

DATA ANALYSIS OF CUSTOMER RETENTION IN ECOMMERCE SECTOR



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ACKNOWLEDGEMENT

I am grateful to express my gratitude towards the “ Flip Robo Technologies ” team for giving an opportunity to involve with the Customer Retention Analysis Project with a very neat dataset to work on .

I would like to thank Ms . Khushboo Garg , Flip Robo SME who always felt free to help with the analytical problems.

I am deeply indebted to Data trained institution where as this endeavour to work with Flip Robo Technologies would not have been possible without them.

ABSTRACT

Traditionally, terms such as “customer is king, customer is always right” have been used, as continuous reminders to employees to exercise the duty of care in serving clients. This research seeks to investigate the effectiveness of customer retention strategies in managing customer attrition. Census and judgmental methods were used to target customer services provided in e – commerce. Creating customer loyalty is essential for the survival of the company in highly competitive markets. Thus, this chapter starts with indicating the significance of customer retention marketing strategies for the company by revealing the economics of retention marketing programs. Requirements for developing effective customer retention strategies are explained. Finally, after discussing types of commitment, this chapter ends by explaining loyalty programs and win-back strategies.

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CHAPTER 1 : INTRODUCTION

Relationship marketing becomes an essential strategic tool for companies in today's dynamic market in which customer needs and preferences are changing rapidly. These rapid changes that take place in almost all business types, increase the importance of relationships, and highlight the need to enter into networks of relationships. Thus, companies have been increasingly focusing on developing long term profitable relationships in business, internal and consumer markets in order to enhance the value that they deliver to their customers.

1.1 Background of the study

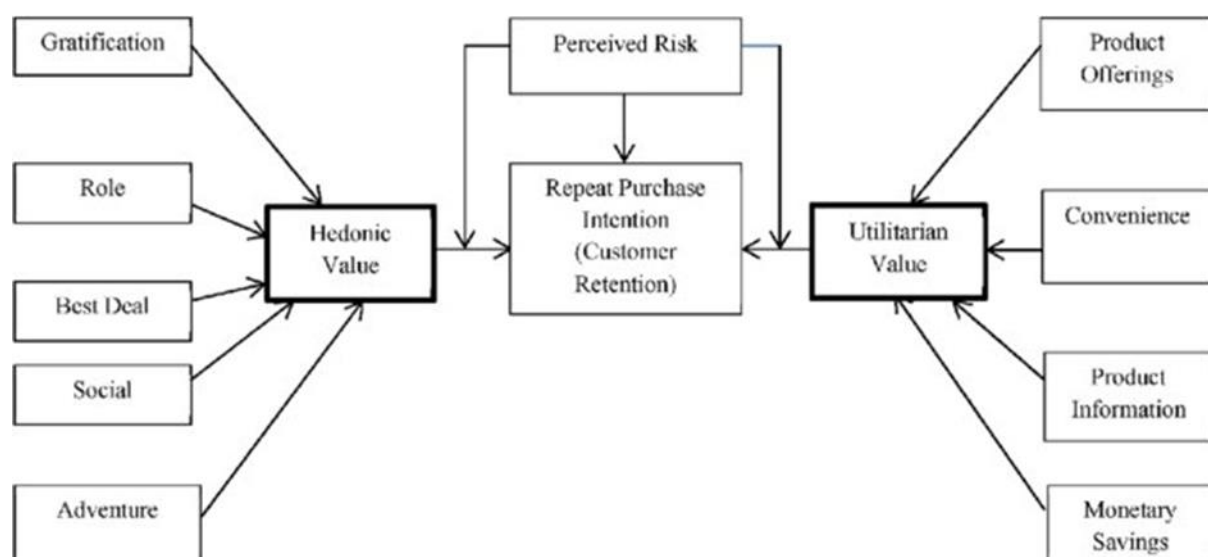
Customer Retention is the activity that a selling organization undertakes in order to reduce customer defections. Successful customer retention starts with the first contact an organization has with a customer and continues throughout the entire lifetime of a relationship. A company's ability to attract and retain new customers, is not only related to its product or services, but strongly related to the way it services its existing customers and the reputation it creates within and across the marketplace. (Reicheld Fredrick, 1996). Customer retention is more than giving the customer what they expect; it is about exceeding their loyalty.

expectations so that they become loyal advocates for the brand. Research by Fleming and Asplundh, (Feb.2009) indicates that engaged customers generate 1.7 times more revenue than normal customers, while having engaged employees and engaged customers returns a revenue gain of 3.4 times the norm Customer retention refers to keeping a client's business rather than have the client use competitors' services or products. Businesses want to reduce customer defections to their competitors because a reduction in their market share and profits could result in a collapse of the company. Customer service retention is a popular marketing strategy as it involves focusing on meeting or exceeding clients' expectations in order to maintain their loyalty.

1.2 Business Problem Framing

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 or 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 ecommerce store have been identified as: service quality, system quality, information quality, trust and net benefit. Customer retention strategies enable you to both provide and extract more value from your

existing customer base. You want to ensure the customers you worked so hard to acquire stay with you, have a great customer experience, and continue to get value from your products. Therefore, knowing how to maximize the repurchase intention of Indians online consumers' is vital for an online retailer in India to achieve its business goals. This may further lead to develop a general reference model for successful online retail business. Success of an online retail website depends on its system quality and how much consumer motivator values are derived through shopping from it. 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.



1.3 Statement of the Problem

Many companies think that marketing is all about selling of products and how the company will increase its profitability in the market share and not considering after sales service to be able to know whether the customers are satisfied with the products are able to use it.

The main problem is 'what kind of strategies is expected from telecommunication industries to be able to retain their customer

1.4 Significance of the Study

1. To help the organization to implement the right customer retention strategies.
2. To develop a good employee-customer relationship

1.5 Scope and Limitations

Retaining customers depends on how the industry sells its products to their customers. This research is limited to Vodafone Ghana Ltd and Vodafone users. These are some limitations of the research;

- The most prominent is the data collection since most respondents sometimes feel

reluctant to provide information to the questions in the questionnaire.

- Time which is of essence has been limited due to the fact that, the researcher will combine the project with course work in less than a year.
- The lack of funds to travel out and also prepare adequate questionnaire for circulation in gathering data is another potential problem area.
- Inadequate text books to research

CHAPTER2–ANALYTICAL PROBLEM FRAMING

2.1 Software Requirements :

1. Anaconda – Jupyter Notebook
2. Libraries Used – Different libraries are used while building ML model and Visualisation of data.

```
In [1]: # importing necessary libraries

import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt

import warnings
warnings.filterwarnings('ignore')
```

CHAPTER3–DATA VISUALISATION

There are a lot of features to analyse in the dataset. Our motive is to identify the key findings to make conclusions. So , we can analyse the data as different sections to categoriz the data.

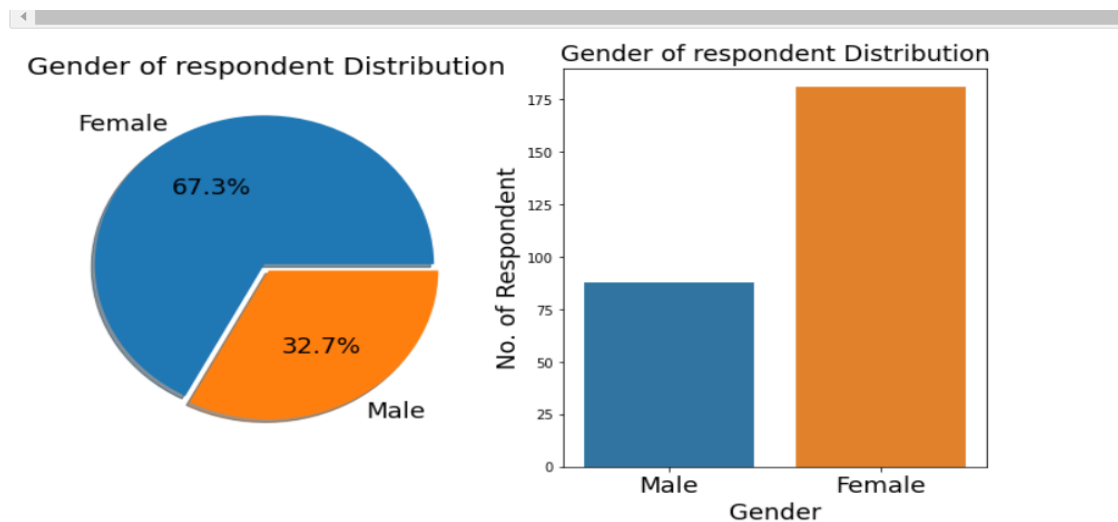
3.1 Problem Solving Approaches

- Population feature and online shopping feature
- Feature describing technological aspects related to internet services & device
- Purchase Decision & Payment related features – Website Usability & performance related feature
- Online shopping store customer service requirement related features
- Feature related to Customer online shopping experiences – Online Shopping Platform related question response by Customer

3.2 Data Visualization

1. Population feature and online shopping .

Let's start EDA with Gender distribution of respondent



Observations :

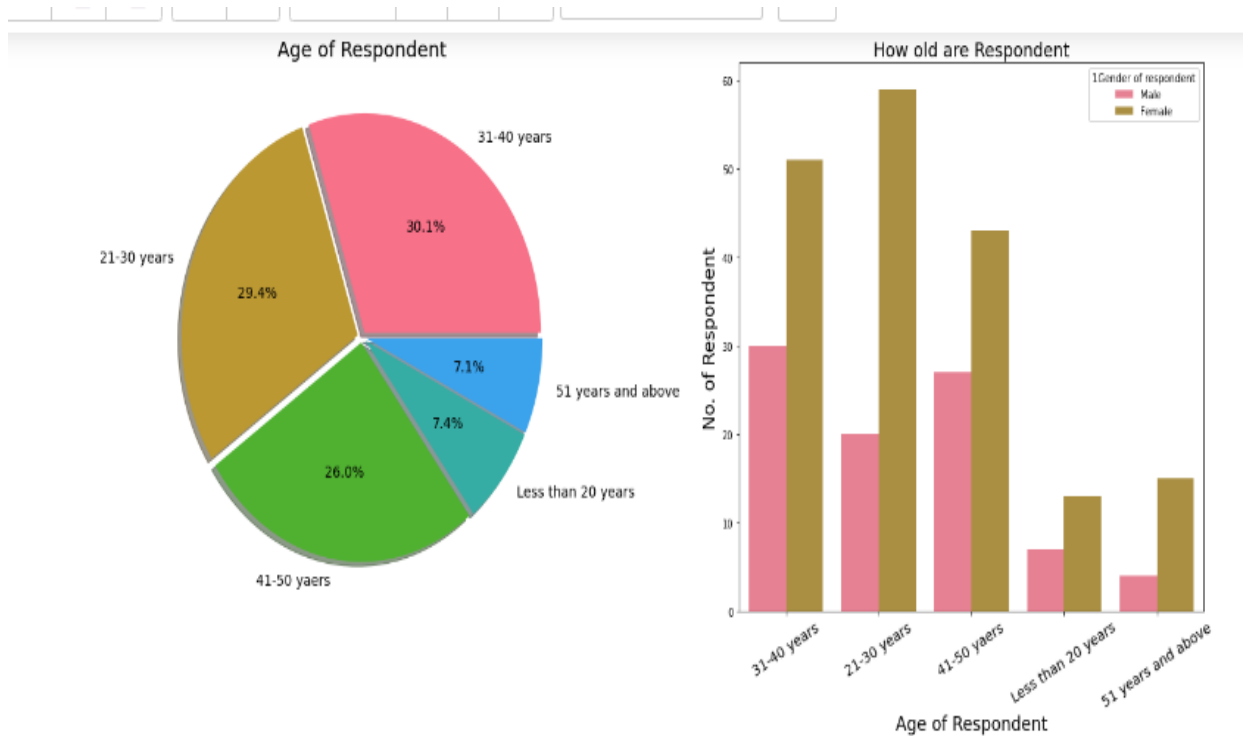
From the above graph, it is clear that , 67.3 % are females and 32.7 % are men.

It is visible that women are more online shopaholic than men.

AGE OF RESPONDENT

Considering the age of respondents among male and female, we can find which age group people are more active in e – commerce shopping sector.

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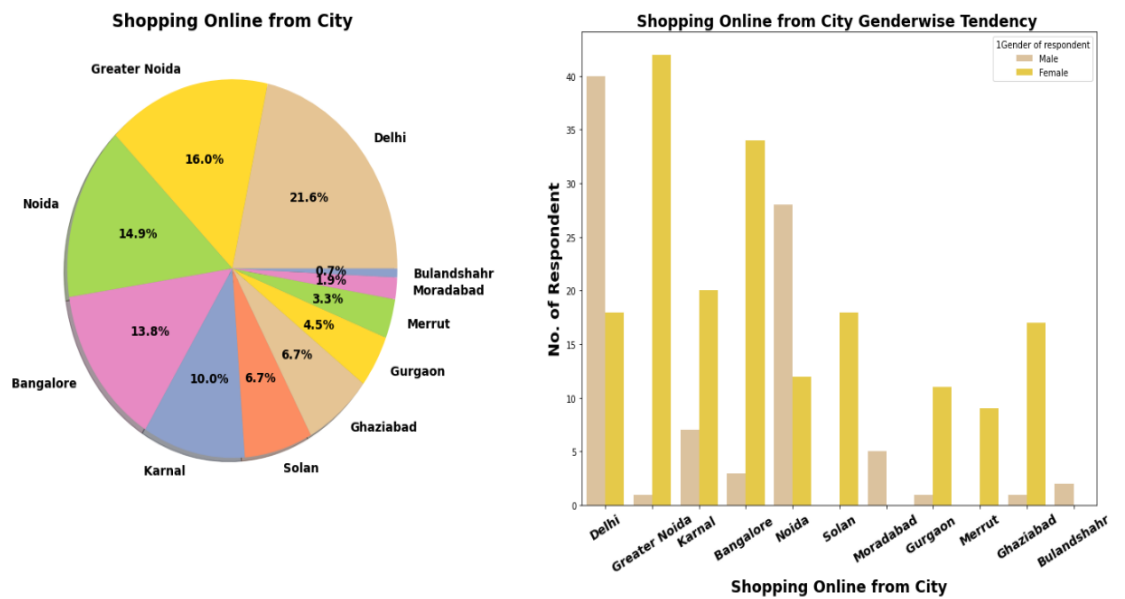
Observations :

- It is highly visible that the men & women between 21 – 50 age are more oriented in online shopping.
- Considering the data of men , it is shown that 31 -40 years of age are highly focus on online shopping whereas in female , 21 – 30 years of age are dominant.
- For both gender aged less than 20 years and greater than 51 shows less interest in online shopping.

Shopping Online From City

While analysing the online shopping trend according to the location , can conclude the trend varies from cities to remote village.

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Observations :

- Most of the online shopping customers belongs to the metropolitan cities like delhi , Noida etc.
- In Metropolitan cities , like Delhi & Noida , male customers are dominant.
- Greater Noida is the city where there are most female customers present and it is interesting that the male customers are negligible considering the female.
- Female care products can be targeted to market in these cities.

Population chart of these area

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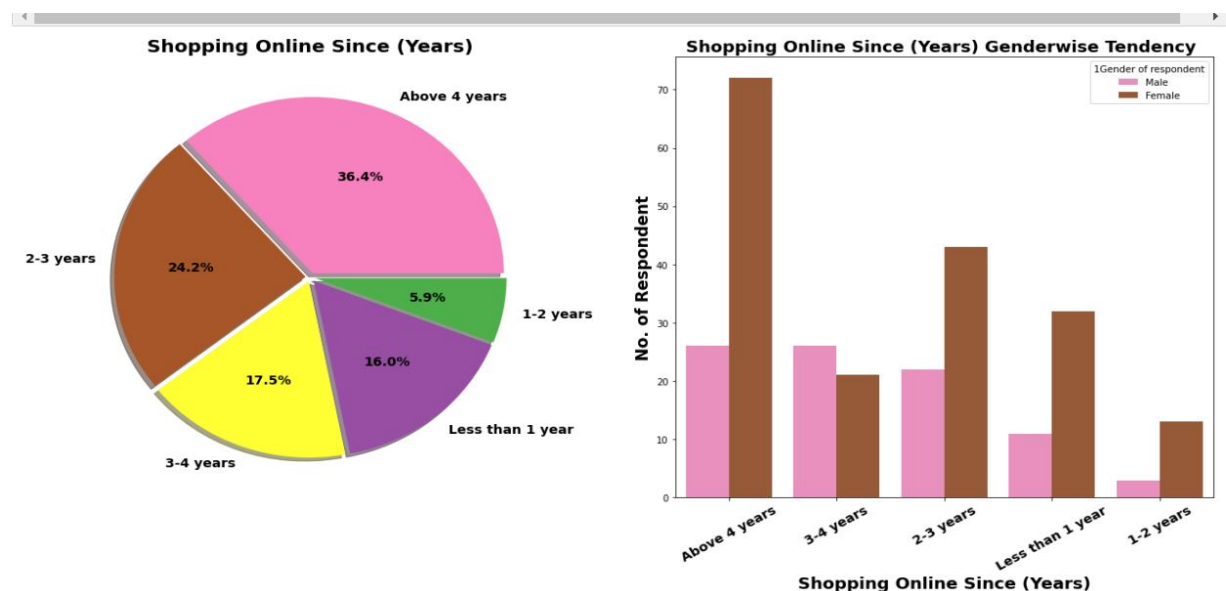
Out[12]:

		3 Which city do you shop online from?	Bangalore	Bulandshahr	Delhi	Ghaziabad	Greater Noida	Gurgaon	Karnal	Merrut	Moradabad	Noida	Solan	All
2 How old are you?	1 Gender of respondent													
21-30 years	Female		18	0	7	0	14	0	8	5	0	1	6	59
	Male		3	0	5	1	0	0	7	0	0	4	0	20
31-40 years	Female		0	0	10	8	17	0	7	1	0	4	4	51
	Male		0	2	9	0	0	1	0	0	5	13	0	30
41-50 yaers	Female		12	0	1	5	11	0	4	3	0	7	0	43
	Male		0	0	22	0	1	0	0	0	0	4	0	27
51 years and above	Female		3	0	0	0	0	11	1	0	0	0	0	15
	Male		0	0	0	0	0	0	0	0	0	4	0	4
Less than 20 years	Female		1	0	0	4	0	0	0	0	0	0	8	13
	Male		0	0	4	0	0	0	0	0	0	3	0	7
All			37	2	58	18	43	12	27	9	5	40	18	269

Observations :

The interesting observation from this chart is that , as the citizen get older , their online shopping tendency becomes less.

Online Shopping Duration



Observations:

- 36.4% of female are shopping above 4 years .

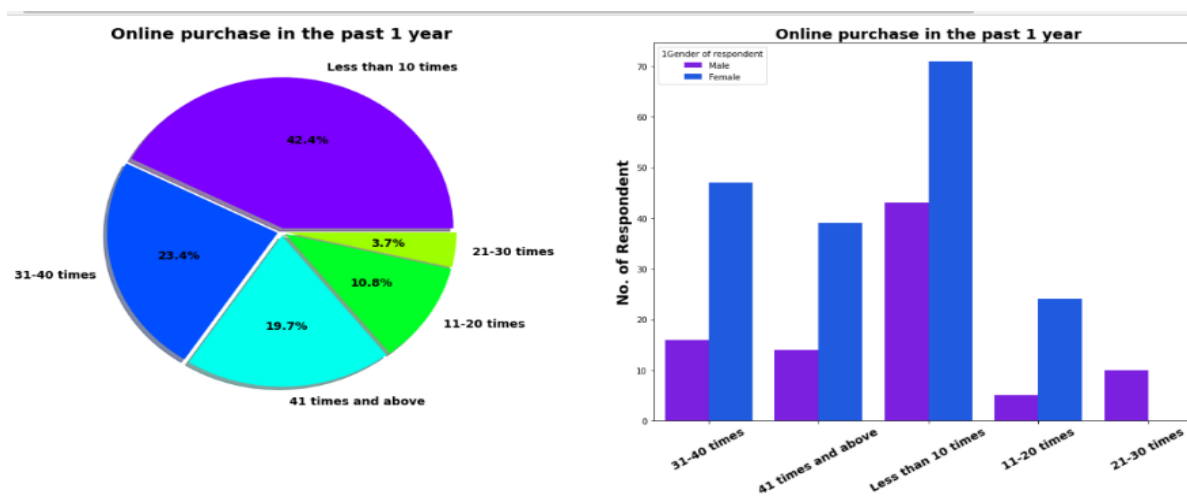
- The graph of female customers in between 3 – 4 years are also high . This means that female online shopping customers are increasing year by year

3 Which city do you shop online from?	Bangalore	Bulandshahr	Delhi	Ghaziabad	Greater Noida	Gurgaon	Karnal	Merrut	Moradabad	Noida	Solan	All
5 Since How Long You are Shopping Online ?												
1-2 years	0	2	1	5	0	0	0	0	0	2	6	16
2-3 years	14	0	13	5	4	7	2	3	0	9	8	65
3-4 years	8	0	8	0	7	1	8	1	0	10	4	47
Above 4 years	12	0	20	3	22	0	13	5	5	18	0	98
Less than 1 year	3	0	16	5	10	4	4	0	0	1	0	43
All	37	2	58	18	43	12	27	9	5	40	18	269

Observations :

- In teir 3 cities like Bulandshahar,Moradabad, Meerut , the Online shopping is very less.

Online Shopping in Previous Year



Observations :

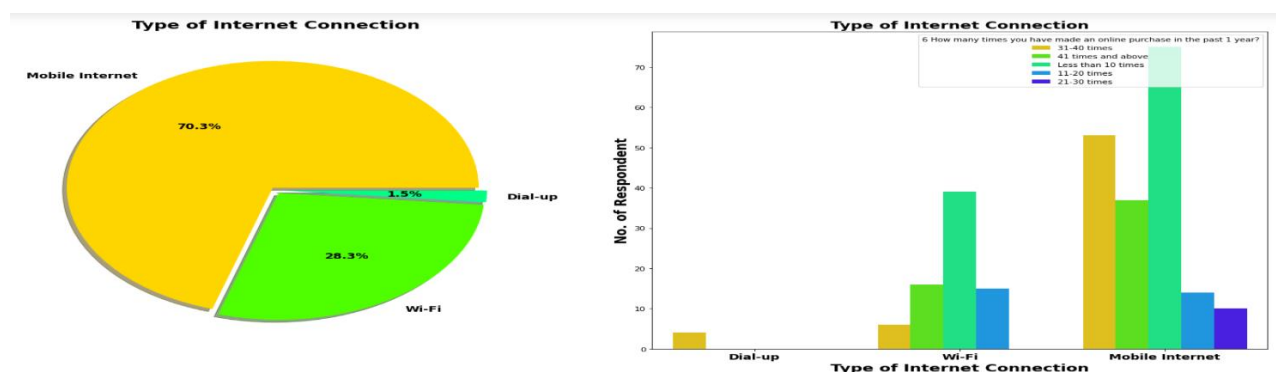
- 42.4 % customers in previous year made online shopping less than 10 times.
- 23.4 % customers done online purchasing in b/w 31 – 40 times.
- 19.7 % customers made online purchasing more than 41 times.
- Another interesting finding is that no woman made online shopping in b/w 21 – 30 times but are more in 31 – 40 and above category.

3 Which city do you shop online from?	Bangalore	Bulandshahr	Delhi	Ghaziabad	Greater Noida	Gurgaon	Karnal	Merrut	Moradabad	Noida	Solan	All
6 How many times you have made an online purchase in the past 1 year?												
11-20 times	12	0	1	1	10	0	0	1	0	3	1	29
21-30 times	0	0	1	0	0	0	0	0	5	4	0	10
31-40 times	11	0	12	10	11	1	10	6	0	2	0	63
41 times and above	2	0	16	3	16	0	5	1	0	10	0	53
Less than 10 times	12	2	28	4	6	11	12	1	0	21	17	114
All	37	2	58	18	43	12	27	9	5	40	18	269

Observations ;

- We can see that most of customer making purchase for 41 times & more comes from city Delhi, Greater Noida, Noida.

Type Of Connectivity



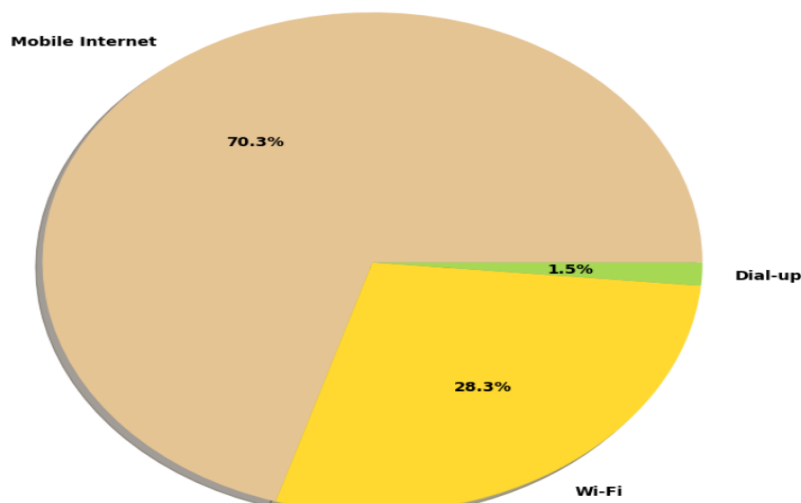
Observations :

- 70.3% Customers are mobile internet user followed by WiFi User.
- We can see that all customers who made online shopping for 41 times & more are using Mobile internet.
- Only 4 user are using Dial up Connection and all of them made online shopping for less than 10 times.

Technological Aspects of Internet Services & Devices

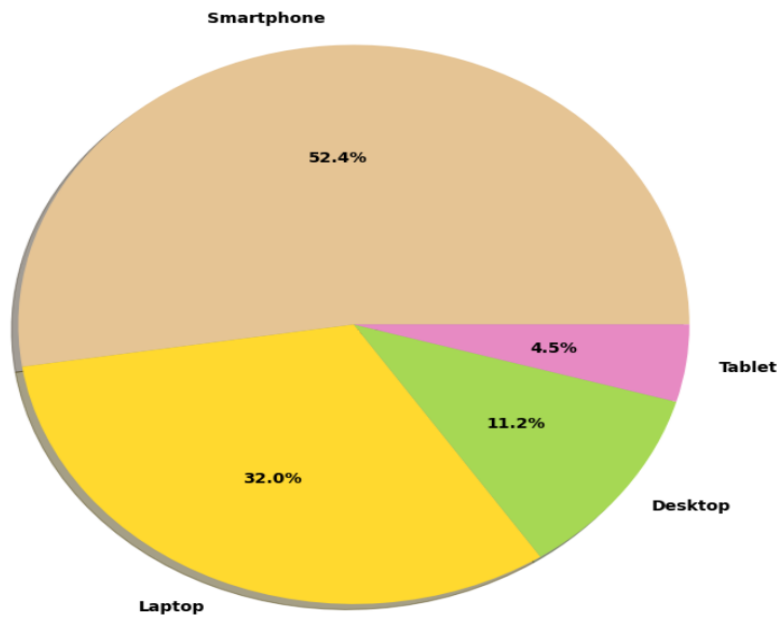
```
Feature_1 = ['7 How do you access the internet while shopping on-line?', '8 Which device do you use to access the online shopping?', '9 What is the screen size of your mobile device?', '10 What is the operating system (OS) of your device?', '11 What browser do you run on your device to access the website?', '12 Which channel did you follow to arrive at your favorite online store for the first time?', '13 After first visit, how do you reach the online retail store?']
```

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

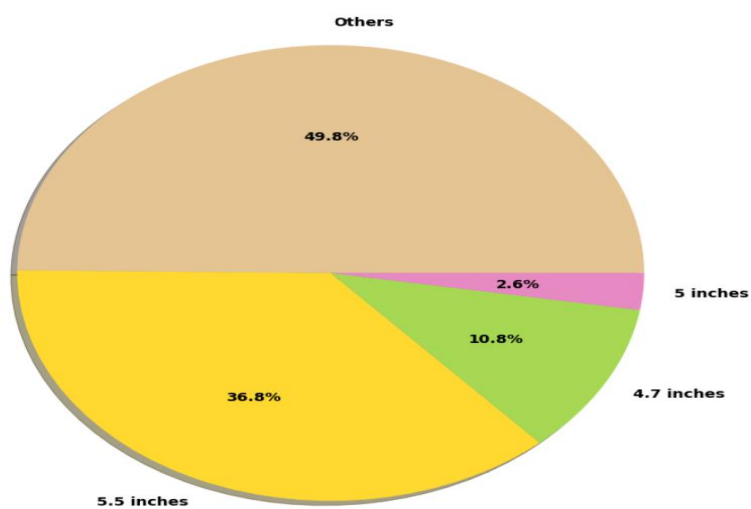


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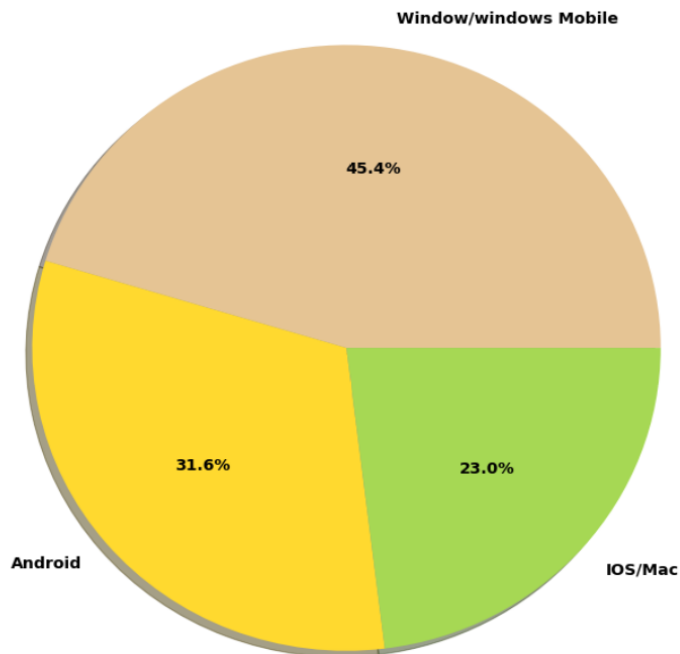
8 Which device do you use to access the online shopping?



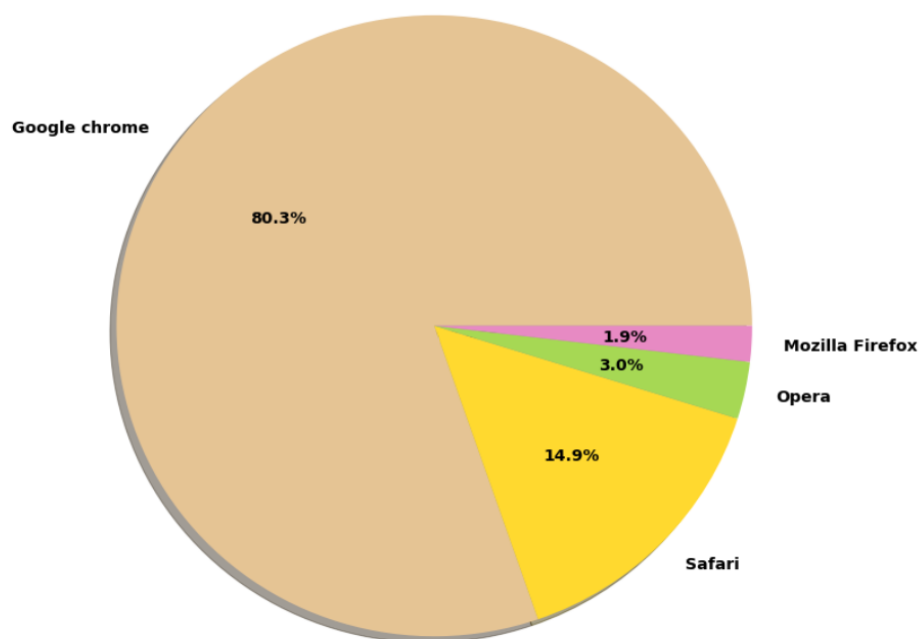
9 What is the screen size of your mobile device?



10 What is the operating system (OS) of your device?

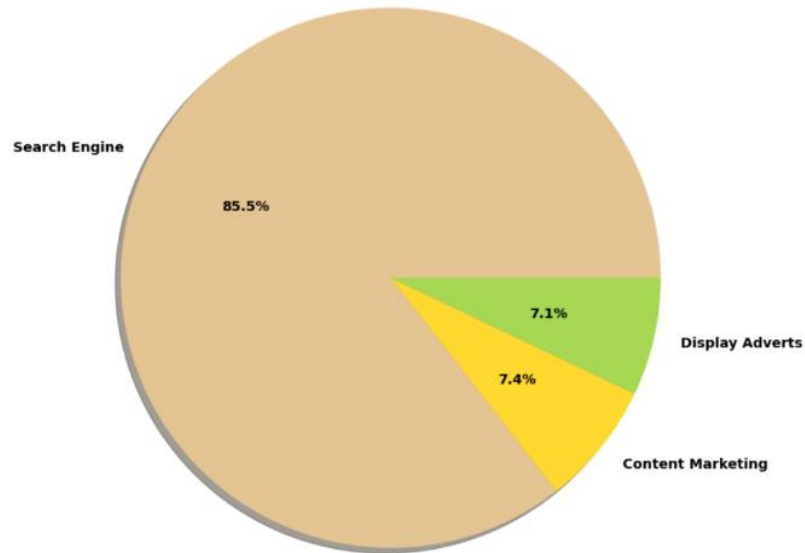


11 What browser do you run on your device to access the website?

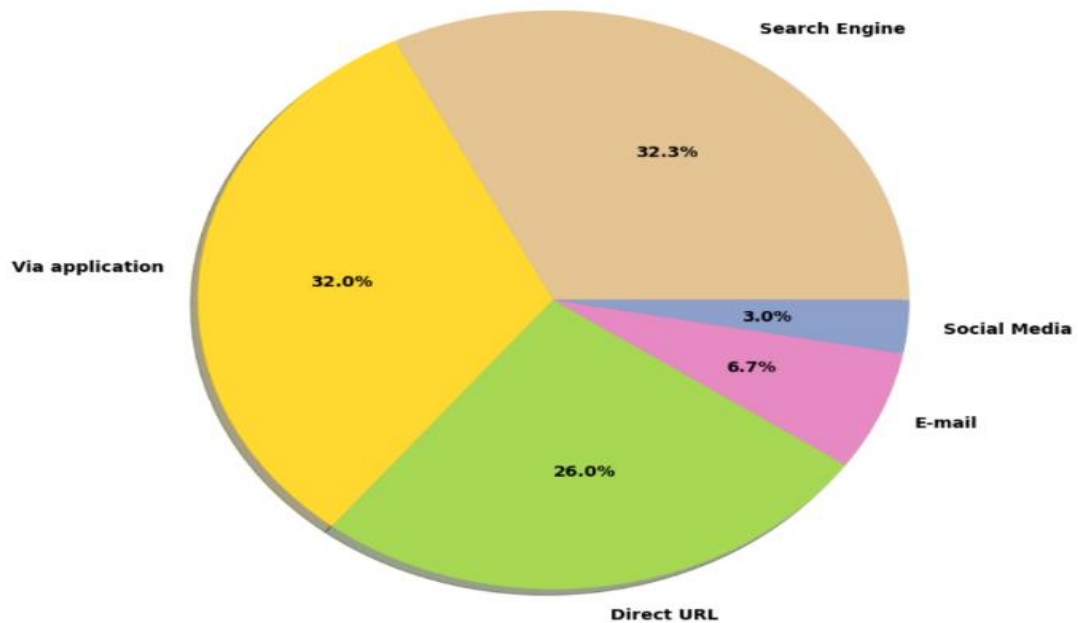


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12 Which channel did you follow to arrive at your favorite online store for the first time?



13 After first visit, how do you reach the online retail store?



Observations :

- 70.3% Customer uses mobile internet for shopping.
- 52.4% Uses Smartphone followed by Laptop for online shopping.
- Company can make device-oriented marketing strategy for different customers as per use of device.
- Not all user uses smartphone for so we do not have screen size details of other user.
- Out of 52.4% Mobile users' majority have 5.5- inch mobile display screen
- 45.4% customer have Windows operating system on their smartphone & laptop. Followed by it around 31.6% customer uses Android as OS which can come from both smartphone & Tablet.
- We can say that in terms of browser google chrome dominate market.
- We can see 85.5 % of Customer arrived on shopping platform through search engine. Ads & Marketing campaign are not bringing much lead.
- Most of customer who made online purchase because they want to buy product or due to discount on online shopping.
- After 1st Purchase 32% customer visit online store through mobile application and 32.3% by search engine.

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3]: 10 What is the operating system (OS) of your device? Android IOS/Mac Window/windows Mobile All

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

Desktop	0	0	30	30
Laptop	0	2	84	86
Smartphone	73	60	8	141
Tablet	12	0	0	12
All	85	62	122	269

Observations :

- Tablet with IOS operating system is used by none.
- We already know 45.4% Customer uses Windows OS and here we can see that almost all them come from desktop & laptop user.
- Surprising only 2 Customer with Apple laptop and no customer with Apple desktop.
- 73 customers using android and 60 customers using Apple iPhone

.]: 8 Which device do you use to access the online shopping? Desktop Laptop Smartphone Tablet All

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

Dial-up	4	0	0	0	4
Mobile Internet	26	53	104	6	189
Wi-Fi	0	33	37	6	76
All	30	86	141	12	269

Observations :

- No desktop with Wi-Fi Connectivity.

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- All 30 desktop users are using mobile internet or dialup connection. •
- Out of 141 Smartphone users 104 using mobile internet while rest using Wi-Fi.
- We know that in first visit 85% Customer (230 Customer out of 269) came through search engine, here we are trying to figure after 1st visit how many of them reach by others channels like apps or email marketing.

13 After first visit, how do you reach the online retail store? Direct URL E-mail Search Engine Social Media Via application All

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

Content Marketing	0	0	5	0	15	20
Display Adverts	11	0	0	8	0	19
Search Engine	59	18	82	0	71	230
All	70	18	87	8	86	269

Observations :

- For 2ed & afterward visit 71 customer arrived online store via application, followed by 59 via Direct URL & 18 Customer Via Promotional Email Marketing.
- Display adverts have very poor performance in landing customer on online store. Similar with Social Media marketing.
- For 2ed Purchase no one landed through display adverts on search engine.
- It is strong recommendation to companies that Do not spend more money over social media marketing & Display Adverts in their Digital Marketing campaign instead of that focus on Search engine Optimization &

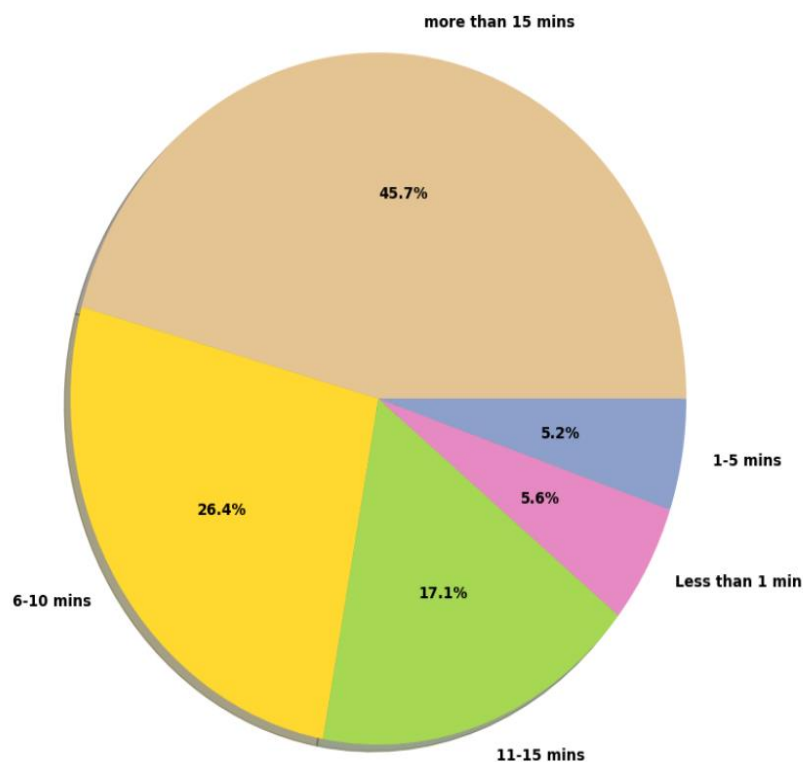
Email Marketing which will likely to be more effective to earlier.

Shopping Decision & Payment Features

```
Feature_2 = ['14 How much time do you explore the e- retail store before making a purchase decision?',  
             '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"?']
```

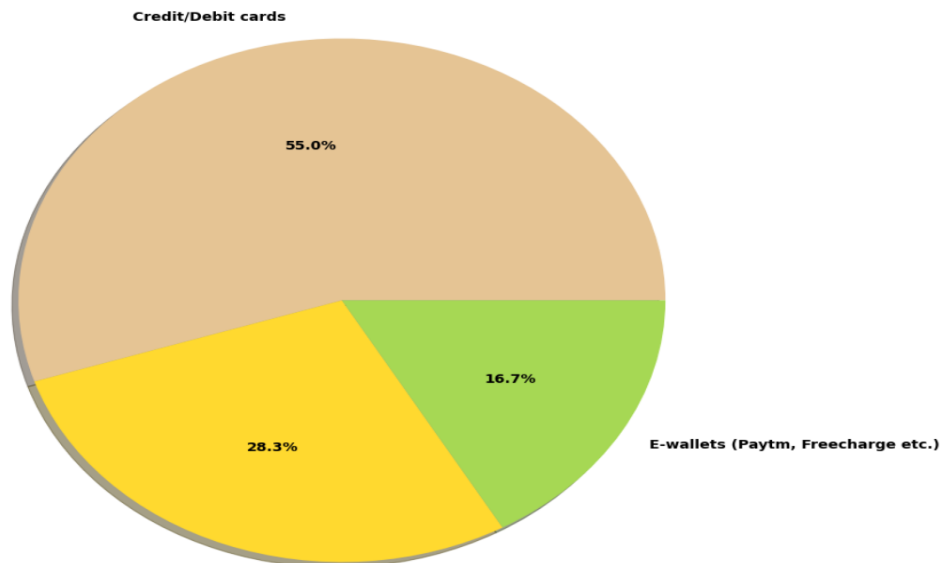
In this section we have categories feature related to purchase decision and payment method.

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

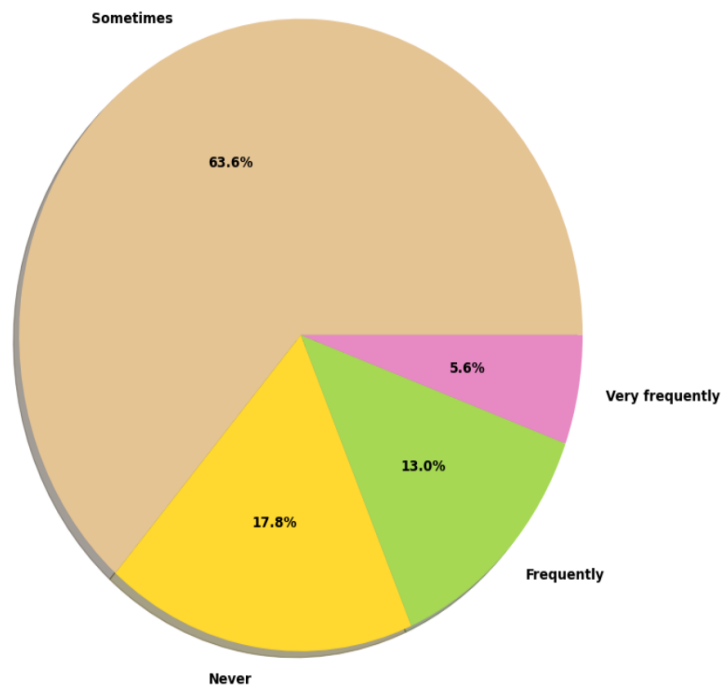


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15 What is your preferred payment Option?

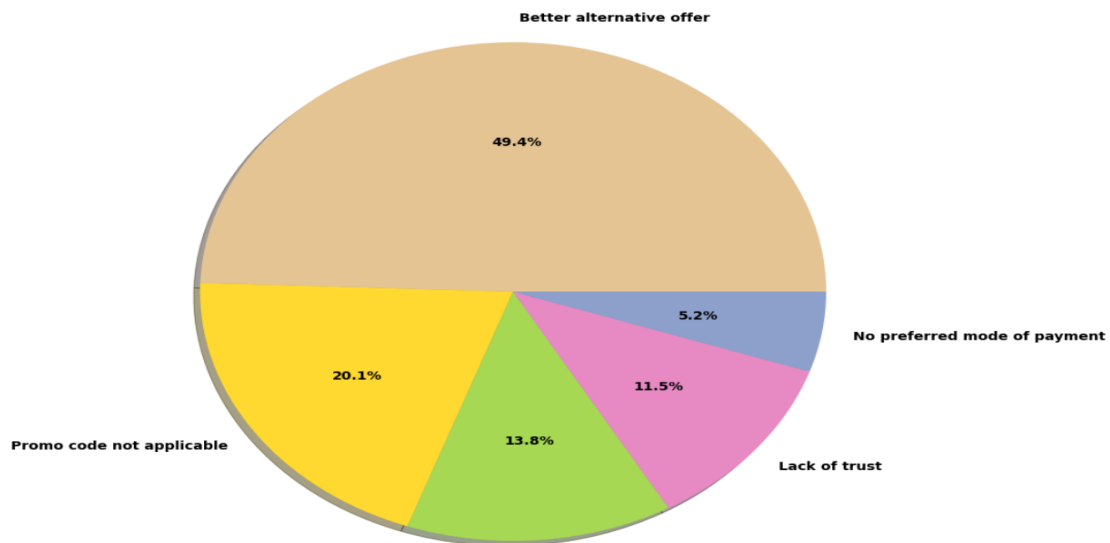


16 How frequently do you abandon (selecting an items and leaving without making payment) your shopping cart?



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



Observations :

- 45.7% of Customer spend more than 15 mins before making Purchase decision. Followed by the 17.1% customers with 11-15 mins before making purchase decision.
- We can see that 5.6% of customers purchase product less than 1 min. It will be interesting to find how many these customers made purchase in past 1 year.
- 55% of customer paid using credit/debit cards while 28.3% customers still prefer cash on delivery.
- We can see that 63.6% of customer add product in cart but later leave without making payment. Surprising there is category of 17.8% customer who never abandon product without making payment.
- In next pie chart depict reason why customer change buying decision.
- Around 50% customers abandon cart due to better alternative offer which is obvious reason.

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- Another most common reason to abandon purchase decision is promo code not applicable on particular product. Followed by next most common reason is change in price.
- If we add reason mention in previous point, we can conclude that 84% customer abandon cart due to cost & discount trade-off.

6 How many times you have made an online purchase in the past 1 year?	11-20 times	21-30 times	31-40 times	41 times and above	Less than 10 times	All
14 How much time do you explore the e- retail store before making a purchase decision?						
1-5 mins	0	0	2	3	9	14
11-15 mins	7	0	13	12	14	46
6-10 mins	2	5	17	13	34	71
Less than 1 min	0	3	5	0	7	15
more than 15 mins	20	2	26	25	50	123
All	29	10	63	53	114	269

Observations :

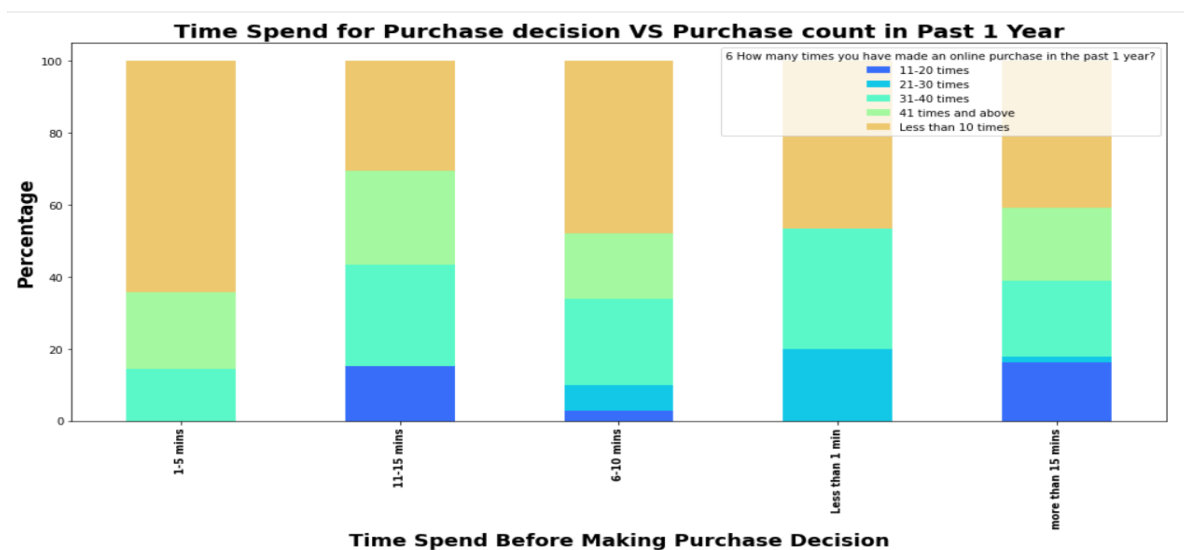
- Here comes interesting observation about Customer who are spending more than 15 mins before making any purchase decision, out 45.7% these customers around 25 customer done online shopping more than 41 times in past year.
- 15 Customer purchase shopping within less than 1 min, Majority of them ,7 customer made shopping less than 10 times in past year.

16 How frequently do you abandon (selecting an items and leaving without making payment) your shopping cart?	Frequently	Never	Sometimes	Very frequently	All
14 How much time do you explore the e- retail store before making a purchase decision?					
1-5 mins	0	0	14	0	14
11-15 mins	7	8	31	0	46
6-10 mins	0	25	46	0	71
Less than 1 min	0	7	8	0	15
more than 15 mins	28	8	72	15	123
All	35	48	171	15	269

Observations :

- 171 Customer out of total 269 customer Sometimes abandon shopping cart.
- Customer spend more than 15 mins (Count=123 Customer) on online shopping store before making purchase decision have More Tendency to Abandon .
- Customer who spends less than 5 mins before making purchase decision have seen with very less tendency to abandon cart, more specifically they never leave cart or rare abandon cart.

Time Spend for Purchase &Count.



Observations :

- Here comes interesting observation about Customer who are spending more than 15 mins before making any purchase decision.

- out 45.7% these customer around 25 customer done online shopping more than 41 times in past year.
- 15 Customer purchase shopping within less than 1 min, Majority of them ,7 customer made shopping less than 10 times in past year.

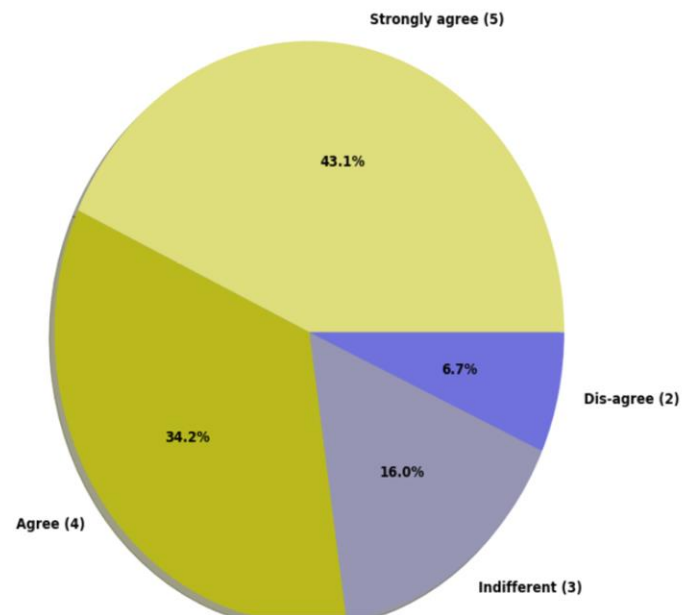
Exploration & Performance Analysis of Website.

- In this section we are going to analyse feature describing website usability & performance.

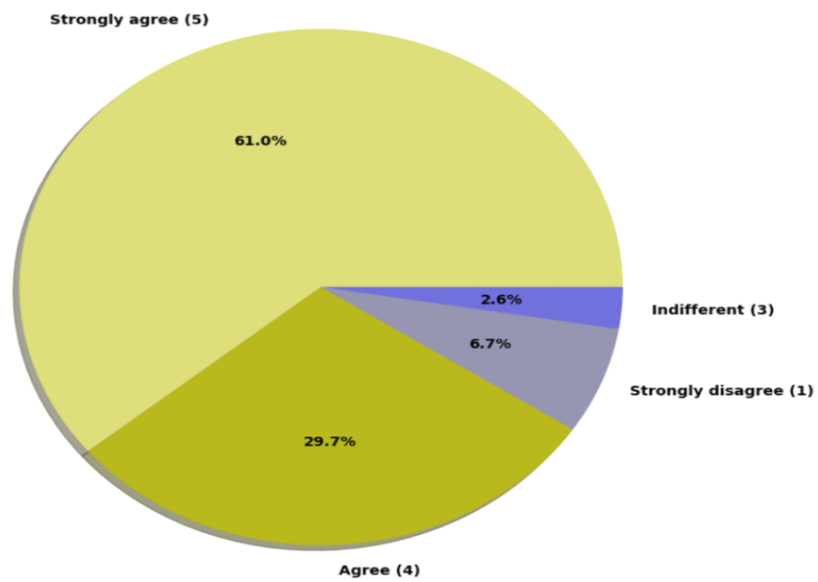
Following features, we have analysed in this section:

1. 18 The content on the website must be easy to read and understand
2. 19 Information on similar product to the one highlighted is important for product comparison
3. 20 Complete information on listed seller and product being offered is important for purchase decision.
4. 21 All relevant information on listed products must be stated clearly.
5. 22 Ease of navigation in website
6. 23 Loading and processing speed
7. 24 User friendly Interface of the website
8. 25 Convenient Payment methods
9. 26 Trust that the online retail store will fulfil its part of the transaction at the stipulated time.

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

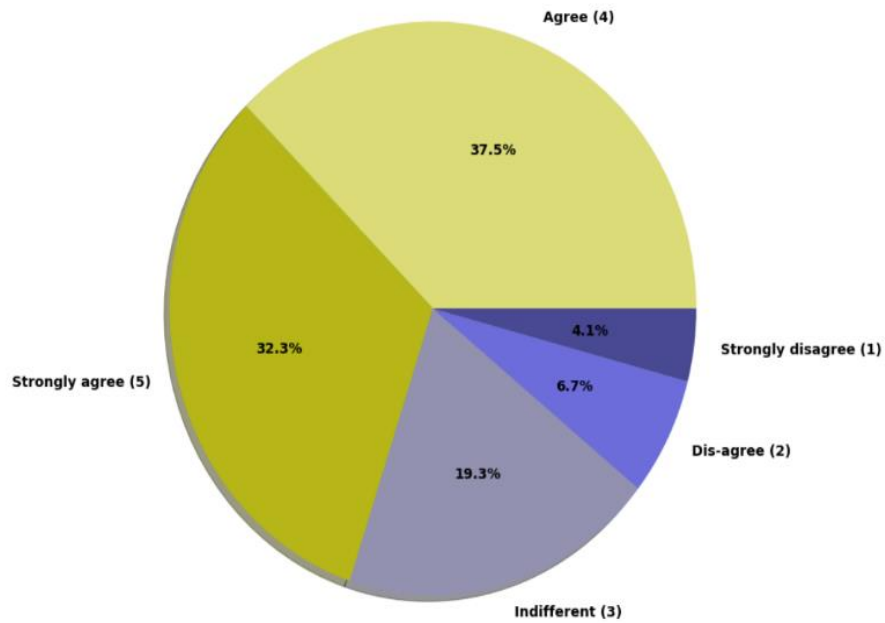


18 The content on the website must be easy to read and understand

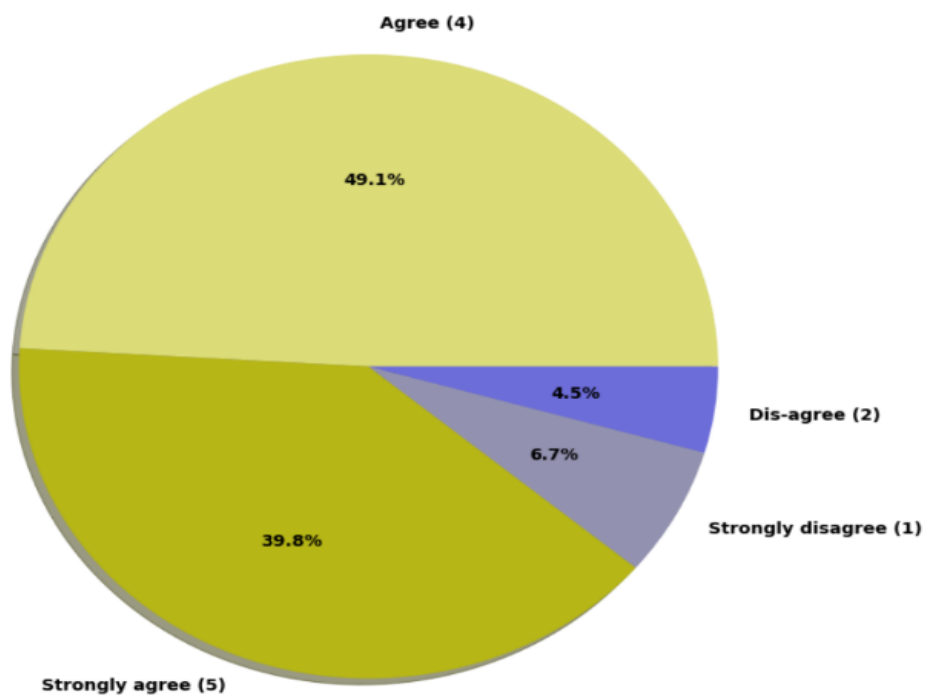


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20 Complete information on listed seller and product being offered is important for purchase decision.

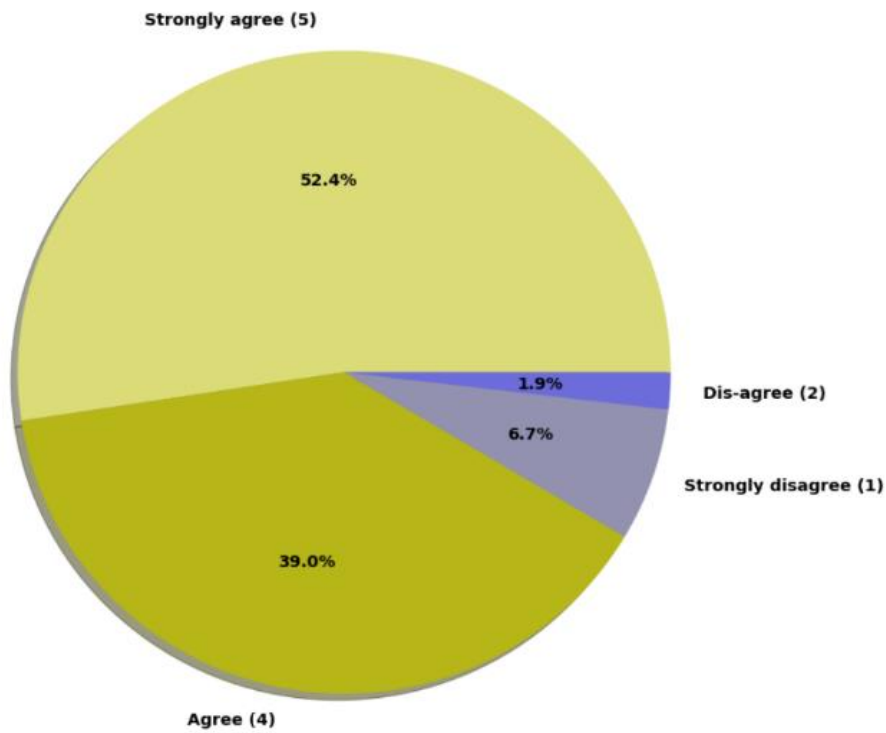


21 All relevant information on listed products must be stated clearly

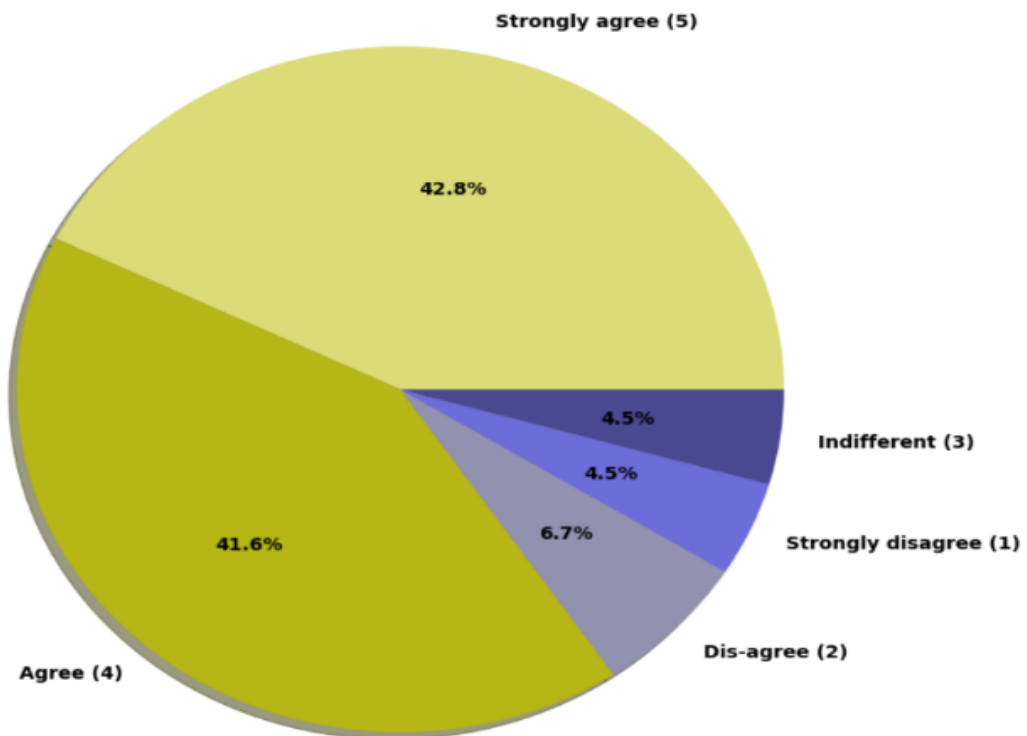


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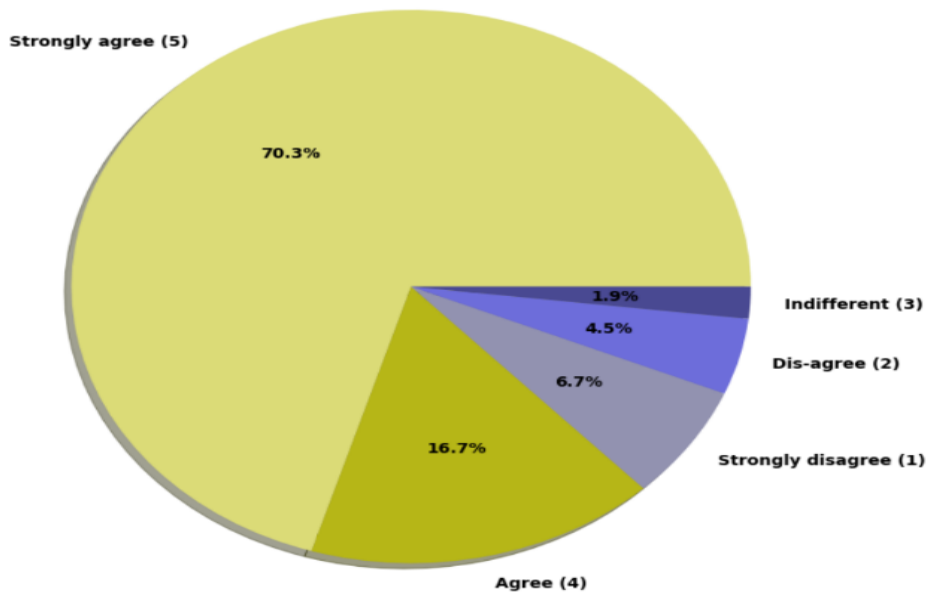
22 Ease of navigation in website



23 Loading and processing speed

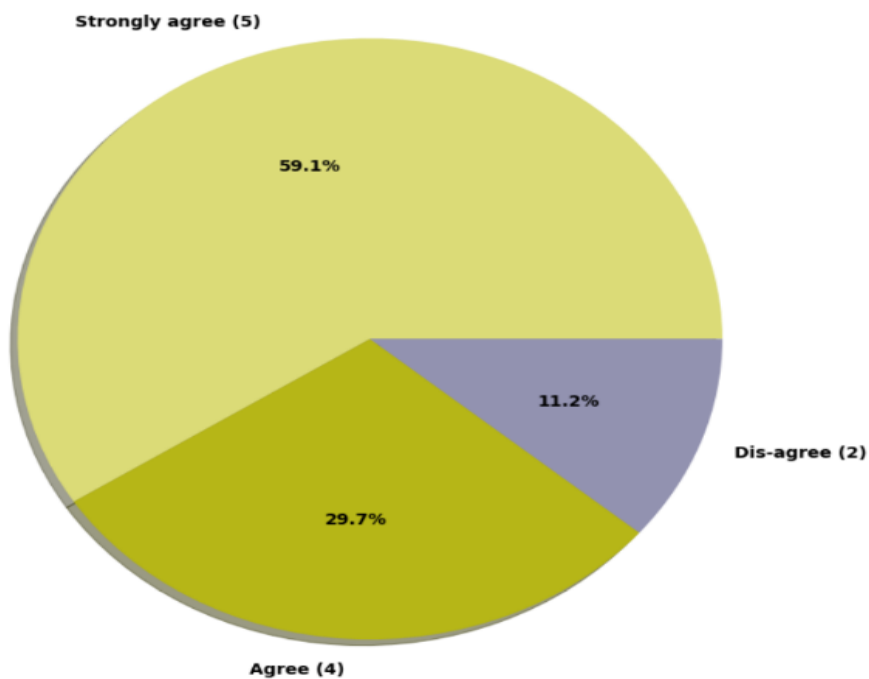


24 User friendly Interface of the website



00

25 Convenient Payment methods



Observations :

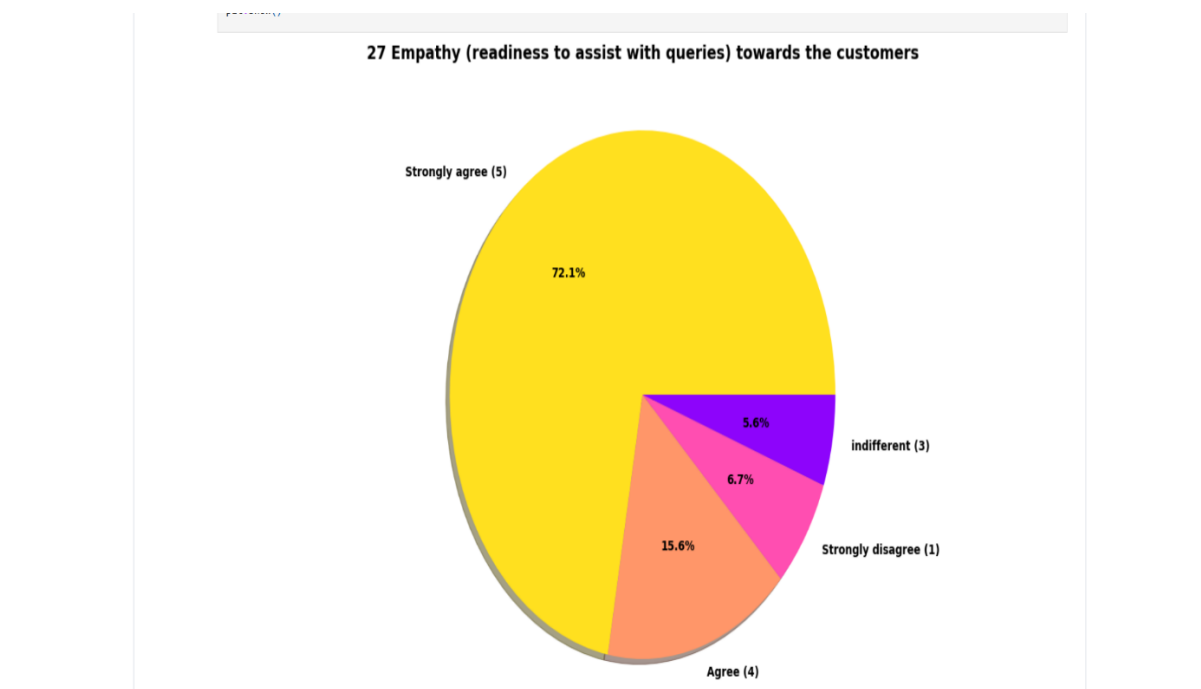
- 61 % customer strongly agree and 29.7% customer agree that content on website must be easy to read and understand. •

- 43.1% customer strongly agree and 34.2% customer agree that information on similar product to highlighted on website for product comparison.
- More than 60% of customer agree or strongly agree that complete information on listed seller and product being offered is important for purchase decision.
- More than 90% of customer agree or strongly agree that all relevant information on listed products must be stated clearly.
- Around 93% of customer agree or strongly agree that website should be easy for navigation.
- 42.8 % customer strongly agree and 41.6 % customer agree over high loading & processing speed.
- 70.3 % customer strongly agree and 16.7 % customer agree that website should be user friendly.

Exploration Of Online Shopping Store Customer Service Requirement Related Features

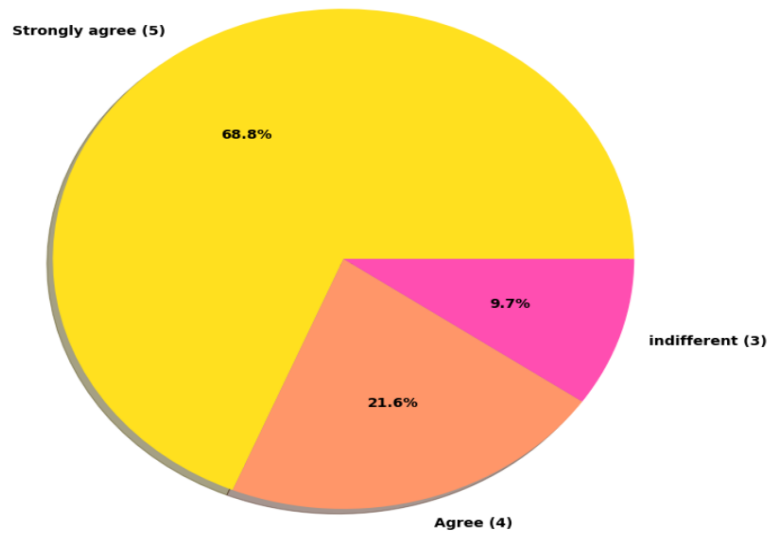
- In this section we will analyse features related to customer service & add on by ecommerce company like communication channel, readiness to resolve customer query.
- Following features, we have analysed in this section: 1.
- 27 Empathy (readiness to assist with queries) towards the customers
- 28 Being able to guarantee the privacy of the customer
- 3.

- 29 Responsiveness, availability of several communication channels (email, online rep, twitter, phone etc.).
- 30 Online shopping gives monetary benefit and discounts.
- 31 Enjoyment is derived from shopping online
- 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 .
- 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.

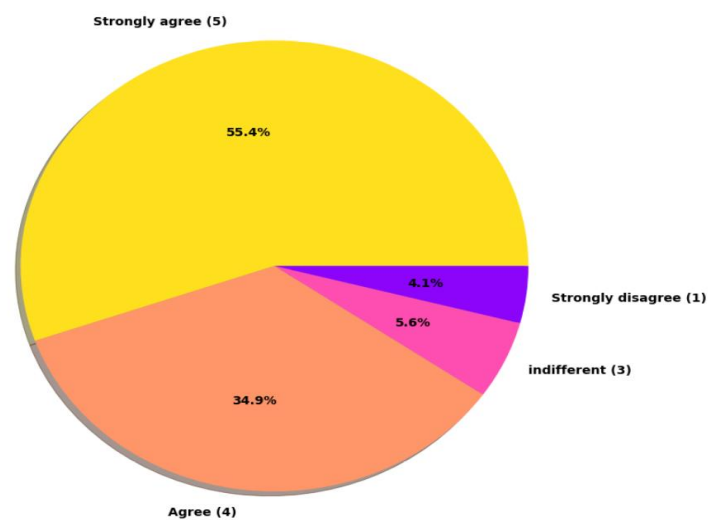


Project Report of Customer Retention Analysis in E Commerce

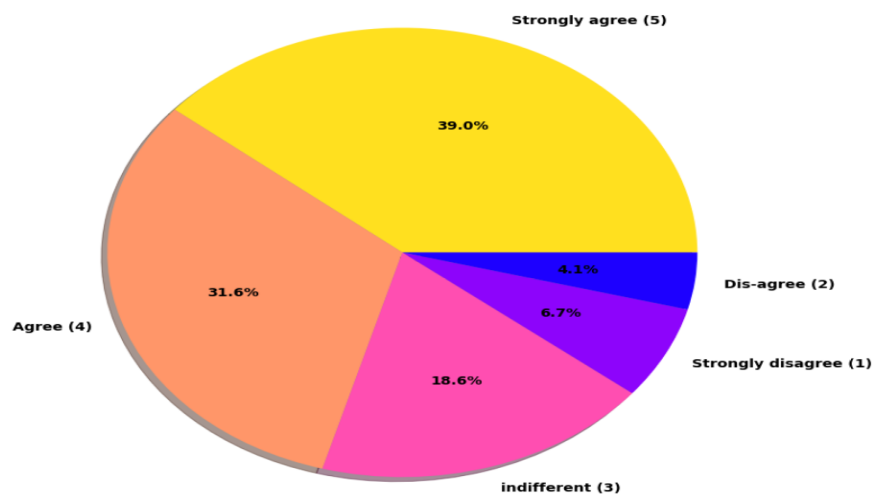
28 Being able to guarantee the privacy of the customer



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

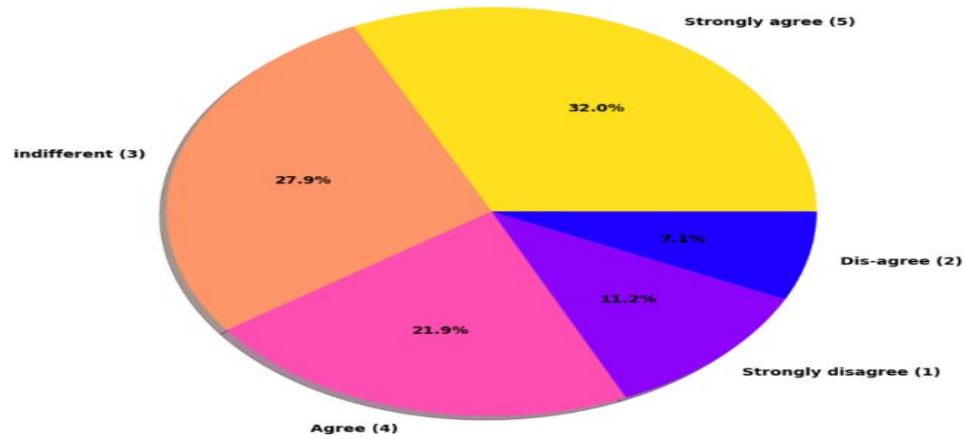


30 Online shopping gives monetary benefit and discounts

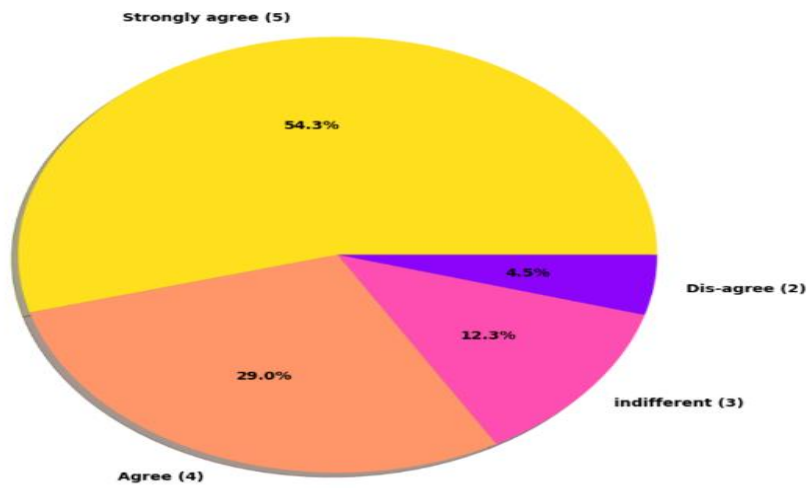


Project Report of Customer Retention Analysis in E Commerce

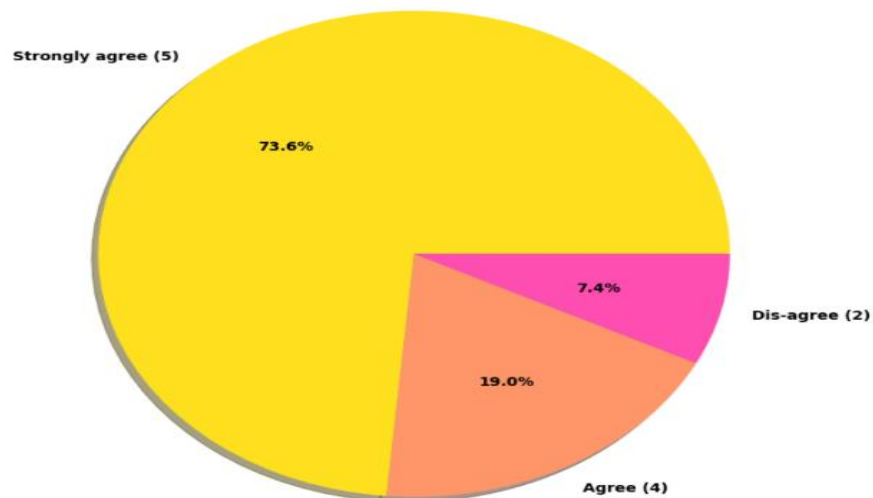
31 Enjoyment is derived from shopping online



32 Shopping online is convenient and flexible

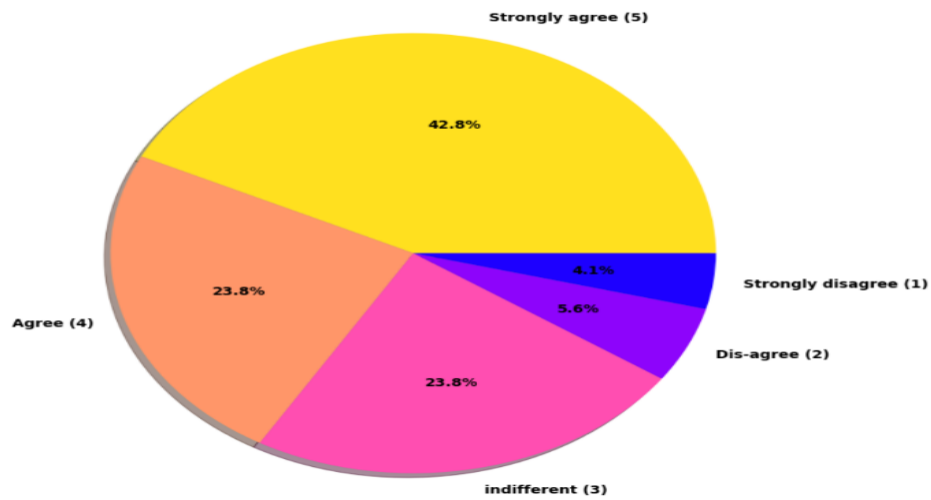


33 Return and replacement policy of the e-tailer is important for purchase decision

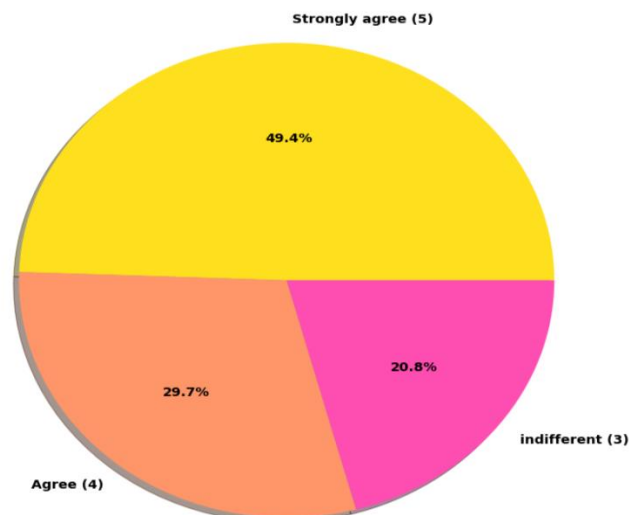


Project Report of Customer Retention Analysis in E Commerce

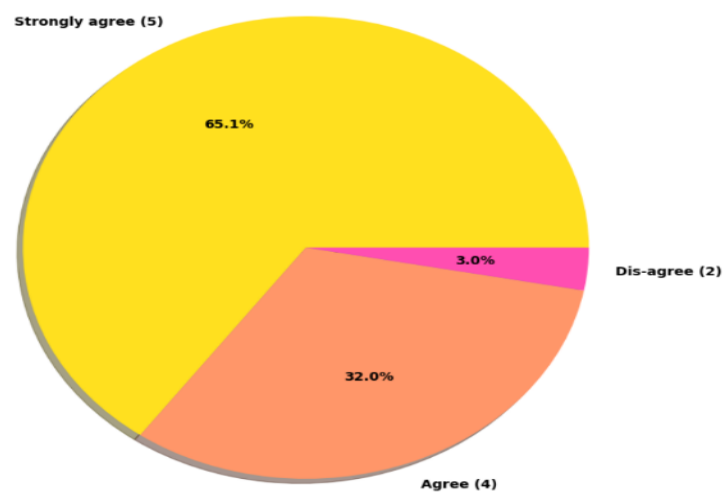
34 Gaining access to loyalty programs is a benefit of shopping online



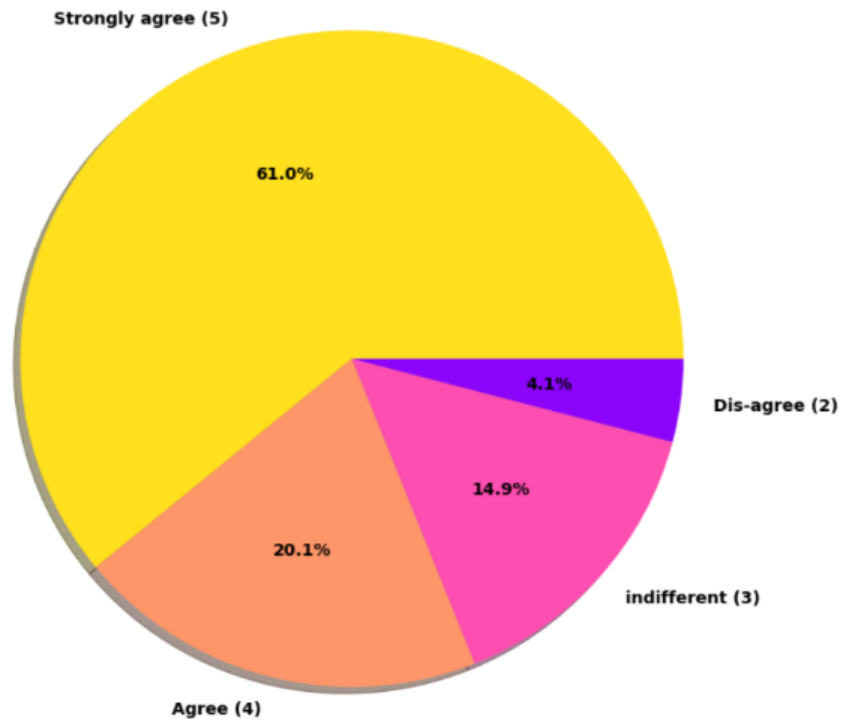
35 Displaying quality Information on the website improves satisfaction of customers



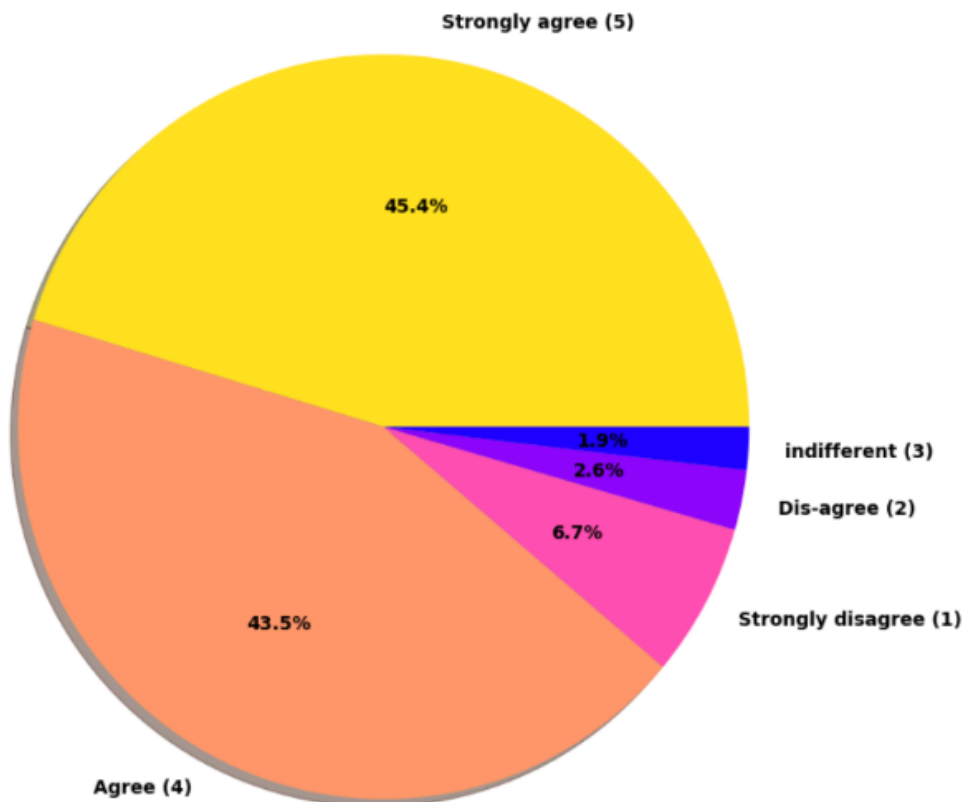
36 User derive satisfaction while shopping on a good quality website or application



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



38 User satisfaction cannot exist without trust



Observations :

- 72.1% Customer strongly agree thinks that company's readiness to assist customer queries related to product is important factor in purchase decision.
- Pie plot also show that being able to guarantee the privacy of the customer is important silent feature for product selection.
- Another most important for product companies is availability of communication channels.
- Most of people enjoy physical shopping, we can see that for 32% customer enjoyment from online shopping strongly matter and for around 46% customer this online shopping enjoyment do not matter.
- Online shopping is 24/7 available with lot of varieties of product and with product return facility.
- This led to thinking among almost 85 % of customer thinks, online shopping is convenient & flexible than physical shopping.
- 73.6% customer thinks that return & replacement policy of e-seller is important factor for making purchase decision
- . 49.4% customer strongly agree and 29.7% customer agree that displaying quality information on website helps in decision making in turn improves customer satisfaction

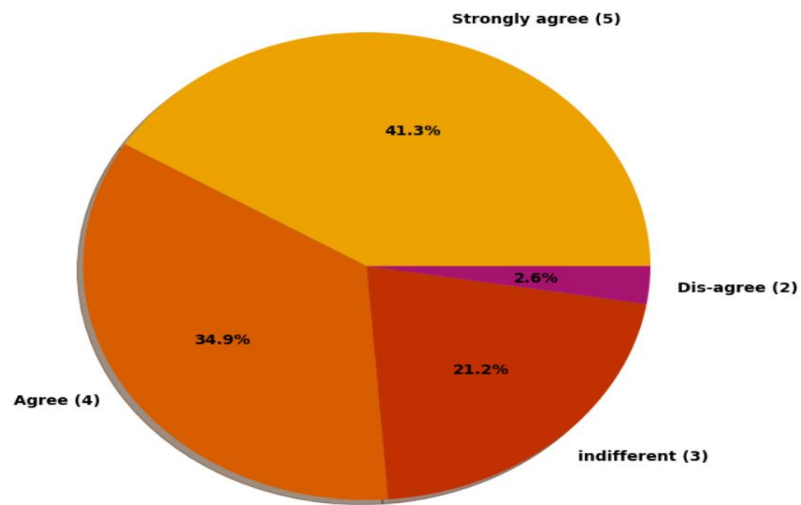
Exploring Feature Related to Customer Online Shopping Experiences

In this section we will analyze features related to Customer online shopping experiences like sense of adventure, monetary savings. Following features, we have analyzed in this section:

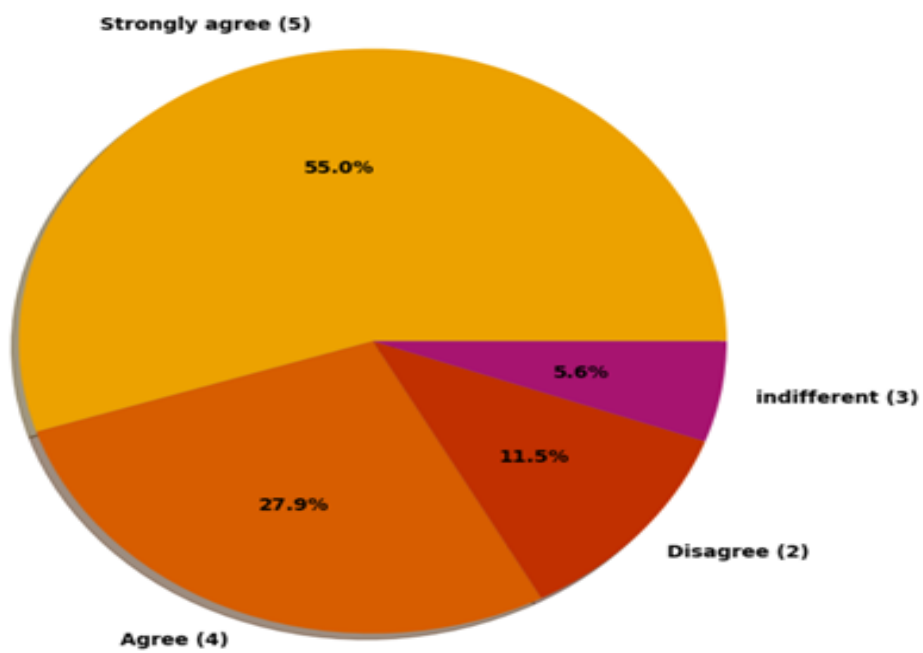
1. 39 Offering a wide variety of listed product in several category
2. 40 Provision of complete and relevant product information
3. 41 Monetary savings 4. 42 The Convenience of patronizing the online retailer
5. 43 Shopping on the website gives you the sense of adventure
6. 44 Shopping on your preferred e-tailer enhances your social status
7. 45 You feel gratification shopping on your favorite e-tailer
8. 46 Shopping on the website helps you fulfill certain roles 9. 47 Getting value for money spent .

Project Report of Customer Retention Analysis in E Commerce

39 Offering a wide variety of listed product in several category

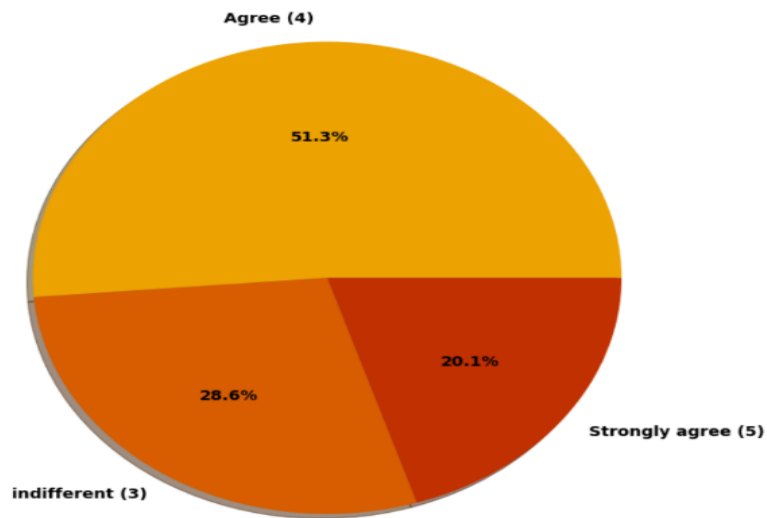


41 Monetary savings

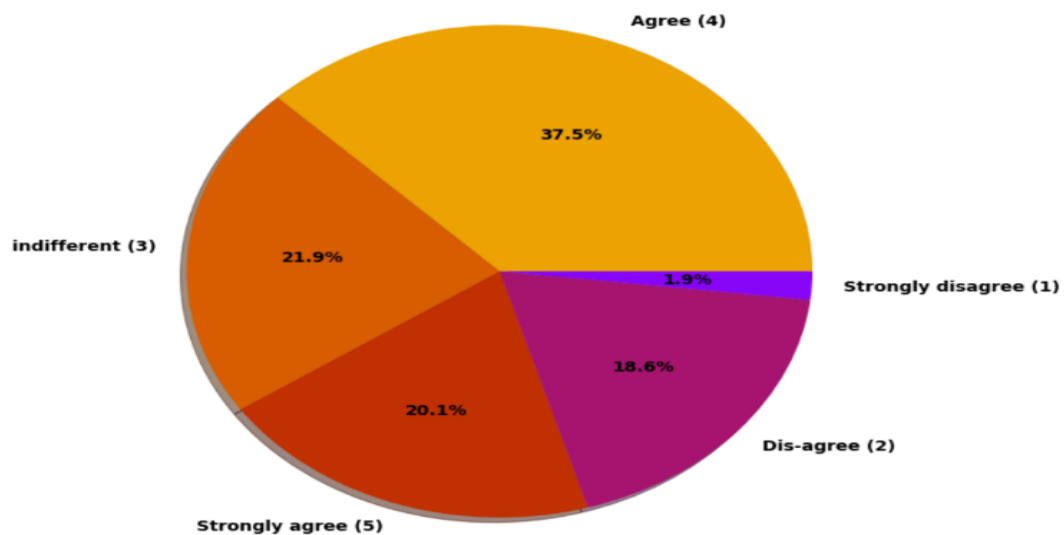


Project Report of Customer Retention Analysis in E Commerce

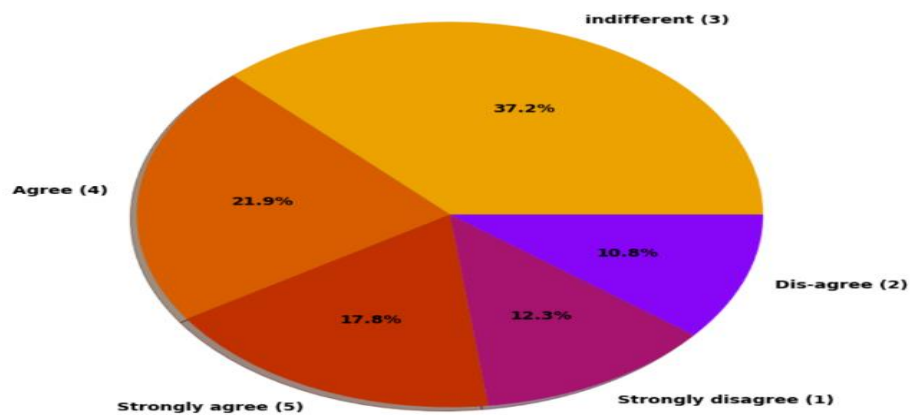
42 The Convenience of patronizing the online retailer



43 Shopping on the website gives you the sense of adventure

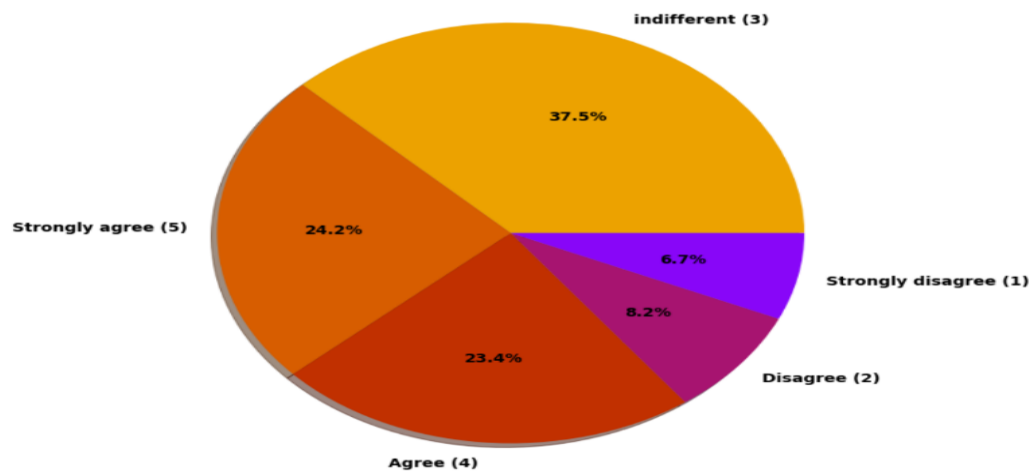


44 Shopping on your preferred e-tailer enhances your social status

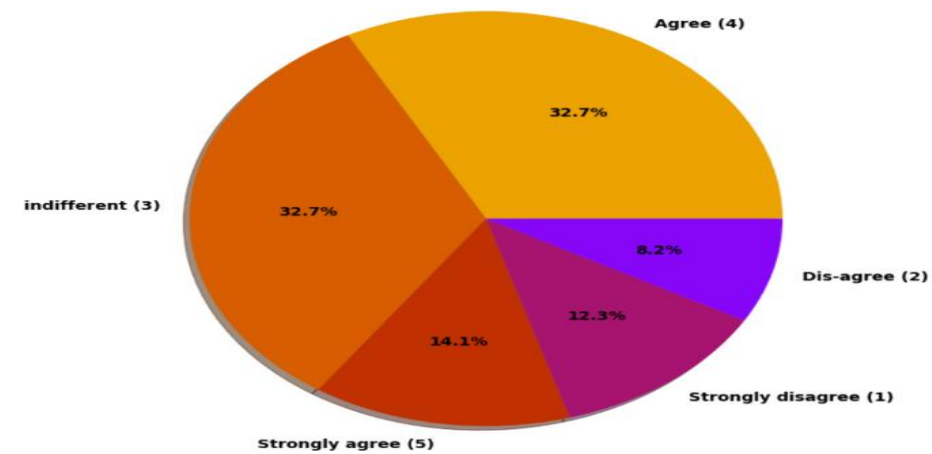


Project Report of Customer Retention Analysis in E Commerce

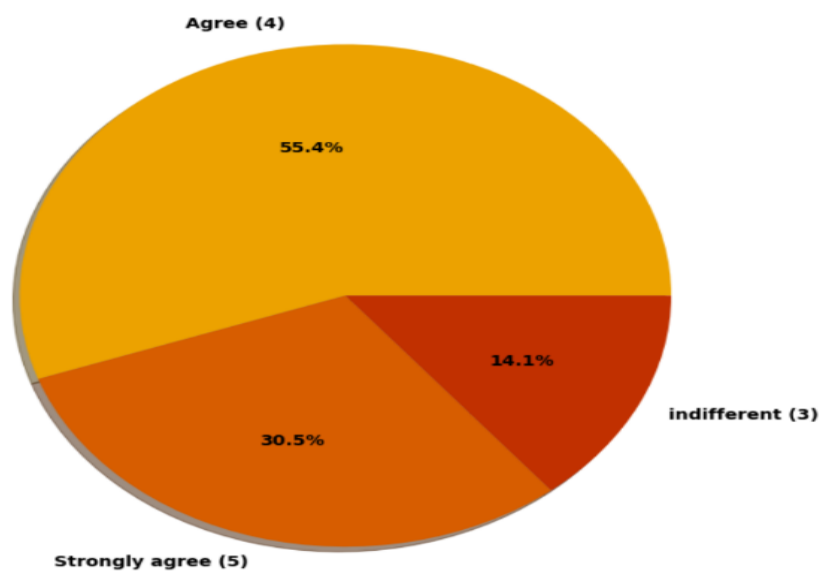
45 You feel gratification shopping on your favorite e-tailer



46 Shopping on the website helps you fulfill certain roles



47 Getting value for money spent



Observation:

- 50.2% Customer strongly agree & 36.4% customer agree that for good online shopping complete and relevant product information.
- Around 83% customer pursue online shopping for Monetary Savings.
- For 37.5 % customers Online shopping on website strongly gives the sense of adventure.
- We can see different peoples have different opinions about connection between e-tailer & social status. Same with gratification on favourite e-tailer.
- 55.4% people strongly agree and 30.5% people agree that they prefer online shopping because they get value of money spent.

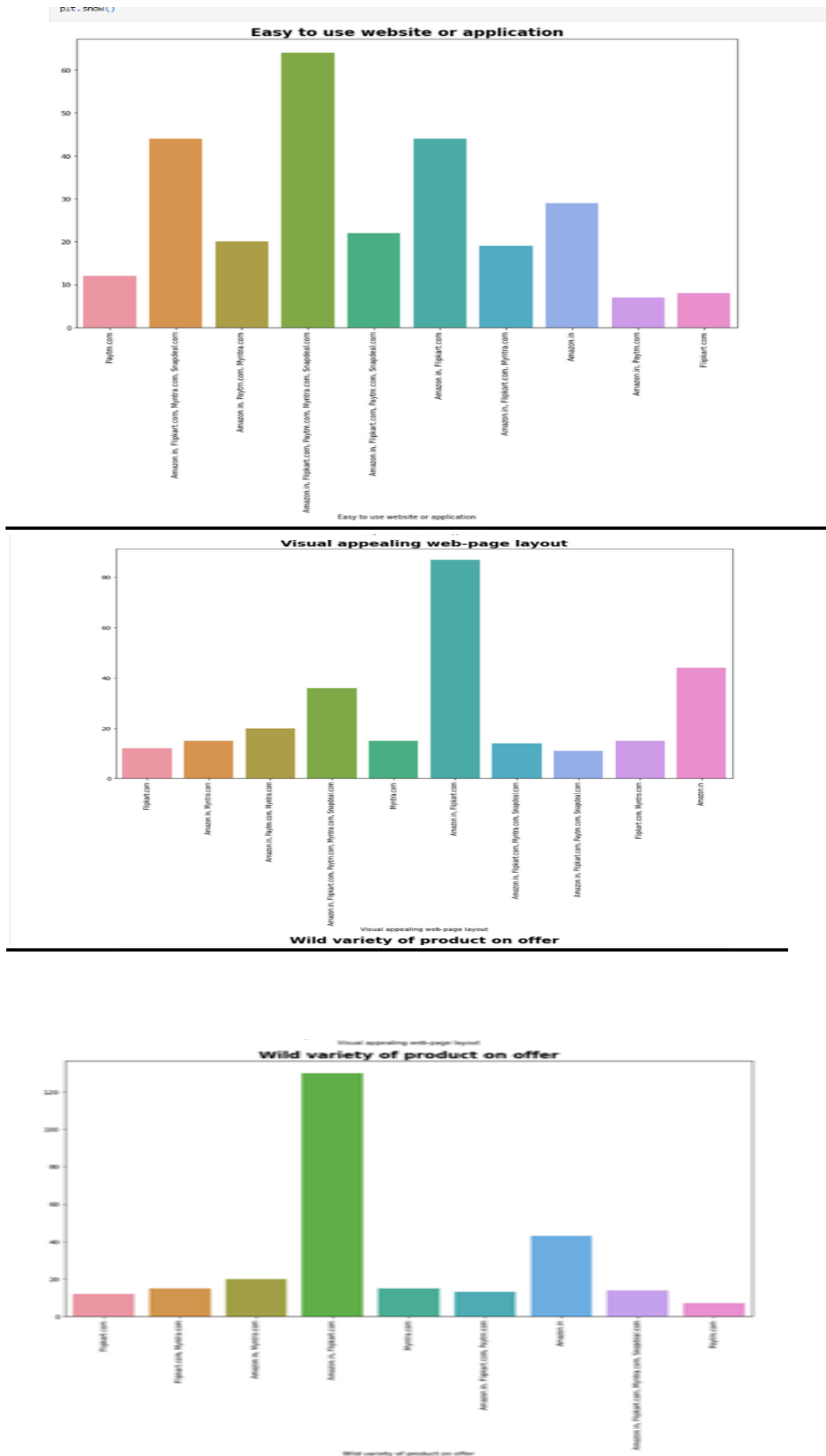
Exploring Opinion on Online Shopping Platform Websites by Customer

In this section we will analyse features related to website or application like performance, web layout. Following features, we have analysed in this section:

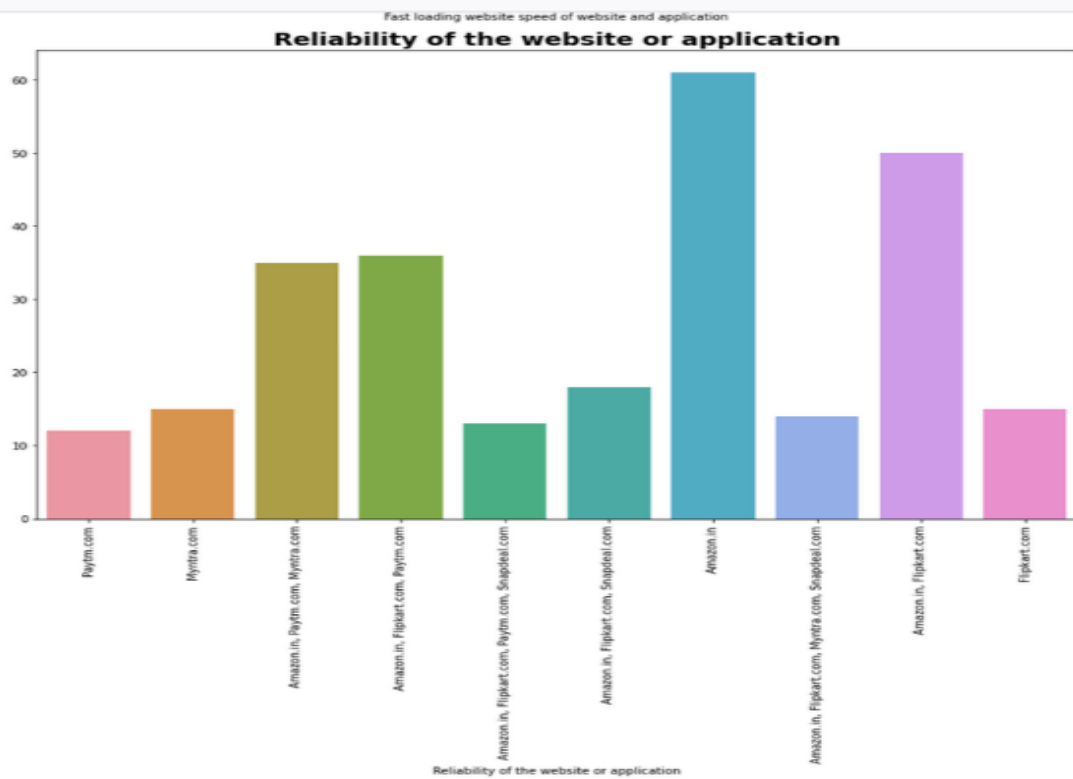
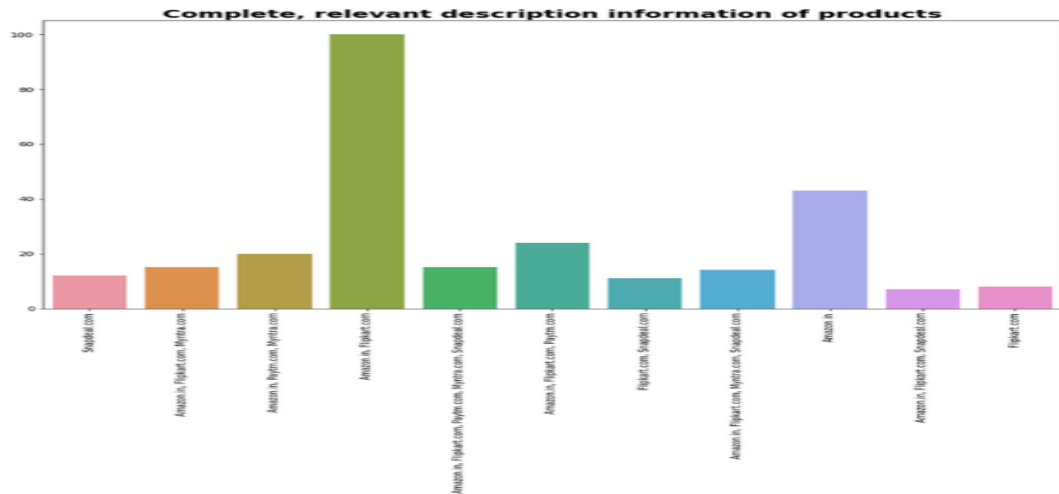
1. Easy to use website or application
2. Visual appealing web-page layout
3. Wild variety of product on offer
4. Complete, relevant description information of products
5. Fast loading website speed of website and application

6. Reliability of the website or application
7. Quickness to complete purchase
8. Availability of several payment options
9. Speedy order delivery
10. Privacy of customers' information
11. Security of customer financial information
12. Perceived Trustworthiness
13. Presence of online assistance through multi-channel
14. Longer time to get logged in (promotion, sales period)
15. Longer time in displaying graphics and photos (promotion, salesperiod)
16. Late declaration of price (promotion, sales period)
17. Longer page loading time (promotion, sales period)
18. Limited mode of payment on most products (promotion, salesperiod)
19. Longer delivery period
20. Change in website/Application design
21. Frequent disruption when moving from one page to another
22. Website is as efficient as before
23. Which of the Indian online retailer would you recommend to afriend

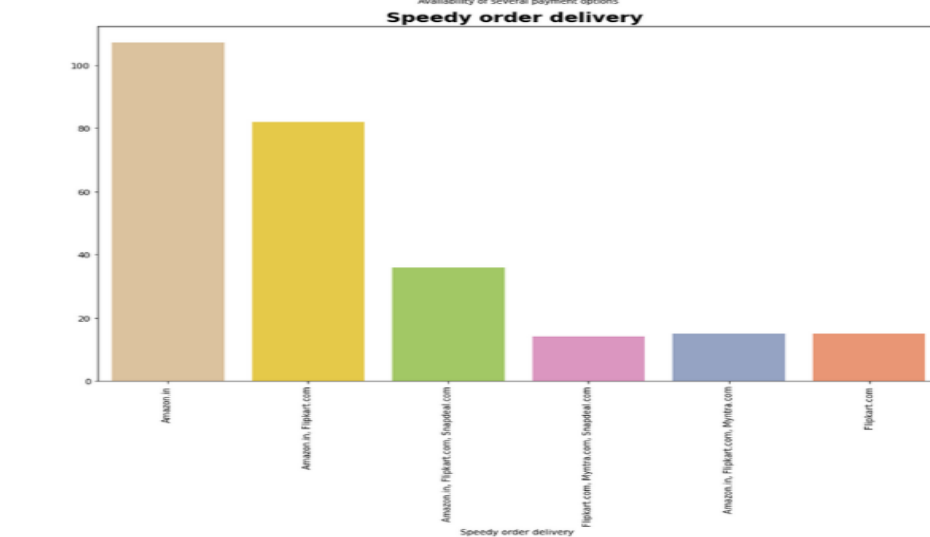
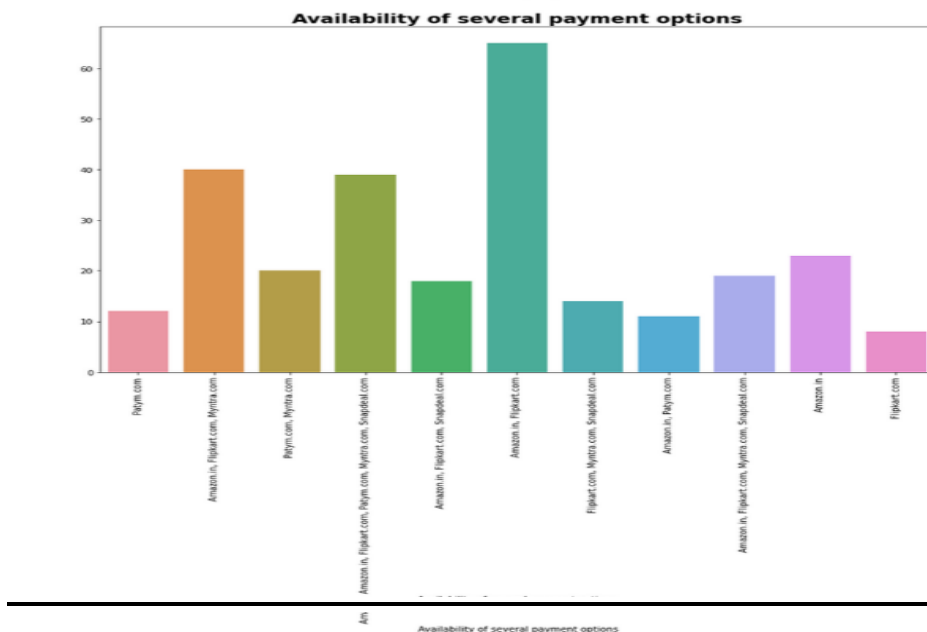
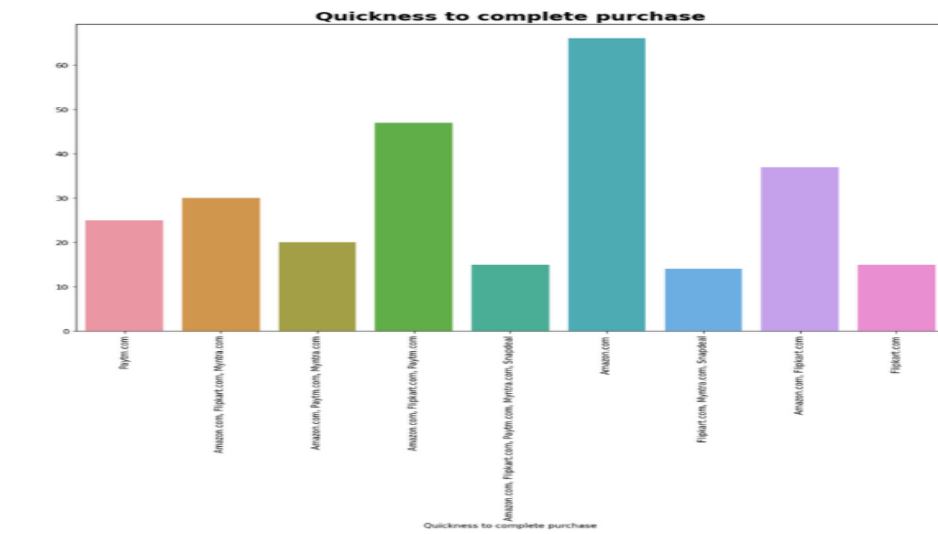
Project Report of Customer Retention Analysis in E Commerce



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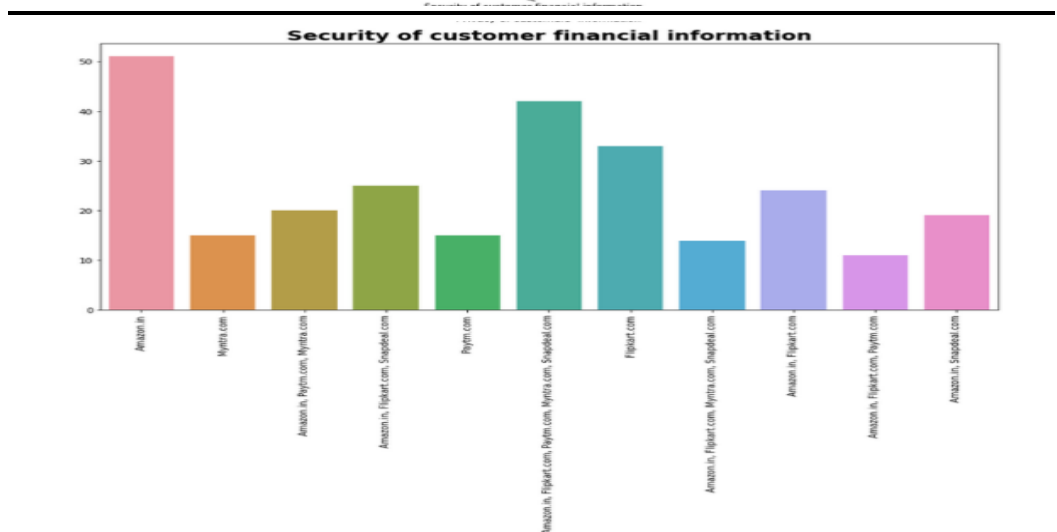
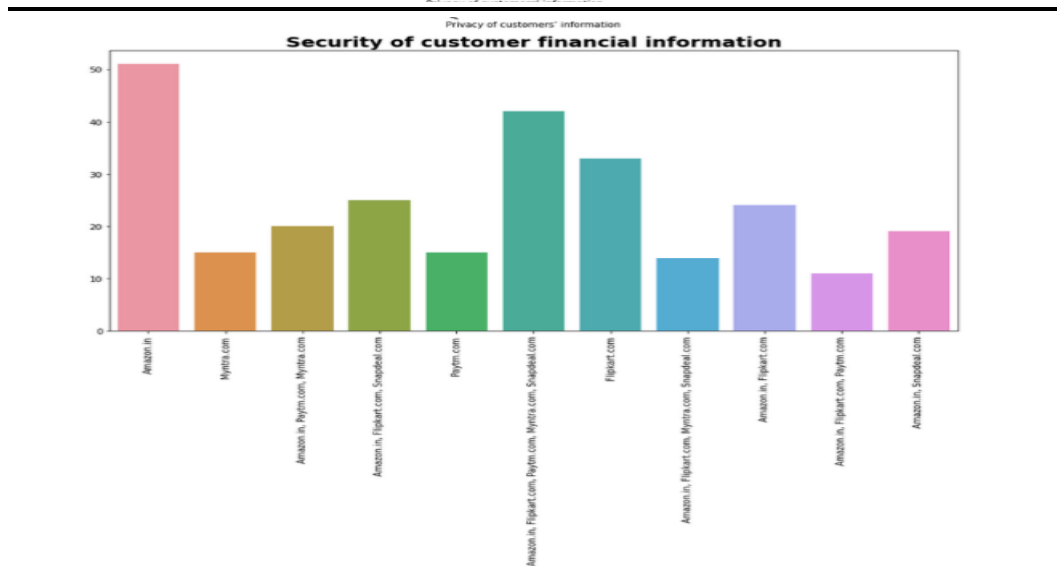
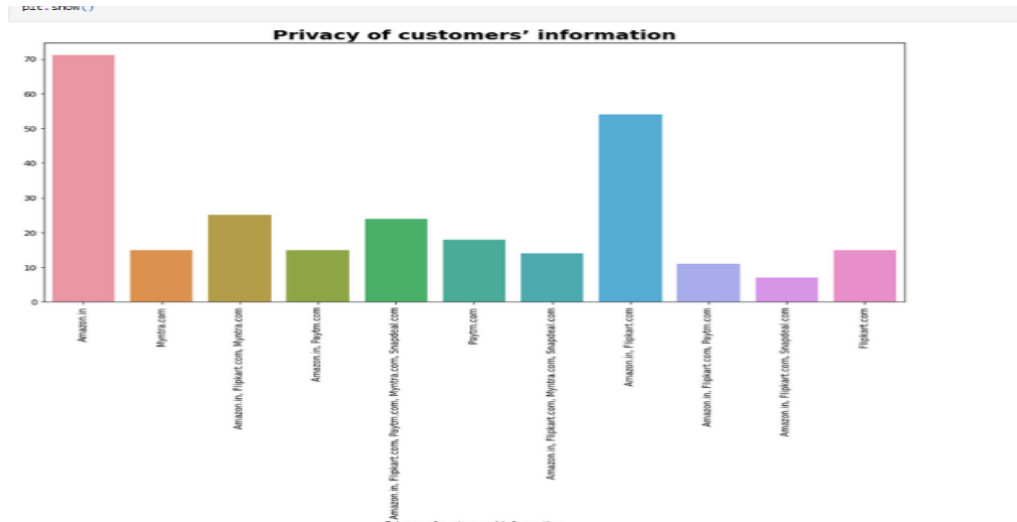


Observations :

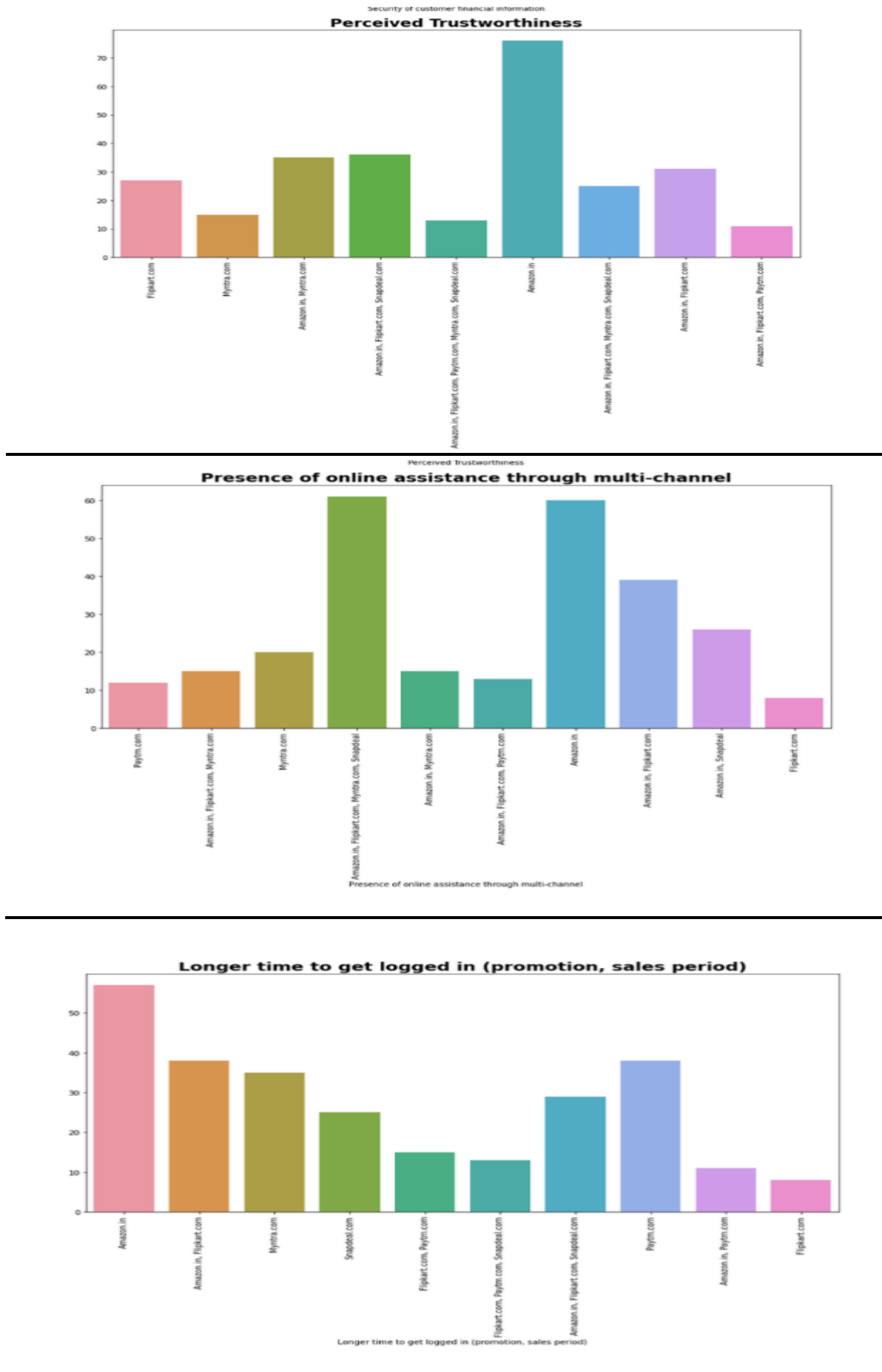
- Majority, 64 customers agree that Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are Easy to use website or application.
- Overall if we look at countplot of easy to use application & website Amazon.in got individually 1st Rank.
- 87 customers agree that Amazon.in, Flipkart.com have Visual appealing web-page layout than most of other market players.
- Around according to 125 people Amazon.in, Flipkart.com provides wide variety of offer on product.
- We already know 50.2% Strongly agree over providing complete relevant product information, and here we can see that 100 customer think that Amazon.in, Flipkart.com provides complete information compare to others. Previously we know that 42.8 % customer strongly agree and 41.6 % customer agree over high loading & processing speed of website. Here we can see Majority of people think that loading speed of Amazon.in is fastest while Flipkart.com slowest website to load. In terms of Reliability of website or application again Amazon top list. Majority of people also think that Amazon.in tops the chart in terms of quickness purchase process compare to others. Majority of customers think that Amazon.in, Flipkart.com provides several payment options compare to others.
- Safe & Speed delivery very much deciding factor in terms of purchase.

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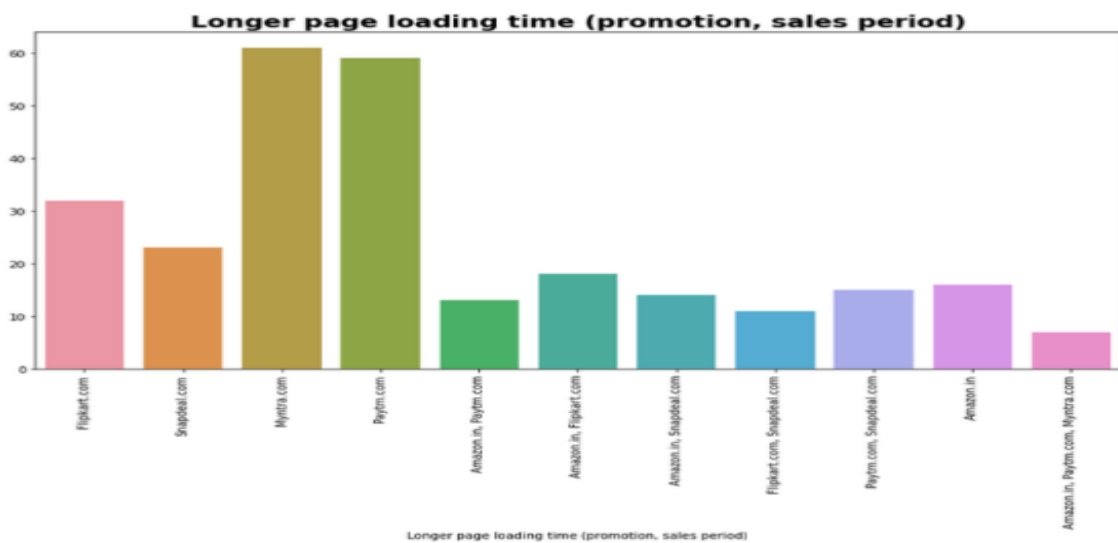
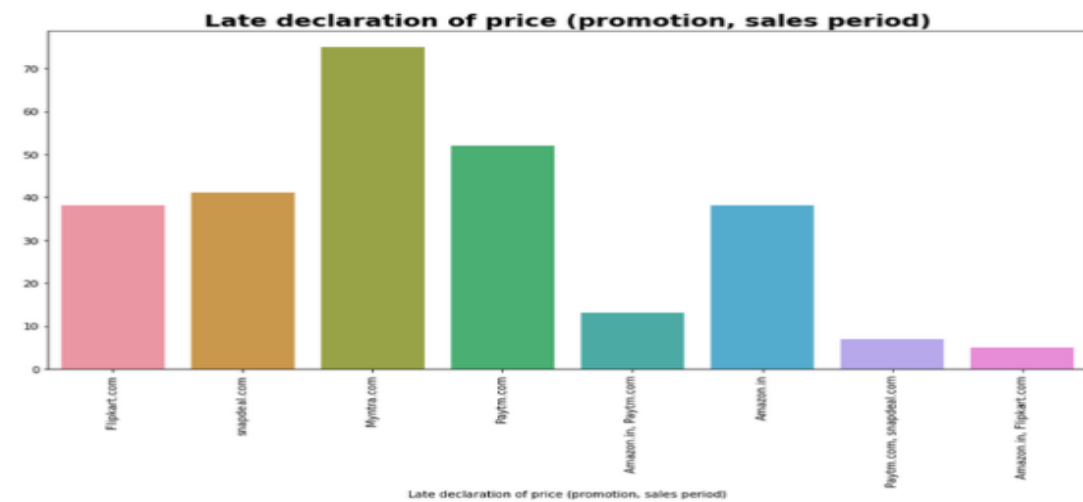
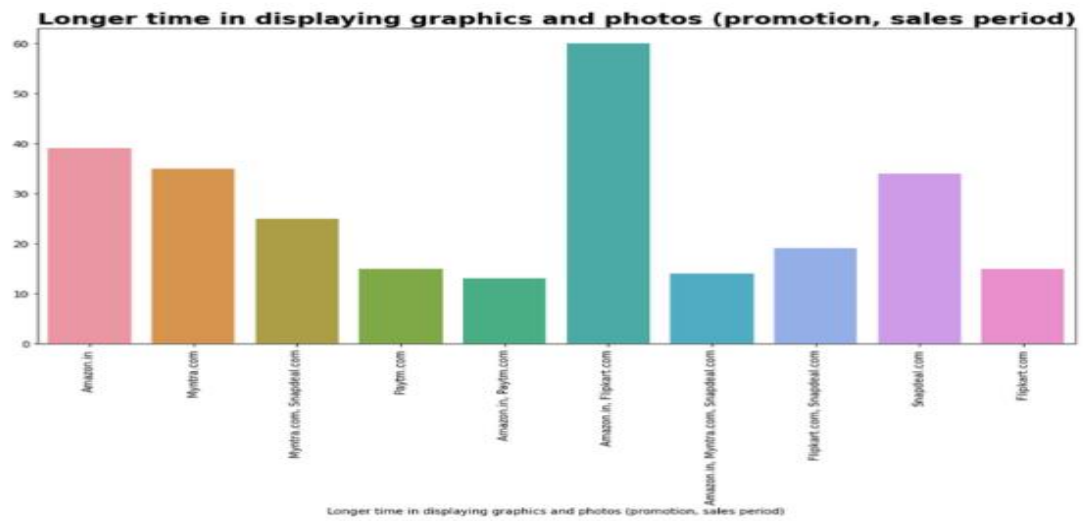
- In terms of speed of delivery Amazon.in is much better than other online shopping platform and Flipkart.com worst among all in terms of speed delivery of product.



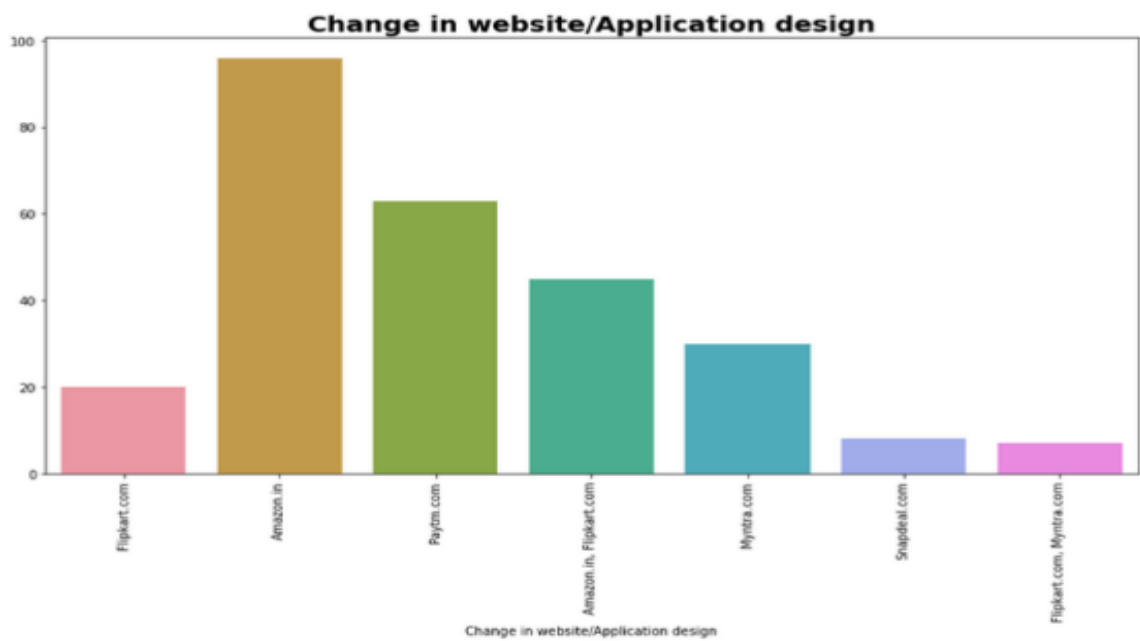
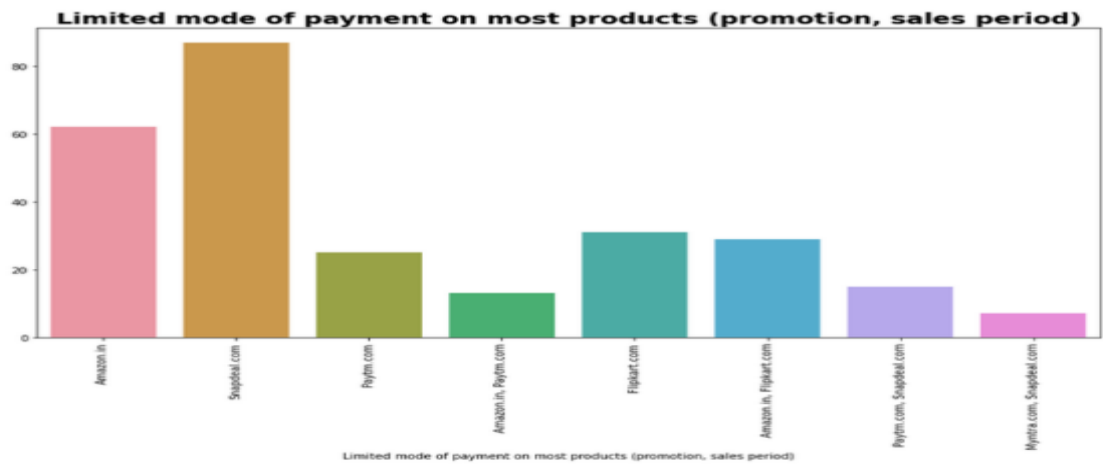
Project Report of Customer Retention Analysis in E Commerce



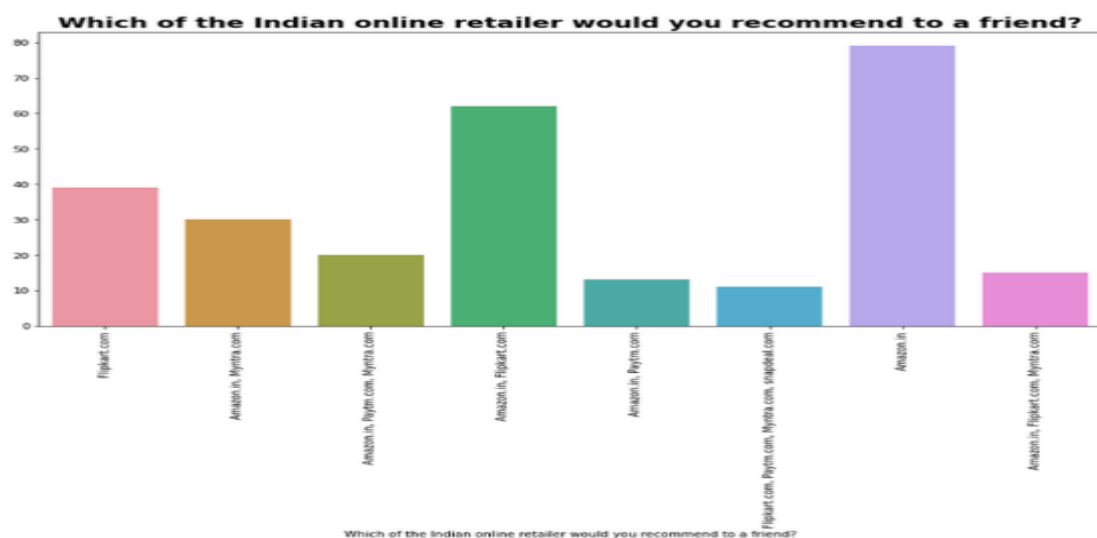
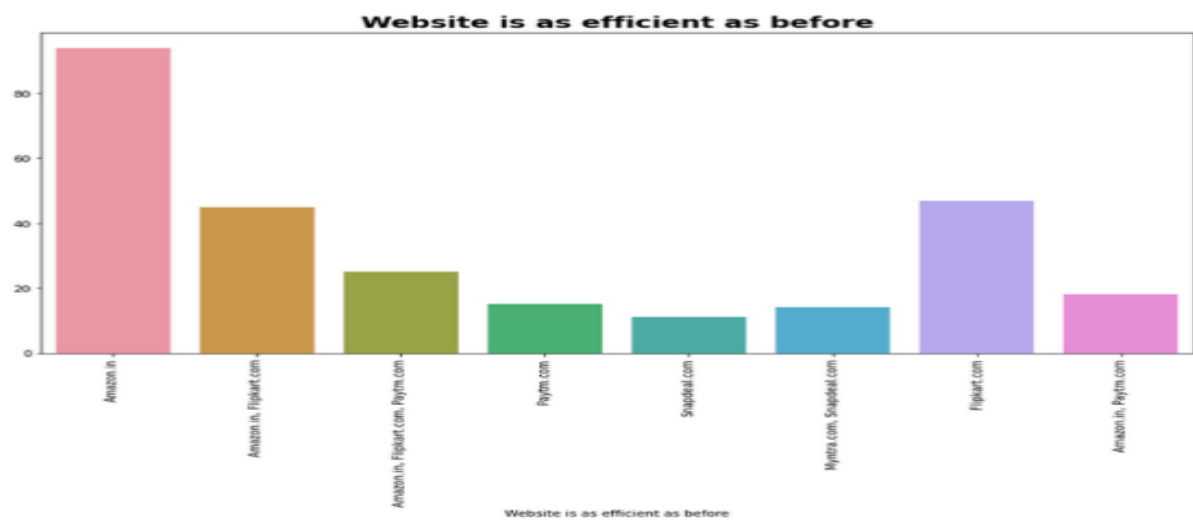
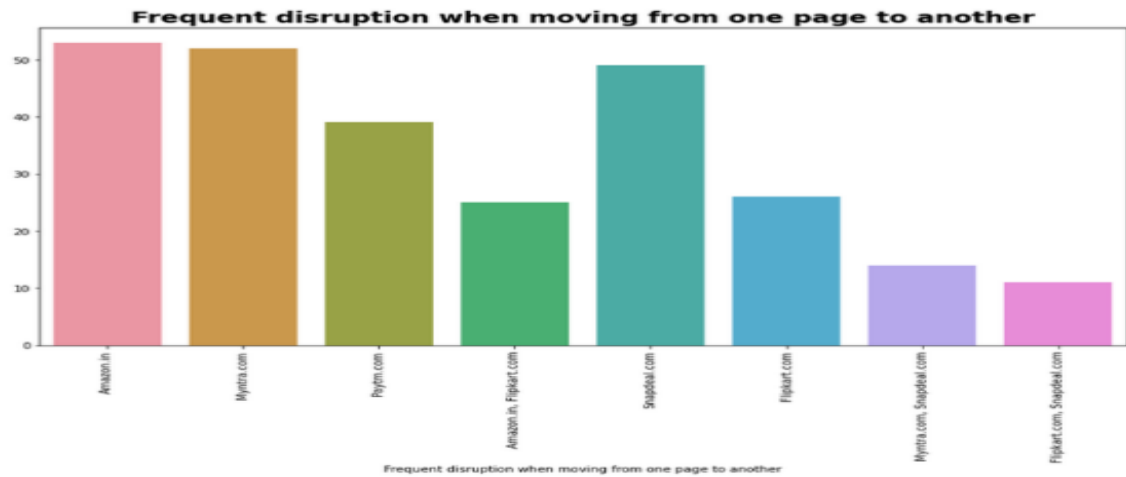
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Project Report of Customer Retention Analysis in E Commerce



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Observations :

- We already know more than 90% Customer thinks that guarantee on privacy of their information is important for them.
- Majority of customers trust Amazon.in more than other shopping platform for Privacy of customers' information
- Majority of customer trust Amazon.in followed by Flipkart.in over Security of their financial information. We also see very few people trust payment platform paytm.
- Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com provide assistance through different multi channel.
- Longer time to get logged in can annoy customer. Amazon.in take longer time to logged in while Flipkart.com take least time among all.
- Majority of people agree that Amazon.in, Flipkart.com takes longer time in displaying and photos.
- Myntra.com followed by Paytm.com take longer page loading time.
- Most of people want shorter delivery time frame, majority customer agree that Paytm.com takes longest time for delivery compare to others.
- Amazon.in website is as efficient as earlier after updation.
- Majority 80 people recommended Amazon.in to their friends.

Analysis Of E – Commerce Companies

1.Amazon.com

Areas for further improvement: \

- During promotions, try to give a disturbance free shoppingexperience to customers. \
- Give more payment options to customers. \
- Try to give price early during promotion. \
- Reduce the delivery time of the products.

Strong Area according to feedback by customer: \

- Convenient to use and also a good website for shopping. \
- Fast delivery of products. \
- Availability of complete information of the products. \
- Presence of online assistance through multi-channels.
- Reliable website or app, perceived trustworthiness.

2.Flipkart.com

Areas for further improvement: \

- During promotions, try to give a disturbance free shoppingexperience to customers.

- 35 Project Report on Data Analysis of Customer Retention in Ecommerce Sector \
- Give more payment options to customers. \
- Try to give the price early during promotion. \
- Reduce the delivery time of the products. \
- Flipkart and Amazon almost share the same feedbacks with varying percentages as the only difference.
- Strong Area according to feedback by customer: \
- Convenient to use and also a good website for shopping. \
- Fast delivery of products. \
- Availability of complete information of the products. \
- Presence of online assistance through multi-channels. \
- Reliable website or app, perceived trustworthiness. \
- Wild variety of products to offer.

3.Myntra.com

- Areas for further improvement: \
- During promotions, try to give a disturbance free shopping experience to customers. \

- Try to give the price early during promotions. }
- Reduce the delivery time of the products during promotions.

Strong Area according to feedback by customer: }

- Convenient to use and also a good website. }
- Availability of several payment options. }
- Faster products delivery. }
- Complete information of products available. }
- Reliable website or app, perceived trustworthiness. }
- Wild variety of product to offer 36 Project Report on Data Analysis of Customer Retention in Ecommerce Sector

4.Paytm.com

- Areas for further improvement:
- } Reduce the delivery time of the products during promotions. }
- Try to give the price early during promotion. }
- During promotions, try to give a disturbance free shopping experience to customers. }
- Late declaration of price and discounts. }
- Frequent disturbance is occurring while moving from one page to another.
- Strong Area according to feedback by customer:
 - } Convenient to use and a good website. }
- Quickness to complete a purchase. }

- About 64% of the customers feel that either web or app is reliable. }
- Around 20% of the customers believe that Paytm has a wide variety of products on offer.

5.Snapdeal.com

- Areas for further improvement: }
- Reduce the delivery time of the products during promotions. }
- Try to give the price early during promotion.
} During promotions, try to give a disturbance free shopping experience to customers. }
- Late declaration of price and discounts. }
- No one has expressed to recommend Snapdeal to a contact as it has the most negative feedbacks among all other websites.

Strong Area according to feedback by customer:

- 54% of the customers are happy about the availability of financial information security.
- Convenient to use.

CHAPTER 4 . Conclusion

- It is very clear to advice the companies that is more important to concentrate to focus on search engine optimization & Email marketing instead of spending more for Digital Marketing.
- Mentioning the complete description about the product in the website itself.
- For both gender tendency of shopping is less for age greater than 51 years old.
- The website must have a smooth user interface , so that it functions well.
- Around 50% customers abandon cart due to better alternative offer which is obvious reason. Another most common reason is promo code not applicable on particular product.
- Paytm and Snapdeal offer poor customer services and there is lot of scope for further improvement.
- of scope for further improvement.
- Amazon and Flipkart are standing best out in the market competent business strategies and lot advantages over there competitor.
- Mostly because, it is convenient and flexible, people prefer online shopping.
- people who have been shopping for more then 3-4 years are the ones who frequently shops.

- We can observe that most of the people, abandoned their cart as they were having better alternative offers .
- To conclude, having the right customer retention strategy will keep seller's company growing if they know how to take advantage of it. Then customers will find their way back and continue buying stuff from the best company.

Limitations and Scope for Future Work

- This dataset is very very small comparing to the real time customers. It consists of 269 rows only which is not necessary to conclude with a final implementation.
- Machine Learning model can be built to predict orientation of customer.
- More informations could be provided such as price , can be able to give much clear observations to help in finding best solutions.