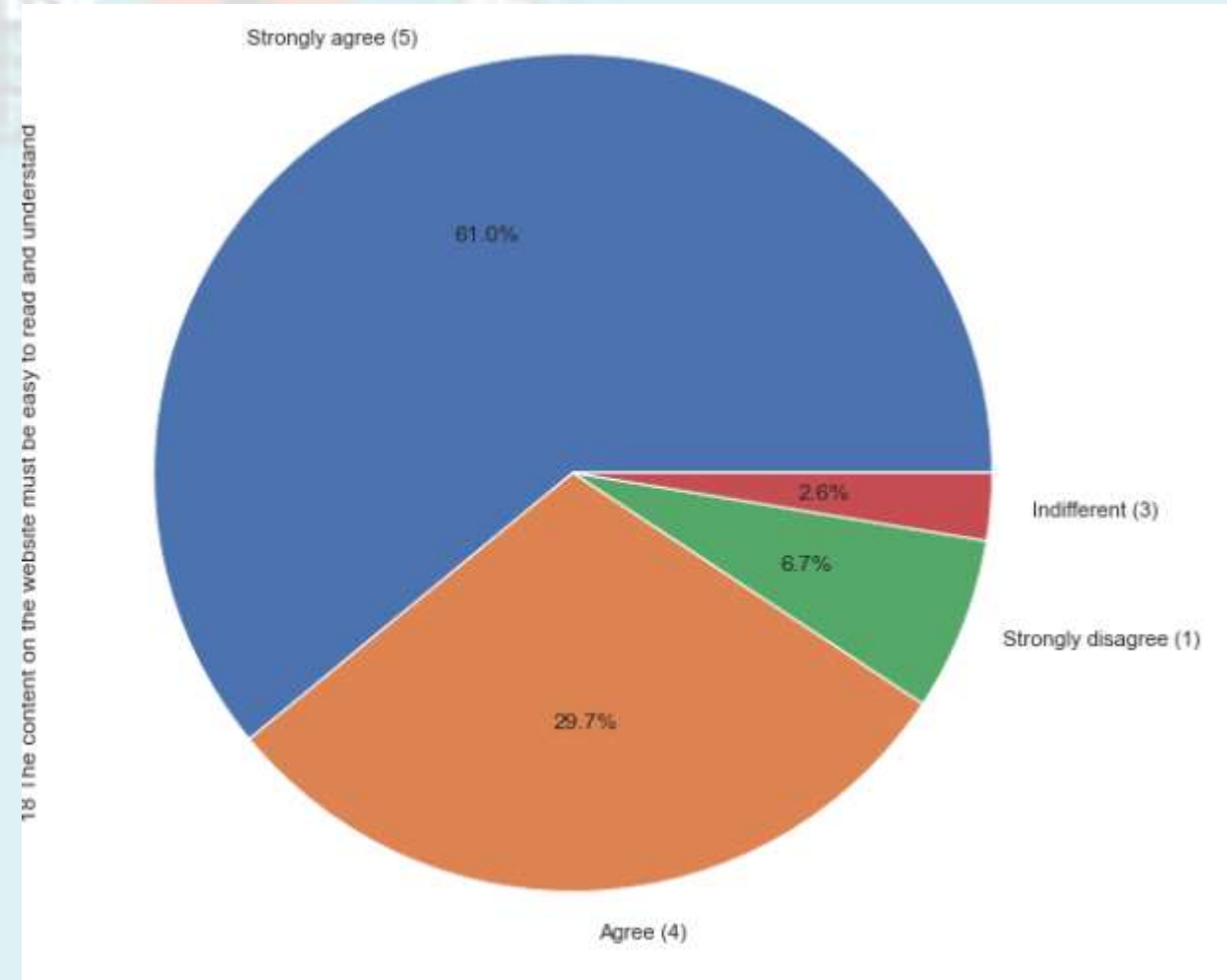
13% of respondants frequently leaves without purchasing

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





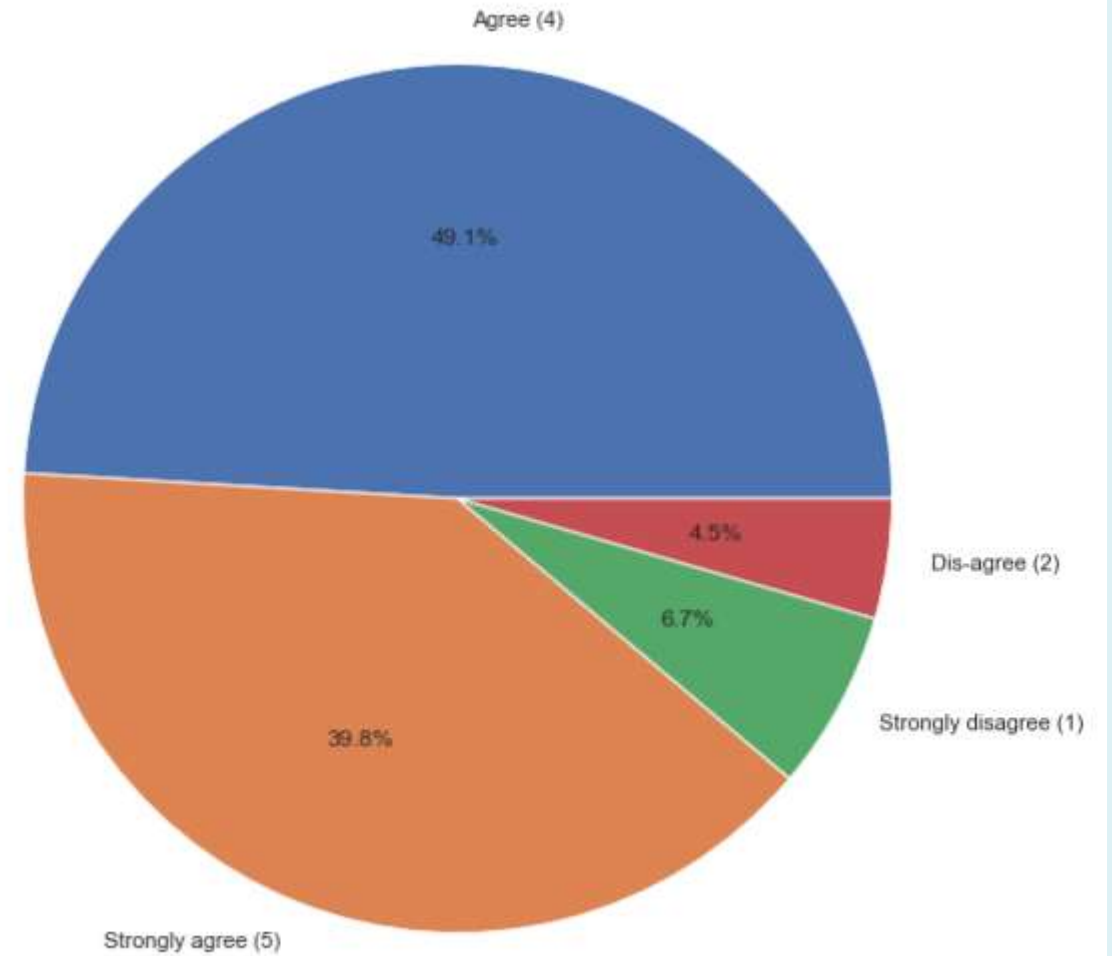
61% of the respondents strongly agree that the content must be easy for better understanding this means the online retailers need to focus on improvement of the interface to make it simple and clear for the users

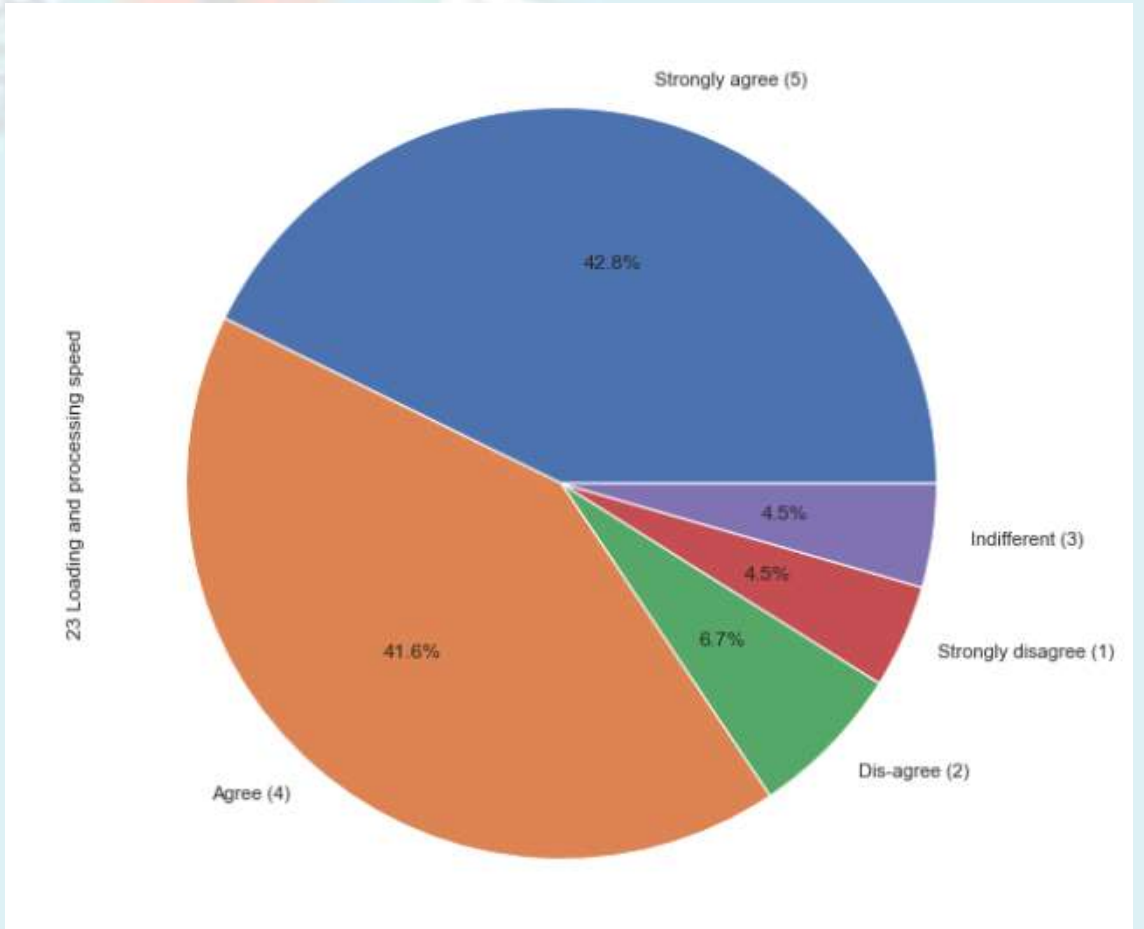
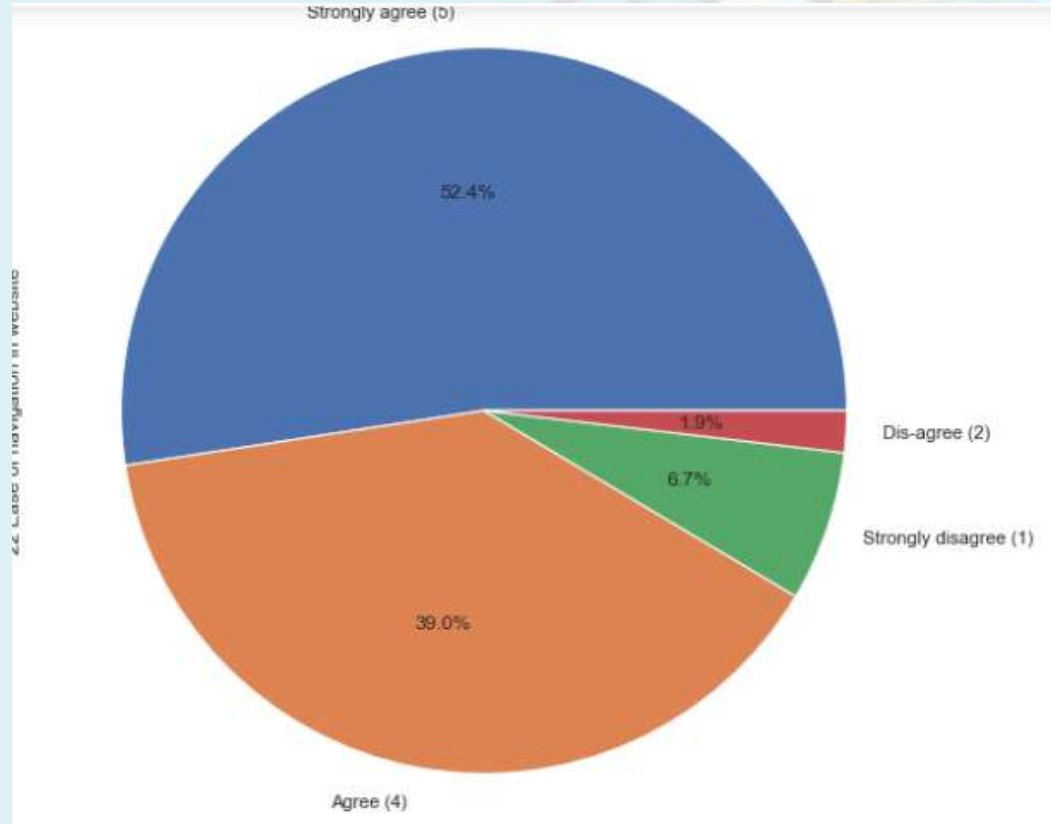




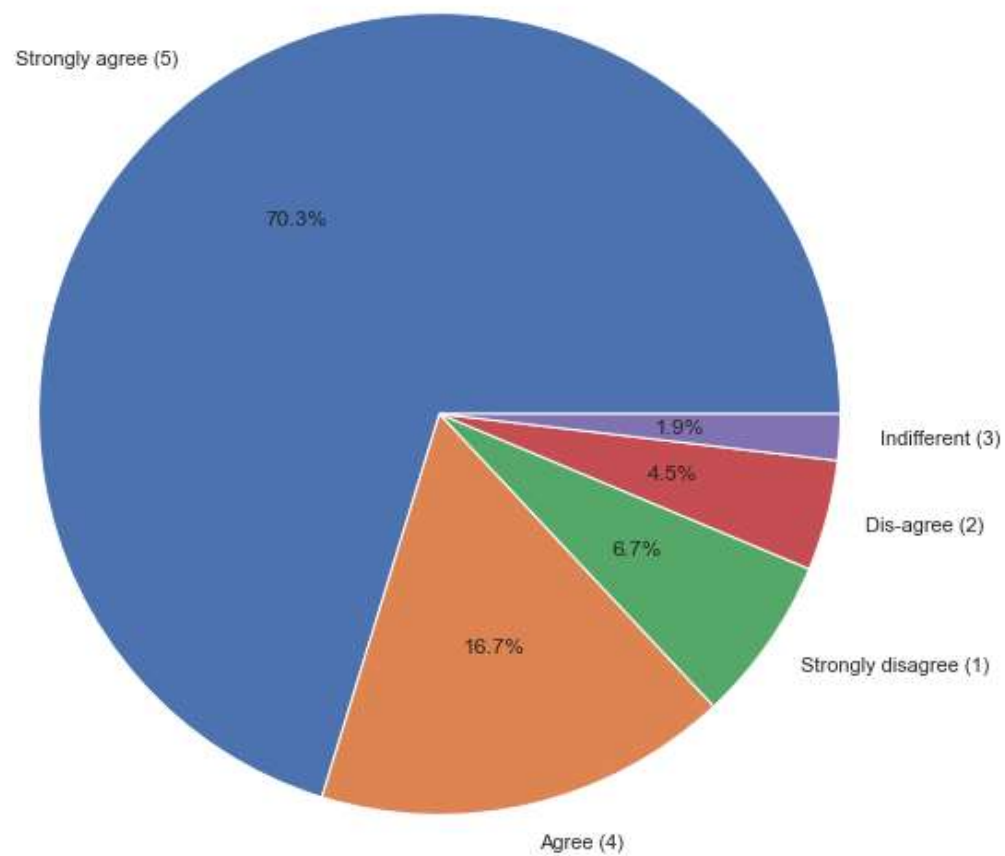
49.1% of the online shoppers agrees with this statement

21 All relevant information on listed products must be stated clearly

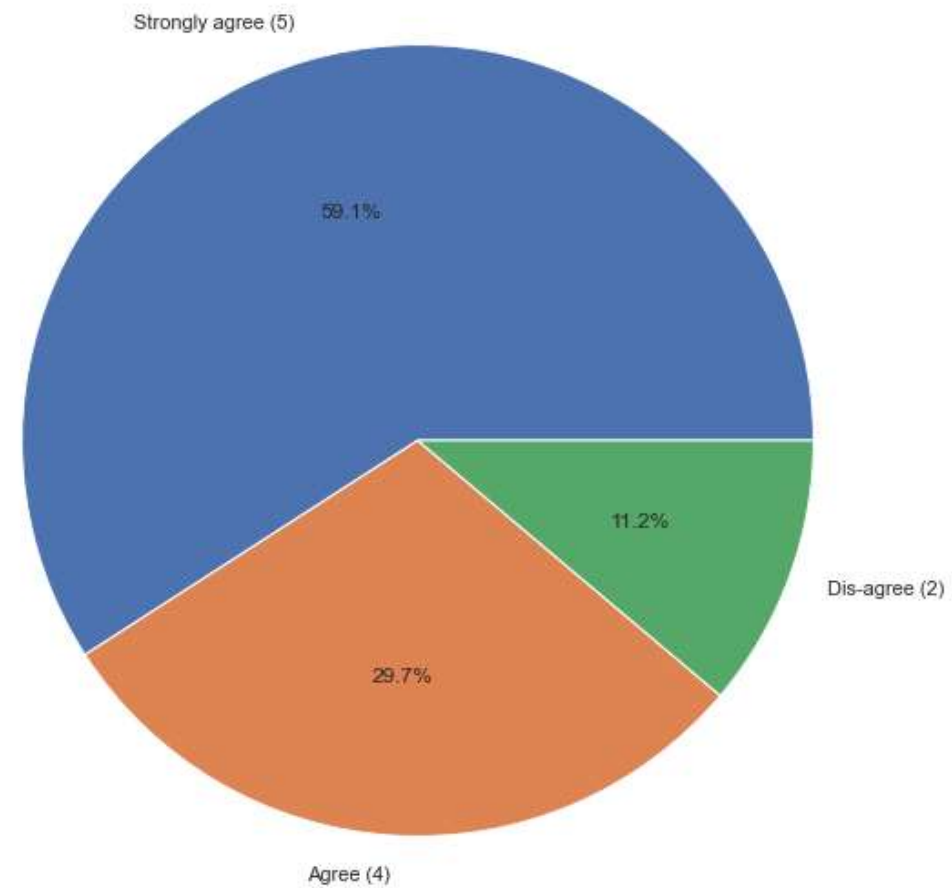




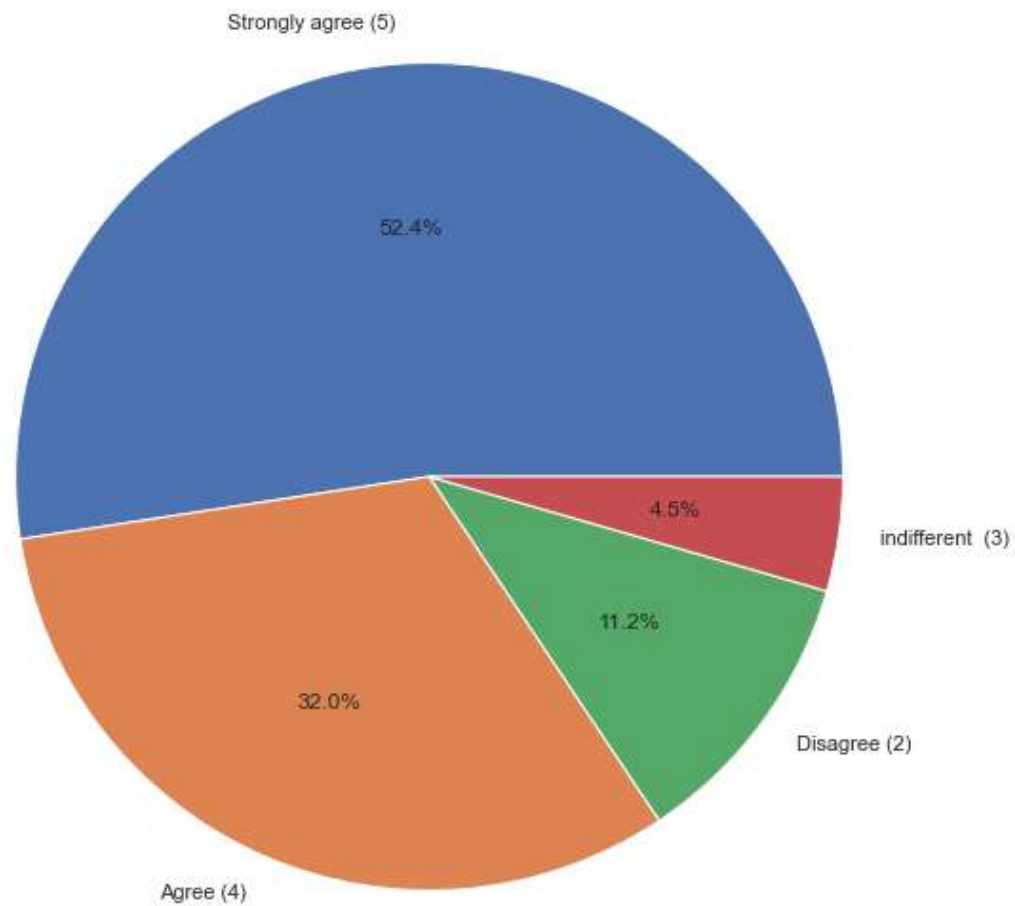
24 User friendly interface of the website



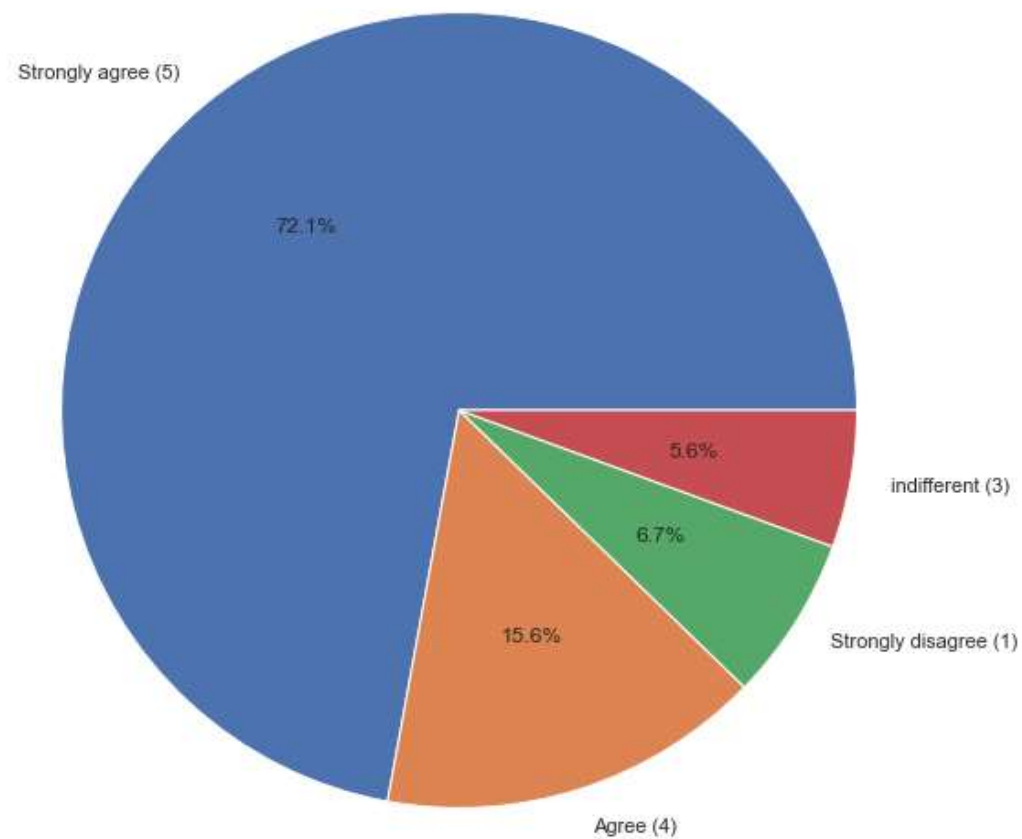
25 Convenient Payment methods



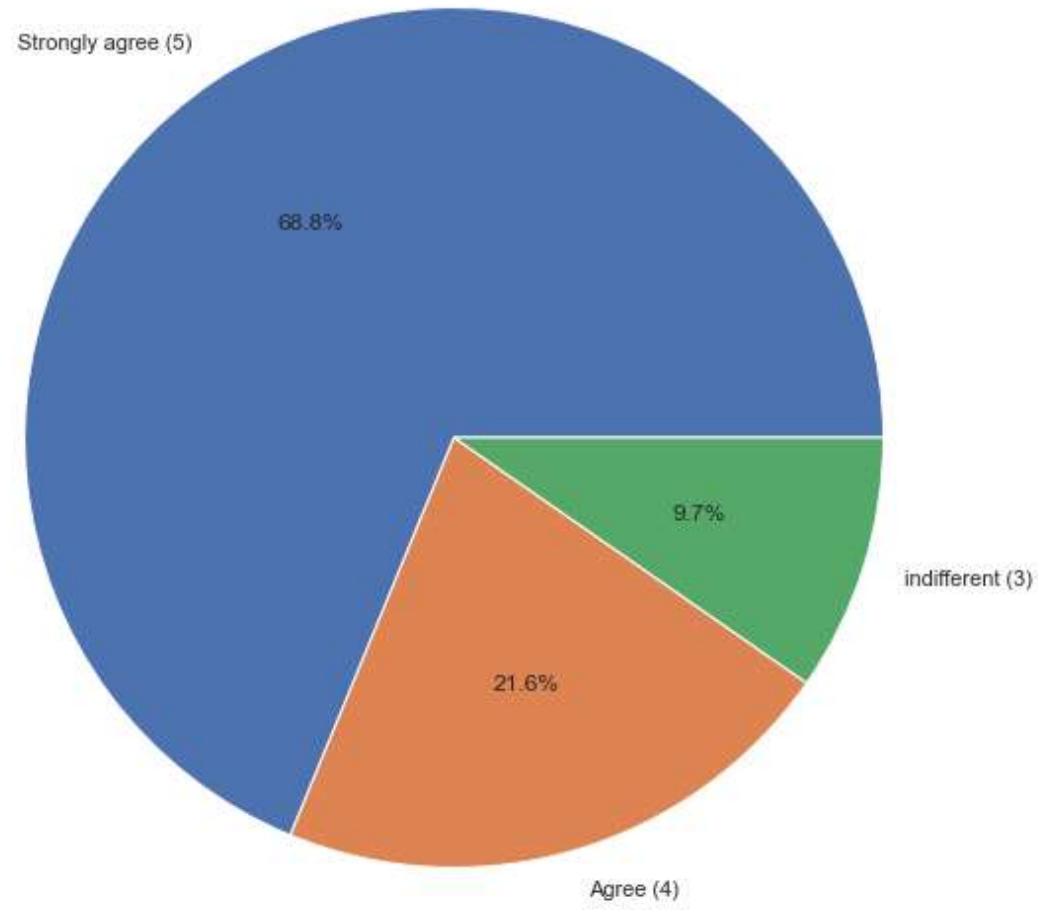
26 Trust that the online retail store will fulfill its part of the transaction at the stipulated time



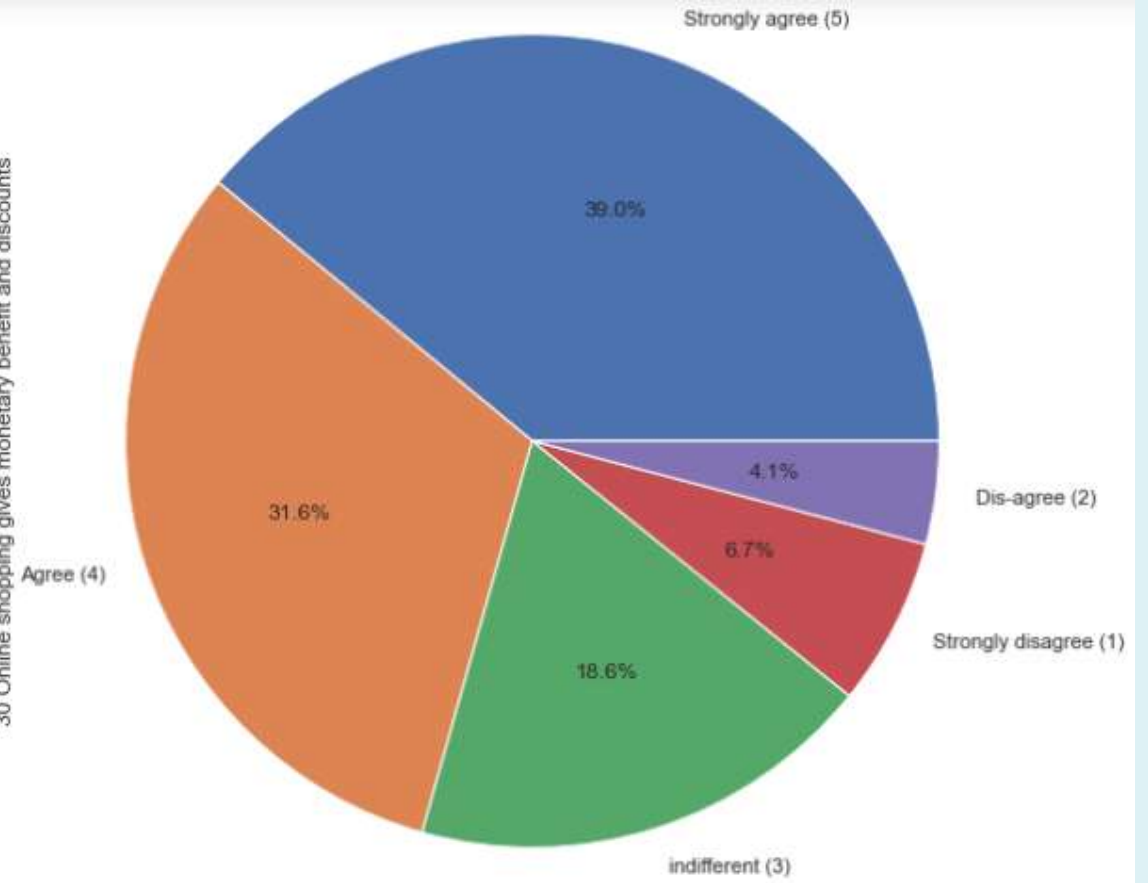
27 Empathy (readiness to assist with queries) towards the customers



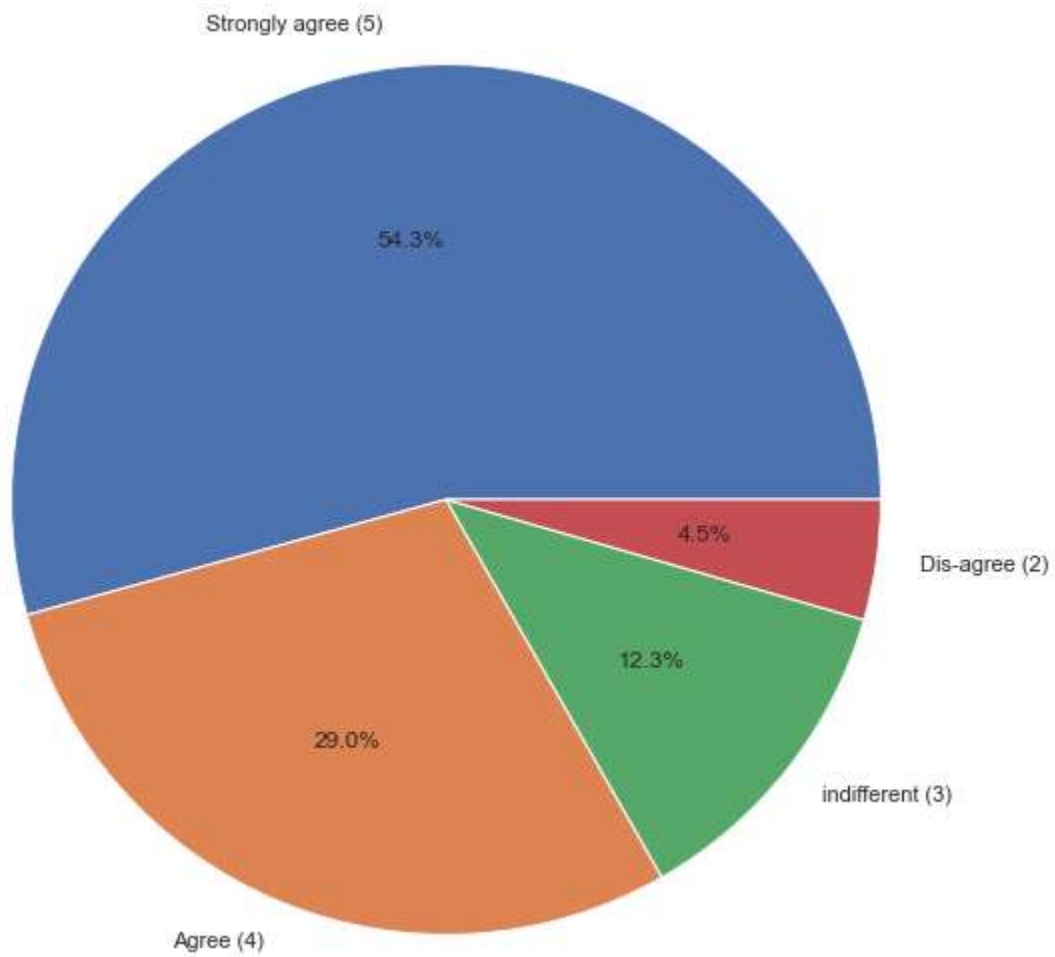
28 Being able to guarantee the privacy of the customer



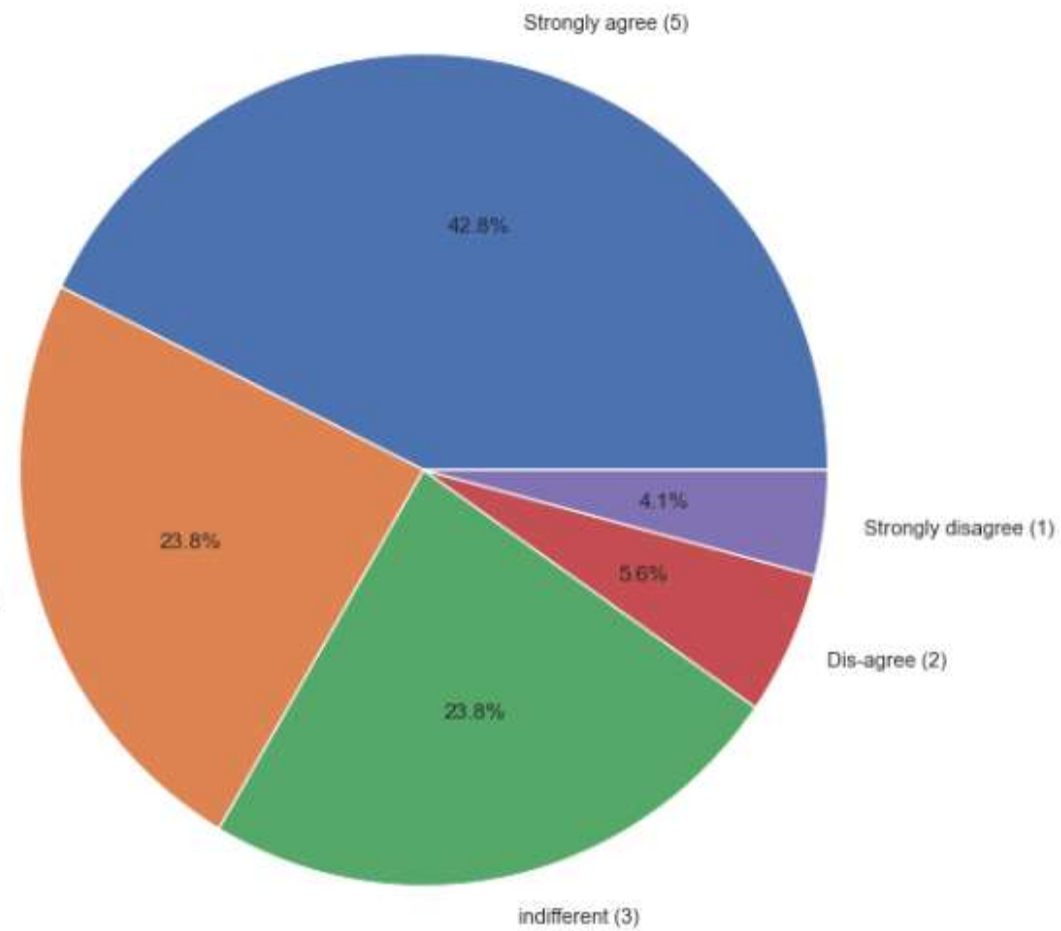
30 Online shopping gives monetary benefit and discounts



32 Shopping online is convenient and flexible

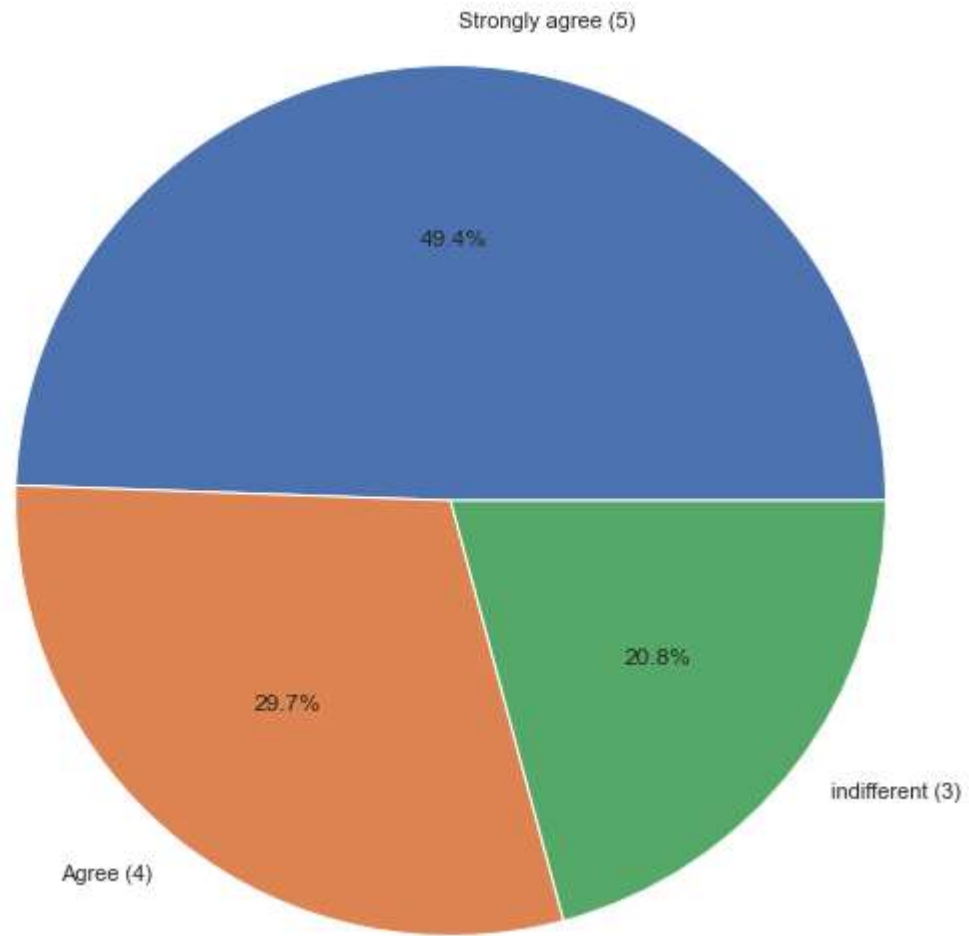


34 Gaining access to loyalty programs is a benefit of shopping online

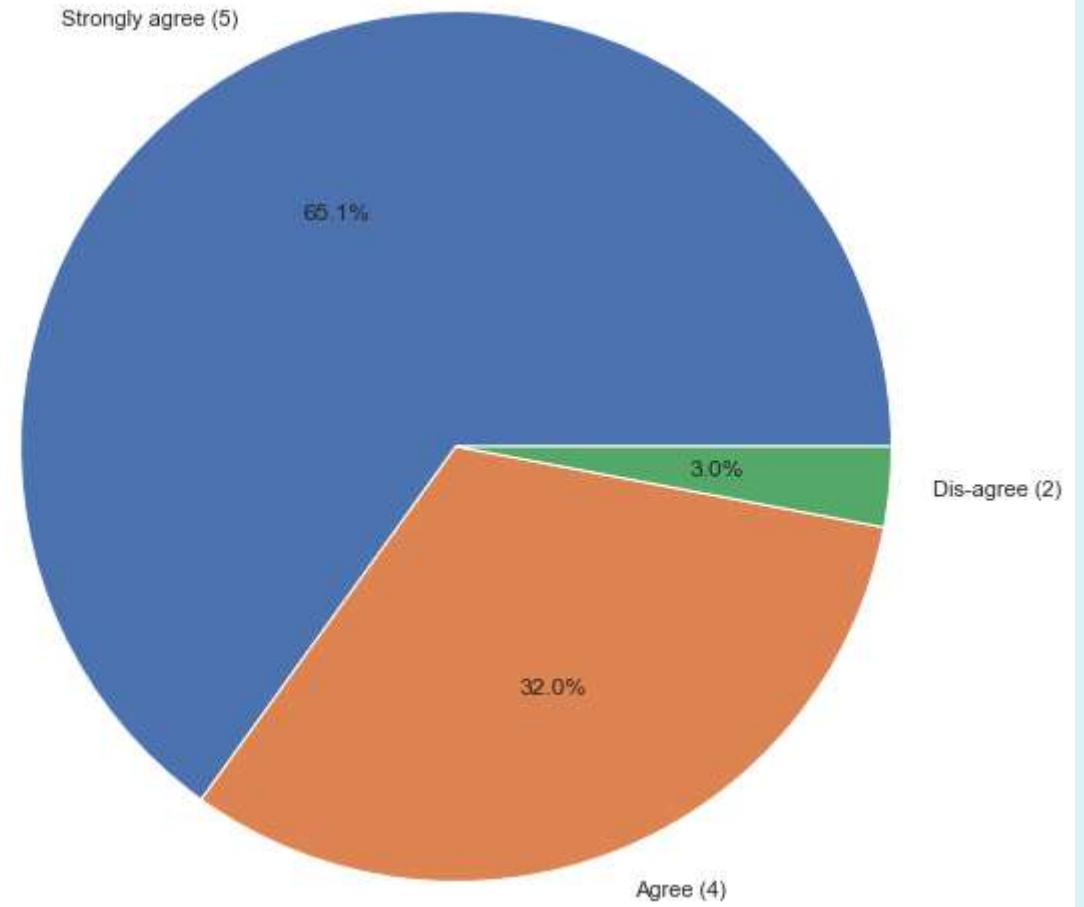




35 Displaying quality Information on the website improves satisfaction of customers

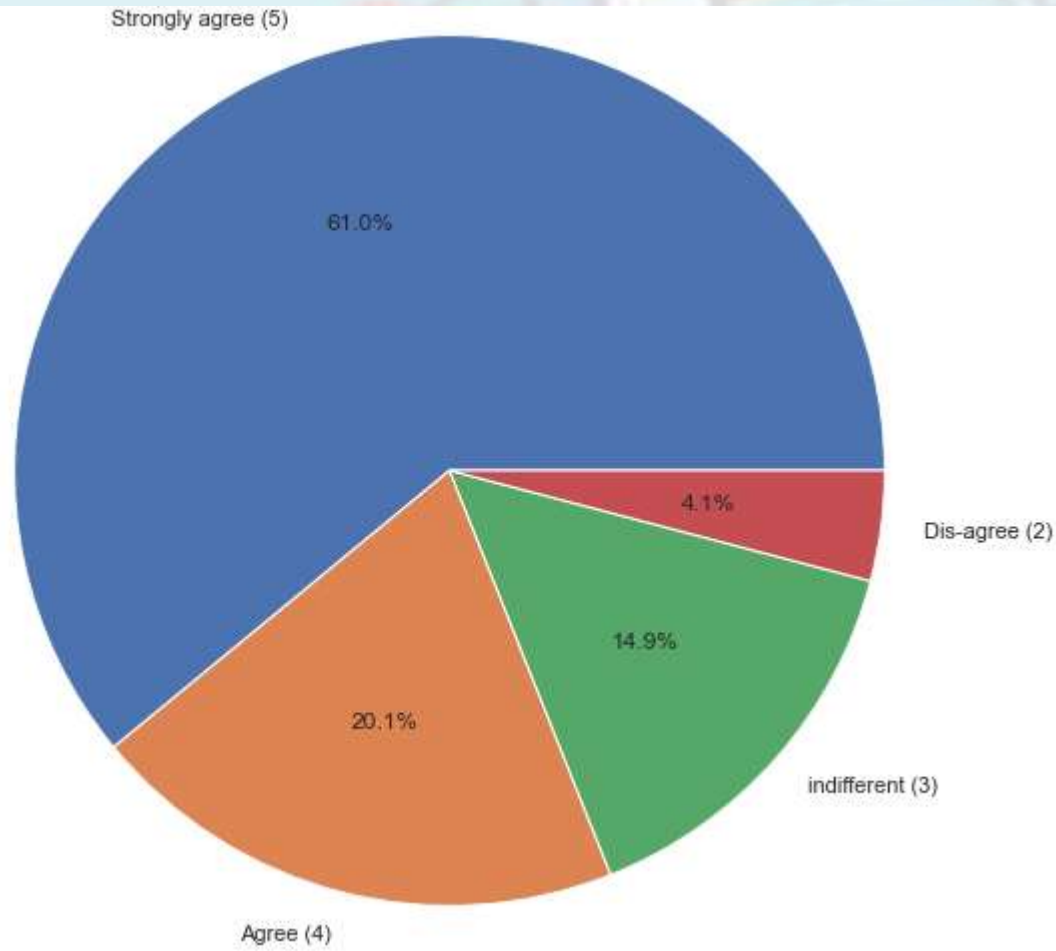


36 User derive satisfaction while shopping on a good quality website or application

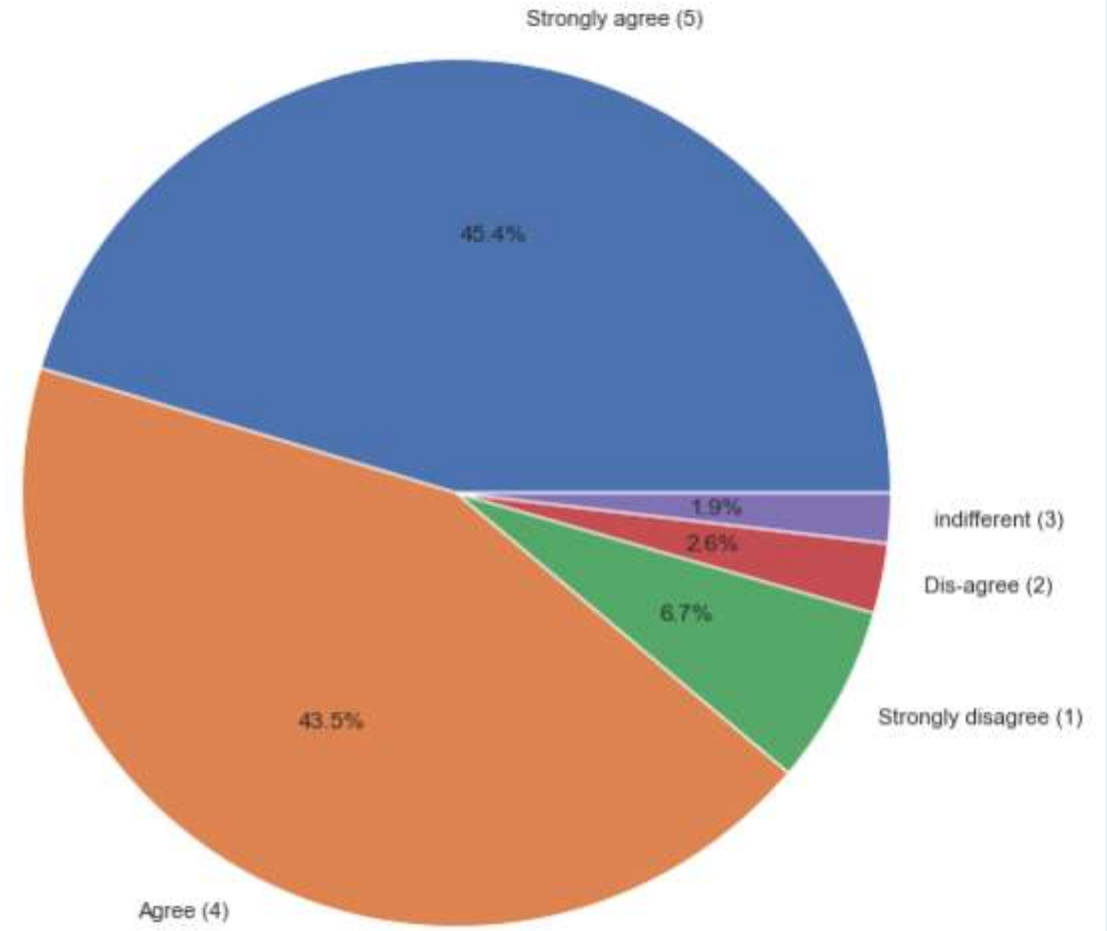




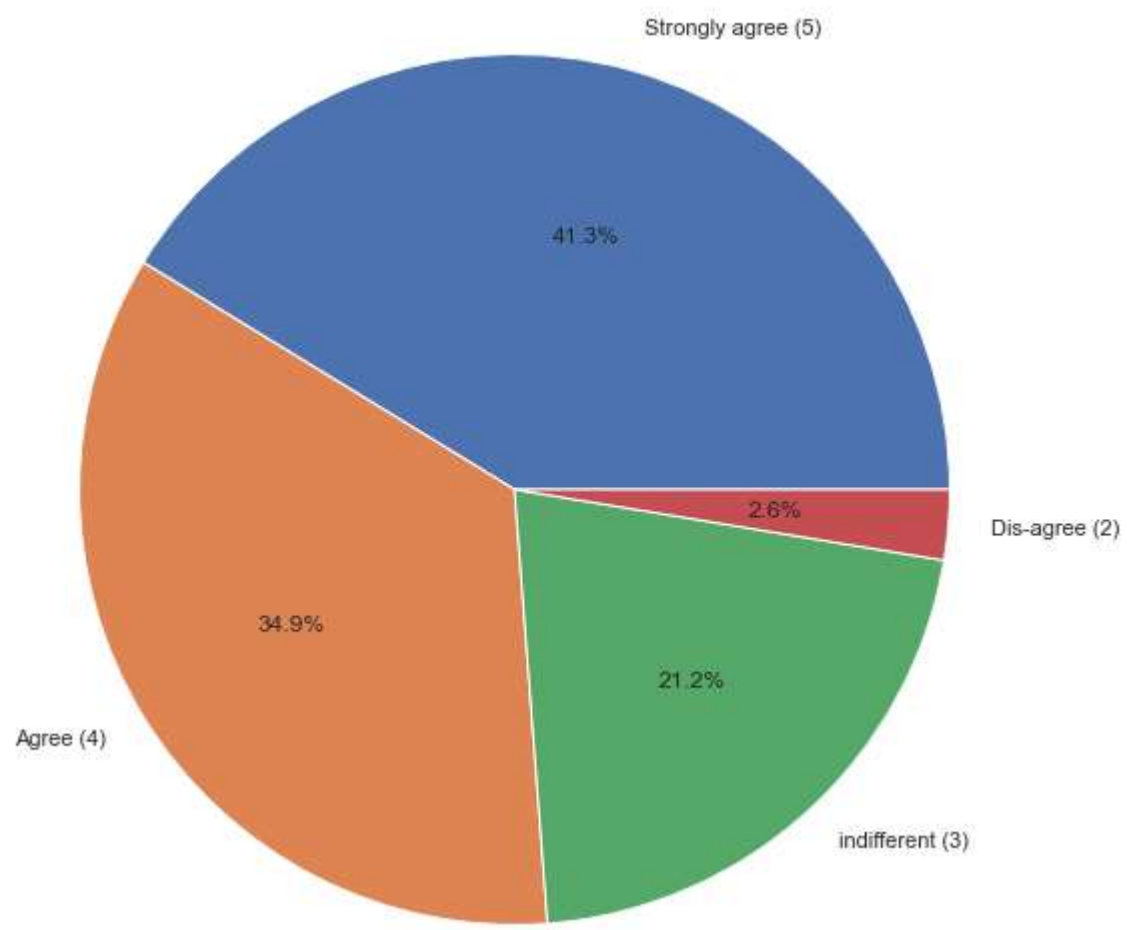
37 Net Benefit derived from shopping online can lead to users satisfaction



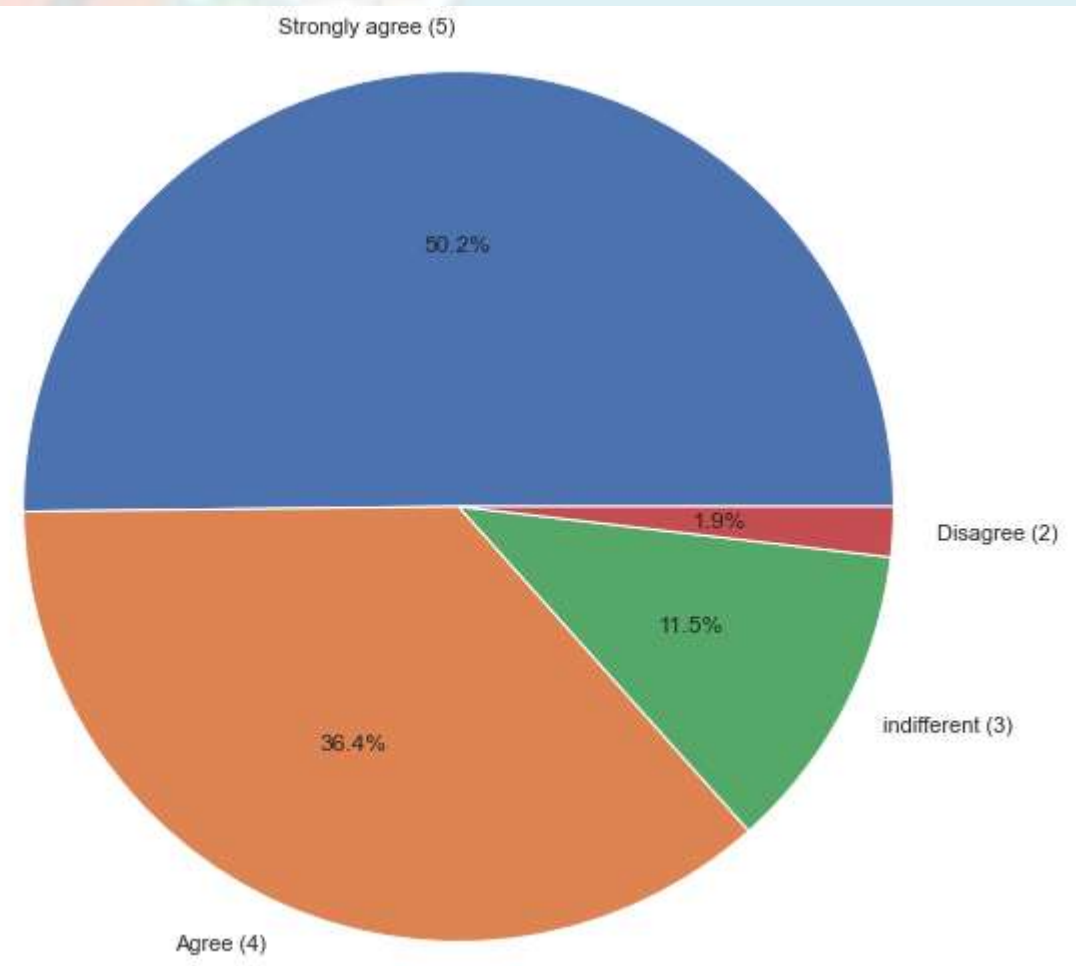
38 User satisfaction cannot exist without trust



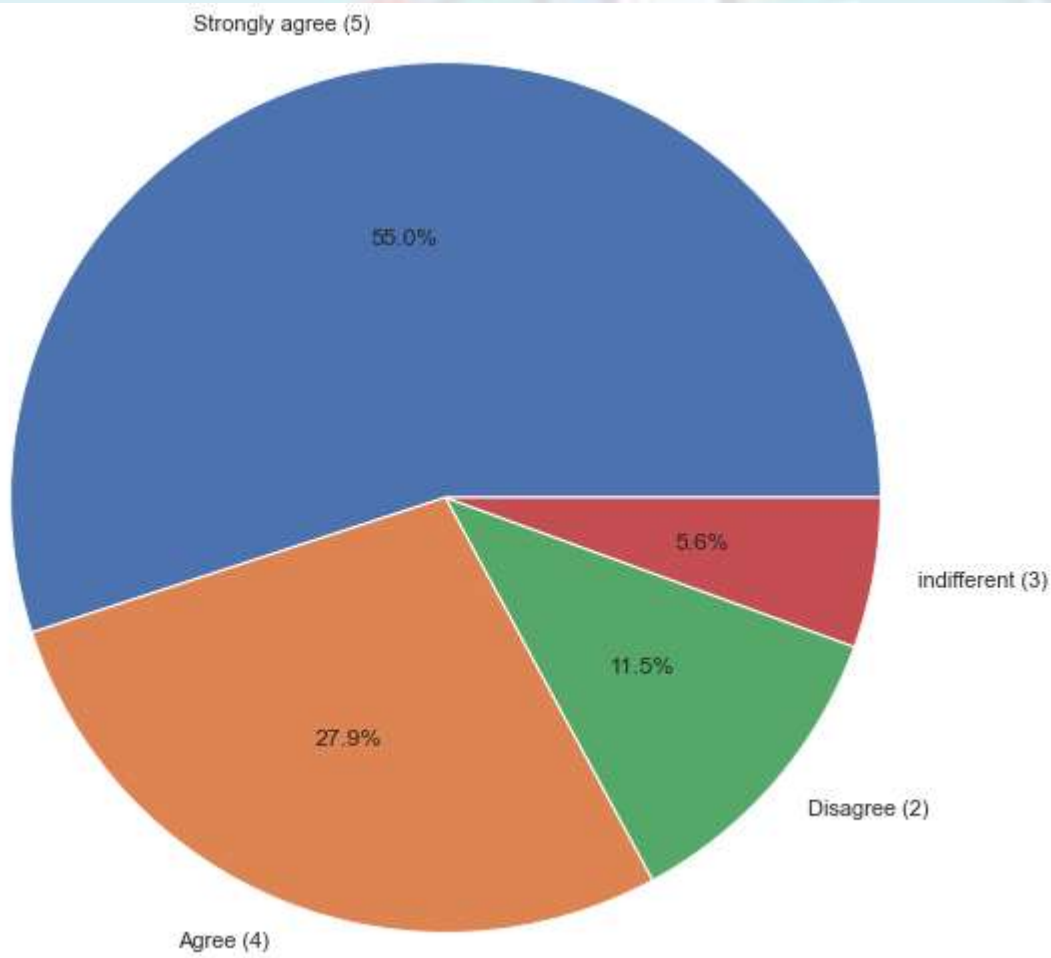
39 Offering a wide variety of listed product in several category



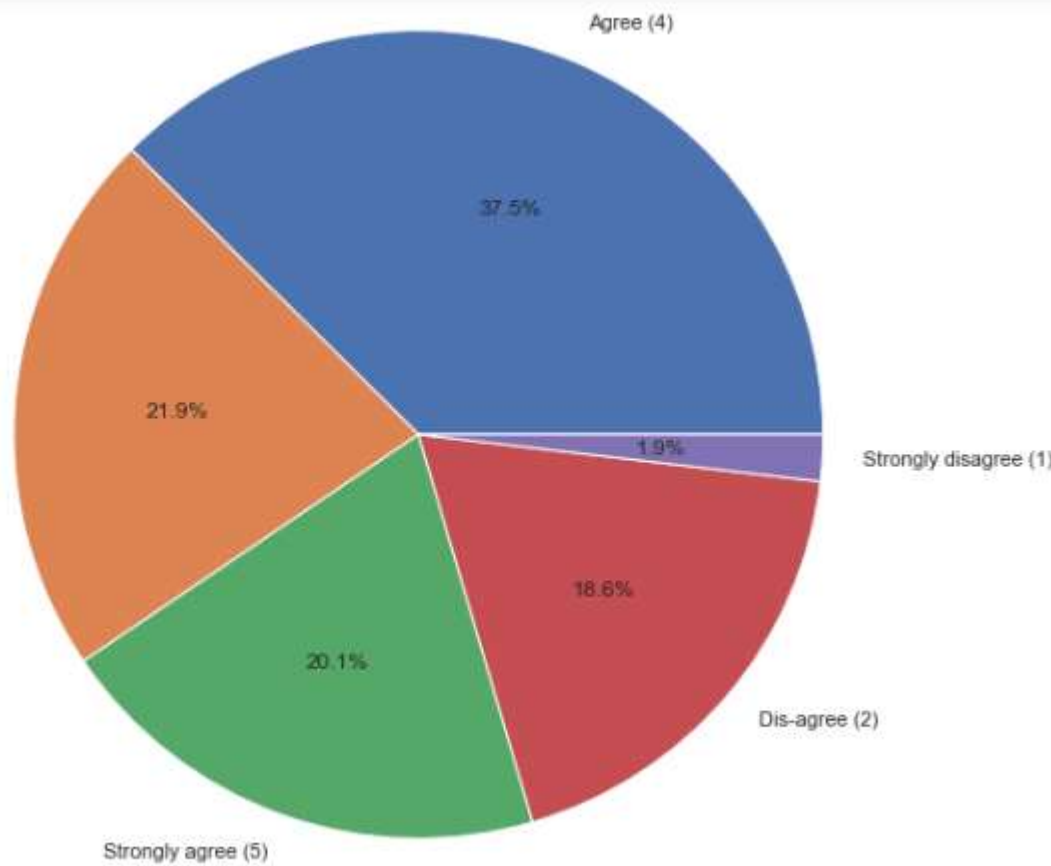
40 Provision of complete and relevant product information



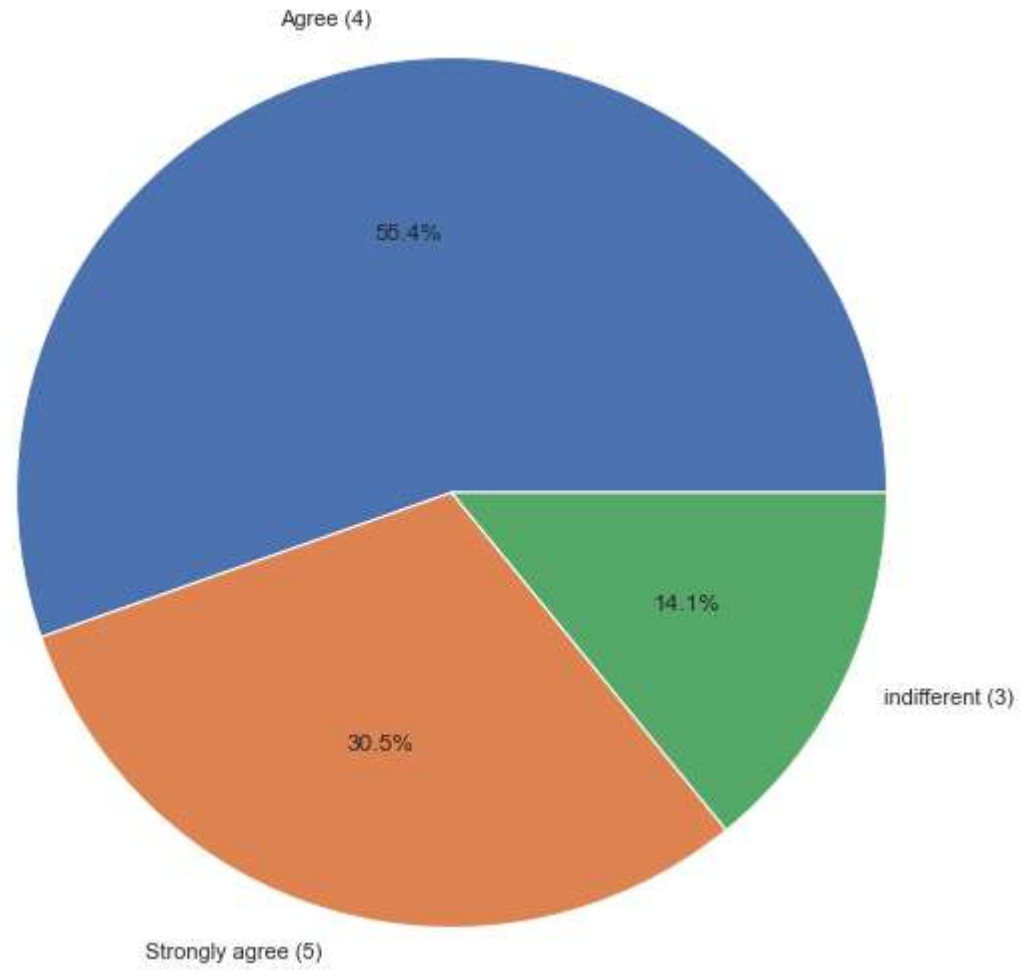
41 Monetary savings



43 Shopping on the website gives you the sense of adventure



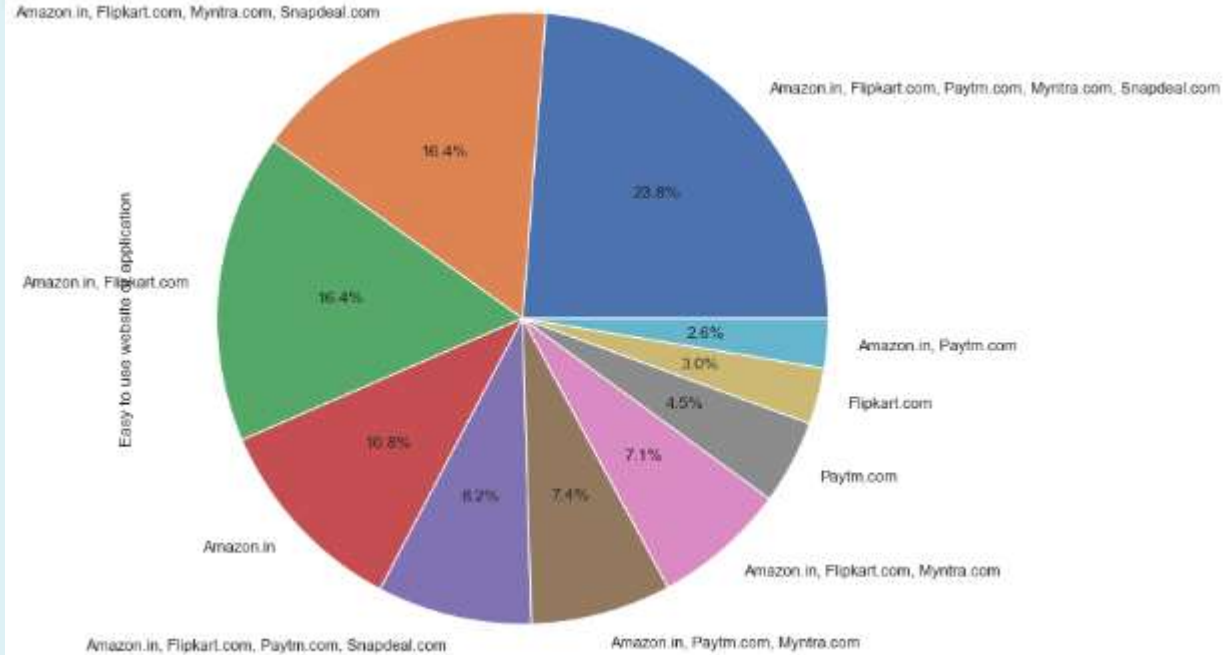
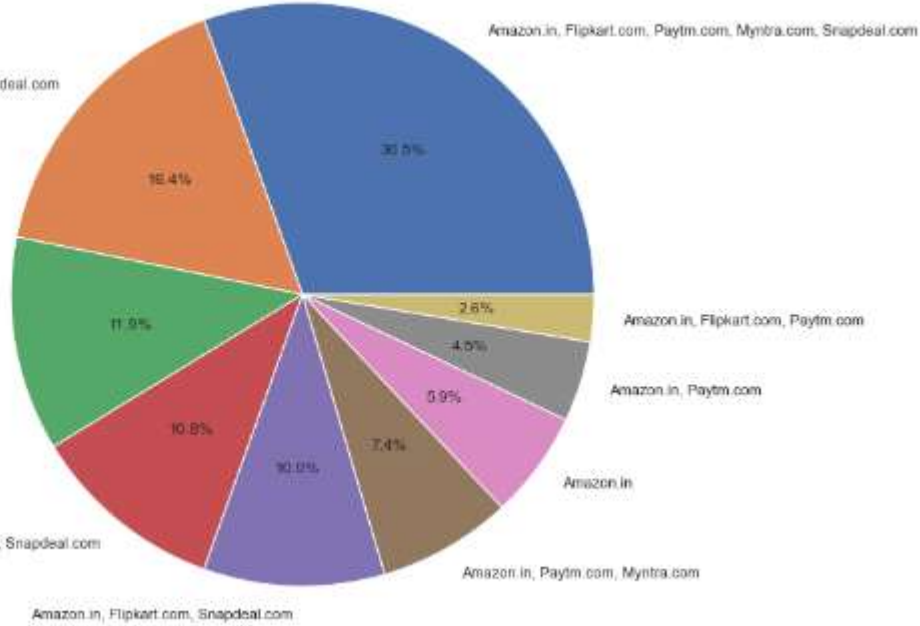
47 Getting value for money spent



# Insights

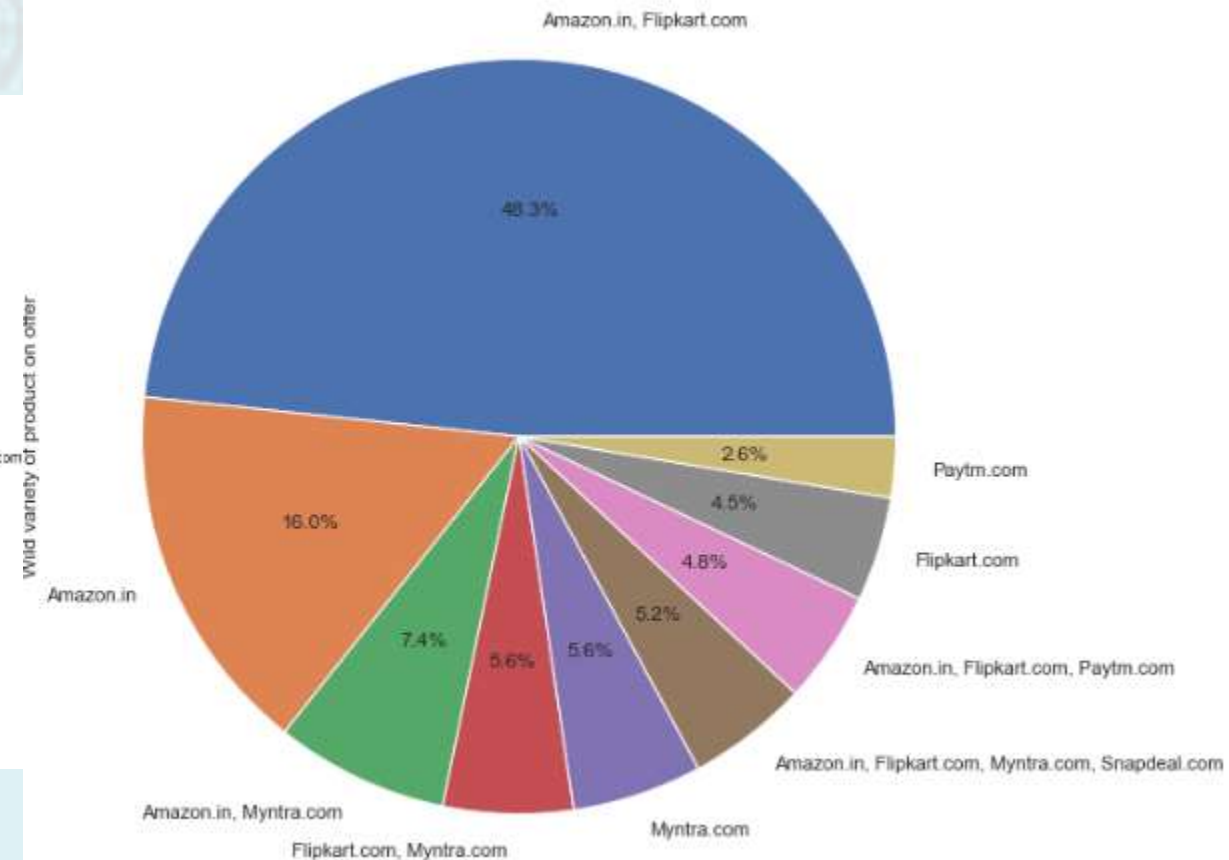
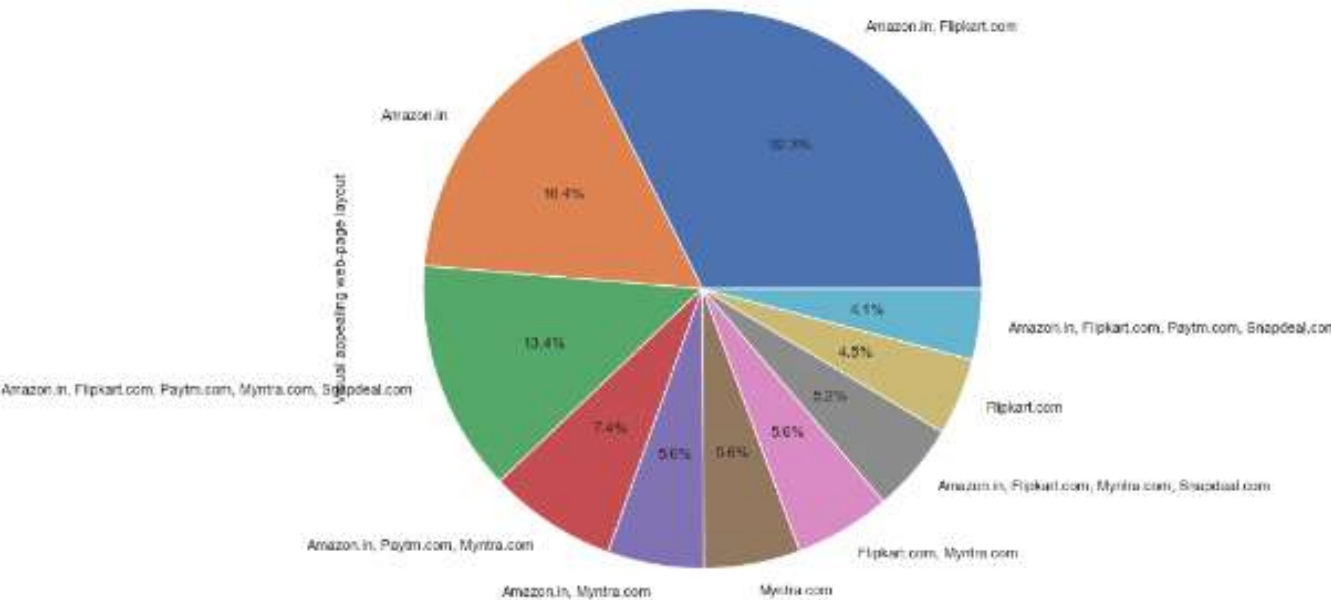
Majority of the shoppers strongly agrees on several aspects like ease of payment is important, information and description of the product, content of the website, information on seller details, ease of navigation, loading time of the website, convenience of payment, trust, securing the privacy of the customer, monetary benefits, loyalty programs, convenience and flexibility of shopping, and user satisfaction are all important for customer acquisition and retention in the online shopping industry in India.

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



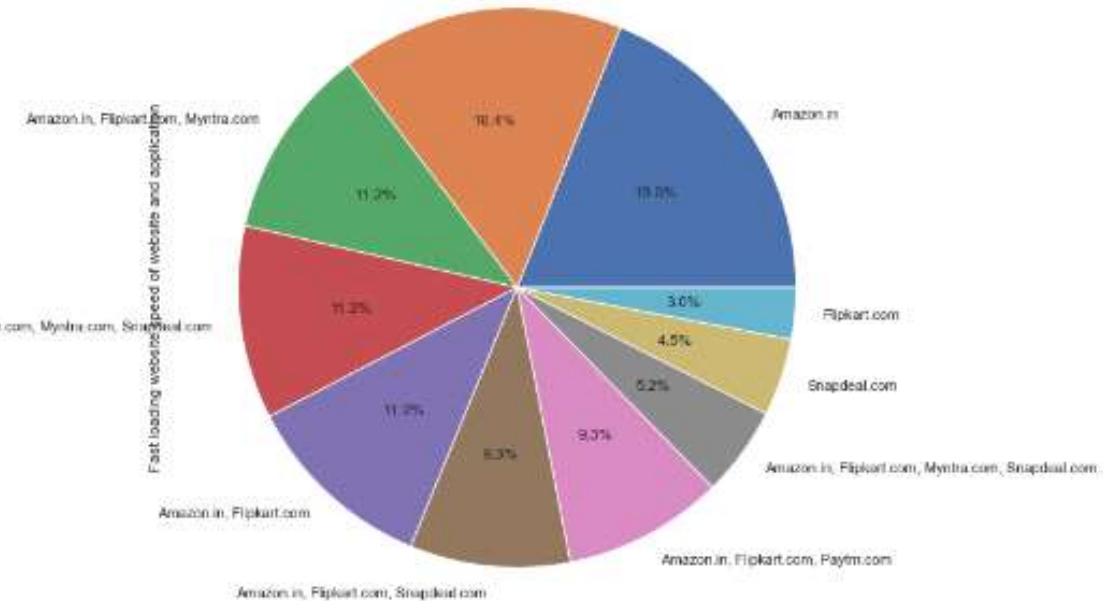
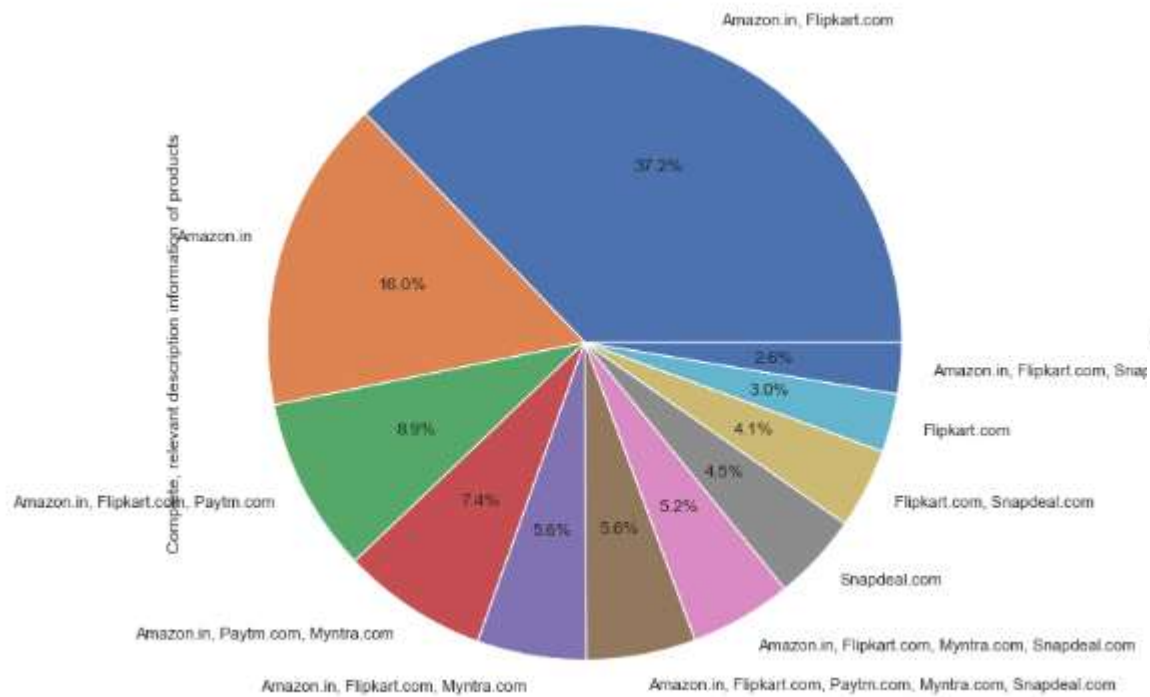
majority of people shops from all 5 retail stores and minority only shops from only amazon,flipkart and paytm and all of them suggests that all the 5 applications are easy to use



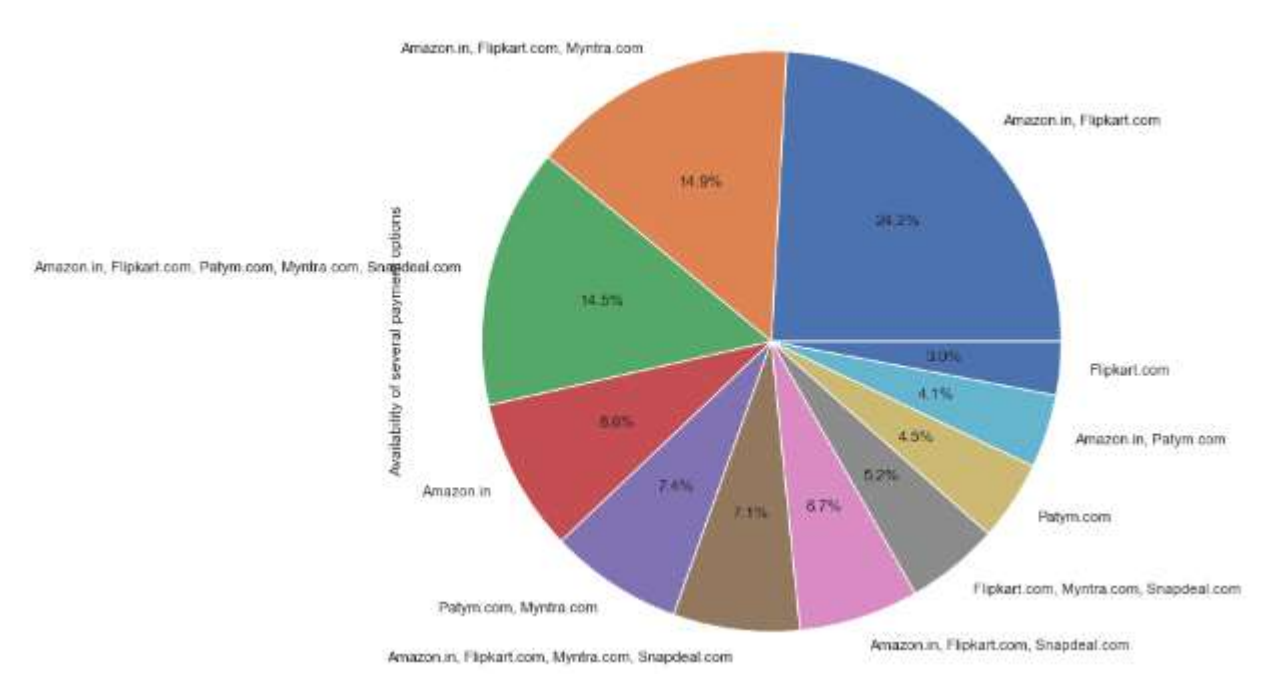
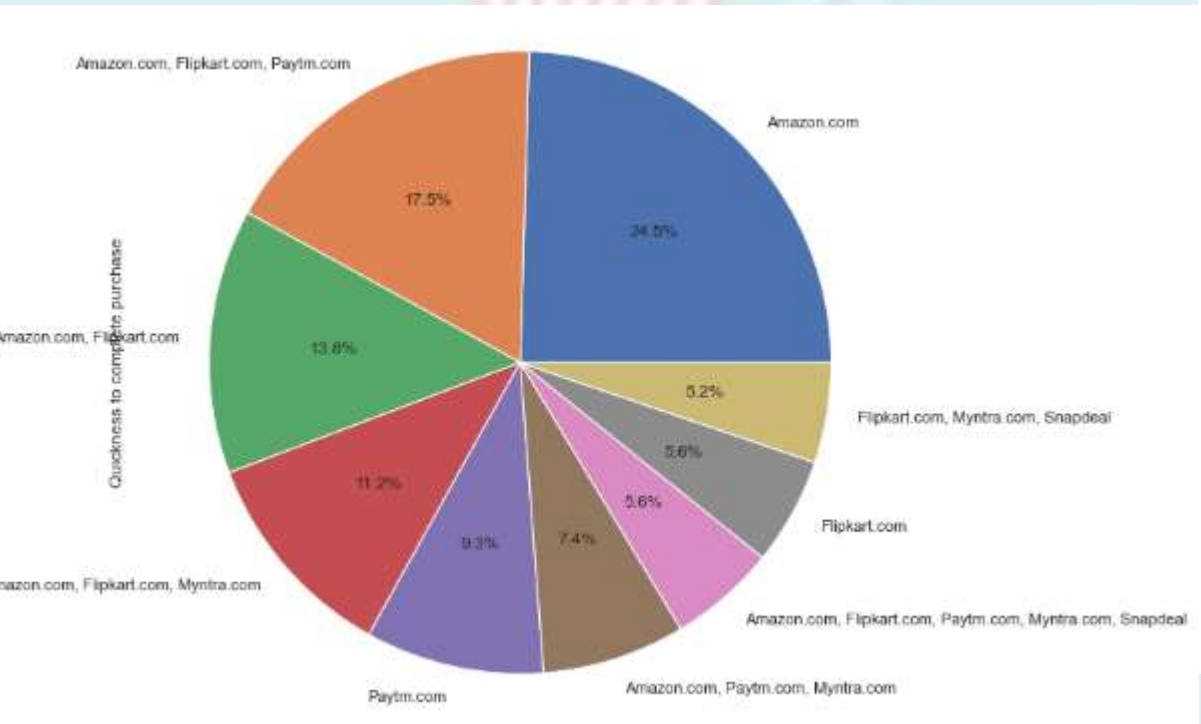


majority suggests that only flipkart and amazon have only visually appealing web layout, others need to work on it and only Flipkart and Amazon have a wide variety of products

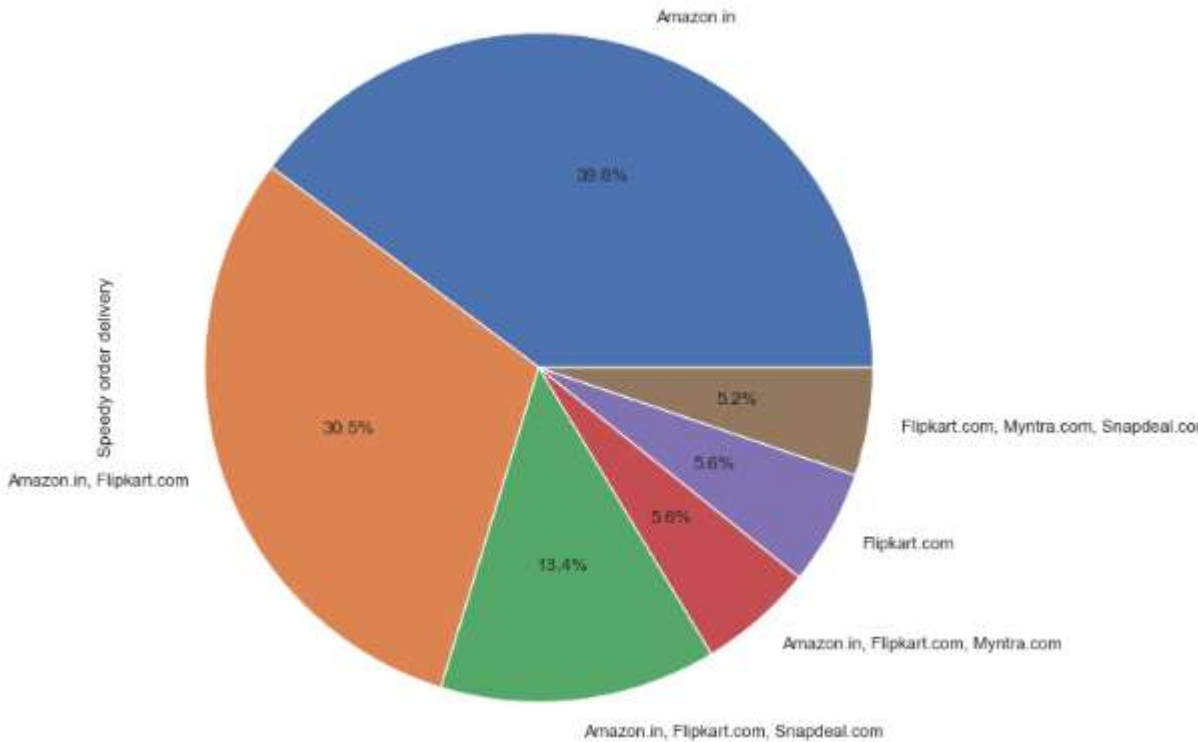




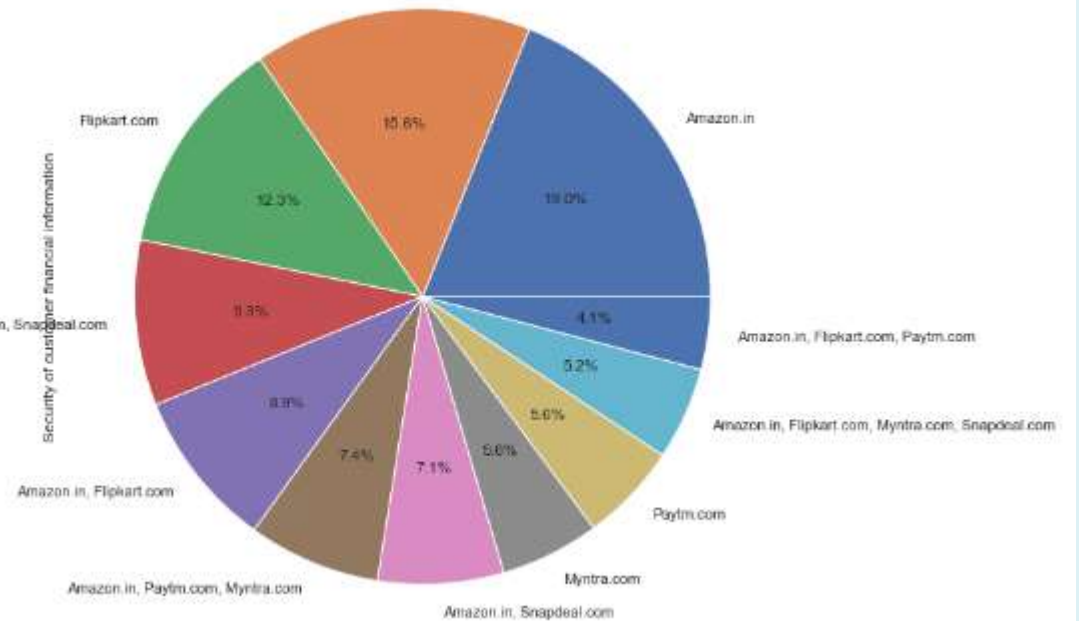
majority suggests that only amazon and flipkart have relevant product information and 19% suggests that only amazon has a fast loading website but more or less every application have fast loading website



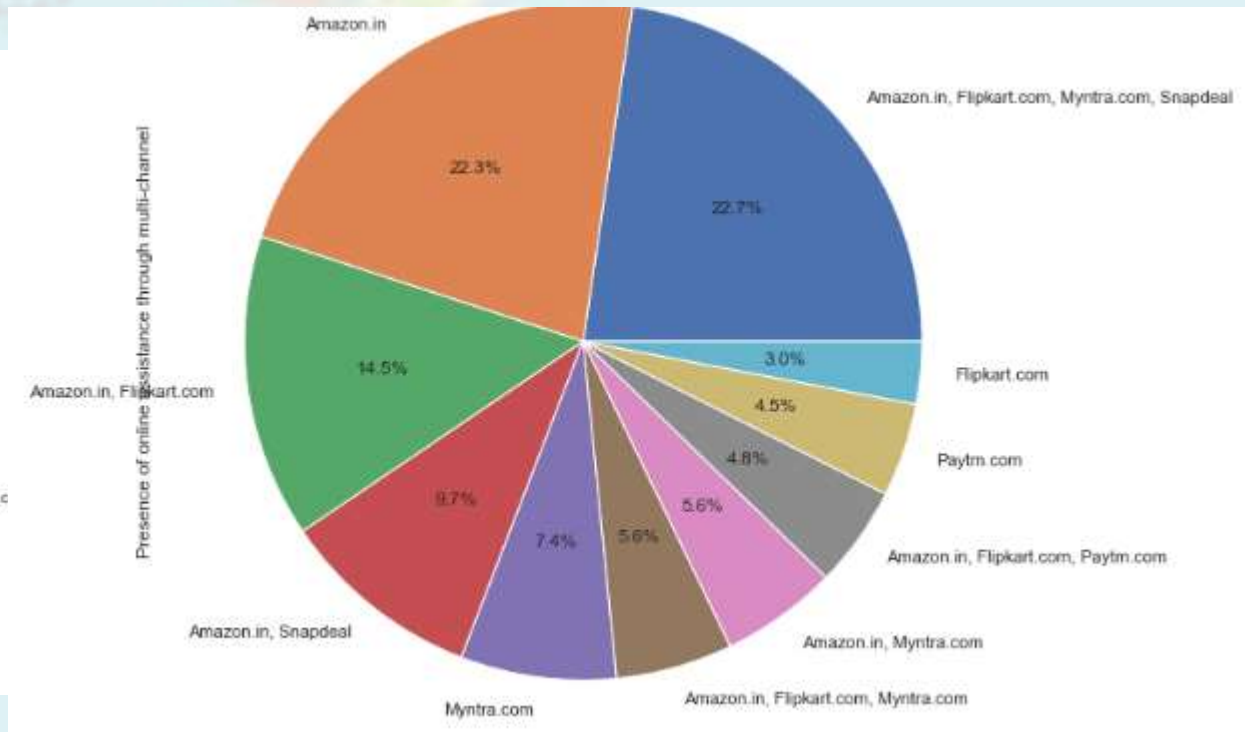
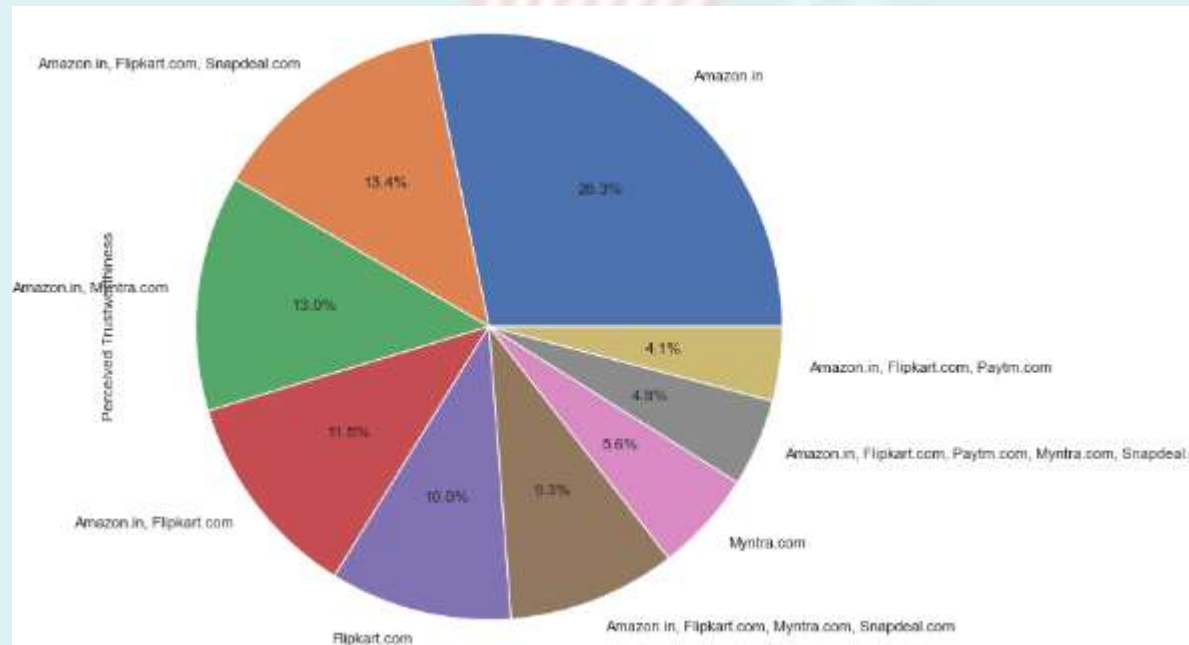
amazon is the most reliable website to online shoppers and majority suggests that amazon is the website where customers experience quick purchase



Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com

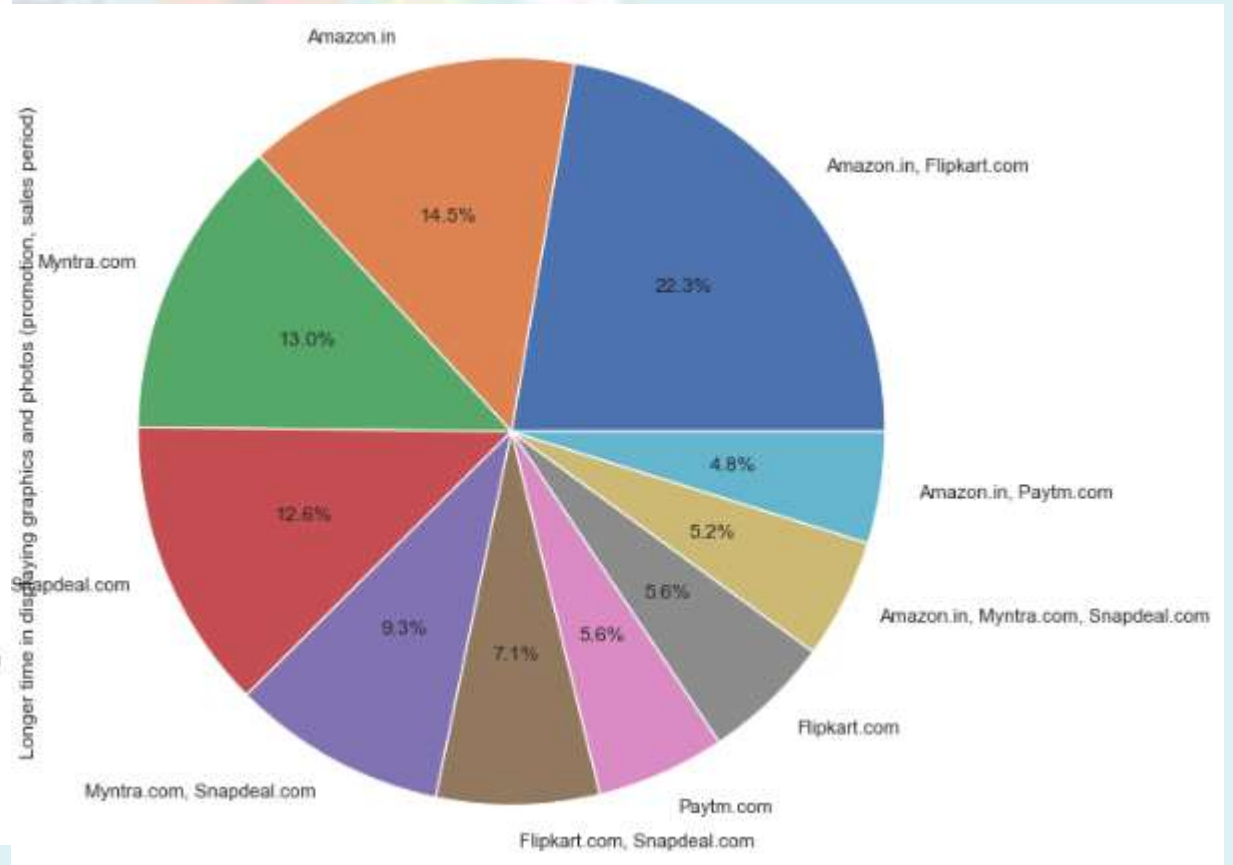
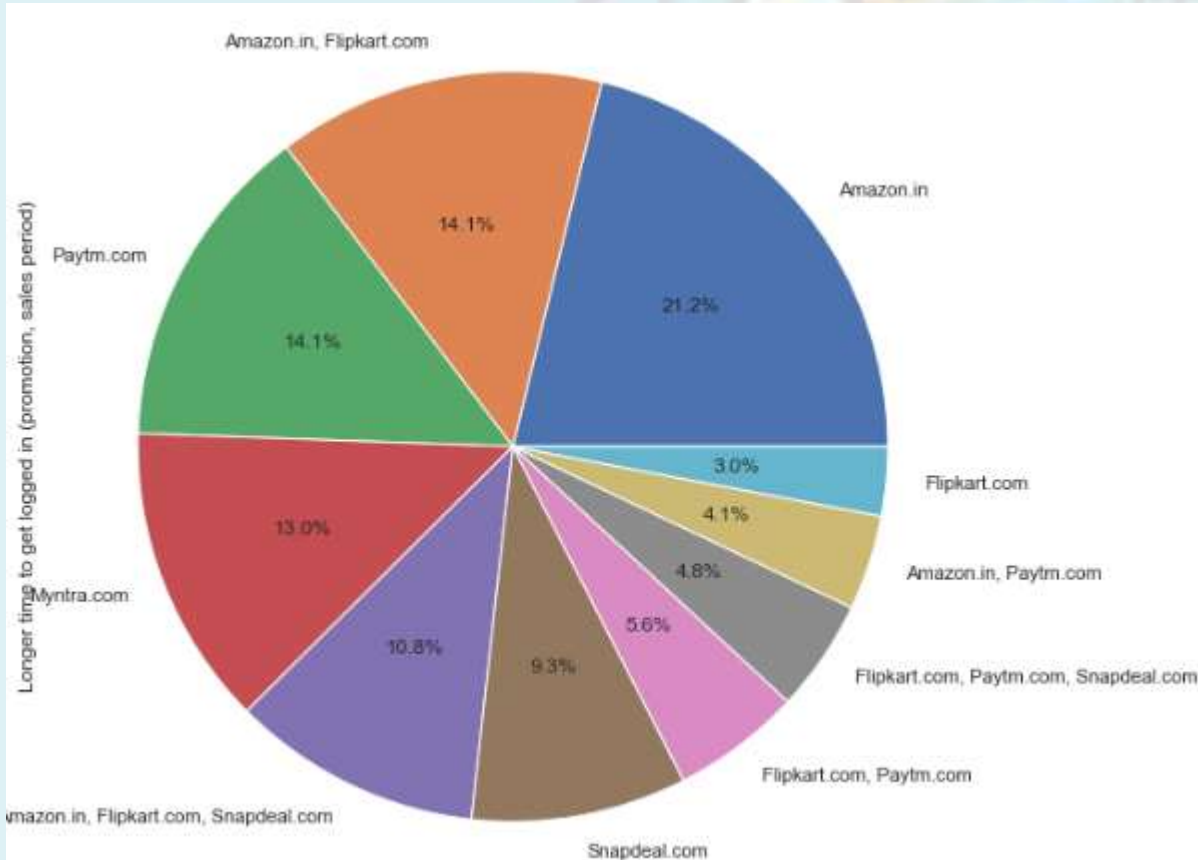


amazon and Flipkart have the mostly available payment options and they are the most trusted online applications that secure customer's financial information

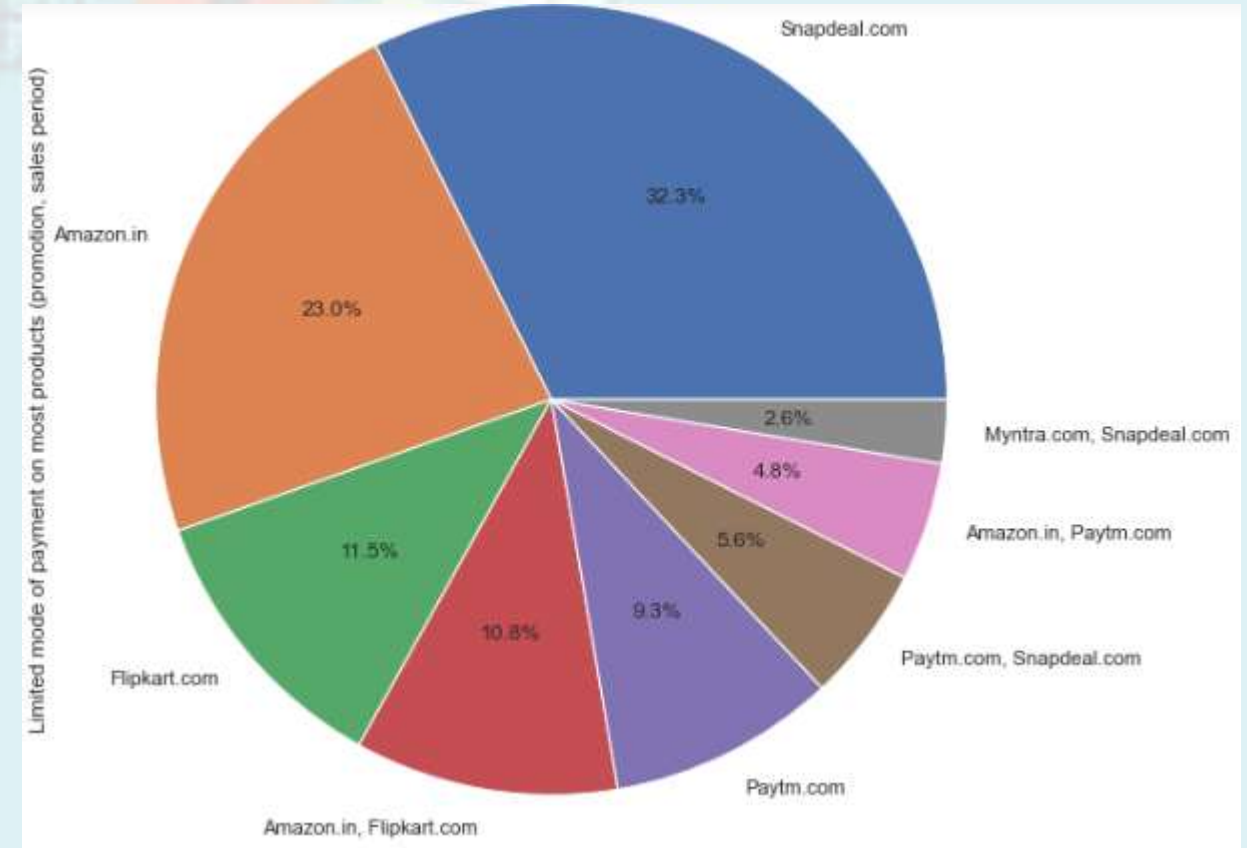
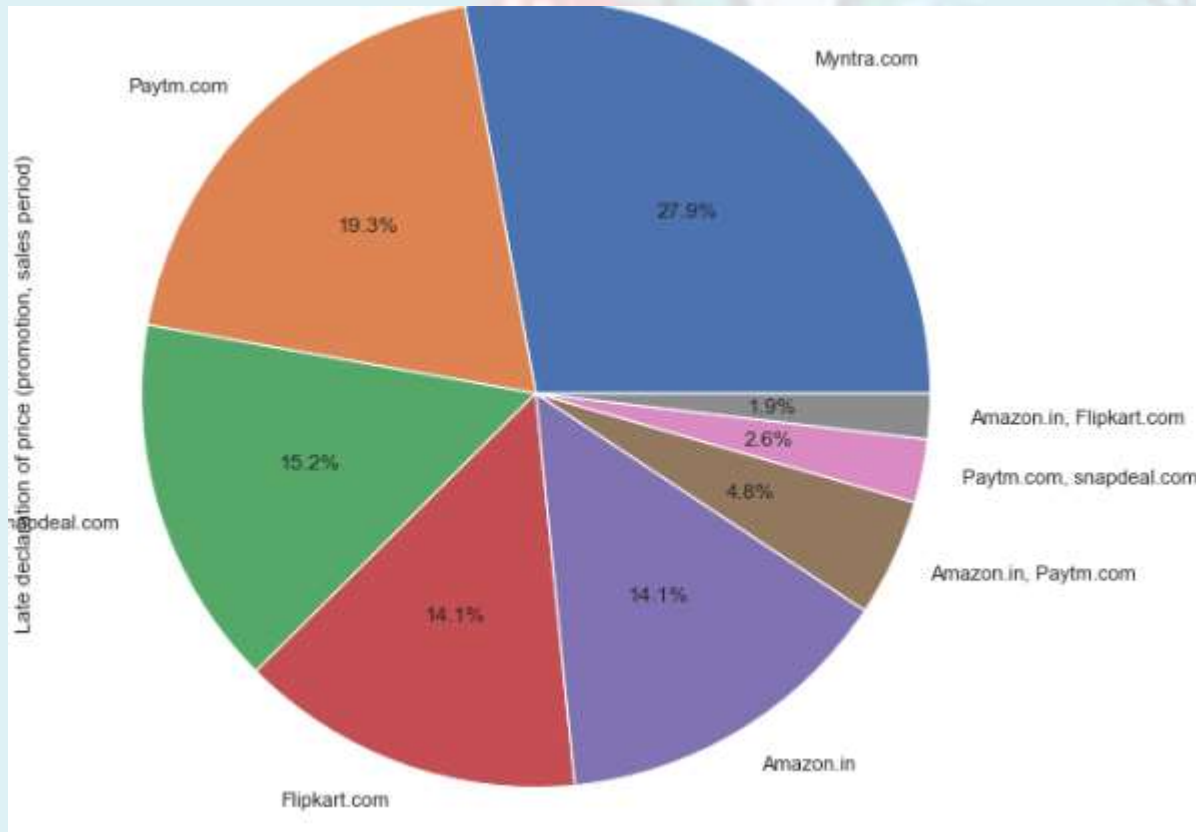


AMAZON is the most trusted online retail stores which got a vote of 28.3% amongst all and amazon, flipkart, snapdeal and myntra all have online assistance through multi-channel



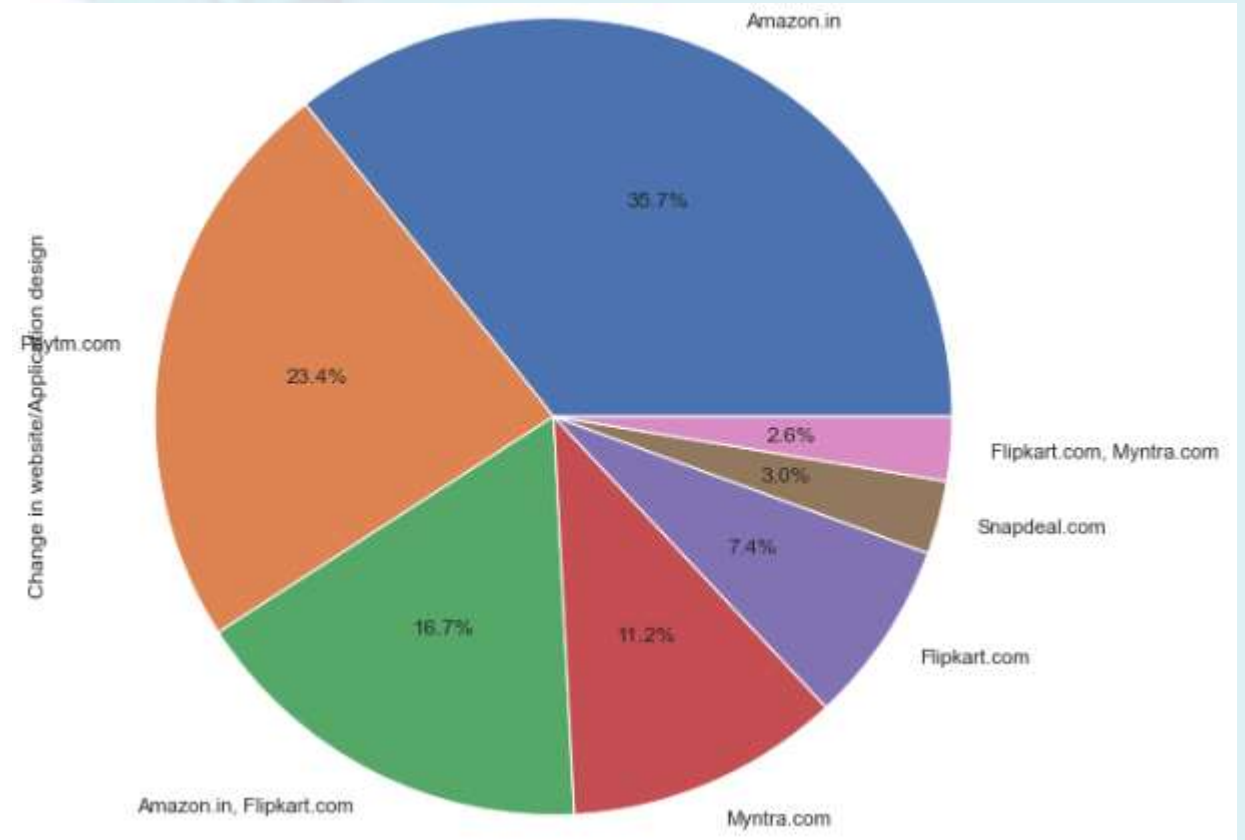
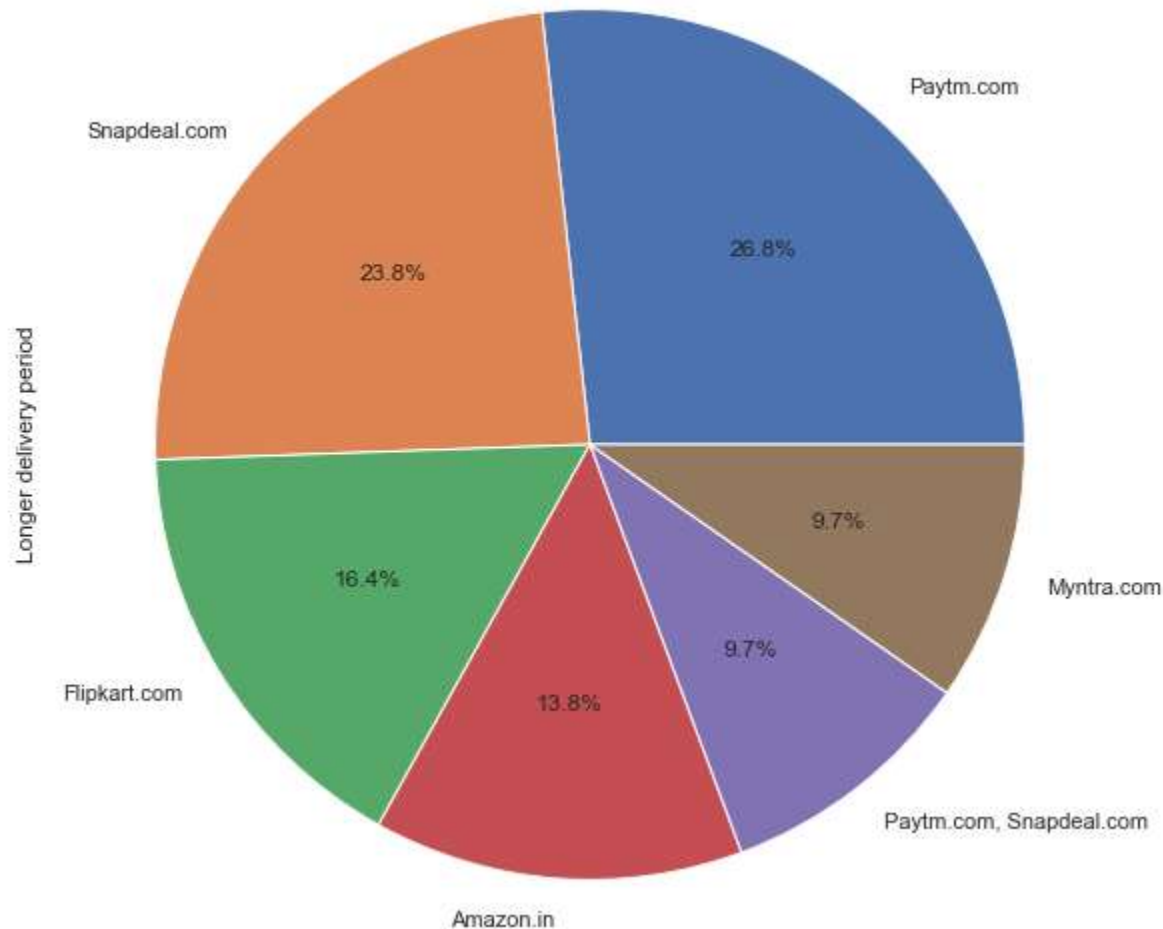


amazon takes the longer time to log in during sales period. this means amazon has huge traffic during sales but both amazon and flipkart taken longer to display photos during sales period



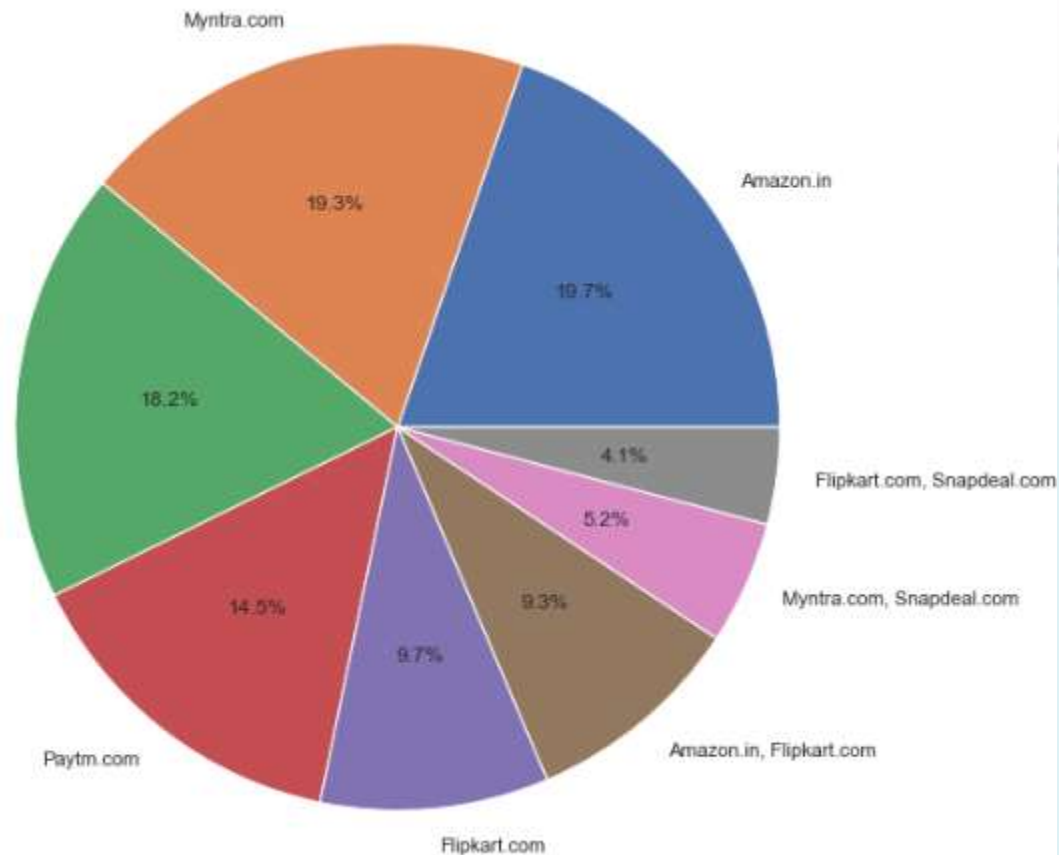
myntra is perceived to take longer for declaration of price and it has the longest page loading time during sales



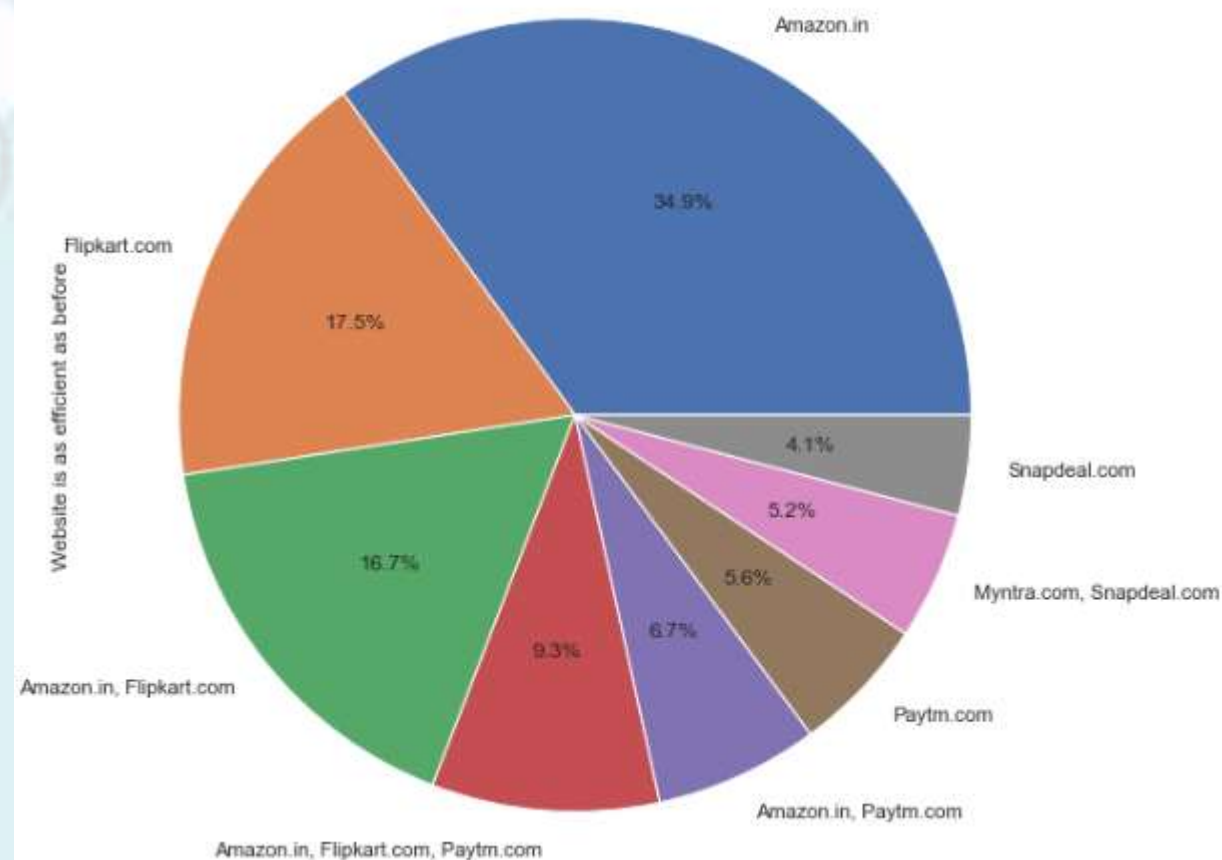


paytm has the longest delivery period and myntra has the fastest and amazon is the one that frequently changes application and website design. this means they focus on customer convenience

Frequent disruption when moving from one page to another



Website is as efficient as before



Both amazon and myntra has frequent page disruption but amazon has the most efficient website

# Conclusion

it can be concluded from the graphs and the figures that the major players in the Indian online retail industry are Amazon, Flipkart, Myntra, Paytm and Snapdeal. Amazon and Flipkart are the top most players in the industry because they have successfully established customer trust by offering a wide product variety, range and benefits. Further, the customers are also satisfied with the ease of payment modes, convenience of delivery, product details and information. But they further need to focus on improvement of their websites and applications in order to reduce the loading time during the period of sales. Moreover, Flipkart and Amazon also needs to focus on faster delivery in order to remain competitive.