



CUSTOMER RETENTION- Project Report

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

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ACKNOWLEDGEMENT

It is my gratification to present this report. I, would like to thanks FlipRobo Technologies and my batch's SME Khushboo Garg Mam for providing us this dataset and giving us chance to explore such a wide dataset.

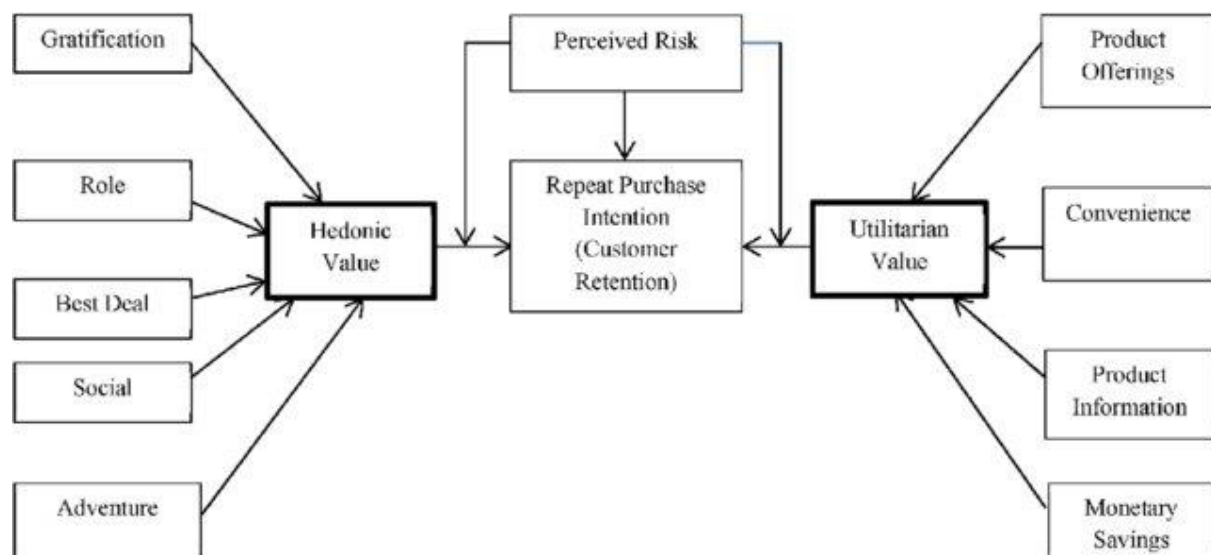
Working on this dataset gave many insights and information about the policies been followed, or that can be adopted by online shopping portals.

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 customer retention is based on three main factor Hedonic value, Perceived Risk, Utilitarian

Problem Statement:

The data is collected from the Indian online shoppers of most popular websites: Amazon, Flipkart, Paytm, Myntra and Snapdeal. The Results indicate the e-retail success factors, which are very much critical for customer satisfaction.

Scope:

The scope of this analysis lies in evaluating what practises are been liked by the customers and where there is scope of improvement. And thus helping in retaining and maintain their customer base.

Ideology: Lifetime revenue is the end goal, not just today's revenue

Benefits of Customer Retention:

1. Retention is cheaper than acquisition :

- It is believed in businesses "it costs five times as much to acquire a new customer", i.e. it's more cost-effective to keep someone in the fold than to bring in new customers.
- Even though retention requires analysis and tracking of large data which is not easy , there has been plenty of research into acquisition vs retention, and every one of them has come back with the economics favouring retention as the more economically viable focus.

2. Loyal customers are more profitable :

- Not only is loyalty cheaper, it has better returns. According to research, engaged consumers buy 90% more frequently, spend 60% more per transaction and are five times more likely to indicate it is the only brand they would purchase in the future.
- On average, they're delivering 23% more revenue and profitability over the average customer.
- While loyal customers are more profitable, don't take their loyalty for granted and always strive to maintain the good practices and improve on the lacking's.

3. You'll earn more word-of-mouth referrals :

- When people are happy with your uniform and efficient service they surely will recommend to others

4. Engaged Customers Provide More Feedback:

- The customers who are frequent will be interesting in giving feedbacks rather than those who are purchasing for first time

5. Loyal Customers are more forgiving

- The customers who are loyal do understand mistakes may happen and will be resolved and will continue buying from your portal

Dataset Description:

The dataset contains combination of both utilitarian value and hedonistic values, which both are needed to affect the repeat purchase intention of the customers

- * Utilitarian values: Utilitarian value is an objective value which provides some functional benefits to the consumers and helps consumers to accomplish practical tasks

- * Hedonistic value: Hedonistic value is subjective (Psychological) value which provides an experiential satisfaction. In other words, the immediate psychological gratification that comes from experiencing some activity or from consumption of a product

- * The dataset contains both numerical, categorical data

- * The dataset contains the details of all the customers who shop online frequently and their experience of buying products. From these details we need to find the success rate of online retailers.

- * The dataset columns question are having three categories

- 1.General Questions (column1- column 17)

- 2.Where Ratings are involved (column 18- column 47)

3. Voting of Application/Website preference (After 47)

Methods:

I have used Jupyter notebook to perform the Exploratory Data Analysis of the given dataset, and have used below libraries to perform analysis and visualization.

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

Exploratory Data Analysis(EDA):

Exploratory Data Analysis, or EDA, is an important step in any Data Analysis or Data Science project. EDA is the process of investigating the dataset to discover patterns, and anomalies (outliers), and form hypotheses based on our understanding of the dataset.

Basic Description:

- `df_cust_ret.shape`

The size of the dataset is 269Rows * 71Columns

- `df_cust_ret.dtypes`

The datatypes of columns: Except for Pin Code column which is continuous types, all other have categorical data

- `df_cust_ret.isnull().sum()`

Saw no missing data was present in columns

- `for i in df_cust_ret.columns:`
`print(df_cust_ret[i].value_counts())`

Used for checking the value counts of unique elements of each columns

Dividing the Data Frame into respective category of columns

1. General Questions(1-17)
2. Where Ratings are involved(18-47)
3. Voting of Application/Website preference(After 47)

Data Visualization

Univariate as well as Bivariate Analysis was performed to visualize pattern or information amongst the columns.

Univariate Analysis-The analysis was done based on the 3 column categories mentioned above.

1. General Questions(1-17)
2. Where Ratings are involved(18-47)
3. Voting of Application/Website preference(After 47)

The various plots used were: Count, Pie

Bivariate Analysis- The analysis again was done based on:

1. Usage times of websites and
2. Risk Assessment

The plot use was: Rel Plot

Results:

For every website their positive as well as negative aspects were filtered based on the following factors:

```
pos_features= ['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']
```

```
neg_features = ['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',  
               'Frequent disruption when moving from one page to another']
```

- We got to see Amazon was leading in the positive aspects as well as in some of the negative aspects, following the lead in positive aspects was flipkart , then myntra, paytm and last was snapdeal

Conclusion:

Following table gives the list of Positive and Negative Feedback of various websites:

Website	Positive Feedback	Negative Feedback
<i>1. Amazon:</i>	<ul style="list-style-type: none"> • Easy to use website or application-249 • Visual appealing web-page layout-227 • Wild variety of product on offer-220 • Complete, relevant description information of products-238 • Fast loading website speed of website and application-249 • Reliability of the website or application-227 • Availability of several payment options-215 • Speedy order delivery-240 • Privacy of customers' information-221 • Security of customer financial information-206 • Perceived Trustworthiness-227 • Presence of online assistance through multi-channel-229 	<ul style="list-style-type: none"> • Longer time to get logged in (promotion, sales period)-135 • Longer time in displaying graphics and photos (promotion, sales period)-126 • Late declaration of price (promotion, sales period)-56 • Longer page loading time (promotion, sales period)-68 • Limited mode of payment on most products (promotion, sales period)-104 • Frequent disruption when moving from one page to another-78

2.FlipKart	<ul style="list-style-type: none"> • Easy to use website or application-201 • Visual appealing web-page layout-175 • Wild variety of product on offer-184 • Complete, relevant description information of products-194 • Fast loading website speed of website and application-162 • Reliability of the website or application-146 • Quickness to complete purchase-158 • Availability of several payment options-203 • Speedy order delivery-162 • Privacy of customers' information-150 • Security of customer financial information-149 • Perceived Trustworthiness-143 • Presence of online assistance through multi-channel-136 	<ul style="list-style-type: none"> • Longer time to get logged in (promotion, sales period)-103 • Longer time in displaying graphics and photos (promotion, sales period)-94 • Late declaration of price (promotion, sales period)-43 • Longer page loading time (promotion, sales period)-61 • Limited mode of payment on most products (promotion, sales period)-60 • Longer delivery period-44 • Frequent disruption when moving from one page to another-62
3.Myntra	<ul style="list-style-type: none"> • Easy to use website or application-147 • Visual appealing web-page layout-115 • Wild variety of product on offer-64 • Complete, relevant description information of products-64 • Fast loading website speed of website and application-74 • Reliability of the website or application-64 • Quickness to complete purchase-79 	<ul style="list-style-type: none"> • Longer time in displaying graphics and photos (promotion, sales period)-74 • Late declaration of price (promotion, sales period)-75 • Longer page loading time (promotion, sales period)-68 • Frequent disruption when moving from one page to another-66

	<ul style="list-style-type: none"> • Availability of several payment options-132 • Privacy of customers' information-78 • Security of customer financial information-99 • Perceived Trustworthiness-88 • Presence of online assistance through multi-channel-111 	
4.Paytm	<ul style="list-style-type: none"> • Easy to use website or application-125 • Visual appealing web-page layout-67 • Complete, relevant description information of products-59 • Fast loading website speed of website and application-99 • Reliability of the website or application-96 • Quickness to complete purchase-107 • Privacy of customers' information-68 • Security of customer financial information-88 	<ul style="list-style-type: none"> • Longer time to get logged in (promotion, sales period)-77 • Late declaration of price (promotion, sales period)- 72 • Longer page loading time (promotion, sales period)-94 • Limited mode of payment on most products (promotion, sales period)-53 • Longer delivery period-98 • Frequent disruption when moving from one page to another-39

5.SnapDeal	<ul style="list-style-type: none"> • Easy to use website or application-130 • Visual appealing web-page layout-61 • Complete, relevant description information of products-59 • Fast loading website speed of website and application-81 • Reliability of the website or application-45 • Availability of several payment options-90 • Speedy order delivery-50 • Privacy of customers' information-45 • Security of customer financial information-100 • Perceived Trustworthiness-74 	<ul style="list-style-type: none"> • Easy to use website or application-130 • Visual appealing web-page layout-61 • Complete, relevant description information of products-59 • Fast loading website speed of website and application-81 • Reliability of the website or application-45 • Availability of several payment options-90 • Speedy order delivery-50 • Privacy of customers' information-45 • Security of customer financial information-100 • Perceived Trustworthiness-74
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Future Scope:

Since the cost of getting a new customer is an estimated five to ten times more than keeping an old one, nurturing loyal customers is a powerful strategy that helps businesses grow. And all these feedbacks will help in Customer Retention if company adopts them properly.