

**E-retail factors for customer
Activation and Retention: A case study
from Indian E-Commerce customers.**

Project Report
by
Dheerajkumar Pittala

Acknowledgement

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At last, but not the least, I would like to thank everyone who helped and motivated us to work on this project.

References:

- 1) www.medium.com
- 2) www.seaborn.pydata.org
- 3) www.geekforgeeks.com

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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.

The dataset provided must be analyzed and properly understood so that success factors can be obtained.

The Reason why E-commerce is the next-big thing in India!!!!

Here is a reason, why E-commerce is the next big thing in India. We all know India is the fastest growing economy in the World and India has become a growing market for the E-commerce sector.

- The main advantage is that foreign direct investment in B2B e-commerce is allowed in automatic mode as in the e-commerce model.
- E-commerce has fundamentally changed business in India!!! By 2026, an increase of \$ 200 billion has expected.
- The main reason is that digital transformation in the country is likely to increase the total number of Internet users to 829 million by 2021.
- Due to the overuse of smartphones, we have seen a breakthrough in the smartphone sector and thanks to the 4G Network.
- Indian consumers have come a long way. Online retail sales expected to grow by 31%.
- The leap into the e-commerce sector came with the acquisition of Flipkart by Walmart and the planning to the opening of more offline stores in India.

Indian E-commerce is booming and growing exponentially every year:

It expected to grow 5 to 6-fold over the next three to five years. So, a recent report suggests that the highest disposable income and the highest convenience in online shopping are the two key factors in e-commerce in India. This has facilitated the development of very good e-commerce platforms that offer integrated e-commerce solutions. Launching an e-commerce website using such an advanced platform takes only a few hours and involves pre-integrated payment gateway and logistics solutions.

And in this growth Customer Retention take an integral part for the entire process!!

What is Customer Retention?

Customer retention means the process of maintaining or keeping customers once you have acquired them. It's all the activities that a company must do to keep their customers around. The goal is to build a long-lasting relationship between the brand and consumers. Once a customer becomes loyal to your brand, not only he will buy more from you than a normal customer, but he'll spread good words about your business, increase your reputation.

The Benefits of Customer Retention:

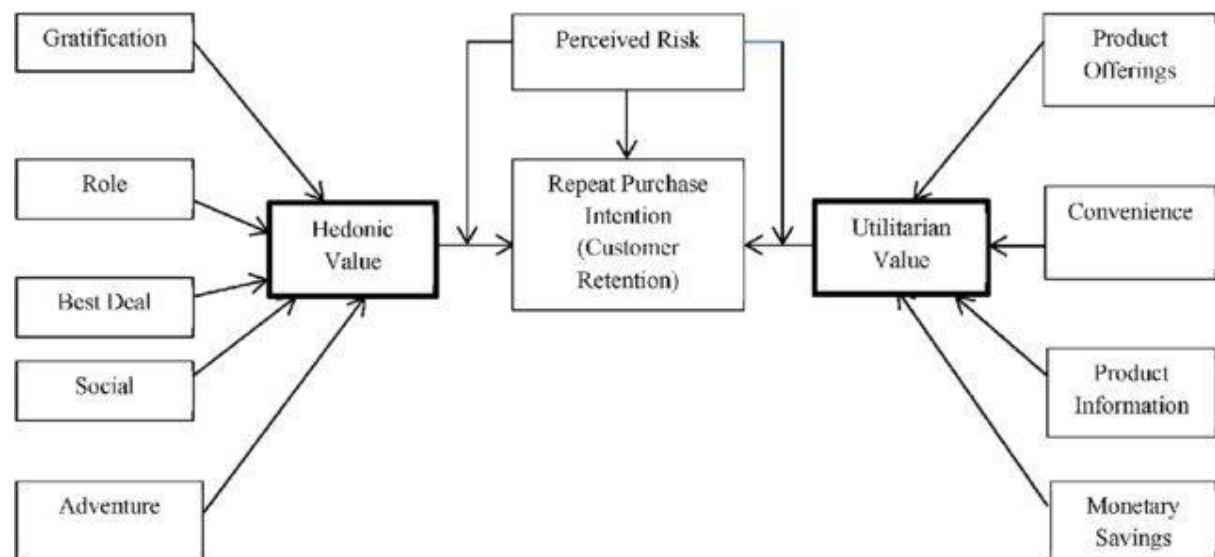
- Improve Conversion Rate.
- Old Customers Buy More.
- Reduce Marketing Cost.
- Get More Feedback from Engaged Customers.
- Word of Mouth – Referral Marketing.

Introduction

This dataset consists of Hedonic values and utilitarian values which are needed to affect the repeat purchase intention of a customer to the e-commerce site of India, it deliberately gives a deep insight about the customer's loyalty to the company. We will analyze how a customer can be in retention mode by remembering these valuable points like service quality, system quality, information quality, trust, and net benefit. If a customer gets a positive note in these five sectors, it is seen that customers can be reattended in a regular Basis. In this dataset there are various independent features which tells about the customers thought process regarding purchasing a product in E-commerce sites in India. As e-commerce business is growing in a faster rate it is very important to know customer's behavior pattern in terms of purchasing various products to smooth in the process of customer retention-commerce has transformed the way business is done in India. The Indian E-commerce market is expected to grow to: -US111.40 2025 111.40billion by 2025 from US 46.2 billion as of 2020. Much of the growth for the industry has been triggered by an increase in internet and smartphone penetration. As of April 2021, the number of internet connections in India significantly increased to 782.86 million, driven by the 'Digital India' programmed. Out of the total internet connections, ~61% connections were in urban areas, of which 97% connections were wireless. Hence customer retention is an integral part of the e-commerce sites. It is the ability of a company to retain its customers over a specified period. If a company has high customer retention, that means its customers continue to rebuy the same products, to resubscribe to the same services or, in some other way, continue buying from that company.

With development of the internet sector the e-commerce industry in India has grown by leaps and bounds to such an extent that it boosts the acceleration of commerce and finance. With more time this sector promises more growth and with India boasting of a population of over 1.3 billion people, making it a huge potential for faster a bigger growth. Having such a diverse population will put India in the driving seat for deciding customer satisfaction will help draw more companies thereby propelling the growth of the country even further. As India has a huge human resource count so it is natural to expect it is the human resource that will decide the growth of the companies providing service. For the companies too is necessary to gain access to all the country's human resource as it provides for a better opportunity to gain entry to a huge customer base which in turn yields to bigger profits. But to gain customer the companies must also provide value along with the service. In today's world the value lies in making the experience of customers better, by providing extra benefit along with service, by providing utilitarian values like offers where customers can save money, other product offerings/ information, etc. The companies must also provide hedonic values to its customers like best deals, a sense of adventure, social value of the product,

etc. If these criteria are met with then it will result in better customer retention and at the same increase the customer base. This relationship can be best explained with the help of the following diagram:



Business Problem Framing:

The objective was to perform extensive data analysis on a given dataset and produce valuable insights that will help in customer retention.

- 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.

Conceptual Background of Domain Knowledge:

- The data is collected from the Indian online shoppers. Results indicate the e-retail success factors, which are very much critical for customer satisfaction.
- 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.

Review of Literature:

- We must apply our analytical skills to give findings and conclusion in detailed data analysis.
- We may or may not create the Machine learning model.

Motivation for the Problem Undertaken:

- The objective behind to take this project is to harness the required data science skills.
- Improve the analytical thinking.
- Get into the real-world problem-solving mechanism.
- 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.

Data Sources and their formats:

- We have been given 2 datasets. Both were same in terms of data, but the 2nd file was encoded.
- The data was collected through the survey.

Data Pre-processing Done:

Below were the steps taken in data pre-processing:

- Null values -We checked for Null values but there were no Null values present in the dataset.
- EDA was processed on the complete data to gain some major insights.

Software Requirements and Tools Used:

- Python – Jupyter Notebook for notebook environment to view better results
- Pandas – Manipulating the dataset by using info, crosstab, head
- Numpy – Numerical operations on the provided dataset
- Seaborn – Histograms (histplot), count plot to understand the data distribution visually.

The libraries used for analysis:

Importing Libraries

```
In [2]: # Importing Libraires  
import pandas as pd  
import numpy as np  
import matplotlib.pyplot as plt  
import seaborn as sns  
%matplotlib inline  
import warnings  
warnings.filterwarnings('ignore')  
|  
!pip install termcolor  
from termcolor import colored as cl
```

Dataset Format:

The dataset contained 269 – rows and 71 columns of which the datatype was object and there is only one column, suggesting pin code is integer type.

The features from which the analysis is made are:

```

'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 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?

'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"?

'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',
'22 Ease of navigation in website', '23 Loading and processing speed',
'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',
'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',
'39 Offering a wide variety of listed product in several category',
'40 Provision of complete and relevant product information',
'41 Monetary savings',
'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',
'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',
'From the following, tick any (or all) of the online retailers you have shopped from;

'Easy to use website or application',
'Visual appealing web-page layout', 'Wild variety of product on offer',
'Complete, relevant description information of products',
'Fast loading website speed of website and application',
'Reliability of the website or application',
'Quickness to complete purchase',
'Availability of several payment options', 'Speedy order delivery ',
'Privacy of customers' information',
'Security of customer financial information',
'Perceived Trustworthiness',
'Presence of online assistance through multi-channel',

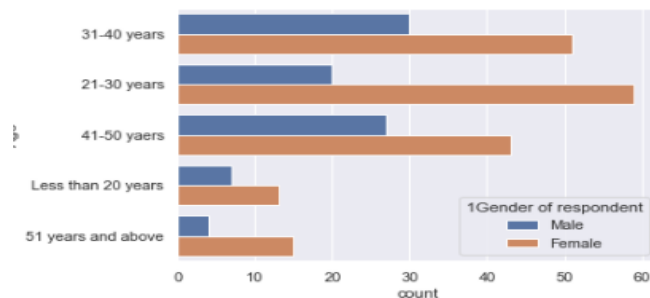
'Longer time to get logged in (promotion, sales period)',
'Longer time in displaying graphics and photos (promotion, sales period)',
'Late declaration of price (promotion, sales period)',
'Longer page loading time (promotion, sales period)',
'Limited mode of payment on most products (promotion, sales period)',
'Longer delivery period', 'Change in website/Application design',
'Frequent disruption when moving from one page to another',
'Website is as efficient as before',
'Which of the Indian online retailer would you recommend to a friend?'],
type='object')

```

There are no missing values found.

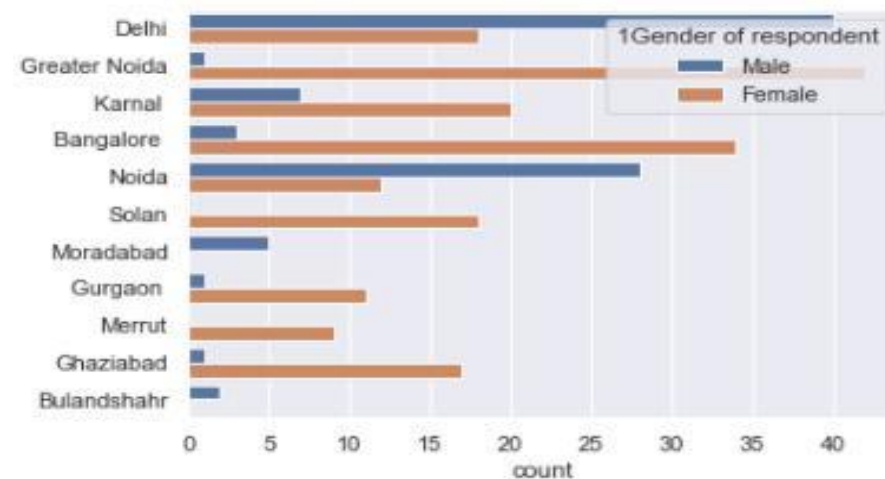
About Survey and Population:

The Analysis is for the Indian e-commerce websites and the survey was randomly made from the buyers of different states of India. The population data consists of surveys from both male and female buyers with all age ranges, which is used to determine the factors that influence the customer retention rate.



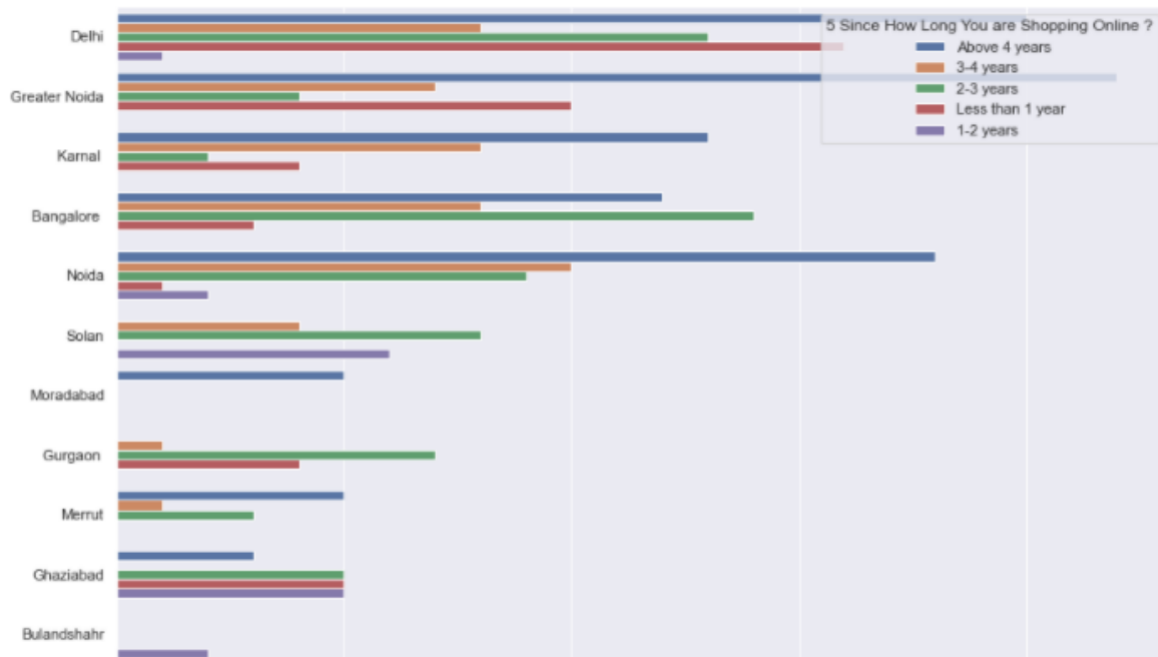
As per the above plot, I can see that most of the participants are of the age 21 to 50, where we received highest number of the responses from the people whose age is 31 to 40. Out of the whole population I can say that female participants were the highest number of respondents.

Below are the cities the data is collected from: -



We can see that the highest participant was from Delhi with 58 counts. Out of 58, 40 were male participants and 18 were female participants. Further, we can also see that the second highest participant were from Greater Noida, with 42 female participants and 1 male participant only. However, least number female shoppers are from Meerut whereas the least number of male shoppers are from

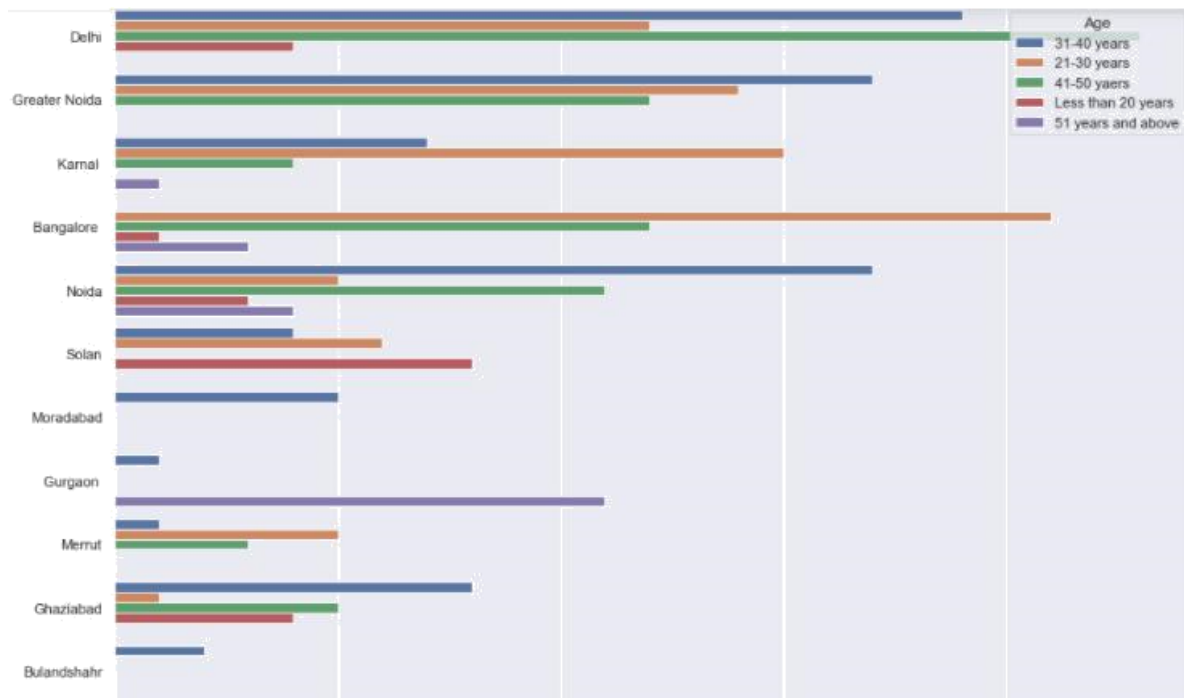
Greater Noida, Gurgaon and Ghaziabad with Meerut not having any male shopper.



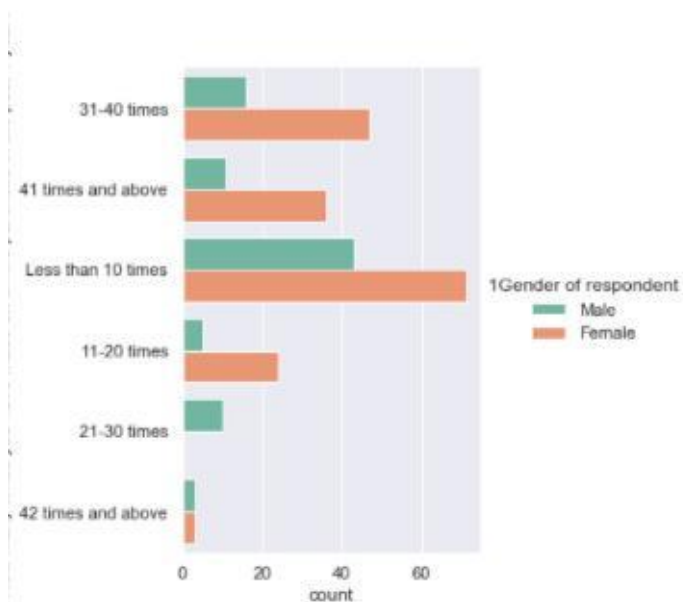
As it can be seen there are 5 different groups of shoppers based on their experience with shopping which is as follows:

- Above 4 years
- 3-4 years
- 2-3 years
- 1-2 years
- Less than 1 year.

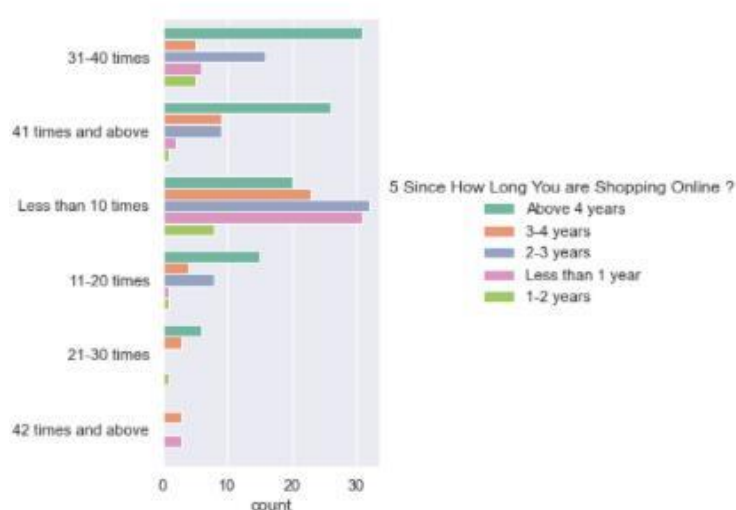
We can see from the above plot the users from Greater Noida, Delhi, Noida, Karnal, Meerut, Bangalore, Gurgaon is Shopping online since more than four years, and as per data Bulandshahr has least number of people doing shopping online and they have recent experience of 1-2 years.



In Delhi most of the users are in the age bracket of 41-50 years. In Greater Noida most of the users are in the age bracket of 31-40 years. In Karnal most of the users are in the age bracket of 21-30 years and In Bangalore most of the users are in the age bracket of 21-30 years, hence we can see that in different cities we can see different age groups topping the list. At Last, Bulandshahr has lowest number of people shopping online and have the users of age group 31-40 years.

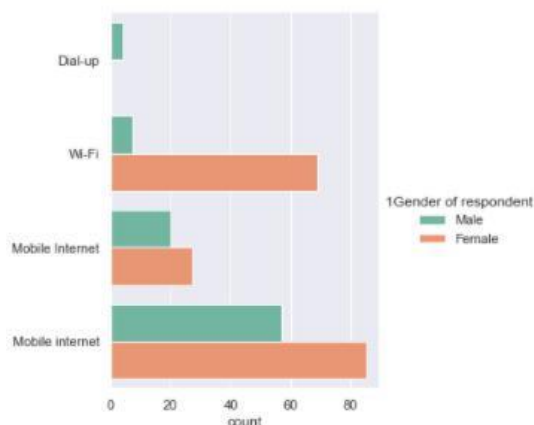


As we have seen earlier Female users are more in this dataset, In the last year female users purchase rate is higher than the female users.

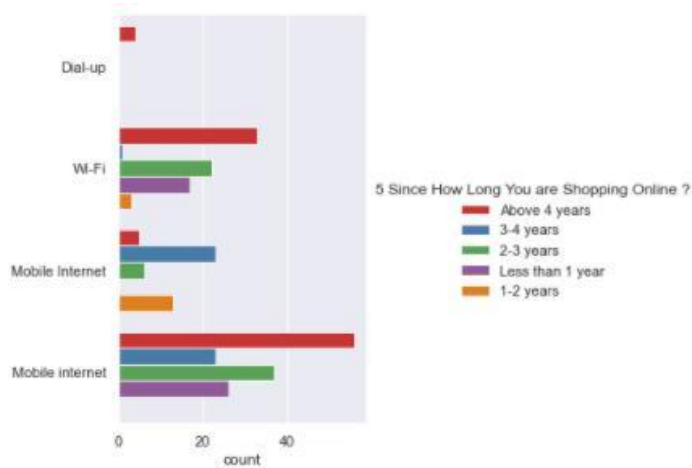


The plot shows that highest number of online purchases made was 41 times and then followed by 31- 40 times and for both cases the group of people with the highest online shopping experience (above 4 years) are responsible for hopping the greatest number of times.

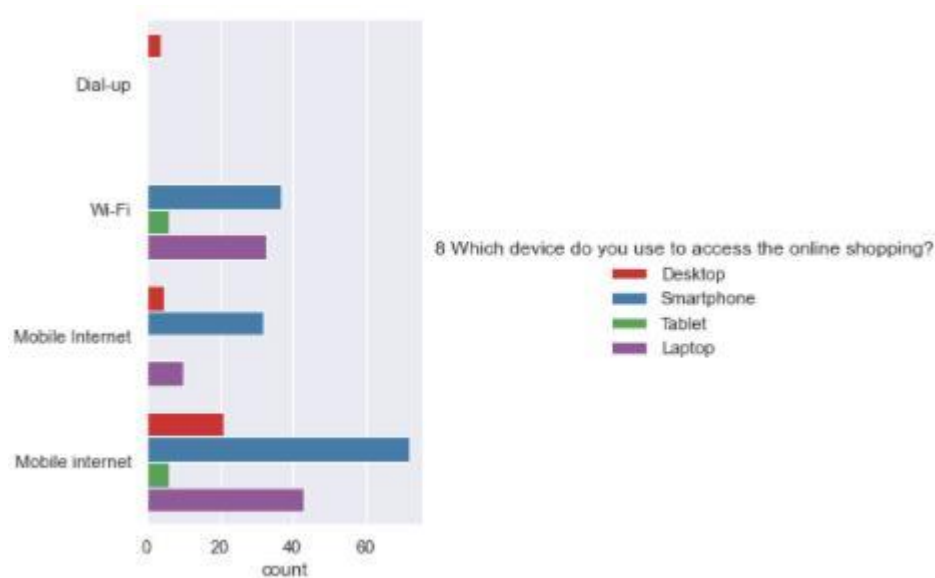
- It also shows that the highest number of times that online shopping was done was 42 times and it had two specific groups of people:
- 1st group new to online shopping doing shopping for the past 1 year.
- 2nd group have been hopping online for the past 3-4 years.



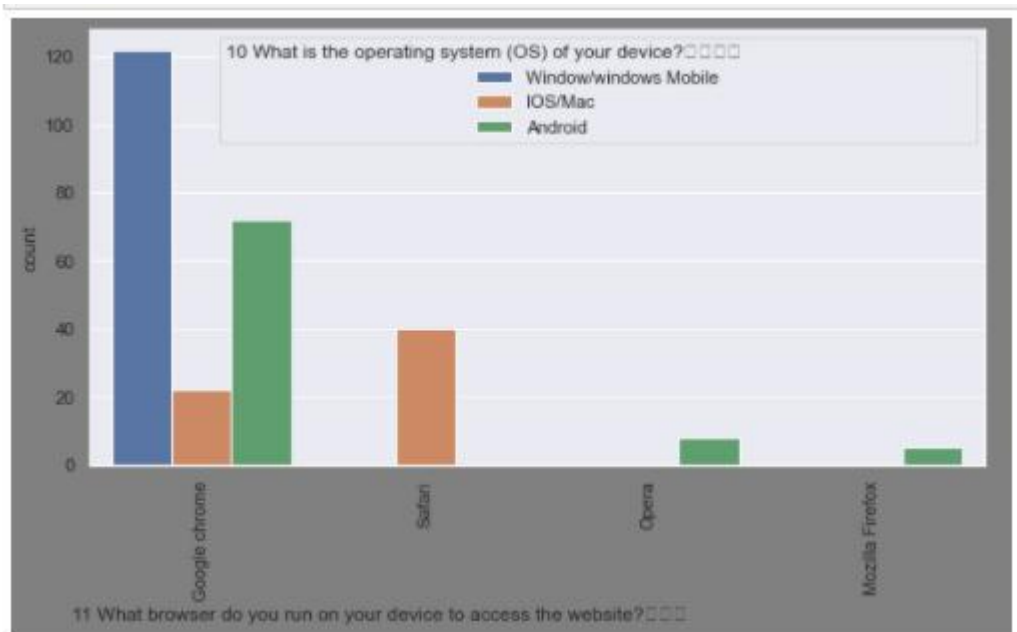
As we have discussed earlier accessing internet is the pillar of the e-commerce business and know that ecommerce business increased with the pace of selling of smart phones. We can see in these data approx. 70% of the customers is depending on the mobile internet while hopping the e-commerce sites. Dial-up users are only 1.5% only. Female users are more into shopping with their mobile internet.



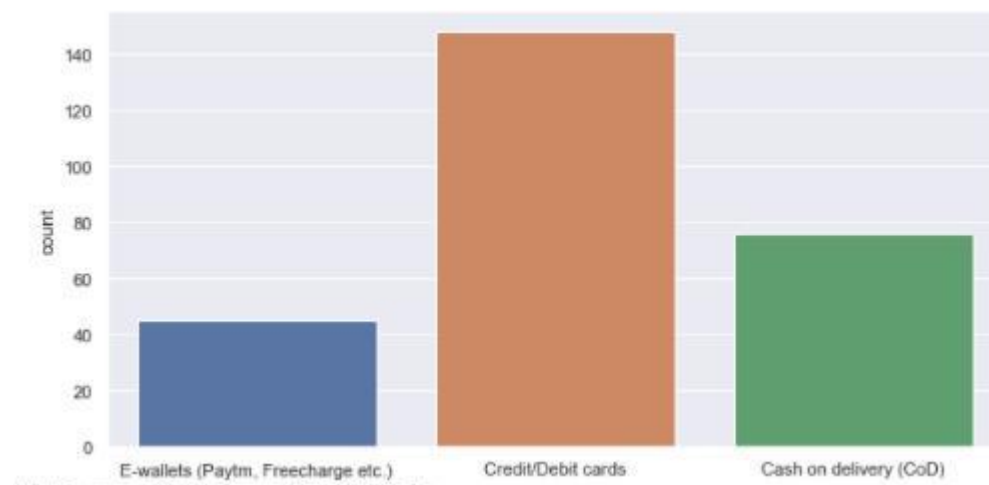
The users which are having the online shopping experience for above four years, most of them preferred the mobile internet followed by Wi-fi.



Most of the people uses Smartphone for surfing the ecommerce sites, they generally use the apps of the ecommerce sites. The device used most times for online shopping is the smartphone (using mobile internet) followed by laptop (using mobile internet) device least used for online shopping is the tablet (using mobile internet and WIFI).



We can conclude that most of the users used Windows/Windows Mobile operating system and used mostly google chrome while shopping.

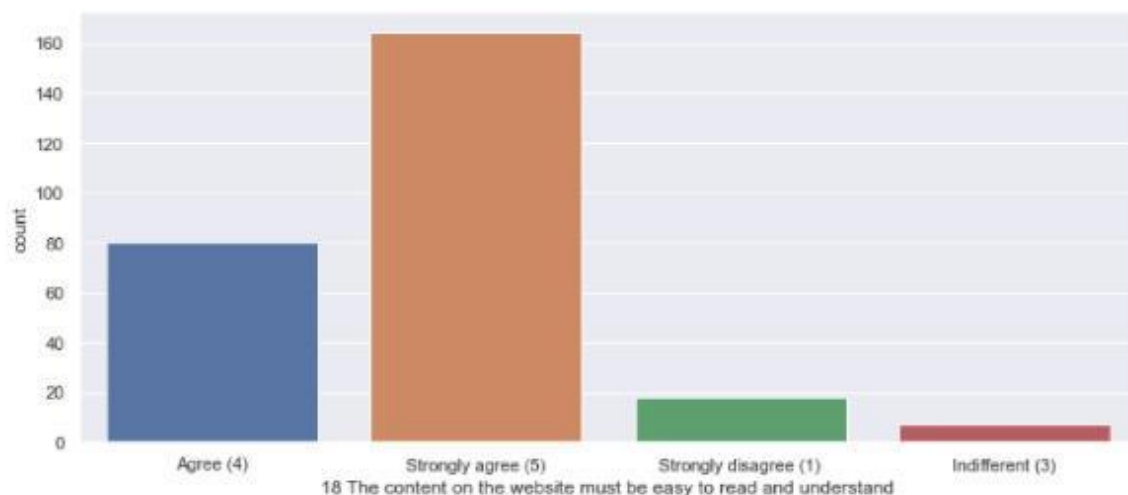


We can see that most of the users pay their bills by using their Credit/Debit Cards. It is a good sign because it increases the selling rate while on cash on delivery there is a greater chance of cancellation of the product in the transit. In the other hand the cancellation is very less if the customer already paid the desired amount before the delivery of the product.

The factors about the websites that influence the buying decision:

1)The content on the website must be easy to read and understand: -

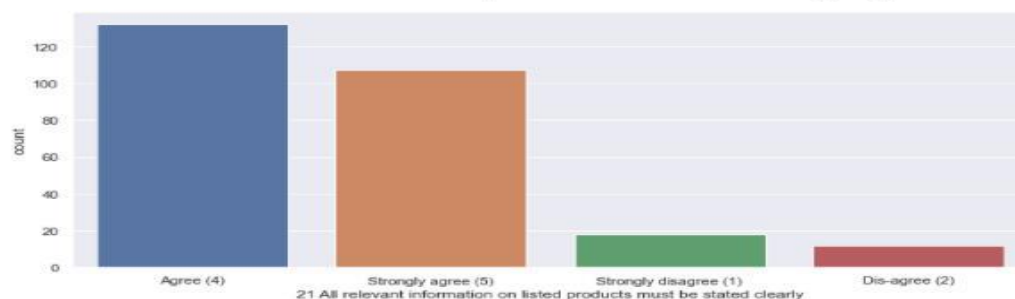
```
Strongly agree (5)    164
Agree (4)             80
Strongly disagree (1) 18
Indifferent (3)       7
Name: 18 The content on the website must be easy to read and understand, dtype: int64
```



More than 50% of the users Strongly agree with the point that the content on the website must be easy to read and understand, because we all know that people always want a user-friendly platform, which is clear and easy to understand.

2) All relevant information on listed products must be stated clearly:

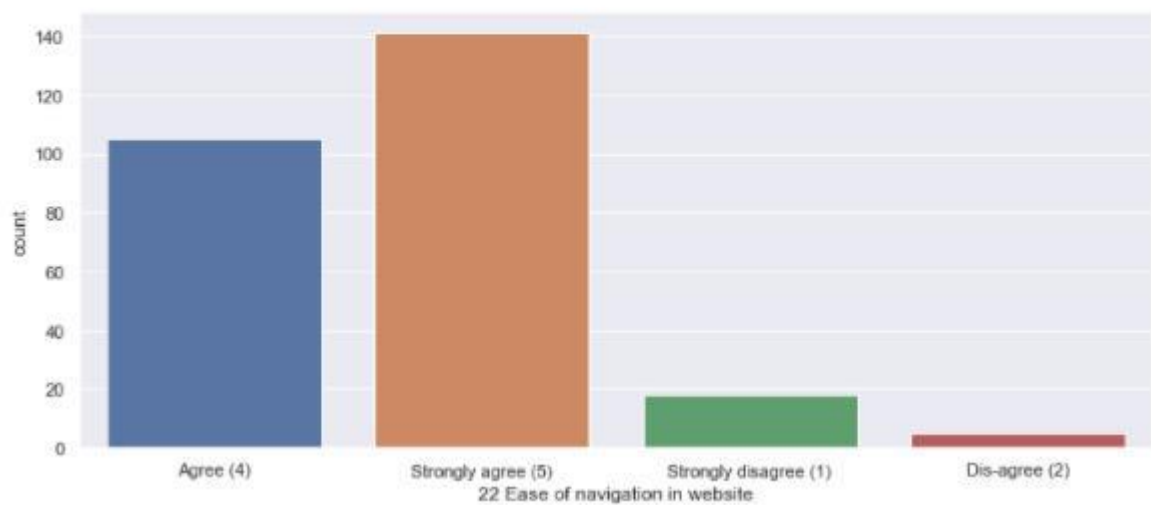
```
Agree (4)             132
Strongly agree (5)    107
Strongly disagree (1) 18
Dis-agree (2)         12
Name: 21 All relevant information on listed products must be stated clearly, dtype: int64
```



Almost everyone agrees to the fact that all relevant information on listed products must be stated clearly. which drives the purchase decision? It is a fact that a customer buys the product, especially in the electronic section if the product details or the features of the product is specified clearly, if not the customers tend to buy it from offline because he or she thinks that he can get enough information from the seller while purchasing it from the offline market.

3) Ease of navigation in website:

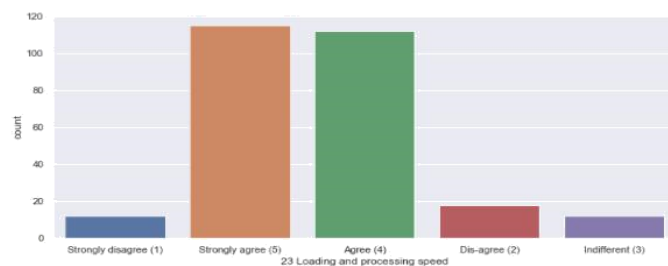
```
Strongly agree (5)    141
Agree (4)             105
Strongly disagree (1)  18
Dis-agree (2)         5
Name: 22 Ease of navigation in website, dtype: int64
```



More than 70% buyers vote for the easier website design and their navigation. precisely 141 strongly agree and 105 agree to this because nowadays users always give importance to the proper visibility and user-friendly platforms.

4) Loading and processing speed:

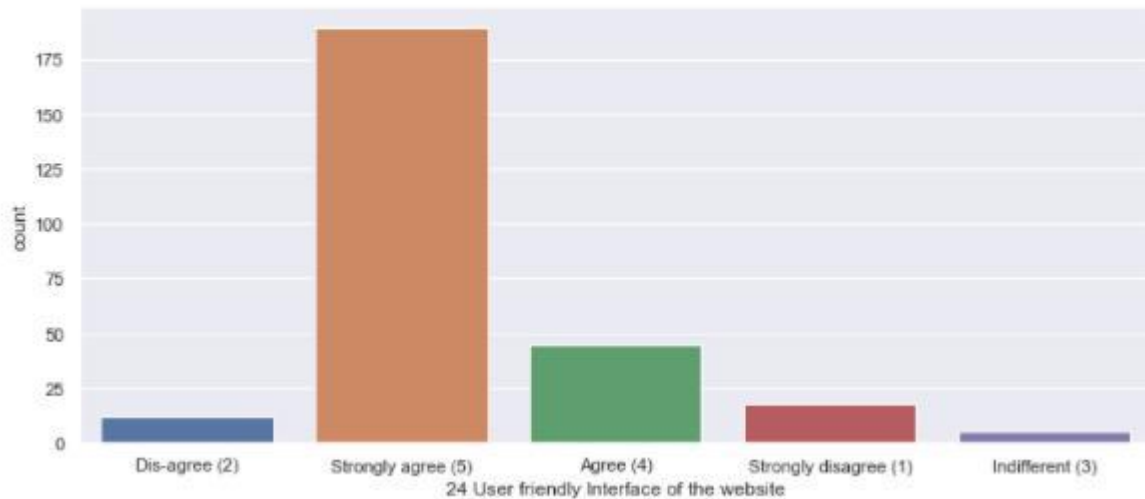
```
Strongly agree (5)    115
Agree (4)             112
Dis-agree (2)         18
Strongly disagree (1)  12
Indifferent (3)        12
Name: 23 Loading and processing speed, dtype: int64
```



The speed of the website is very important, and more than 80% people agree to the same because with slow loading process of the pages of the website tends the users to move out and shift for better and faster websites.

5) User friendly Interface of the website:

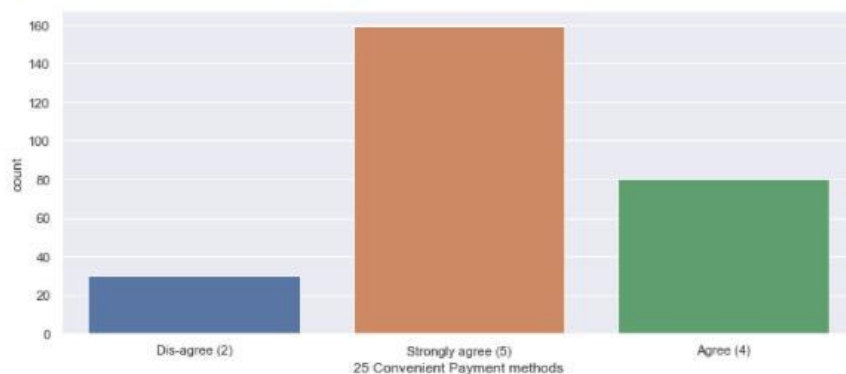
```
Strongly agree (5)    189
Agree (4)             45
Strongly disagree (1) 18
Dis-agree (2)         12
Indifferent (3)       5
Name: 24 User friendly Interface of the website, dtype: int64
```



Almost 80% buyers agree that a website must have a user-friendly interface, therefore it's essential for companies to provide a positive online experience for their customers. A user-friendly website ensures that each visitor to your website has an easy, effortless, and pleasant experience, which drives the purchasing rates.

6) 25 Convenient Payment methods:

```
Strongly agree (5)    159
Agree (4)             80
Dis-agree (2)         30
Name: 25 Convenient Payment methods, dtype: int64
```



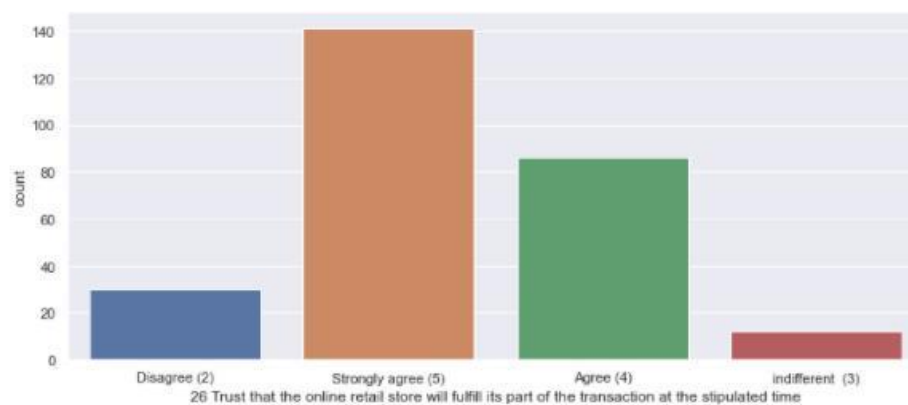
Close to 90% buyers agree that an e-commerce site should have convenient payment methods because providing different payment options for customers, is beneficial for the company as well – given the ease of payment, customers are more likely to pay faster and sooner than if they had limited options.

6) Trust that the online retail store will fulfil its part of the transaction at the stipulated time:

Almost 70% buyers depend on trust that online retail store will fulfil its part of the transaction at the stipulated time. It is because the issues of security and privacy play a crucial role in creating trust during online transactions. Since online shopping usually implies payment by debit or credit card, consumers sometimes direct their attention towards the information about the retailer as a means of protection. The willingness of consumers to visit online stores and purchase there is directly related to the consumers' confidence in providing personal information and credit card payments. Consumers tend to buy a product from a vendor whom they trust or a brand product they are familiar with. In online commerce, confidence is one of the most critical issues affecting the success or the failure of Internet retailers.

```
Strongly agree (5)    141
Agree (4)             86
Disagree (2)         30
Indifferent (3)      12
```

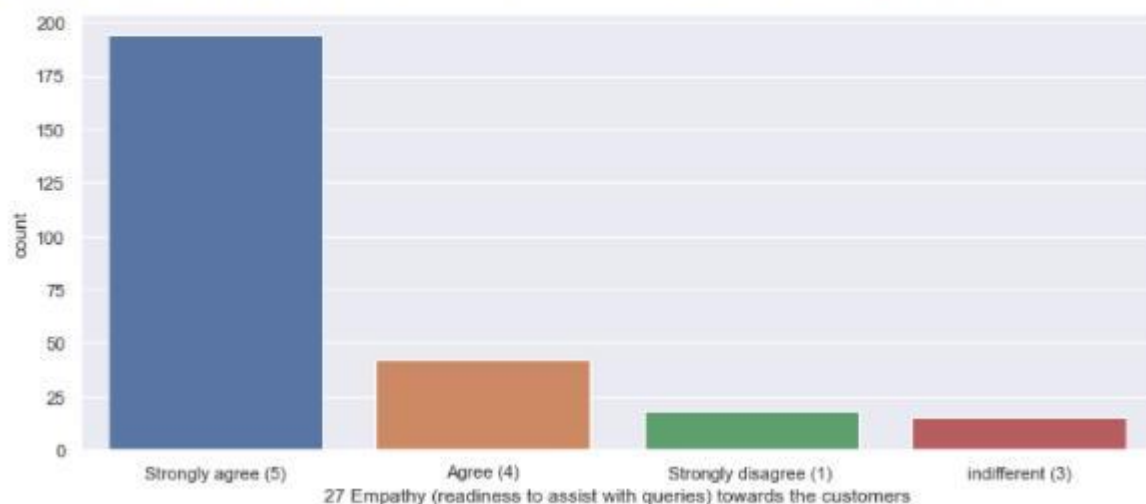
```
Name: 26 Trust that the online retail store will fulfill its part of the transaction at the stipulated time, dtype: int64
```



7) Empathy (readiness to assist with queries) towards the customers:

```
Strongly agree (5)    194
Agree (4)             42
Strongly disagree (1)  18
Indifferent (3)       15
```

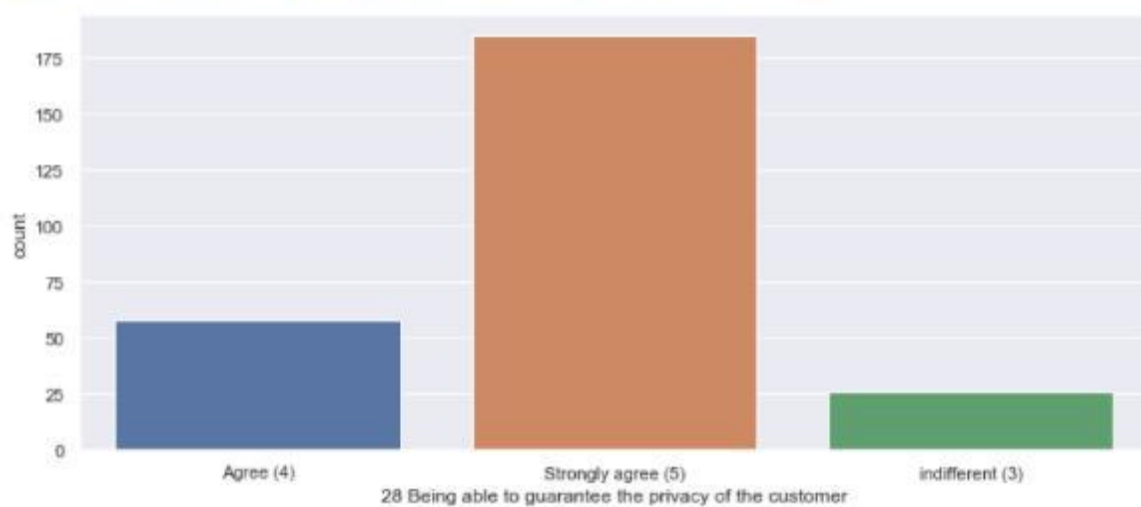
```
Name: 27 Empathy (readiness to assist with queries) towards the customers, dtype: int64
```



Even though the e-commerce sites should provide better content, easier navigation, convenient payment method so and so. It should also have better customer service for its customers and 194 buyers strongly agree to this. Empathy builds a relationship between the customer and the employee that can enhance customer service, increase customer satisfaction, and build loyalty. Thus, empathy is important for creating a good customer experience. Especially after they have gone through something negative.

8) Being able to guarantee the privacy of the customer:

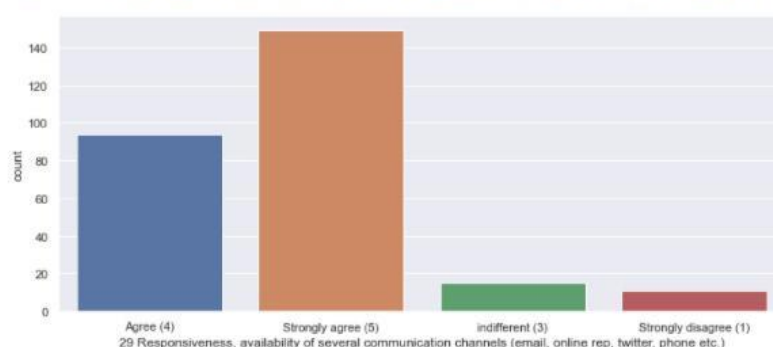
```
Strongly agree (5)    185
Agree (4)            58
indifferent (3)      26
Name: 28 Being able to guarantee the privacy of the customer, dtype: int64
```



No one disagrees to the security factor, most of the buyers feel that the e-commerce sites should provide privacy to its customers. Maintaining impeccable privacy and security could put you at a competitive advantage over your competition. Done right, privacy could be a cornerstone of building your brand and corporate reputation. Protecting user privacy can enable you to drive more revenue and gain more customers

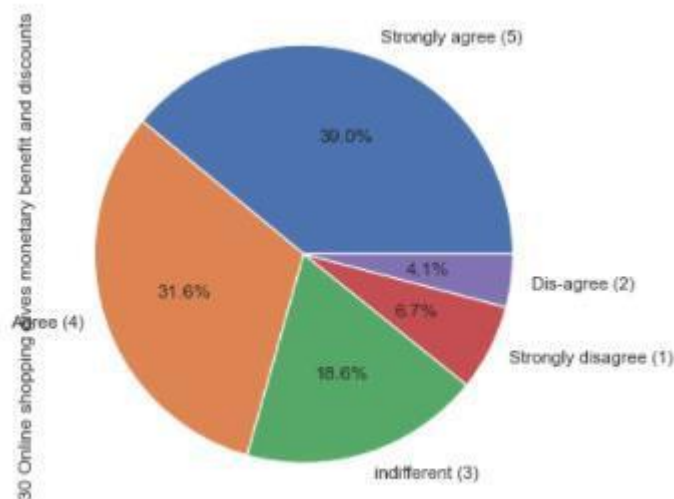
9) Responsiveness, is another major factor that buyer agrees that an e-commerce website should provide to its buyers:

```
Strongly agree (5)    149
Agree (4)            94
indifferent (3)       15
Strongly disagree (1)  11
Name: 29 Responsiveness, availability of several communication channels (email, online rep, twitter, phone etc.), dtype: int64
```



Availability of more options in communication channels for customer support is very important and most of the buyers agree to it because Customer service is the support you offer your customers — both before and after they buy and use your products or services — that helps them have an easy and enjoyable experience with you. Offering amazing customer service is important if you want to retain customers and grow your business.

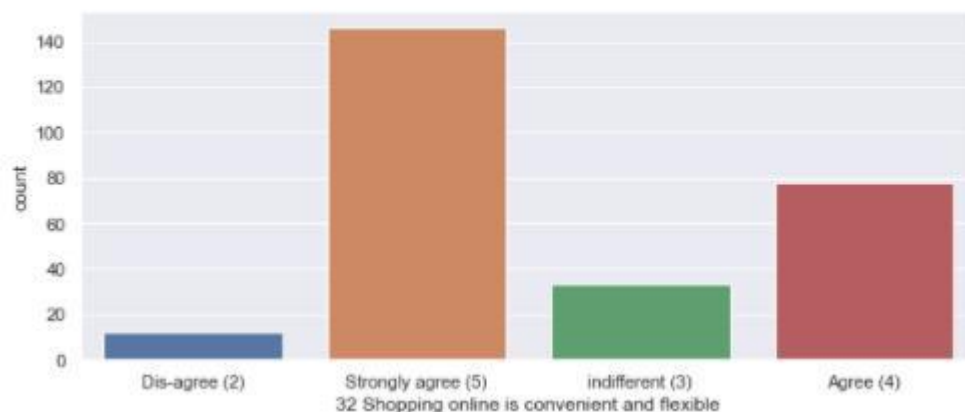
10) Giving Monetary benefits and discount:



About 70% buyers agree that the online shopping gives more monetary benefits and discounts, 18.6% buyers were neutral about this statement and 11% buyers disagree to this statement.

11) Shopping online is convenient and flexible:

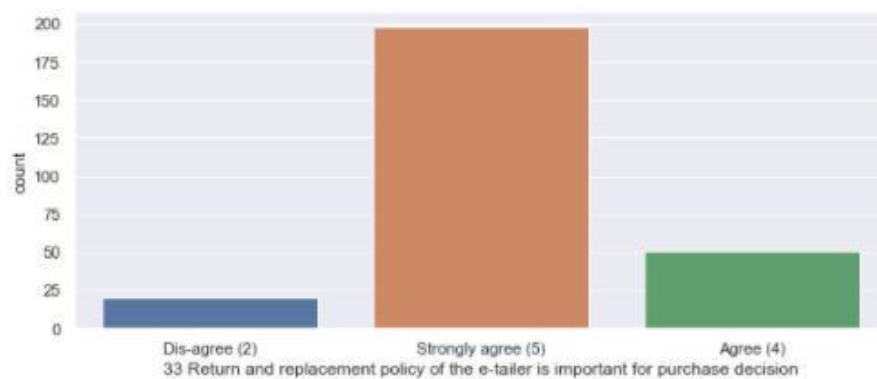
```
Strongly agree (5)    146
Agree (4)            78
Indifferent (3)       33
Dis-agree (2)        12
Name: 32 Shopping online is convenient and flexible, dtype: int64
```



Most of the buyers agrees to the fact that shopping online is convenient and flexible, more than 50% buyers agree to this statement because It is very convenient to shop from where you are located. Cost savings: With ever-increasing gas and petroleum prices, shopping online saves you the cost of driving to stores, as well as parking fees. Easy comparison: Shopping online eliminates the need to wander from store to store for comparing prices.

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

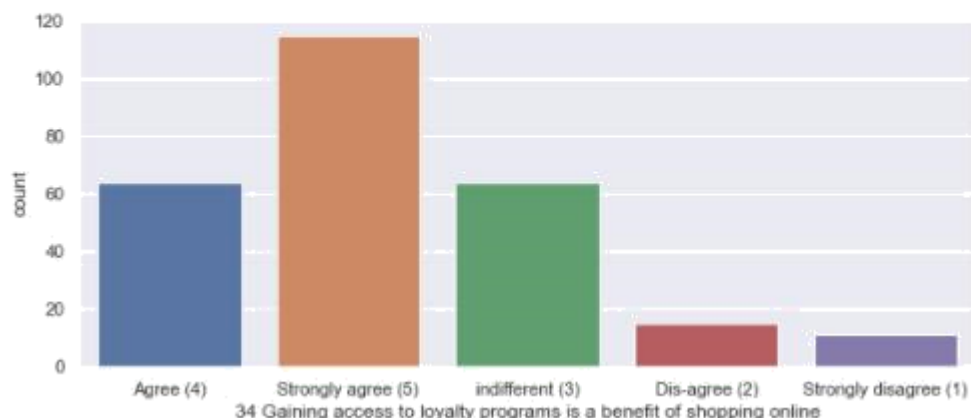
```
Strongly agree (5)    198
Agree (4)            51
Dis-agree (2)        20
Name: 33 Return and replacement policy of the e-tailer is important for purchase decision, dtype: int64
```



Almost everyone agrees to the fact that return and replacement policy of the seller is very important in making a purchase decision because A concise and clear return policy gives consumers a feeling of security; that what they are buying is guaranteed to be what it is represented to be. If a retailer doesn't give this guarantee, then consumers often become suspicious and avoid buying the product.

13) Loyalty programs are a benefit of shopping online:

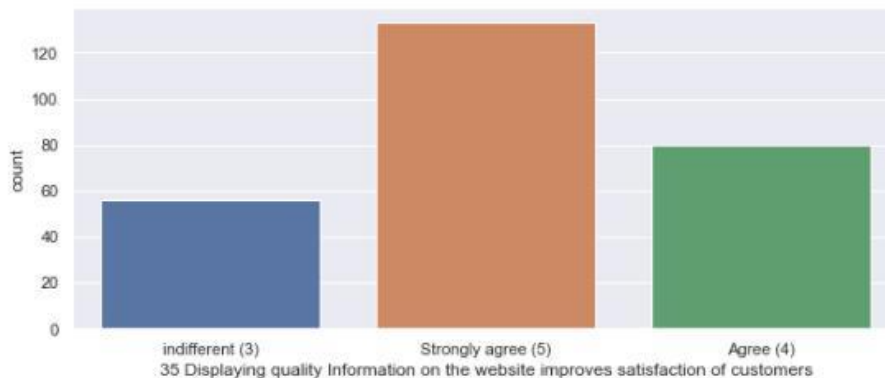
```
Strongly agree (5)    115
Agree (4)             64
indifferent (3)       64
Dis-agree (2)         15
Strongly disagree (1)  11
Name: 34 Gaining access to loyalty programs is a benefit of shopping online, dtype: int64
```



One of the benefits of shopping online is gaining access to its loyalty program and 50% of the buyers agree to this fact because Loyalty programs are sponsored by retailers and other businesses, offer rewards, discounts, and other special incentives to attract and retain customers. They are designed to encourage repeat business, offering people a reward for store/brand loyalty (hence the name).

14) Displaying quality Information on the website improves satisfaction of customers:

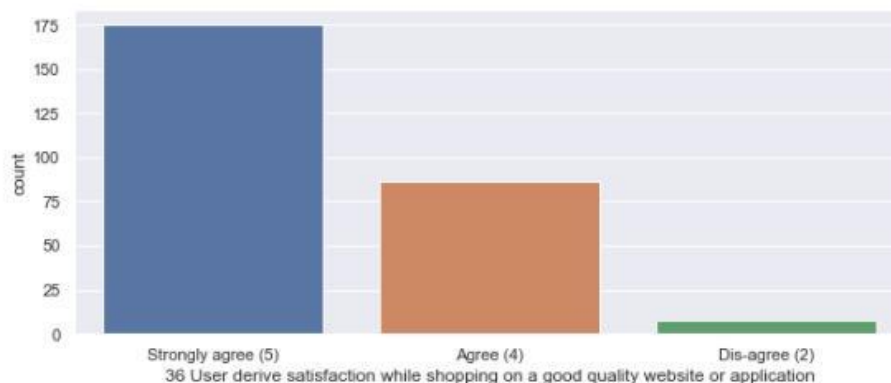
```
Strongly agree (5)    133
Agree (4)            80
indifferent (3)      56
Name: 35 Displaying quality Information on the website improves satisfaction of customers, dtype: int64
```



None of the buyers dis-agree to the fact that quality information on the website improves customer satisfaction because, Quality information content helps to attract the right audience to your website, engage them and work towards getting the user to act on your website. If the user finds the content valuable, then they are more likely to share it.

15) Users derive satisfaction while shopping on a good quality website or application:

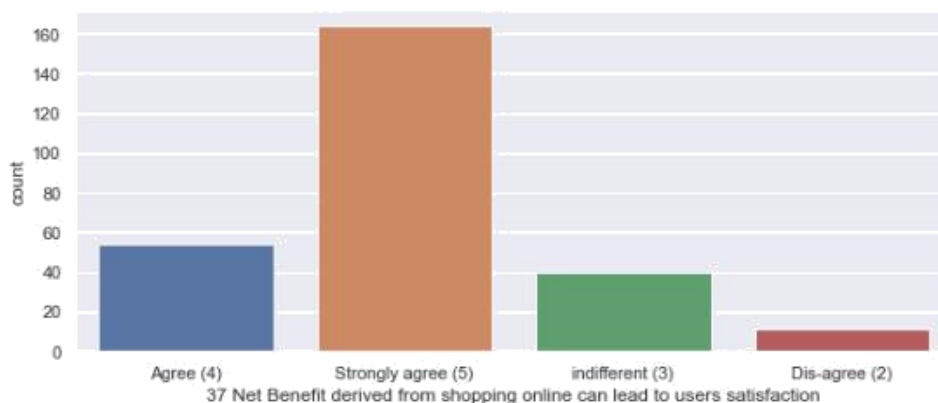
```
Strongly agree (5)    175
Agree (4)            86
Dis-agree (2)         8
Name: 36 User derive satisfaction while shopping on a good quality website or application, dtype: int64
```



Almost everyone agrees to the fact that a good quality website improves customer satisfaction. These days the human attention span is hovering around 7 seconds. We're constantly being lured by distracting text messages, app notifications, or the need to check the latest news alert. Your business is competing with a lot of noise and you might only get one chance at capturing a customer. Having an effective strategy for improving customer satisfaction on your website is a major retailer recommendation and making sure the experience is the best is a critical goal. It's true that 88% of online consumers say they are less likely to return to a website after a bad experience.

16) Net Benefit derived from shopping online can lead to users' satisfaction:

```
Strongly agree (5)    164
Agree (4)             54
indifferent (3)       40
Dis-agree (2)         11
Name: 37 Net Benefit derived from shopping online can lead to users satisfaction, dtype: int64
```

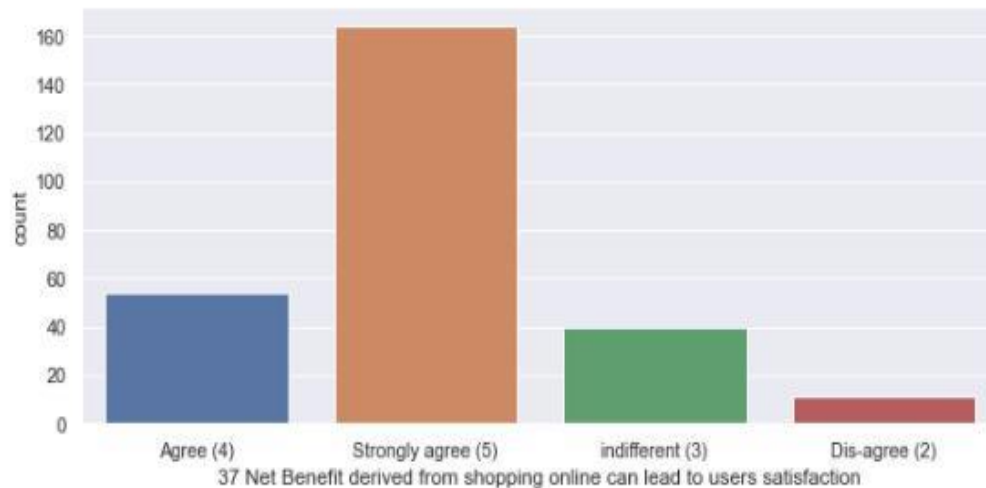


As in this competitive market users always find the benefits from the discounts available in the various e-commerce sites, If the customers get lump sum number of discounts and can save their money rather shopping from offline, this small benefit from shopping online can lead to user's satisfaction, hence most of the users strongly agree into it.

17) Offering a wide variety of listed product in several category:

Strongly agree (5)	164
Agree (4)	54
indifferent (3)	40
Dis-agree (2)	11

Name: 37 Net Benefit derived from shopping online can lead to users satisfaction, dtype: int64

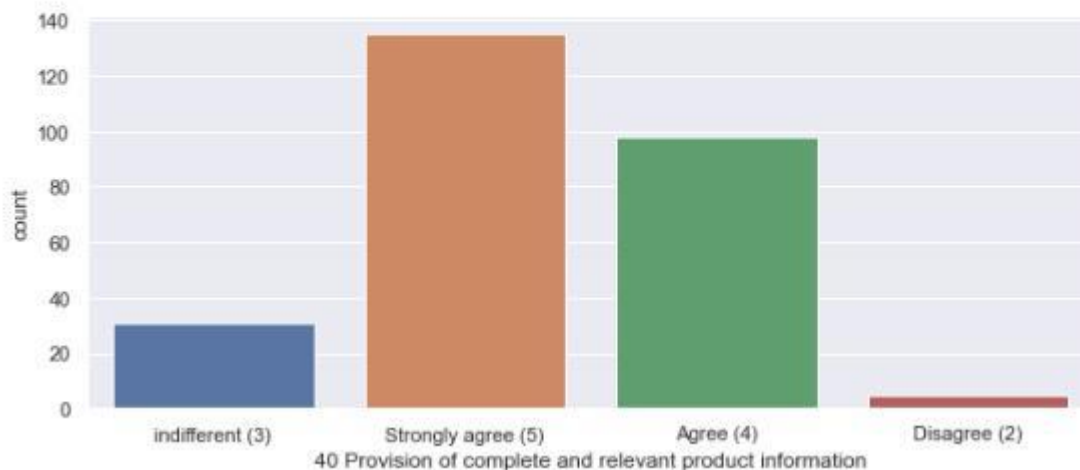


A wide variety merchandising strategy draws customers in with an impressive array of products in a relatively compact space. The deep assortment strategy, by contrast, offers a greater range of sizes, colors, styles, and brands. Wide variety can be most effective in the e-commerce sites because the users get various options to choose from them which resulted in a higher percentage sale. Choosing how many product offerings to develop, market and support is a key decision for any company – and it can have a significant impact on growth and productivity. Having a wide range of product lines increases the chances of satisfying more customers and can improve productivity and hence most of the people strongly agrees to this.

18) Provision of complete and relevant product information:

Strongly agree (5)	135
Agree (4)	98
indifferent (3)	31
Disagree (2)	5

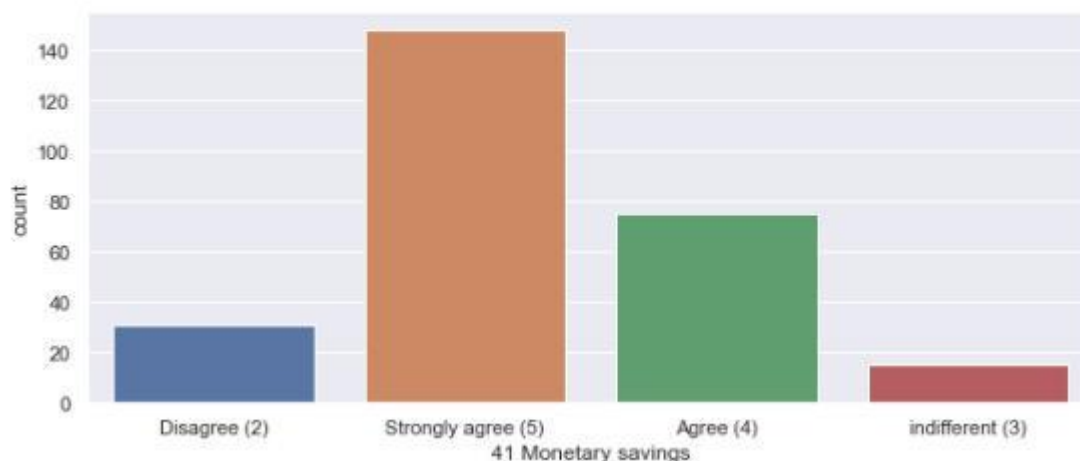
Name: 40 Provision of complete and relevant product information, dtype: int64



Product descriptions are essential for a successful online business because they help you become more visible online, share the information needed by consumers to make a buying decision and therefore, have more sales. The more useful information you share on your product labels will make your customer's lives better – and it will also make your life better. If your labels provide the information to your customers that show them that you are treating them like you would want to be treated, you're more likely to see repeat business, hence most of the people strongly agree to the point that Provision of complete and relevant product information is very important.

19) Monetary savings:

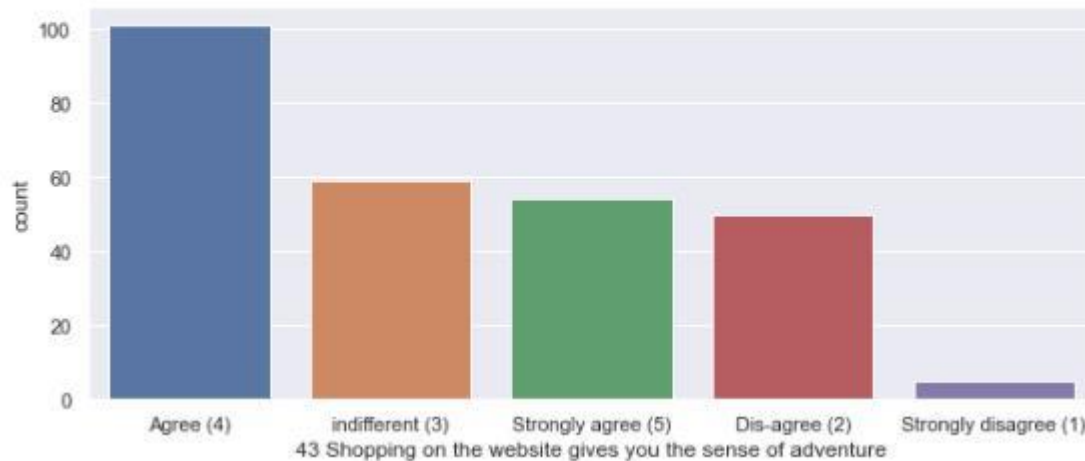
```
Strongly agree (5)    148
Agree (4)             75
Disagree (2)         31
indifferent (3)       15
Name: 41 Monetary savings, dtype: int64
```



Everyone wants to save money!!! Monetary savings is also a key player along with many other factors, where in more than 70% buyers agree to it.

20) Shopping on the website gives you the sense of adventure:

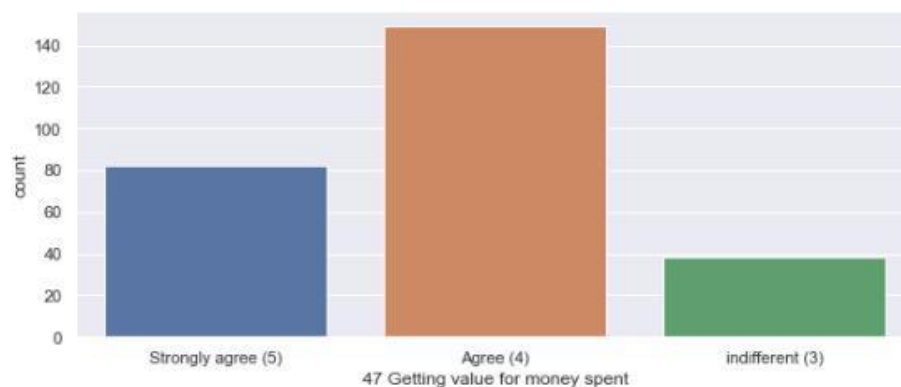
```
Agree (4)          101
indifferent (3)    59
Strongly agree (5) 54
Dis-agree (2)      50
Strongly disagree (1) 5
Name: 43 Shopping on the website gives you the sense of adventure, dtype: int64
```



Most of the users find that shopping in online websites gives them the feel of adventure.

21) Getting value for money spent:

```
Agree (4)          149
Strongly agree (5) 82
indifferent (3)     38
Name: 47 Getting value for money spent, dtype: int64
```



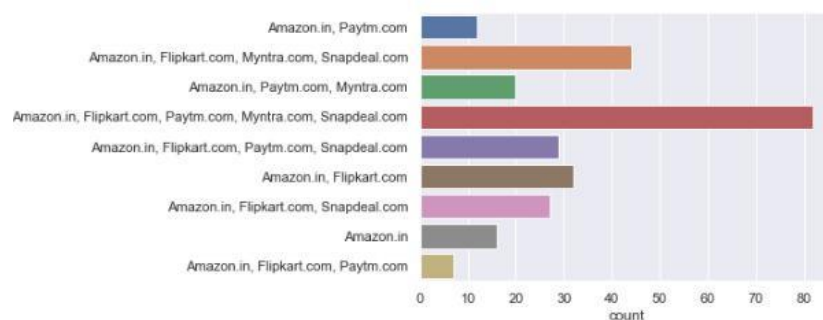
Less than 1% buyers disagree that the buying online should bring monetary benefit and none of the surveyors disagree that buying online should get value for the money spent.

Survey About the E-Commerce Sites:

Now that, we have analyzed what factors that a buyer considers in an e-commerce website before making a purchase decision. We can see the answers from the buyers towards the popular e-commerce websites to see the retention rate based on the answers they have provided.

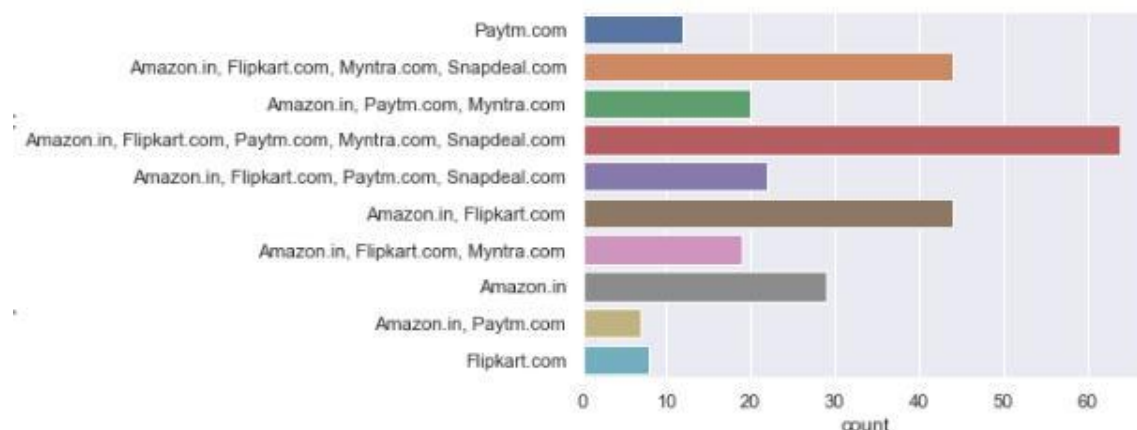
1) Online retailers that the users have shopped from:

Most of the buyers have purchased from Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com and everyone has shopped from Amazon.in. The next majority with the categories would be Flipkart.

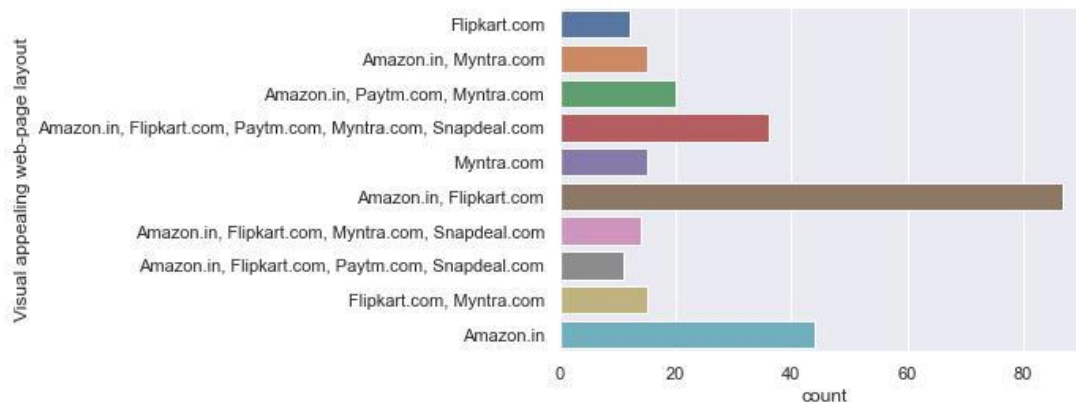


2) Easy to use website or application:

Survey Results Show Easy Website Navigation Is Most Important. ... A site which is easy to navigate allows users to find the content they're looking for much faster. This means having a clear menu structure and the ability to navigate between pages quickly and efficiently helps the sites to increase the web traffic. Again, almost every website is easy to use according to buyers.



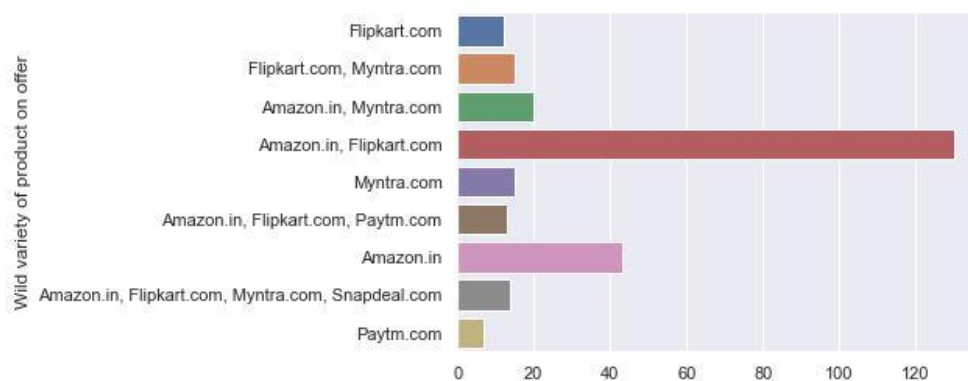
3) Visual appealing web-page layout:



Through pictures and other visual elements, you can convey feelings such as delight, sadness, or even pity. Visual appeal can awaken memories and emotions like trust, comfort, hope, or self-confidence. Visual design is important for many reasons. For one thing, your visual design is the first impression your product will make. Studies have shown that we have 50 milliseconds before users have made their first judgments on our products. As such, its visual design is clean cut, elegant, and highly professional. When it comes to visually most appealing websites Amazon.in and Flipkart.com tops the list.

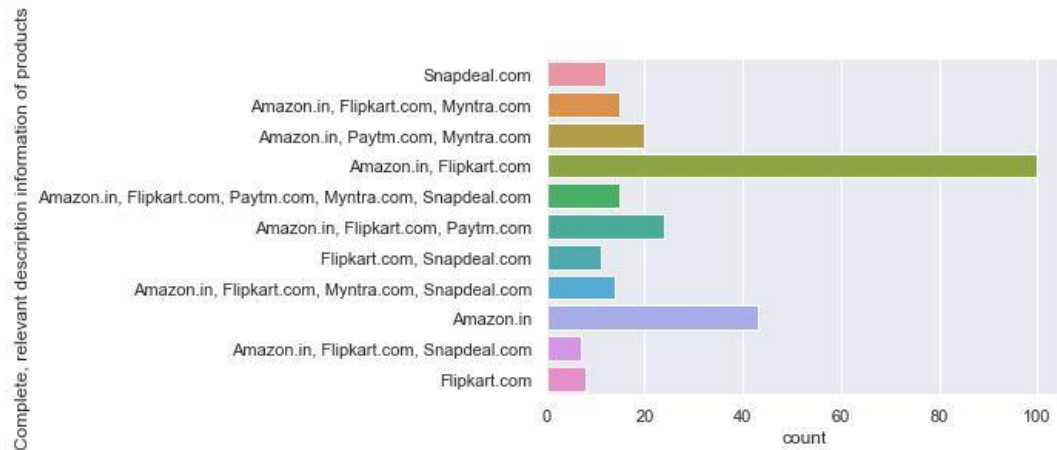
When it comes to wild variety of products on offer, Complete relevant description information, Fast loading website/application, Reliability, Interface, Availability of payment options, faster delivery, customer privacy, security, Trustworthiness, Customer support through multiple channels, time spent on a website, Website and application design updates and websites recommended to a friend most people voted for Amazon.in and Flipkart.com.

4) Wild variety of product on offer:



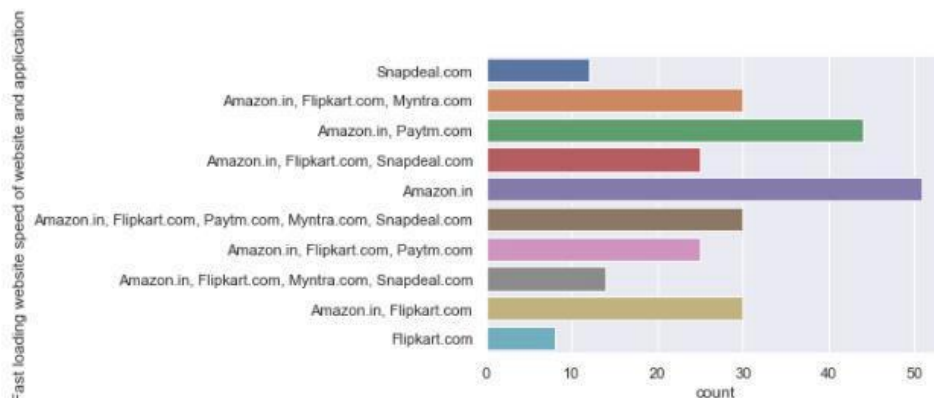
When it comes to wild variety of products on offer, most people voted for Amazon.in and Flipkart.com.

5) Complete, relevant description information of products:



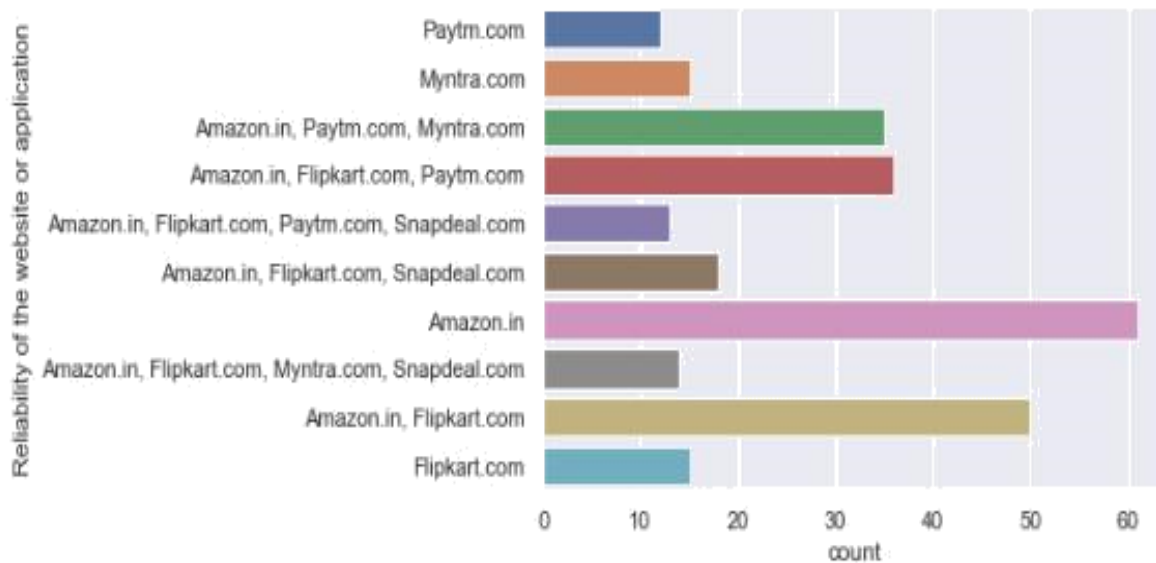
These technical features are incredibly important – they help reduce disparity between a product image and the actual product, which in turn, reduces the number of returns. Knowing what information, the customer is looking for, goes a long way in ultimately converting more customers. When it comes to Complete, relevant description information of products, most people voted for Amazon.in and Flipkart.com

6) Fast loading website speed of website and application:



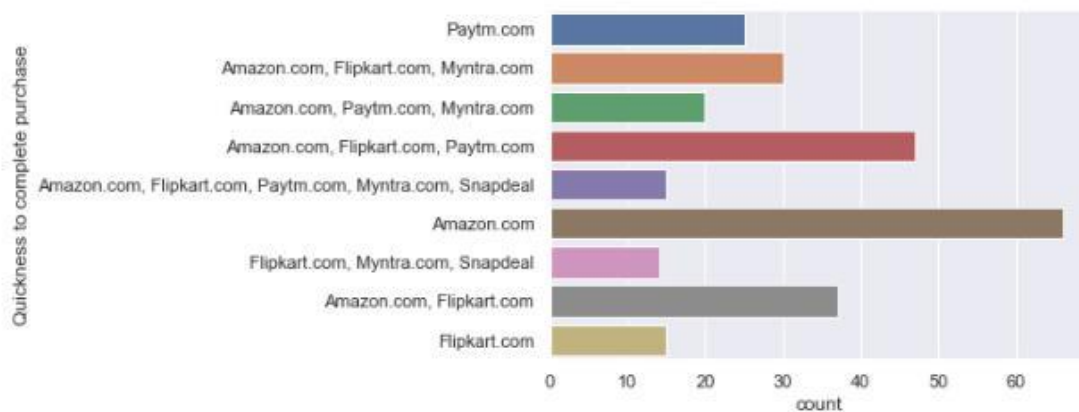
When it comes to Fast loading website speed of website and application, most people voted for Amazon. Where Flipkart.com vote stands in the lowest segment. As we have seen earlier that most of the people strongly agree to the point that an e-commerce site must have faster loading website and application, so flipkart.com and other e-commerce sites must upgrade their sites so they can load faster, which in turn will help the users for a smooth surfing to the websites.

7) Reliability of the website or application:



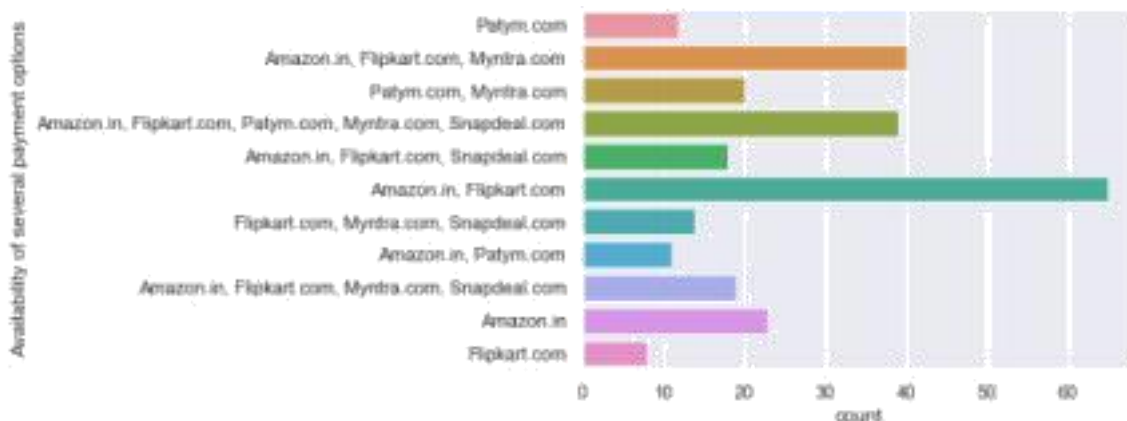
When it comes to Reliability of the website or application, most people voted for Amazon.in, which suggests amazon.in is the most reliable e-commerce sites, following by flipkart.com, myntra.com and paytm.com.

8) Quickness to complete purchase:



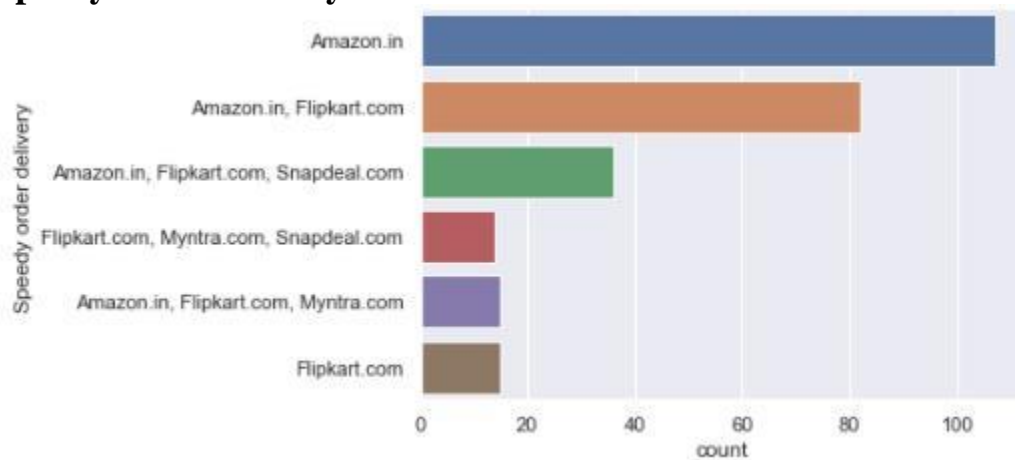
When it comes to Quickness to complete purchase, most people voted for Amazon.in, which suggests amazon. Have the quickest check out procedures among the e-commerce sites, following by flipkart.com, myntra.com and paytm.com.

9) Availability of several payment option



Offering multiple payment options can scale-up your conversion by a significant margin and improve customer satisfaction. The more options you provide, the more comfortable users will feel during checkout. When you accept more customers' preferred payment method you will make more sales. We live in a culture of convenience where people don't have the patience for inefficiencies, no matter how small they may seem. A customer will be more likely to shop at your websites if they have more options. Here when it comes to Availability of several payment options, Flipkart.com and Amazon.in is having the highest no of payment options.

10) Speedy order delivery:

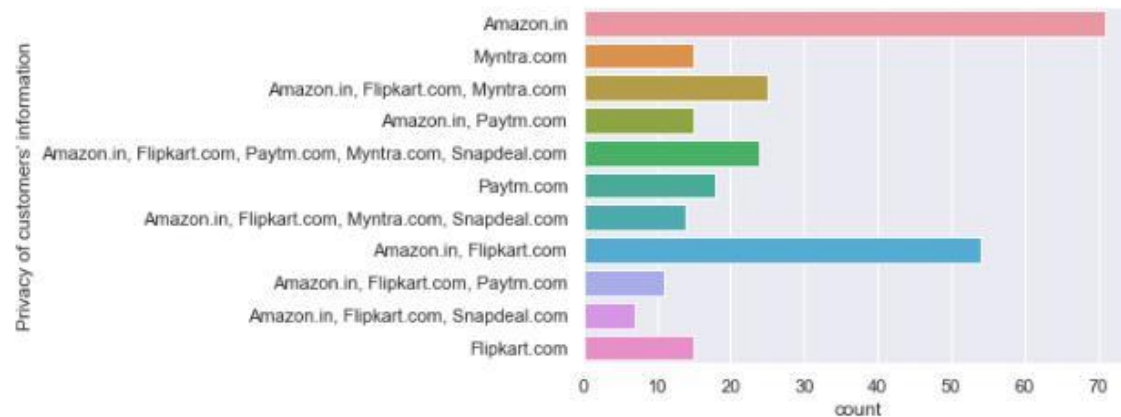


Timely deliveries make for high customer and client satisfaction. Not only will receiving their goods on time please them but courteous courier services will make for a pleasant delivery process. Certain goods have an expiration date, which is why they may need to be delivered within strict timeframes.

Deliveries can lead to a customer planning their day around it, so providing a time slot for delivery can ensure customers are satisfied with their experience and will shop with you again. Social media allows consumers to vent their anger, so ensuring you don't offer a poor delivery service is as important as ever. Here amazon.in is the fastest in speedy order delivery.

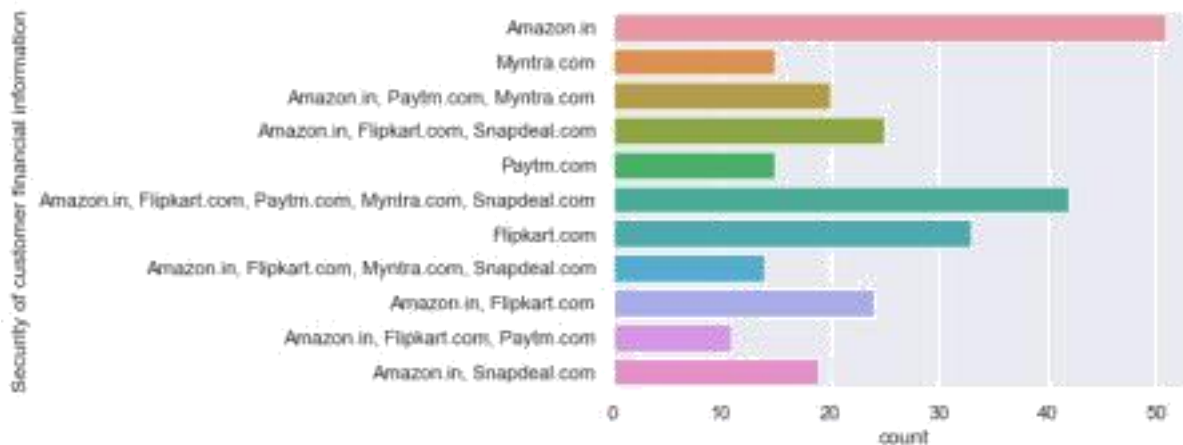
11) Privacy of customers information:

<AxesSubplot:xlabel='count', ylabel='Privacy of customers' information'>



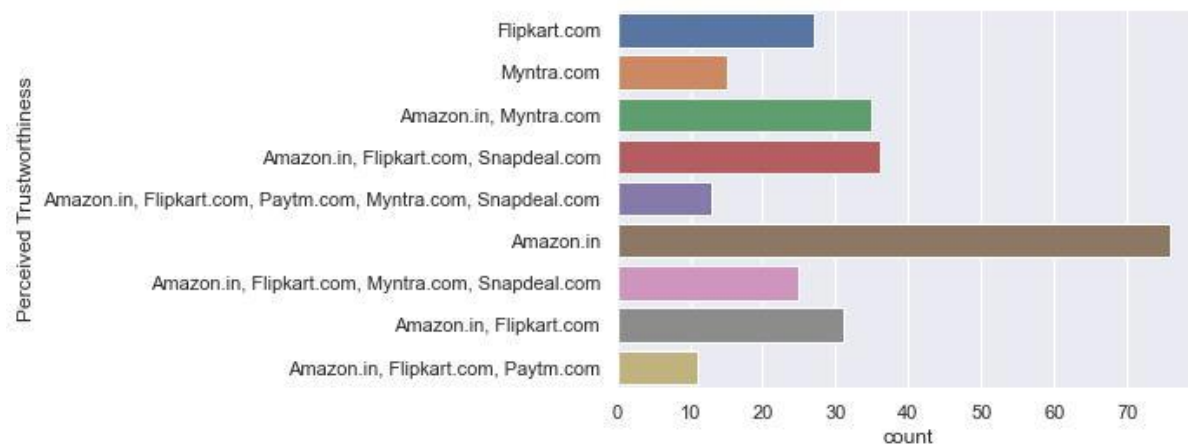
Maintaining privacy and protecting personal information of the customers and the employees is important for all organizations. Privacy management should go beyond mere regulatory requirements since it not only impacts an organization's reputation but can lead to financial losses due to loss of revenue and litigation. Here Amazon.in is more ahead in privacy in keeping the customer's information.

12) Security of customer financial information:



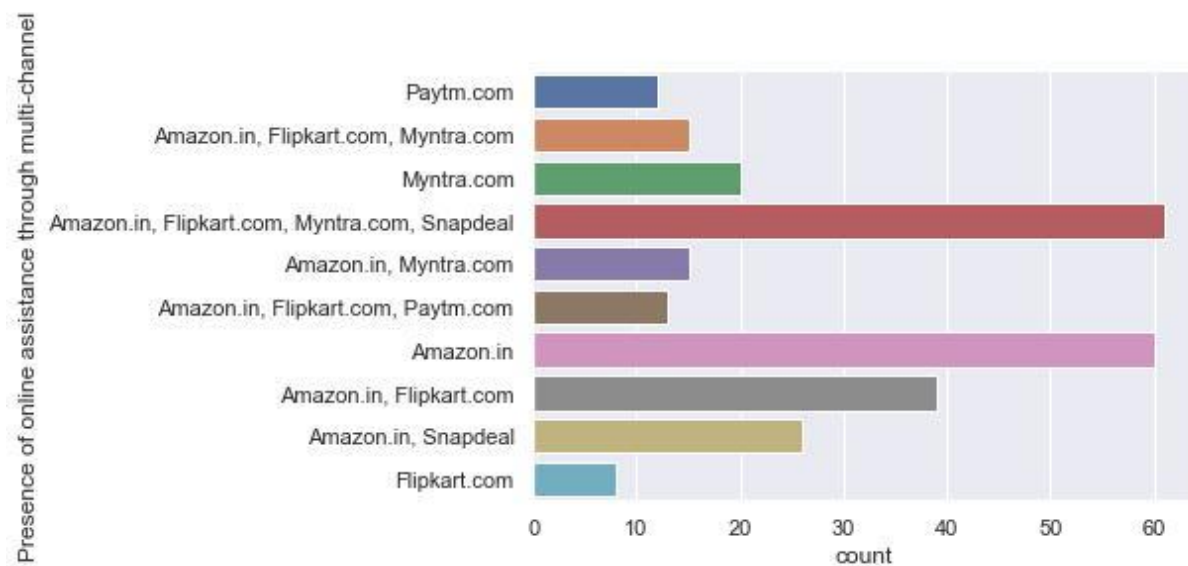
Protecting your customer's financial data is important for one huge reason: your business depends on it. If your company doesn't take steps to protect customer data, you'll be vulnerable to hacks, which could lead to loss of consumer confidence, customers leaving, fines, lawsuits, and more. When it comes to Security of customer financial information of the website or application, most people voted for Amazon.in, which suggests amazon.in is the most trusted e-commerce sites in terms of safeguard in customer's financial information, following by flipkart.com, myntra.com and paytm.com.

13) Perceived Trustworthiness:



Trust is the key to establishing an ethical organization environment, one that guides decisions and actions. Trust in business is the cornerstone of relationships with customers, suppliers, employees, and others who have dealings with an organization. Trust means to be reliable and carry through words with deeds. Amazon.in is the most trusted ecommerce site in this data.

14) Presence of online assistance through multi-channel:

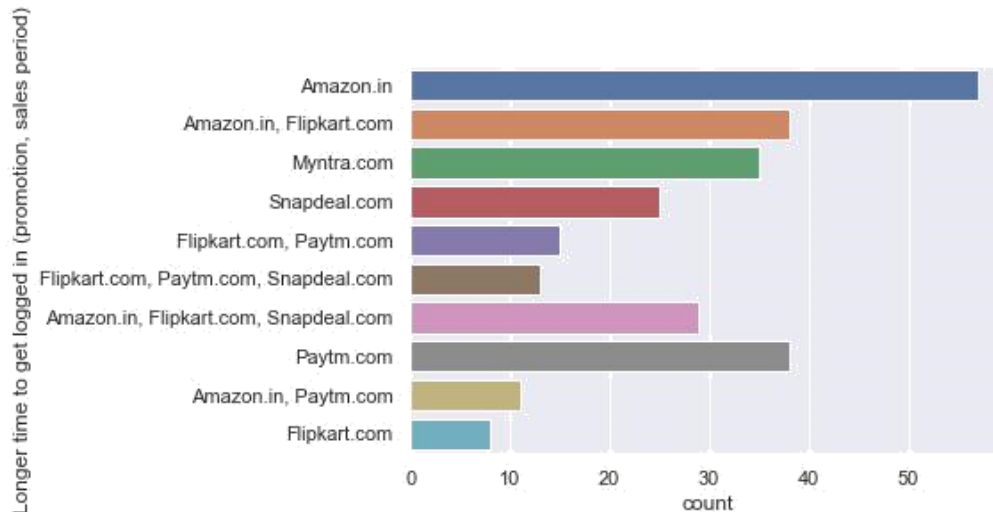


Availability of more options in communication channels for customer support is very important and most of the buyers agree to it because Customer service is the support you offer your customers — both before and after they buy and use your products or services — that helps them have an easy and enjoyable experience with you. Offering amazing customer service is important if you want to retain customers and grow your business. Amazon.in have the highest vote in Presence of online assistance through multi-channel.

These above positives are a very good sign because as per the previous analysis on what people prefer for in an e-commerce website has been covered by Amazon and Flipkart and they can expect a higher retention rate when compared to other websites.

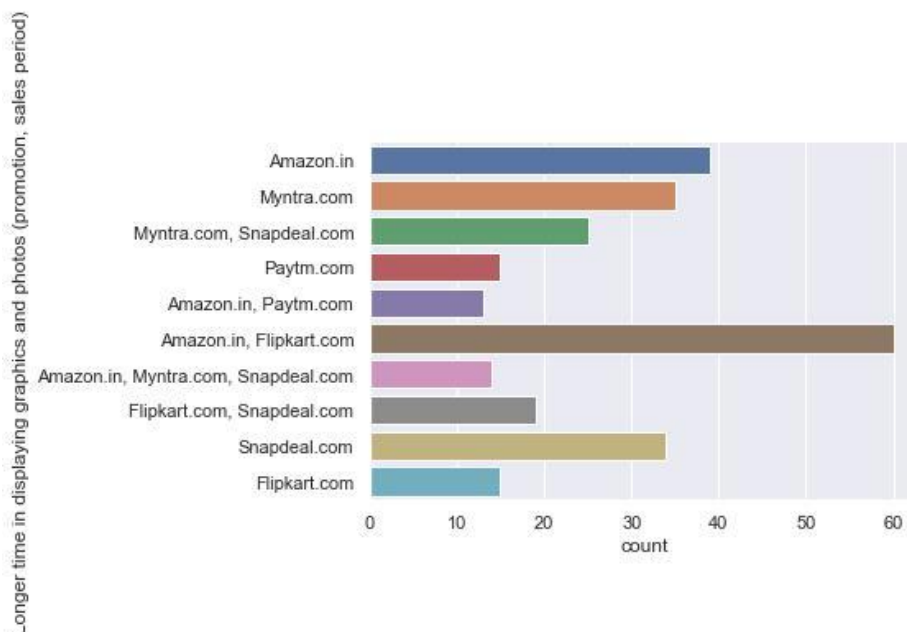
Drawbacks of The E-Commerce Sites:

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



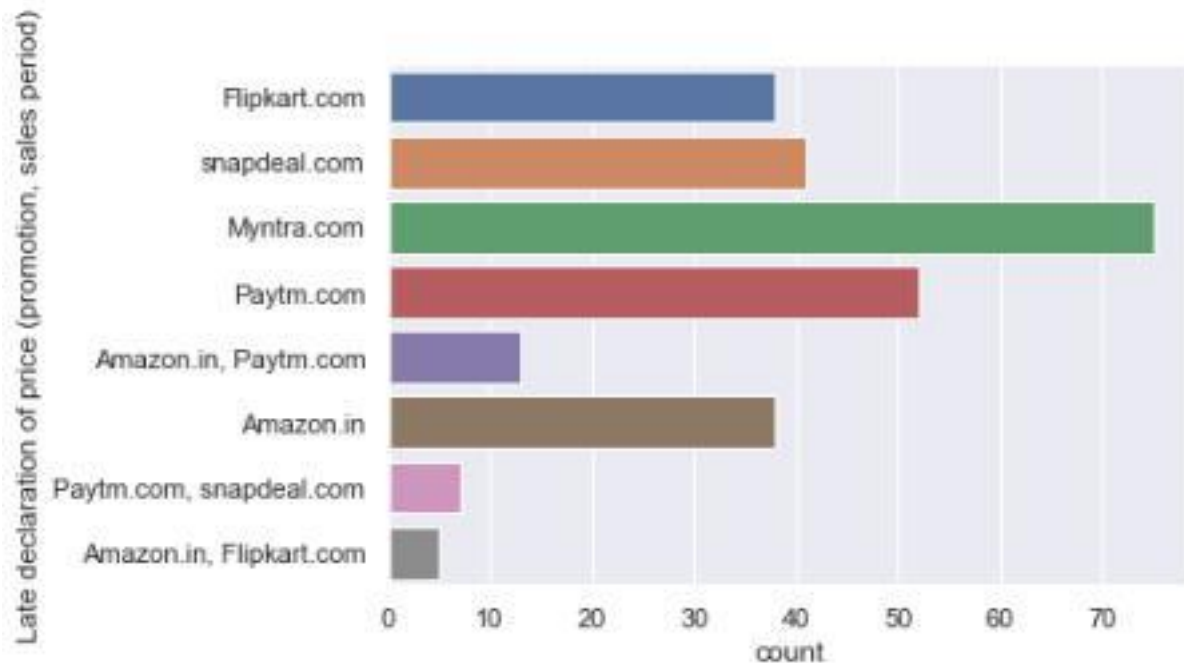
Amazon.in tops the list in longer time to get logged in (promotion, sales period) followed by flipkart.com and paytm.com. This is a negative point which every e-commerce site must look upon

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



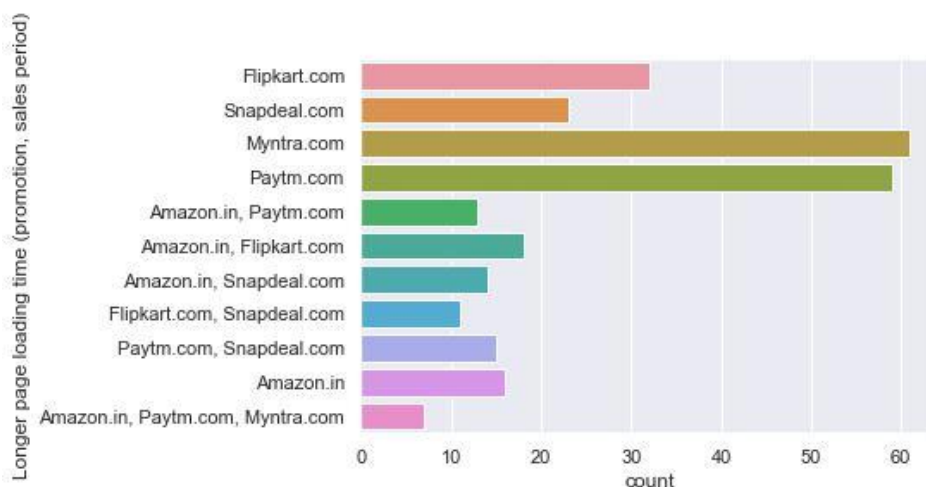
Amazon.in and flipkart.com tops the list in Longer time in displaying graphics and photos (promotion, sales period). which is also a negative drawback for retaining customers.

3) Late declaration of price (promotion, sales period):



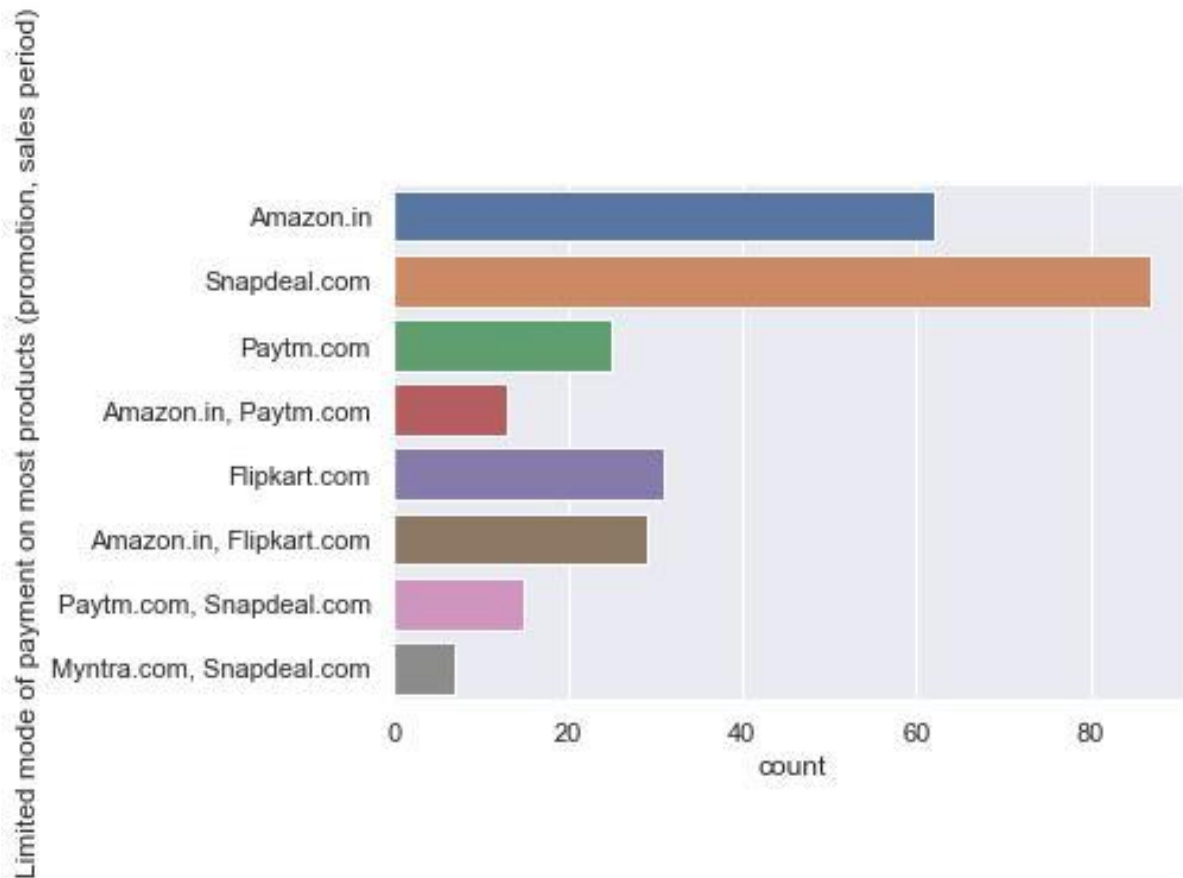
However, when we see analyze factors such as Late declaration of price (promotion, sales period) Myntra and Paytm tops the list and this promoting a bad buyer experience.

4) Longer page loading time (promotion, sales period):



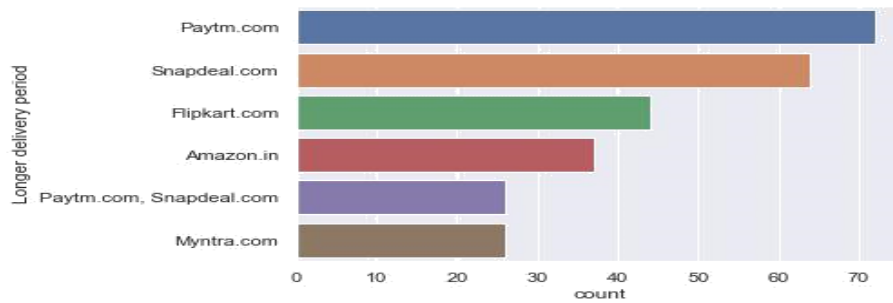
However, when we see analyze factors such as Longer page loading time (promotion, sales period) Myntra and Paytm tops the list and this promoting a bad buyer experience.

5) Limited mode of payment on most products (promotion, sales period):



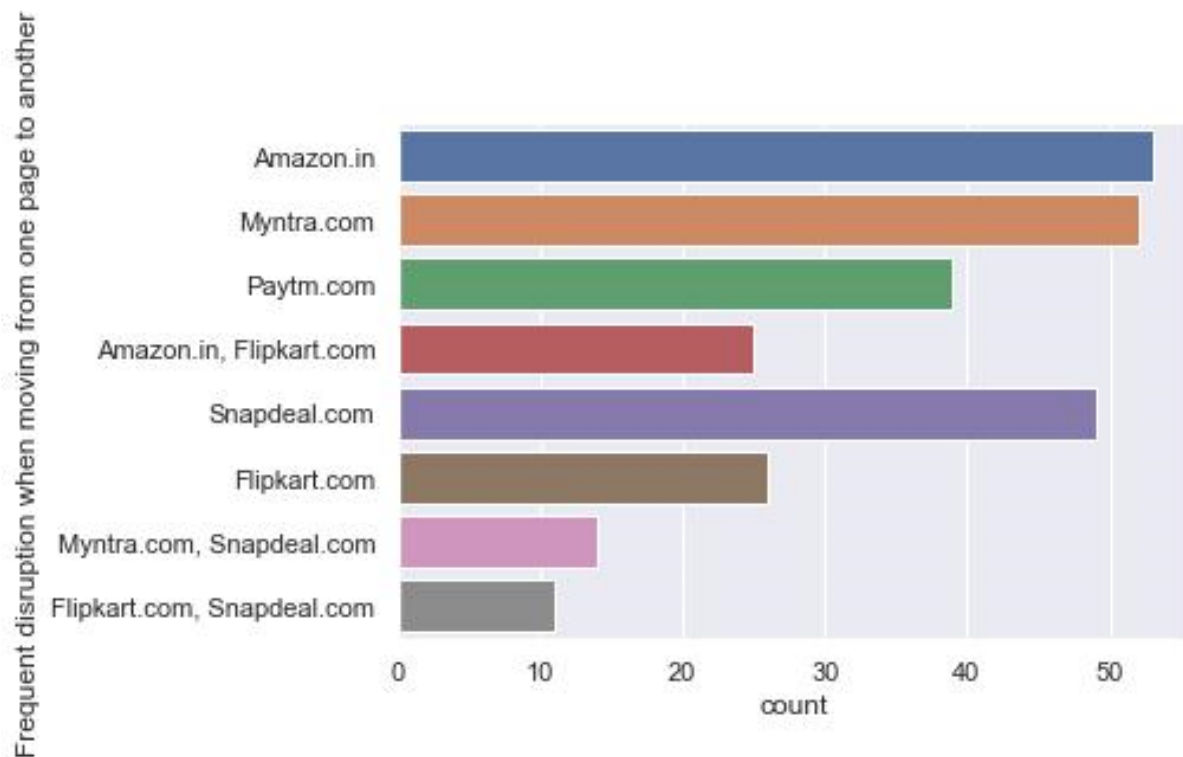
Further, when it comes to Limited mode of payment on most products Snapdeal tops the list followed by Amazon. Here is the only place Amazon needs to improve as we can see from the customer preferences, more options on payment mode are required.

6) Longer delivery period:



The importance of the speed of shipping to earning online customer loyalty was demonstrated by a recent report from Dotcom Distribution. The survey found 87% of online shoppers identified shipping speed as a key factor in the decision to shop with an e-commerce brand again. Paytm and Snapdeal tops the list which is not in line with the customer expectations.

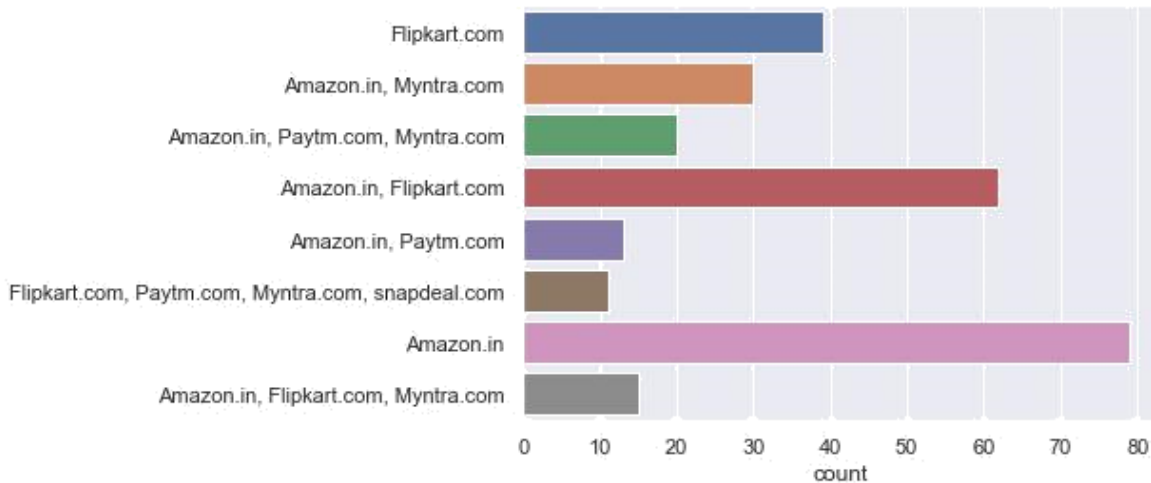
7) Frequent disruption when moving from one page to another:



When it comes to frequent disruptions, Amazon, Myntra and Snapdeal tops the list. Which is a major drawback in any websites.

Which of the Indian online retailer would you recommend to a friend?

Which of the Indian online retailer would you recommend to a friend?



From the above analysis, I can say that the companies with highest retention and customer satisfaction rates are Amazon.in and Flipkart.com because their positives are line with the buyer preferences, and they are most likely to use this website for purchases in future. Hence Amazon.in is the highest referable website to their friends and relatives.

Conclusion:

To conclude, having the right customer retention strategy will keep your company grows if you know how to take advantage of it. Your customers will find their way back and continue buying stuff from you. At the end of the day, what you need to do is fulfilling your customers' needs, listen to their complaints and provide professional solutions. If your customers feel like they are valued, they will become increasingly loyal to your brand. Customer satisfaction is important to win the customer back. There is lot of competition in e-commerce space of retailers hence company should focus in offering the best service.

- From the above analysis, I can say that the companies with highest retention and customer satisfaction rates are Amazon.in and Flipkart.com because their positives are line with the buyer preferences, and they are most likely to use this website for purchases in future.
- Most user will recommend Amazon.in and Flipkart to their friends.
- snapdeal.com is far behind as only 4.1% of the user will recommend it to their friends.
- The company with moderate retention rate is Myntra.com.
- Further, the company with very low retention rate and customer satisfaction is with Paytm and Snapdeal because most of the factors are not in line with the customer preferences and they are less likely to use this website again for online purchases or they will hardly refer to their friends.
- Customer satisfaction plays a major role in retention, A company should first understand what customers expects while purchasing online (e-commerce) and build a better buying experience which will in turn retain the customer. An unforgettable experience is what drives customers to buy again and again.
- The interface should be user friendly. There should be complete description of the product on the website or application, and it should be efficient to use.
- Company should win customer trust that their personal and financial details are secure with us and will not be used for any fraudulent activity.
- One of the best ways to retain the customer is to have a rewarding loyalty program. Customer should feel invested in the company and they will be happy that every purchase they are making will lead to more rewarding experience.

- Any issue while browsing should be addressed. Customer may lose out on the deal if there is some glitches or technical issue with the website. The browsing should be quick especially during the sale or promotion period.

Amazon - The most recommended websites with attractive web-page layout, easy to use, relevant descriptive information, product offers, reliability of website, quickness to complete purchase, trust worthiness.

- **Improvements:** Takes longer time to login, Late declaration or price during sales and promotion, frequent disruption when moving from one page to another, Limited mode of payment on most of products.

Flipkart: This is the 2nd most recommended website with fast loading page, security of financial information, trust worthiness, several payments modes, website is as efficient as before.

- **Improvements:** Takes longer time in displaying graphics, late declaration of price during sales and promotion. privacy information, reliability of website, offers on product, and must be an attractive web-page layout.

Myntra: Myntra stands on 3rd most recommended websites with easy to use, wild variety of product offers, several payment methods, attractive visual appealing web-page layout.

- **Improvements:** Relevant information about product, website loading speed, speedy delivery of products, websites is not much efficient as before.

Paytm: Reliability of website, speedy delivery of products, quickness in purchase.

- **Improvements:** Longer page loading time, Longer delivery period, late declaration of price during sales and promotion.

Snapdeal: Least recommended website having less page loading time.

- **Improvements:** Limited mode of payments, frequent disruption while moving from one page to another, Longer delivery period, customer's

The main factors that drive customer Retention are:

- Easy to read and understandable content.
- Relevant information on all the products.
- Easier website design and navigation.
- User friendly Interface.
- Convenience in payment methods.
- Trust and on time delivery.
- Better Customer Service.
- Secure and offers complete privacy to their customers.
- Discounts and Monetary Benefits.
- Wide range of options and product selections.
- Flexibility in their offers and services.
- Return and Replacement policies.
- Quality information on websites.
- Website Quality.
- Value for the money spent.

Let us see customer retention strategies that will boost the profit of the e-commerce sites:

1) Use Customer Segmentation Effectively: - Surprisingly, customer segmentation is a straightforward strategy that can uplift an e-commerce company's retention metrics dramatically. But most of the brands do not leverage the power of customer segmentation. Customer segmentation is simply dividing your users into different clusters based on common attributes/qualities. E.g., you can create customer segments based on new users, cart products/value, online behavioral data, or even their purchase history.

Segmentation is essentially done to give the customers a more personalized experience and nurture loyalty. Studies show that effective customer segmentation can compel 86 percent of your target audience to make a purchase, and drive impulse buys. This shall be a great starting point to boost customer retention for your brand.

2) Use SMS to Engage Customers Outside of Internet:

The SMS channel is another unrated yet highly effective engagement channel for e-commerce brands. SMS allows brands to send personalized offers to a broad set of audiences in a short span. With more than 98 percent open-rate, SMS is a

great way to enhance your brand recall, onboard new customers, and continually engage existing customers to push more sales. Indeed, SMS marketing automation can be an excellent investment for your brand to uplift your customer retention numbers.

3) Use the Customer Loyalty Program:

This is an age-old strategy in the quiver of successful businesses. From credit card companies to e-commerce brands, customer loyalty programs can become so successful that they replace other marketing strategies. Customer loyalty programs consist of ‘virtual reward points’ that the customer earns with every purchase. These points can be further exchanged for cash back, discounts, and other valuable deals as per the program design.

Considering 75 percent of your customers trust a brand that offers a loyalty program, your company can reap wonders out of it.

4) Deploy a Customer Referral Program:

What can be better than acquiring more loyal customers through your existing loyal customers? Customer referral programs can help you achieve this goal. It is astonishing to know that 54 percent of the marketers find customer referrals to be highly effective – leads wise and profit-wise.

Make sure you give fair incentives to your best customers to drive referral traffic to your online store as their influence is a vital purchase motivation for the referred customers.

5) Ask for Non-Intrusive Web Opt-ins or Push:

Capturing more and more of your website visitors through a single-click opt-in can grow your subscriber list significantly. Post that, you can target them with personalized and non-intrusive push messages (over web or app) tailored to their needs.

No matter what e-commerce niche you are operating in, customer retention comes in as a requisite to create a long-term, sustainable business.

If any E-commerce sites/application have a great deep in through the above-mentioned points, the company will retain customers and it will help to grow the business because there will be lot of referrals awaiting.

