

CUSTOMER RETENTION ANALYSIS



**For :- Indian E-Commerce
WebSites**

Submitted By : - *OJASAV SAHU*

Internship : - 23

Contents :-

- *Introduction*
- *Customer Retention*
- *Importance of Customer Retention*
- *Problem Statement*
- *Problem Understanding*
- *Importing the required Libraries And collecting the Data*
- *Graphical Visualization*
- *Conceptual Background of the Domain Problem*
- *Types of Customer Retention Rate*
- *Drawbacks and Scope for the Future work*
- *Conclusion*

Introduction :-

Customer satisfaction has emerged as one of the most important factors that guarantee the success of online store; it has been posited as a key stimulant of purchase, repurchase intentions and customer loyalty. 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.

Customer Retention :-

In today's challenging economy and competitive business world, retaining their customer base is critical to organization success. If the company doesn't give their customer some good reason to stay, organization's competitors will give the customer a reason to leave. Customer retention and customer satisfaction drive profits. It's far less expensive to cultivate organization existing customer base and sell more service to the customer than it to seek new, single-transaction customers. Most surveys across industries shows that keeping one existing customer is five to seven times more profitable than attracting one new customer

Even if there are a large number of customers, a small increase in the rate should dramatically increase profits. The maintenance of the patronage of people who have purchased a company's goods or services once and the gaining of repeat purchases. Customer retention occurs when a customer is loyal to a company, brand, or to a specific product or service, expressing long-term commitment and refusing to purchase from competitors. Of critical importance to such strategies are the wider concepts of customer service, customer relations, and relationship marketing. Companies can build loyalty and retention through the use of a number of techniques, including database marketing, the issue of loyalty cards, redeemable against a variety of goods or service, preferential discounts, free gifts, special promotions, newsletters or magazines, members' clubs or customized products in limited editions

Importance of Customer Retention:-

There are a number of reasons for this. To begin with, to acquire a customer a company incurs promotional costs like advertising, sales promotion etc. It is said that it costs five times more to attract a new customer than retaining one. The operating cost decrease when a customer stays. Service being rich in experience and credence qualities, it takes some time for customers to get accustomed to it and once they are used to the service and are satisfied with the service provider, they tend to purchase more over a period of time. As they remain satisfied with a service provider, they spread a positive word of mouth, which is very effective in case of service for attracting new customers. Longer the customer stays with an organization, more the organization knows about him, which enables it to offer a customized service which makes it difficult for the customer to defect. This may even provide opportunities to the organization to charge price premium by offering individualized service which may be difficult for the competitors to offer. Considering the importance of retaining customers in service business.

Reichheld & Sasser coined a term 'Zero Defection'. They highlighted that companies can boost profits by almost 100% by retaining just 5% more of their customers. Further, it is also very important to understand the life time value of a customer. Further, if by a positive word of mouth, he brings just one more customer to the organization, his value to the organization doubles. Therefore, it is important for all the employees in the organization to understand the life time value of their customers.

Problem Statements :-

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.

Problem Understanding :-

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 in order 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. Here we have to analyse the affect of different feature on customer retention.

Exploratory Data Analysis :-

Importing the Required Libraries

```
In [1]: import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings('ignore')
```

Data Collection

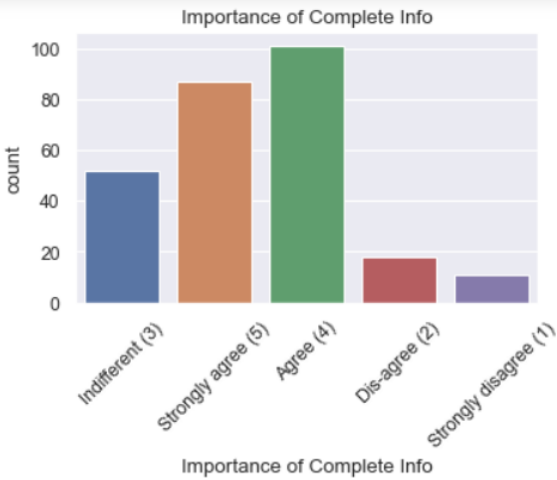
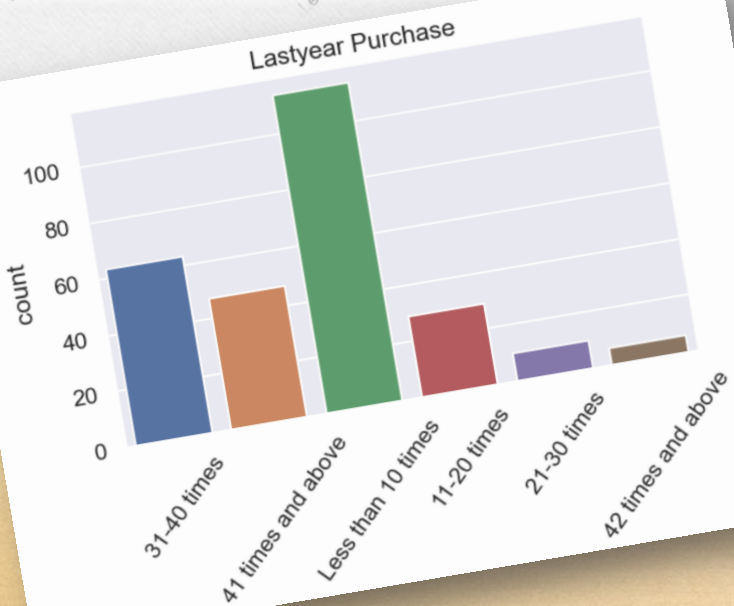
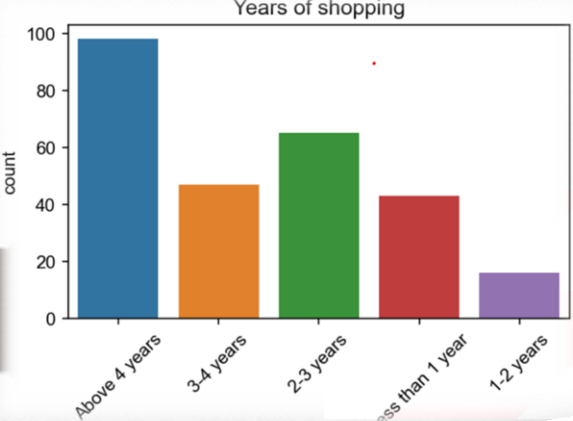
```
In [2]: data = pd.read_excel('customer_retention_dataset.xlsx')
pd.set_option('display.max_columns', None)
data.head()
```

Out[2]:

	1 Gender of respondent	2 How old are you?	3 Which city do you shop online from?	4 What is the Pin Code of where you shop online from?	5 Since How Long You are Shopping Online ?	6 How many times you have made an online purchase in the past 1 year?	7 How do you access the internet while shopping on-line?	8 Which device do you use to access the online shopping?	9 What is the screen size of your mobile device? (inches)	10 What is the operating system (OS) of your device? (OS)	11 What browser do you run on your device to access the website? (Browser)	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? (Channel)	14 How much time do you explore the e-retail store before making a purchase decision? (Time)	15 V
0	Male	31-40 years	Delhi	110009	Above 4 years	31-40 times	Dial-up	Desktop	Others	Window/windows Mobile	Google chrome	Search Engine	Search Engine	6-10 mins	E- (Free
1	Female	21-30 years	Delhi	110030	Above 4 years	41 times and above	Wi-Fi	Smartphone	4.7 inches	IOS/Mac	Google chrome	Search Engine	Via application	more than 15 mins	Cred
2	Female	21-30 years	Greater Noida	201308	3-4 years	41 times and above	Mobile Internet	Smartphone	5.5 inches	Android	Google chrome	Search Engine	Via application	11-15 mins	E- (Free
3	Male	21-30 years	Karnal	132001	3-4 years	Less than 10 times	Mobile Internet	Smartphone	5.5 inches	IOS/Mac	Safari	Search Engine	Search Engine	6-10 mins	Cred
4	Female	21-30 years	Bangalore	530068	2-3 years	11-20 times	Wi-Fi	Smartphone	4.7 inches	IOS/Mac	Safari	Content Marketing	Via application	more than 15 mins	Cred

Graphical Visualization :-

➤ Univariate Analysis :-



Importance of Complete Info	Gender	
Agree (4)	Female	61
	Male	40
Dis-agree (2)	Female	11
	Male	7
Indifferent (3)	Female	29
	Male	23
Strongly agree (5)	Female	70
	Male	17
Strongly disagree (1)	Female	10
	Male	1
Name: Gender, dtype: int64		
Agree (4)		101
Strongly agree (5)		87
Indifferent (3)		52
Dis-agree (2)		18
Strongly disagree (1)		11
Name: Importance of Complete Info, dtype: int64		

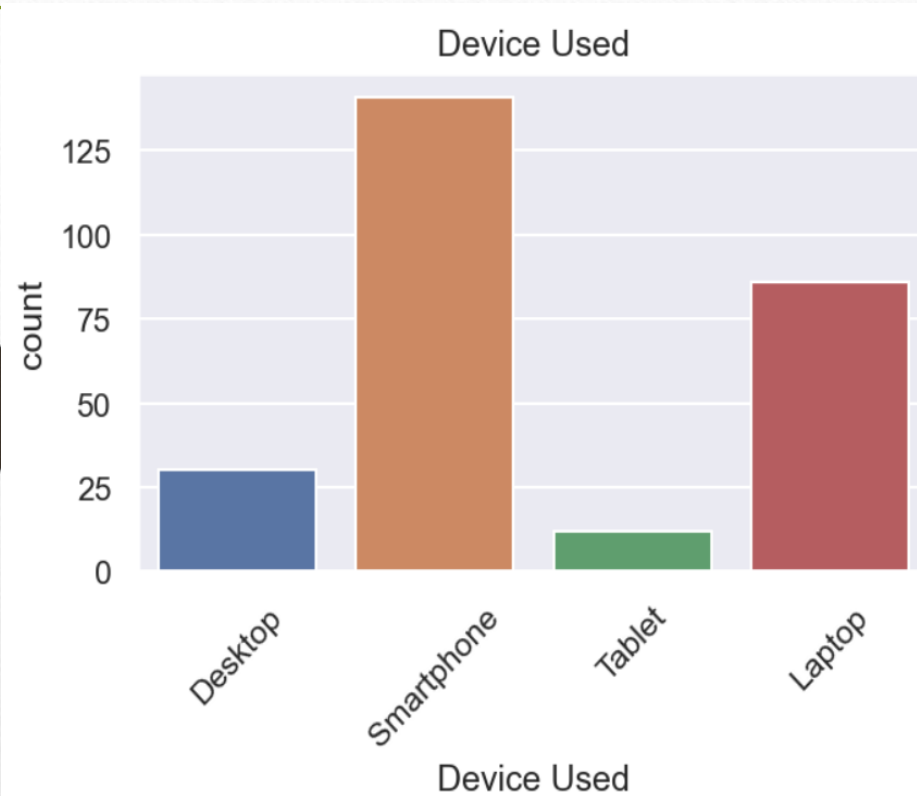
Documentation :-

Importance of Complete Info :-

Here I can clearly see, In the response given by the customer's :- Most of the customer's "Agree" to it and there are very few people who choose for "Strongly Disagree".

Documentation :- Last Year Purchase :-

Here I can clearly see, In the response given by the customer's :- There are most of the people who have done shopping less than 10 times, and a lott of people have done shopping ranging between "31-40 Times" and rest of the people are between this range and there are very few people how have done shopping more than 42 times and above.



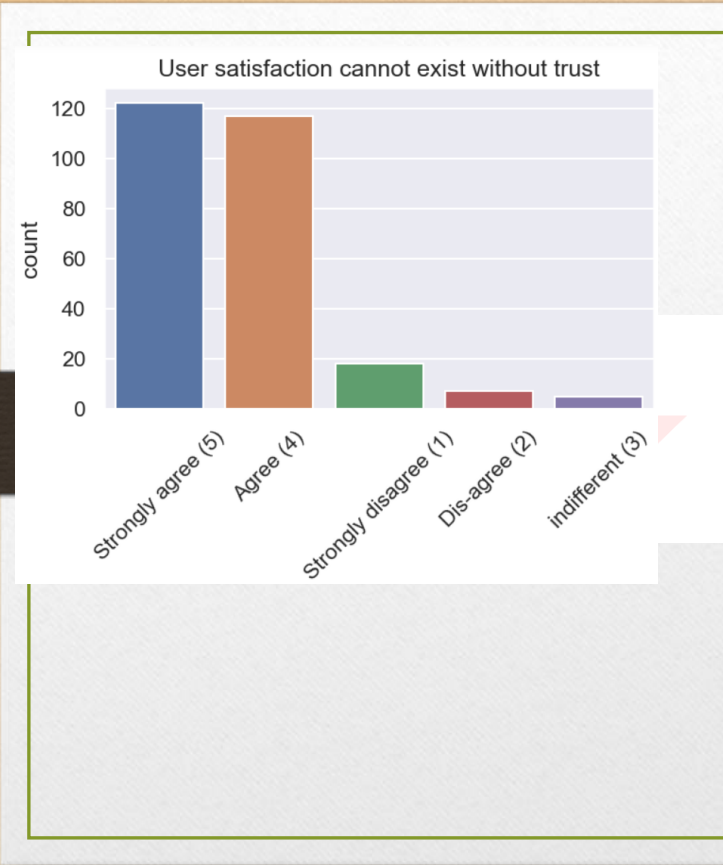
Documentation :-

Device Used :-

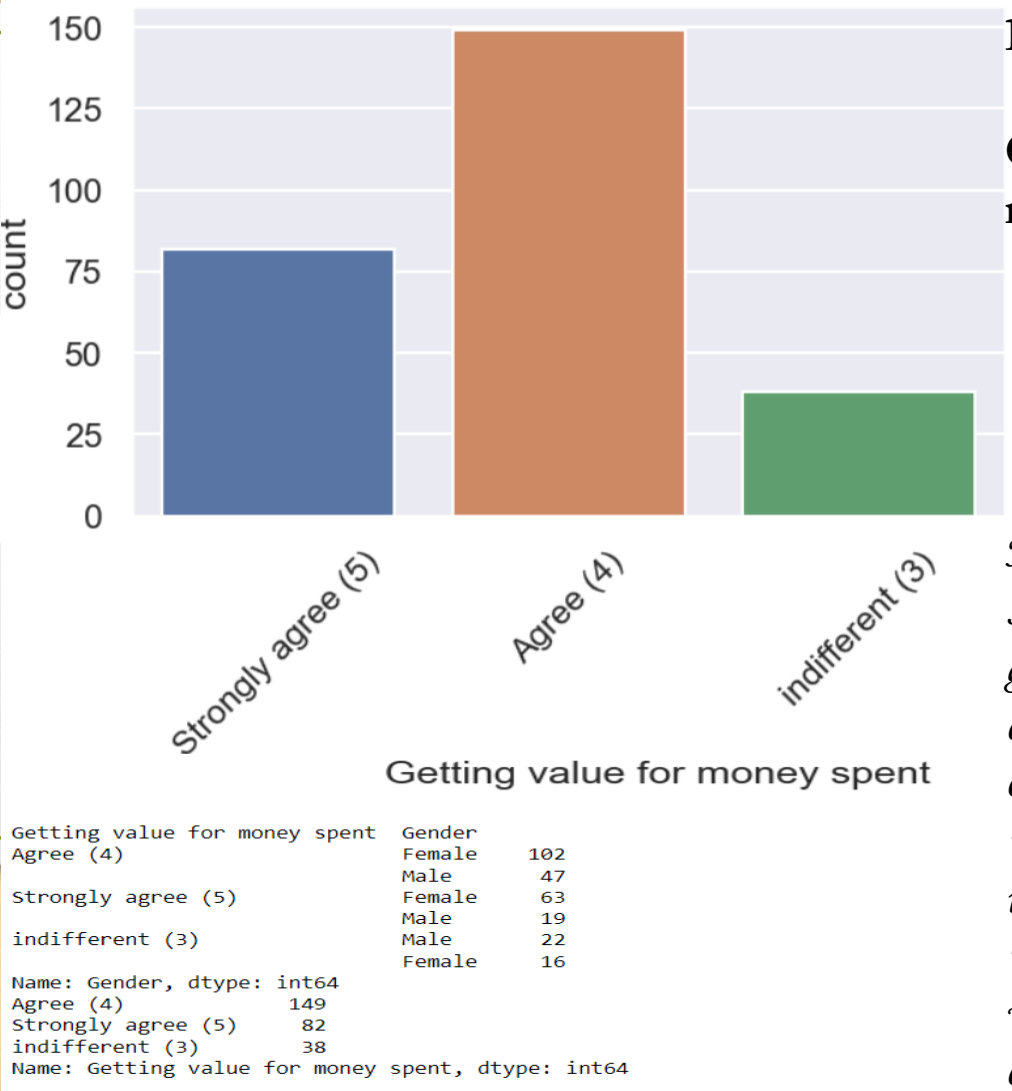
*Here I can clearly see,
In the response given
by the customer's :-
Most of the people are
using "SmartPhones"
after that "Laptop's"
after that "Desktop"
and then at the last
"Tablet".*

Documentation :

User satisfaction cannot exist without trust :-



Here I can clearly see, In the response given by the customer's :- Most of the customer's "Strongly Agree" to it, followed by "Agree" and there are very few people who choose for "Indifferent".

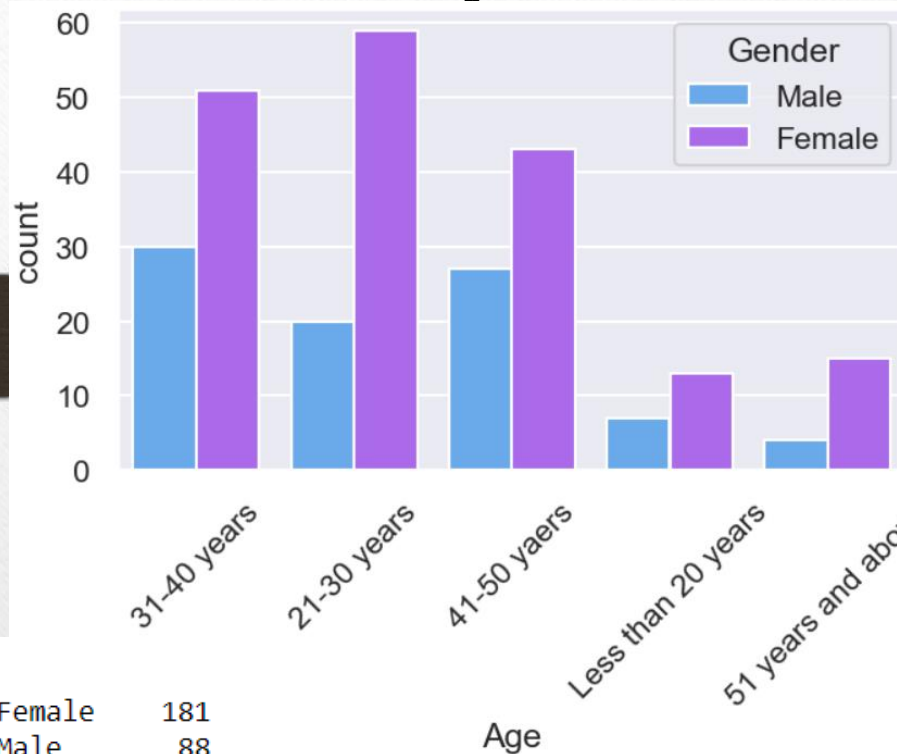


Documentation :

Getting value for money spent :-

Here I can clearly see, In the response given by the customer's :- Most of the customer's "Strongly Agree" to it, followed by "Agree" and there are very few people who choose for "Indifferent".

➤ Bivariate Analysis :-



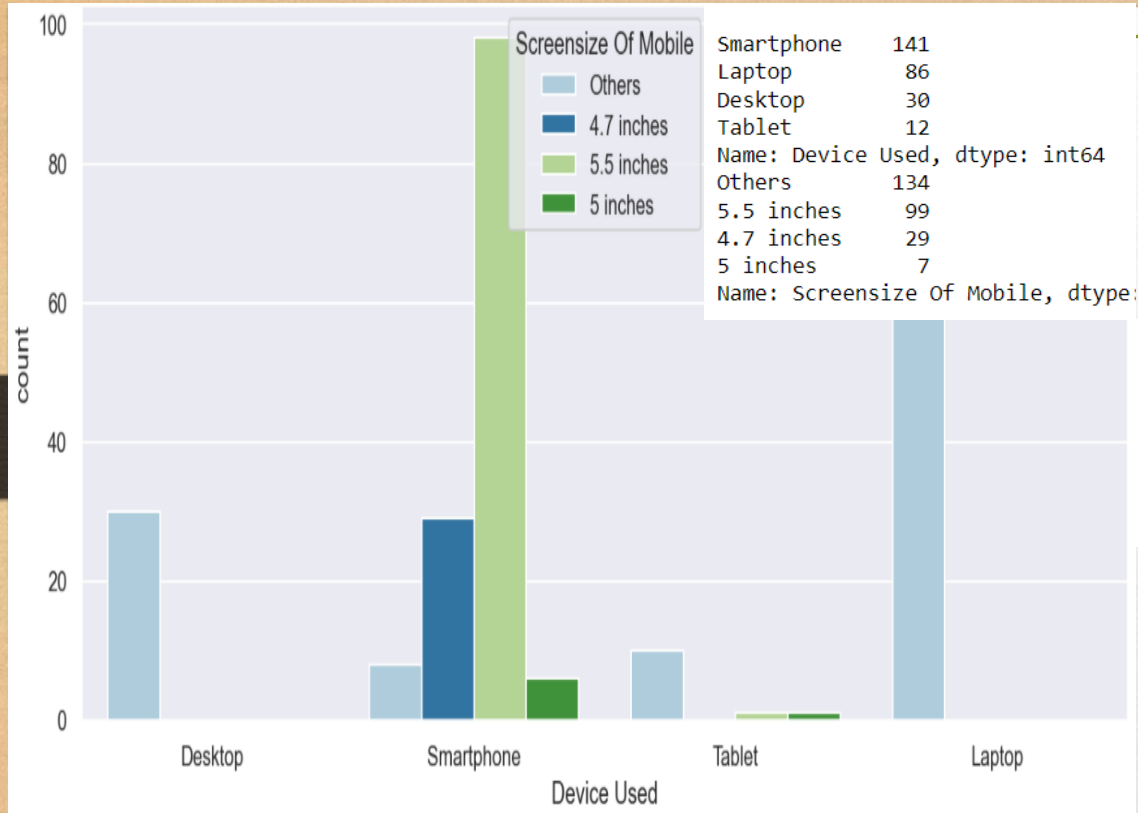
Documentation :

Age :

i. Here I can clearly see, In the response given by the customer's The Number of 'Females' are more as compared to 'Males'.

ii. 'Females' aging between '21-30 Years' and 'Males' aging between '31-40' have given the response.

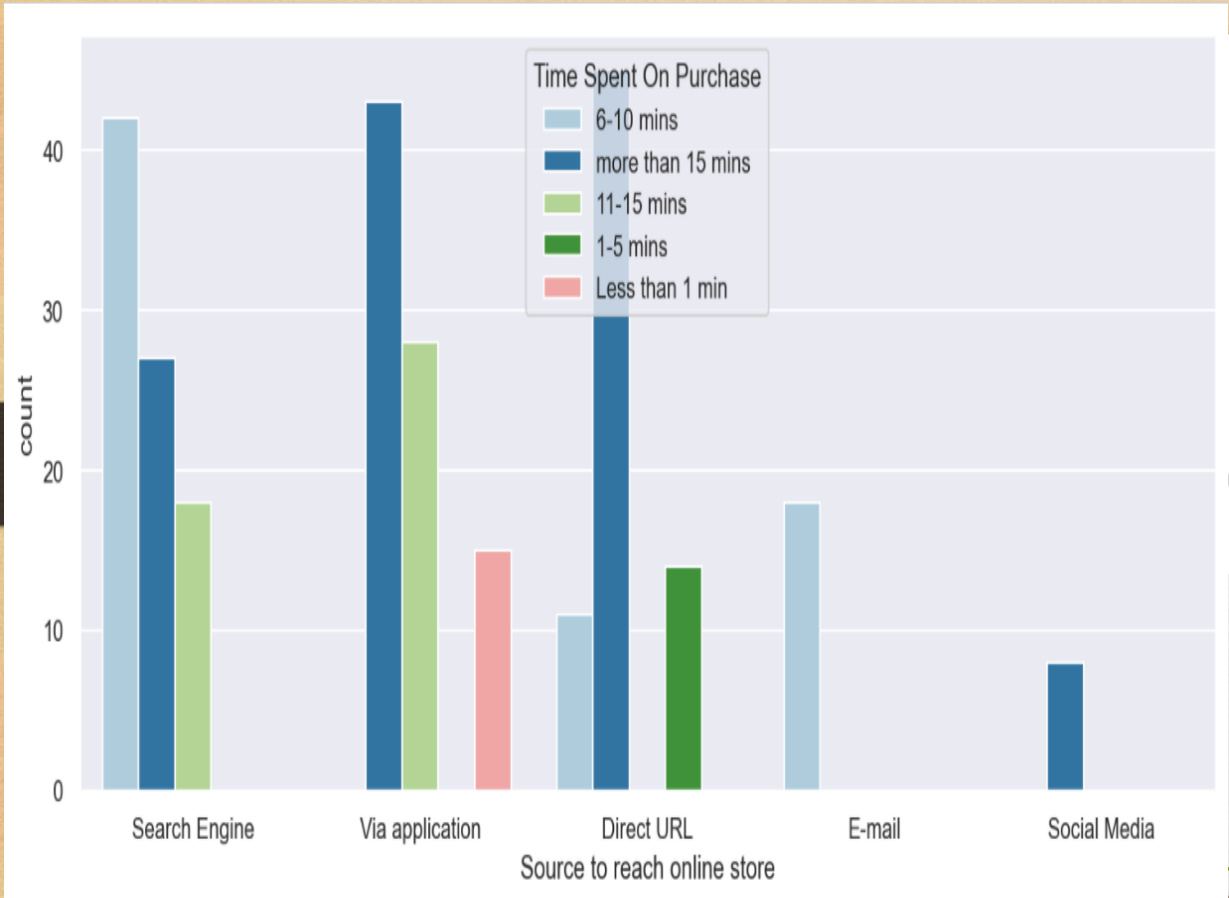
```
Female    181
Male       88
Name: Gender, dtype: int64
31-40 years    81
21-30 years    79
41-50 yaers    70
Less than 20 years    20
51 years and above    19
Name: Age, dtype: int64
```

Documentation : -

Device Used :

*Here I can
Clearly see that
most of the
people use
'SmartPhone'
whose size is '5.5
inches'*

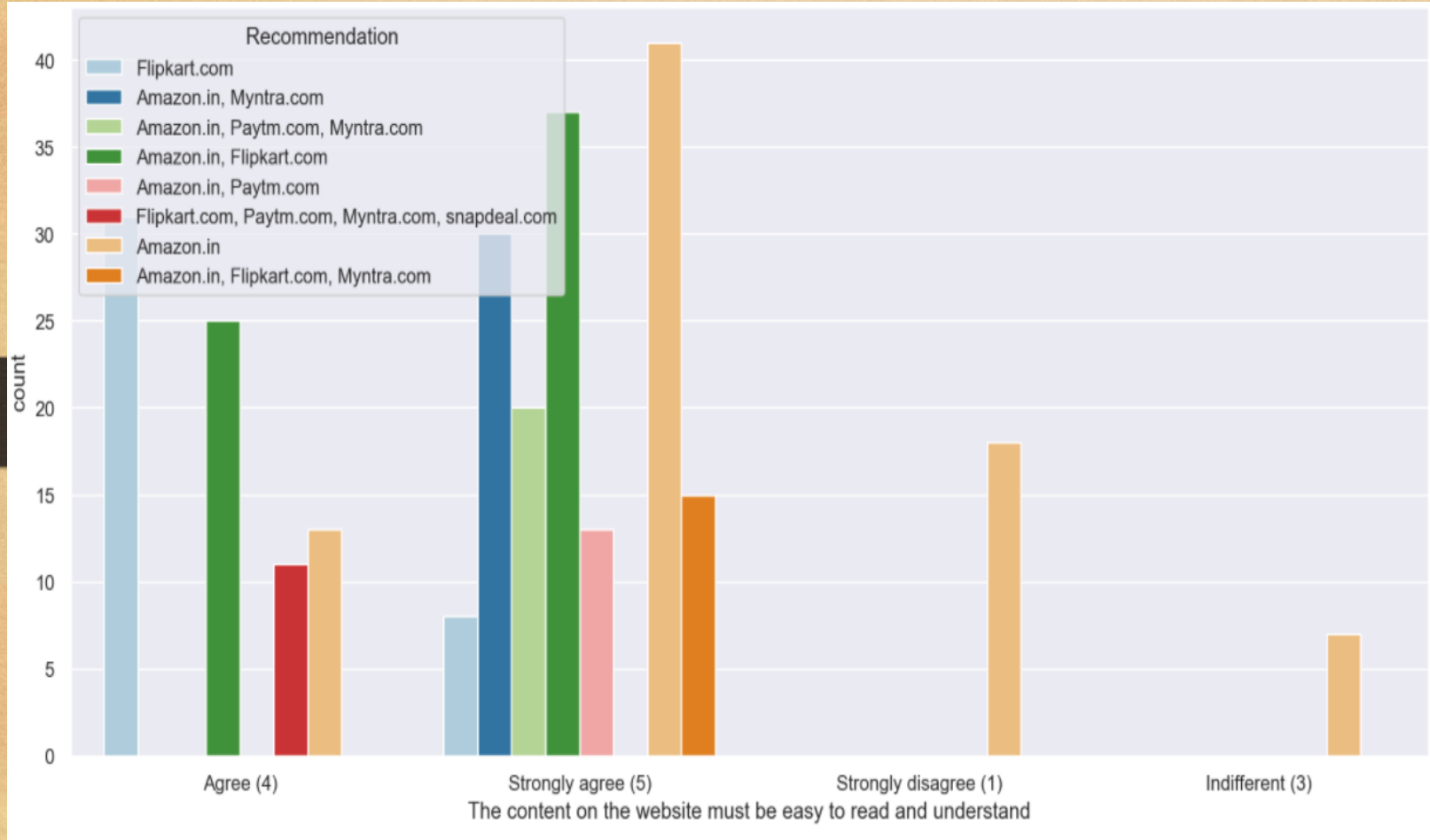


Search Engine	87
Via application	86
Direct URL	70
E-mail	18
Social Media	8
Name: Source to reach online store, dtype: int64	
more than 15 mins	123
6-10 mins	71
11-15 mins	46
Less than 1 min	15
1-5 mins	14
Name: Time Spent On Purchase, dtype: int64	

Documentation :-

Source to reach online store

Here I can clearly see Most of the people used application for shopping and those people took more than 15minutes on shopping.



Documentation :-

The Content on the website must be easy to read and understand

Here I can clearly see, that "Amazon" is the Priority of most of the customer's after we have "Amazon and Flipkart" and also their main consern was that the website should be easy to understand.

Conceptual Background of the Domain Problem :

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.

TYPE OF CUSTOMER RETENTION RATE :

RAW CUSTOMER RETENTION RATE :

This is the number of customer doing business with a firm at the end of a trading period, expressed as percentage of those who were active customer at the beginning of the period.

SALES-ADJUSTED RETENTION RATE:

This is the value of sales achieved from the retained customers, expressed as a percentage of the sales achieved from all customers who were active at the beginning of the period.

PROFIT-ADJUSTED RETENTION RATE:

This is the profit earned from the retained customers, expressed as a percentage of the profit earned from all customers who were active at the beginning of the period.

Drawbacks and Scope for the Future Work :

- *We are able to properly analyse the valuable feedback of the customers but given, the dataset was very small as it may result in bias understanding. If we are able to increase the feedbacks from more customers all over it would provide a great understanding of the strategies we will have to use to improve customer retention.*
- *The data used to analyse the customer retention was very less.*
- *The answers towards the e-commerce sites were combination of two or more e-commerce sites, the survey answers should have been limited to maximum 2 websites in order to understand the retention rates better.*

Conclusion:

- *Frequency of Females shopping is high so making them satisfied will help the sellers to get more business.*
- *Loyal customers prefer buying and tend to spend more money on shopping in your store. Statistics show that engaged consumers purchase more frequently. It is necessary to hear customer feedback because most of them are valuable feedbacks.*
- *Here as an conclusion part I found that using dead old strategies for retailers will effect customer retention.*
- *Organisation will always focus on success for that keeping the old customers will always be a plus point.*
- *Also Paytm and Snap deal has maximum drawbacks it is because of their dead old strategies.*

