

Project Report on “Customer Retention”



Submitted To

Submitted By

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ACKNOWLEDGMENTS

To Almighty, Flip Robo Team and Family..

Thanks for making me push my limits and helping me in learning new skills.

(Pooja Jain)

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Chapter 1. Introduction

There are two main ways you can grow the customer base of a business: you can either acquire more customers by increasing your customer acquisition rate, or you can improve your customer experience and increase the number of customers the business retains.

As customers are constantly being lost due to attrition, churn, or defection, it is vital for a business to top up the losses with new customer acquisitions and try to reduce customer churn.

It is a well-known fact that acquiring new customers is more costly than retaining existing ones; therefore, increasing the customer retention rate is a major objective in most businesses as it can have a significant impact on profits.

If you think that loyalty programs are all about getting generic discounts, points and rewards? Think again. That was the old school way of doing things. Today, it's more about offering customers something as personalized as possible, so that they feel truly special. The word comes here is **“Customer Satisfaction”**

What is customer retention?

Customer retention refers to the actions and strategies a business uses to try and keep existing customers.

Why is customer retention important?

A data-driven customer retention strategy can reap rewards in a big way, if you do it right. In fact, it's proven to drive profit. A McKinsey report states that “executive teams that make extensive use of customer data analytics across all business decisions see a 126% profit improvement over companies that don't” (McKinsey, 2014).

Three Benefits to improve customer retention with analytics

1. Reduces cost to acquire customers

It's much cheaper to keep an existing customer than it is to earn a new one. In fact, it can be five times more expensive to attract a new customer, than to keep an existing one.

2. Easier upsell/cross-sell opportunities

It goes without saying, but your existing customers are much easier to market and sell to. Consider that usually, there is no huge customer acquisition costs associated with selling a new product or service to your existing customer base.

3. Facilitates sustainable growth

Keeping existing customers allows for more sustainable growth. Says Bain & Company, increasing customer retention rates by 5%, can increase profits by anywhere from 25% to 95%.

Five types of customer retention analytics

1. Prescriptive Analytics

It facilitates focusing on answering a specific question, and helps to determine the best future solution among a variety of options, and suggest options for how to take advantage of a future opportunity or illustrate the implications of each decision to improve decision-making.

2. Predictive Analytics

This is the most commonly used method. Predictive analytics uses models to forecast what might happen in a future, specific situation.

3. Descriptive Analytics

This technique provides insight into what has happened historically and will provide you with patterns and trends to be able to investigate the detail.

4. Diagnostic Analytics

This technique is often used when trying to identify why something happened. It mainly looks to past events, focusing on causal relationships and sequences.

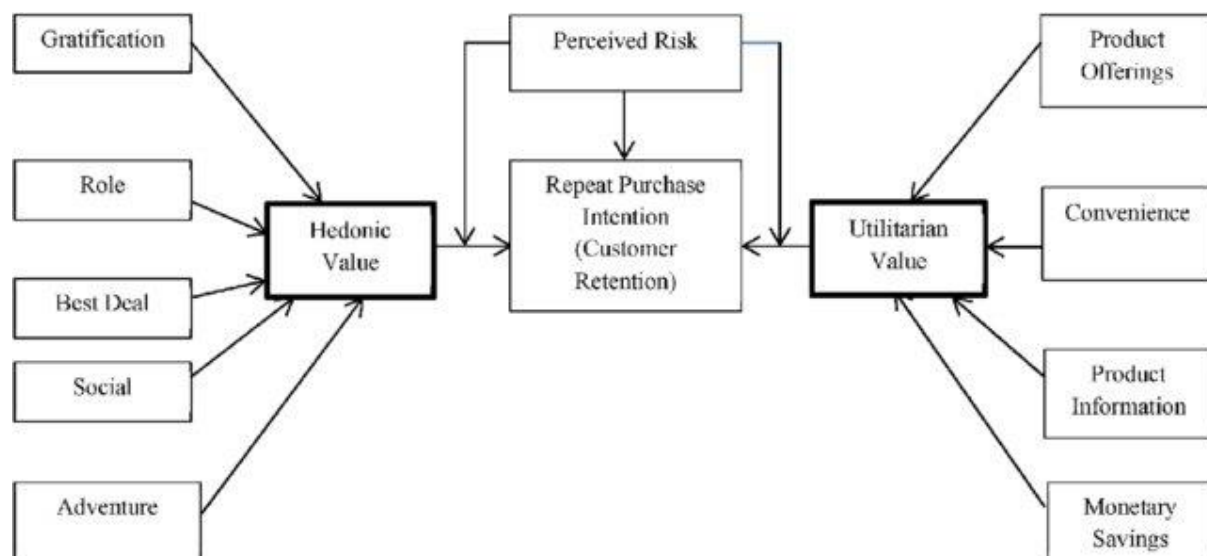
5. Outcome Analytics

Also known as consumption analytics, outcome analytics gives insight into customer behavior that drives specific outcomes.

Chapter2. Problem Framing

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.



Chapter 3. Exploratory Data Analysis (EDA)

Data Source

- The data is given by Flip Robo in excel format.
- Data indicates the factors critical for customer satisfaction.
- There are two sheets (one is detailed) and second is encoded in the excel file.

Dataset contain 71 columns with 269 rows. Out of which only 1 feature (Pin code) is having integer data types and rest are with object data types.

```
In [17]: data.shape  
Out[17]: (269, 71)
```

Data Pre-processing:

- There were few duplicate values. For example, Mobile internet and Mobile Internet. So we made single value.
- Renamed all columns using separate excel file and read it for further processing.
- Below is the list if name used and unique value counts in whole dataset

Steps to study of columns

1. Feature describing Population and online shopping

- Here we have done **personal detail analysis** of customers and **trend of shopping**.

2. Feature describing Devices and technology used

- Here we have done **Device analysis** of customers and **Operating system** , **browser** and **Channel** used for shopping

3. Feature describing Site Exploration, Buying Decision and Payments

- Here we analyze **time spent** before shopping, **cart** behavior, payment **methods** etc. of customers.

4. Feature describing Website and performance, online shopping convenience and satisfaction

- Here we study the **overall shopping experience** with site.

5. Features Describing thoughts about various stores available and recommendations

- Here we study the **views** about different shopping sites and **behavior of site** at festival and offer time. Also get insight about the **recommendations**.

```
In [75]: pd.set_option("display.max_columns",None)
pd.set_option("display.max_rows", None)
data.nunique()
```

```
Out[75]: Gender                2
Age                5
City               11
Pincode           39
Duration_Of_Shopping  5
Purchase_Past_Year  6
Internet_Access    3
Device_Used        4
Screen_Size        4
Device_OS          3
Device_Browser     4
Channel_First_Time  3
Channel_Next_Time  5
Time_Of_Exploration  5
Preffered_Payment_Option  3
How_Abandon        4
Why_Abandon        5
Content_Easiness   4
Information_On_SimilarProduct  4
Information_Completeness  5
Relevant_Information  4
Ease_Of_Navigation  4
Loading_Processing_Speed  5
User_Friendly_Interface  5
Payment_Convinence  3
Trust              4
```

Trust	4
Empathy	4
Privacy_Guarantee	3
Responsiveness_Availability	4
Benefit_discount	5
Enjoyment	5
Convinient_Flexibility	4
Retun_Replacement	3
LoyaltyBenefitsAccess	5
Quality_Information_Satisfaction	3
Quality_Website_Satisfaction	3
Net_Benefit_Satisfaction	4
Satisfaction_Trust	5
Variety_Products	4
Complete_Relevant_Information	4
Monetry_Savings	4
Convenience_Of_Patronizing	3
Sense_Of_Adventure	5
Enhance_Social_Status	5
Feel_Gratification	5
Role_Fulfilling	5
Value_For_Money	3
Retailers_Used	9
Ease_To_Use	10
Appealing_Layout	10
Wide_Variety_Products	9
Complete_Relevant_Description	11
Fast>Loading	10
Realibility	10
readibility	10
Quickness_Purchase	9
Several_Payment_Options	11
Speedy_Order_Delivery	6
Information_Privacy	11
Financial_Information_Security	11
Perceived_Trustworthiness	9
Online_Assistance	10
Longer_Logging_Promotion_Sales	10
Longer_Display_Promotion_Sales	10
Late_Price_Declaration_Promotion_Sales	8
Longer_Page_Load_Promotion_Sales	11
Limited_Payment_Mode_Promotion_Sales	8
Longer_Delivery_Time	6
Change_In_Design	7
Frequent_Disruptions	8
Website_Efficient_As_Before	8
Recommendation	8
dtype: int64	

3.1 Visualizations

3.1.1 General feature describing Population and online shopping

- ✓ The Majority of Responders are **Female (67.3%)** & rests are Male respondent. This shows that women are more shopping oriented than men.
- ✓ Majority of female customers are between **age group of 21-40 years**.
- ✓ Within Male Customers Tendency of online shopping seen among age group of 31-50 years.
- ✓ For both gender tendency of shopping is less for age greater than 51 years old.
- ✓ This may be due to decrease in materialistic tendency with age or possible less technology friendly generation.
- ✓ Most Online Shopping Customers are from Metro Cities, most of them are Male customer.
- ✓ We can conclude that in Metro city like Delhi, Male have more tendency of online shopping. This can be targeted population in marketing.
- ✓ In Tier 2 & 3 Cities Majority of online shopping customers are Females. Female product related campaign for this target customer population in these cities can help.

Gender	Female	Male	Total
Age			
21-30 years	59	20	79
31-40 years	51	30	81
41-50 yaers	43	27	70
51 years and above	15	4	19
Less than 20 years	13	7	20
Total	181	88	269

Age	21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
Gender	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
City											
Bangalore	18	3	0	0	12	0	3	0	1	0	37
Bulandshahr	0	0	0	2	0	0	0	0	0	0	2
Delhi	7	5	10	9	1	22	0	0	0	4	58
Ghaziabad	0	1	8	0	5	0	0	0	4	0	18
Greater Noida	14	0	17	0	11	1	0	0	0	0	43
Gurgaon	0	0	0	1	0	0	11	0	0	0	12
Karnal	8	7	7	0	4	0	1	0	0	0	27
Merrut	5	0	1	0	3	0	0	0	0	0	9
Moradabad	0	0	0	5	0	0	0	0	0	0	5
Noida	1	4	4	13	7	4	0	4	0	3	40
Solan	6	0	4	0	0	0	0	0	8	0	18
Total	59	20	51	30	43	27	15	4	13	7	269

So here we have done with basic **personal detail analysis** of customers.

Now we move forward to study the **trend of shopping.**

Age	21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
Gender	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Duration_Of_Shopping											
1-2 years	7	0	5	3	1	0	0	0	0	0	16
2-3 years	11	5	4	1	13	9	7	4	8	3	65
3-4 years	9	7	4	11	7	5	1	0	0	3	47
Above 4 years	27	3	25	11	16	11	3	0	1	1	98
Less than 1 year	5	5	13	4	6	2	4	0	4	0	43
Total	59	20	51	30	43	27	15	4	13	7	269

Observations:

- ✓ 36.4% Respondent shopping online since 4 Years
- ✓ Majority of responders are long time shoppers like 36.4 %(98) out of all 269. 16 %(43) are new shoppers.
- ✓ Online shopping is less popular in tier-3 cities like Bulandshahar, Moradabad, Meerut.
- ✓ 42.4% Customers in last 1 year made online purchase less than 10 times.
- ✓ 19.7% customers have made online shopping for 41 times & more in last 1 year and majority are females.
- ✓ Another interesting observation no female had made shopping in range of 21-30 times and no person from age bracket less than 20 years and above 51 years have done shopping in range 11-20 times.
- ✓ Most of customer making purchase for 41 times & more comes from city Delhi, Greater Noida, Noida
- ✓ Purchases made by age group 41-50 have similar purchase pattern for males and females
- ✓ 42.3%(114) Responders have done less than 10 purchases and 2.2 % i.e. only 6 out of 269 have done it for more than 42 times.

	Age 21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Purchase_Past_Year											
11-20 times	10	4	11	0	3	1	0	0	0	0	29
21-30 times	0	0	0	10	0	0	0	0	0	0	10
31-40 times	17	0	14	5	13	10	3	1	0	0	63
41 times and above	18	5	11	2	7	1	0	3	0	0	47
42 times and above	0	0	0	0	3	0	0	0	0	3	6
Less than 10 times	14	11	15	13	17	15	12	0	13	4	114
Total	59	20	51	30	43	27	15	4	13	7	269

Age wise and gender wise distribution study of purchase history.

Age		21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
Gender		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Duration_Of_Shopping	Purchase_Past_Year											
1-2 years	11-20 times	1	0	0	0	0	0	0	0	0	0	1
	21-30 times	0	0	0	1	0	0	0	0	0	0	1
	31-40 times	0	0	5	0	0	0	0	0	0	0	5
	41 times and above	1	0	0	0	0	0	0	0	0	0	1
	Less than 10 times	5	0	0	2	1	0	0	0	0	0	8
2-3 years	11-20 times	8	0	0	0	0	0	0	0	0	0	8
	31-40 times	1	0	3	0	8	3	0	1	0	0	16
	41 times and above	1	5	0	0	0	0	0	3	0	0	9
	Less than 10 times	1	0	1	1	5	6	7	0	8	3	32
	11-20 times	1	0	0	0	3	0	0	0	0	0	4
3-4 years	21-30 times	0	0	0	3	0	0	0	0	0	0	3
	31-40 times	0	0	0	1	4	0	0	0	0	0	5
	41 times and above	8	0	0	1	0	0	0	0	0	0	9
	42 times and above	0	0	0	0	0	0	0	0	0	3	3
	Less than 10 times	0	7	4	6	0	5	1	0	0	0	23
Above 4 years	11-20 times	0	3	11	0	0	1	0	0	0	0	15
	21-30 times	0	0	0	6	0	0	0	0	0	0	6
	31-40 times	13	0	3	4	1	7	3	0	0	0	31
	41 times and above	7	0	11	1	7	0	0	0	0	0	26
	Less than 10 times	7	0	0	0	8	3	0	0	1	1	20
Less than 1 year	11-20 times	0	1	0	0	0	0	0	0	0	0	1
	31-40 times	3	0	3	0	0	0	0	0	0	0	6
	41 times and above	1	0	0	0	0	1	0	0	0	0	2
	42 times and above	0	0	0	0	3	0	0	0	0	0	3
	Less than 10 times	1	4	10	4	3	1	4	0	4	0	31
Total		59	20	51	30	43	27	15	4	13	7	269

- There is only one female of age group 21-30 who has purchased between 11 -20 times. And one in same age group who has purchased 41 times and above. Both are active from 1-2 years. In less than one year of activity only females have shopped more than 20 times except 1 male.
- City wise, age wise, gender wise distribution study of duration of purchaser.

3.1.2 Feature describing Devices and technology used

	Age		21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
	Gender		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Internet_Access													
Dial-up			0	0	0	4	0	0	0	0	0	0	4
Mobile Internet			42	20	30	25	35	21	4	4	1	7	189
Wi-Fi			17	0	21	1	8	6	11	0	12	0	76
Total			59	20	51	30	43	27	15	4	13	7	269

	City	Bangalore	Bulandshahr	Delhi	Ghaziabad	Greater Noida	Gurgaon	Karnal	Merrut	Moradabad	Noida	Solan	Total
Internet_Access													
Dial-up		0	0	4	0	0	0	0	0	0	0	0	4
Mobile Internet		30	2	33	11	36	0	26	9	5	28	9	189
Wi-Fi		7	0	21	7	7	12	1	0	0	12	9	76
Total		37	2	58	18	43	12	27	9	5	40	18	269

	Purchase_Past_Year	11-20 times	21-30 times	31-40 times	41 times and above	42 times and above	Less than 10 times	Total
Internet_Access								
Dial-up		0	0	4	0	0	0	4
Mobile Internet		14	10	53	31	6	75	189
Wi-Fi		15	0	6	16	0	39	76
Total		29	10	63	47	6	114	269

	Age		21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
	Gender		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Device_Used													
Desktop			3	0	1	8	9	6	3	0	0	0	30
Laptop			16	7	27	11	14	4	7	0	0	0	86
Smartphone			40	10	23	10	20	10	5	3	13	7	141
Tablet			0	3	0	1	0	7	0	1	0	0	12
Total			59	20	51	30	43	27	15	4	13	7	269

Observations:

- ✓ Major percentage i.e.70.3%(189) responders are using Mobile Internet. Just handful users are there for Dial-Up. Interestingly No Male in Age group between 21-30 and above 51 years is using Wi-Fi and only one is there in Age group 31-40.
- ✓ It shows people prefer shopping on the go.

Device_Used	Desktop	Laptop	Smartphone	Tablet	Total
Screen_Size					
4.7 inches	0	0	29	0	29
5 inches	0	0	6	1	7
5.5 inches	0	0	98	1	99
Others	30	86	8	10	134
Total	30	86	141	12	269

Age	21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
Gender	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Screen_Size											
4.7 inches	13	0	4	1	4	3	0	0	1	3	29
5 inches	1	3	0	3	0	0	0	0	0	0	7
5.5 inches	23	7	14	7	16	8	5	3	12	4	99
Others	22	10	33	19	23	16	10	1	0	0	134
Total	59	20	51	30	43	27	15	4	13	7	269

- ✓ 52.4% Uses Smartphone followed by Laptop for online shopping. Company can make device-oriented marketing strategy for different customers as per use of device.
- ✓ Not all user uses smartphone for so we do not have screen size details of other user. Out of 52.4%
- ✓ Mobile users' majority have 5.5- inch mobile display screen.
- ✓ The longest duration shoppers and maximum purchasers is supported by Mobile Internet. In Tier-1 and 2 cities it is a common trend. Dial-Up support only 4 purchases, as it is time consuming.

✓ *The less the time of access of internet channel used, the more shopping.*

✓ Interestingly no lady has shopped using Tablet. Males in age bracket 41-50 are doing there purchase using Tablet. All the 12 purchases done with Tablet are done by Men.

✓ *Smartphone for smart shopping and shoppers.*

✓ Smart phone users are longest and maximum shoppers.

The device with screen size 5.5 inches is widely used, while in others we have contribution of Laptop, Desktop and some Tablets. Bigger Screen smart phone may be also used in some cases (8).

So here we have done with basic **Device analysis** of customers.

Now we move forward to study the **Operating system and browser used for shopping.**

Device_OS	Age		21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total		
	Gender		Female		Male		Female		Male		Female			Male	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male			
Android	21	6	15	4	13	11	0	4	8	3			85		
IOS/Mac	18	7	8	5	8	6	5	0	1	4			62		
Window/windows Mobile	20	7	28	21	22	10	10	0	4	0			122		
Total	59	20	51	30	43	27	15	4	13	7			269		

Device_Used	Desktop		Laptop		Smartphone		Tablet	Total		
	Device_OS		Device_OS		Device_OS					
	Window/windows	Mobile	Window/windows	Mobile	Android	IOS/Mac			Window/windows	Mobile
Screen_Size										
4.7 inches	0	0	0	0	29		0	0	29	
5 inches	0	0	0	5	0		1	1	7	
5.5 inches	0	0	0	60	31		7	1	99	
Others	30	2	84	8	0		0	10	134	
Total	30	2	84	73	60		8	12	269	

Age	21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
Gender	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Device_Browser											
Google chrome	40	10	43	24	42	21	14	4	12	6	216
Mozilla Firefox	0	3	0	2	0	0	0	0	0	0	5
Opera	5	0	0	0	0	3	0	0	0	0	8
Safari	14	7	8	4	1	3	1	0	1	1	40
Total	59	20	51	30	43	27	15	4	13	7	269

Observations:

Observations:

- ✓ Here we can see there are only 2 Mac users.
- ✓ The tablets used are Android.
- ✓ All 4.7 inches screen devices are IOS/Mac based. That says they are "APPLE" users.
- ✓ Very interestingly no female in age group 51 and above is using IOS/Mac and Windows and no male is using Android.
- ✓ Chrome browser has monopoly here i.e.216 (80.3%).No female is using Mozilla browser.
- ✓ All the Desktop, Tablet and Laptop purchases made using Chrome (Except 2 that were done using Safari). IOS smartphone users use only Safari. Big Screen users also prefer Safari.

Now we move forward to study the **Channel used for shopping.**

	Age	21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
	Gender	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Channel_First_Time												
Content Marketing		9	3	4	3	0	0	0	0	1	0	20
Display Adverts		5	3	0	0	1	9	0	1	0	0	19
Search Engine		45	14	47	27	42	18	15	3	12	7	230
Total		59	20	51	30	43	27	15	4	13	7	269

Observations:

- ✓ Search Engine is the boss route here for shoppers.
- ✓ In a very interesting way 12 out of 20 users are attracted by Content are below 30 years. 31-40 age groups are not following Adverts.
- ✓ This clears that need is of utmost importance. Content and Advert are not major influencers for genuine shoppers.

Device_Used	Desktop		Laptop			Smartphone			Tablet	Total
Device_Browser	Google chrome	Google chrome	Safari	Google chrome	Mozilla Firefox	Opera	Safari	Google chrome		
Channel_First_Time										
Content Marketing	0	0	1	0	5	0	14	0		20
Display Adverts	0	1	0	0	0	8	0	10		19
Search Engine	30	83	1	90	0	0	24	2		230
Total	30	84	2	90	5	8	38	12		269

Content Marketing and Adverts channels are not used by desktop and tablet users. Safari Browser is more prone to content marketing.

	Age	21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
	Gender	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Channel_Next_Time												
Direct URL		14	10	3	6	8	10	7	4	8	0	70
E-mail		3	0	0	1	5	6	3	0	0	0	18
Search Engine		10	10	29	17	12	3	5	0	0	1	87
Social Media		5	0	0	0	0	3	0	0	0	0	8
Via application		27	0	19	6	18	5	0	0	5	6	86
Total		59	20	51	30	43	27	15	4	13	7	269

Observations:

- ✓ Search Engine and application are used for next time purchase.
- ✓ Direct URL is also used widely.
- ✓ Females in age group 21-30 uses application.
- ✓ It means they download it very quickly. Social media is least used for next purchase.
- ✓ As we already see content marketing is not very helpful for buying decision.

Device_Used	Desktop	Laptop	Smartphone	Tablet	Total
Channel_Next_Time					
Direct URL	0	45	14	11	70
E-mail	17	0	0	1	18
Search Engine	13	38	36	0	87
Social Media	0	0	8	0	8
Via application	0	3	83	0	86
Total	30	86	141	12	269

In a very interesting manner we can see that Email marketing influence desktop user the most. Tab users follow direct URL. If the customer is happy with first purchase he/she can surely go for application for ease of purchase.

Channel_First_Time	Content Marketing	Display Adverts	Search Engine	Total
Channel_Next_Time				
Direct URL	0	11	59	70
E-mail	0	0	18	18
Search Engine	5	0	82	87
Social Media	0	8	0	8
Via application	15	0	71	86
Total	20	19	230	269

- ✓ For second and onward purchase 71 customers has arrived online store via application, followed by 59 via Direct URL & 18 Customer via Promotional Email Marketing.
- ✓ Display adverts have very poor performance in landing customer on online store.
- ✓ Similar with Social Media marketing. For second and onward Purchase no one landed through display adverts on search engine.

3.1.3 Feature describing Site Exploration, Buying Decision and Payments

Age	21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
Gender	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Time_Of_Exploration											
1-5 mins	2	0	0	0	0	1	0	3	8	0	14
11-15 mins	11	0	13	1	13	1	4	0	0	3	46
6-10 mins	9	11	5	20	9	12	4	0	0	1	71
Less than 1 min	3	0	5	3	0	0	0	0	4	0	15
more than 15 mins	34	9	28	6	21	13	7	1	1	3	123
Total	59	20	51	30	43	27	15	4	13	7	269

Purchase_Past_Year	11-20 times	21-30 times	31-40 times	41 times and above	42 times and above	Less than 10 times	Total
Time_Of_Exploration							
1-5 mins	0	0	2	3	0	9	14
11-15 mins	7	0	13	9	3	14	46
6-10 mins	2	5	17	13	0	34	71
Less than 1 min	0	3	5	0	0	7	15
more than 15 mins	20	2	26	22	3	50	123
Total	29	10	63	47	6	114	269

Device_Used	Desktop	Laptop	Smartphone	Tablet	Total
Time_Of_Exploration					
1-5 mins	0	0	13	1	14
11-15 mins	0	12	34	0	46
6-10 mins	29	11	30	1	71
Less than 1 min	0	0	15	0	15
more than 15 mins	1	63	49	10	123
Total	30	86	141	12	269

Observations:

- 45% of Customers spends more than 15 minutes before making Purchase decision. Followed by the 17% customers with 11-15 minutes before making purchase decision.
- We can see that 5.6% of customers purchase product less than 1 min. It will be interesting to find how many these customers made purchase in past 1 year.

Preferred_Payment_Option	Cash on delivery (CoD)	Credit/Debit cards	E-wallets (Paytm, Freecharge etc.)	Total
Channel_Next_Time				
Direct URL	14	56	0	70
E-mail	0	18	0	18
Search Engine	31	44	12	87
Social Media	8	0	0	8
Via application	23	30	33	86
Total	76	148	45	269

- 55% of customer paid using credit/debit cards while 28% customers still prefer cash on delivery.

Age	21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
Gender	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
How_Abandon											
Frequently	9	0	11	2	7	1	4	0	1	0	35
Never	13	7	4	6	6	6	1	0	4	1	48
Sometimes	33	13	36	21	26	17	10	4	8	3	171
Very frequently	4	0	0	1	4	3	0	0	0	3	15
Total	59	20	51	30	43	27	15	4	13	7	269

- We can see that 63% of customer add product in cart but later leave without making payment. There is category of 17% customer who never abandon product without making payment.

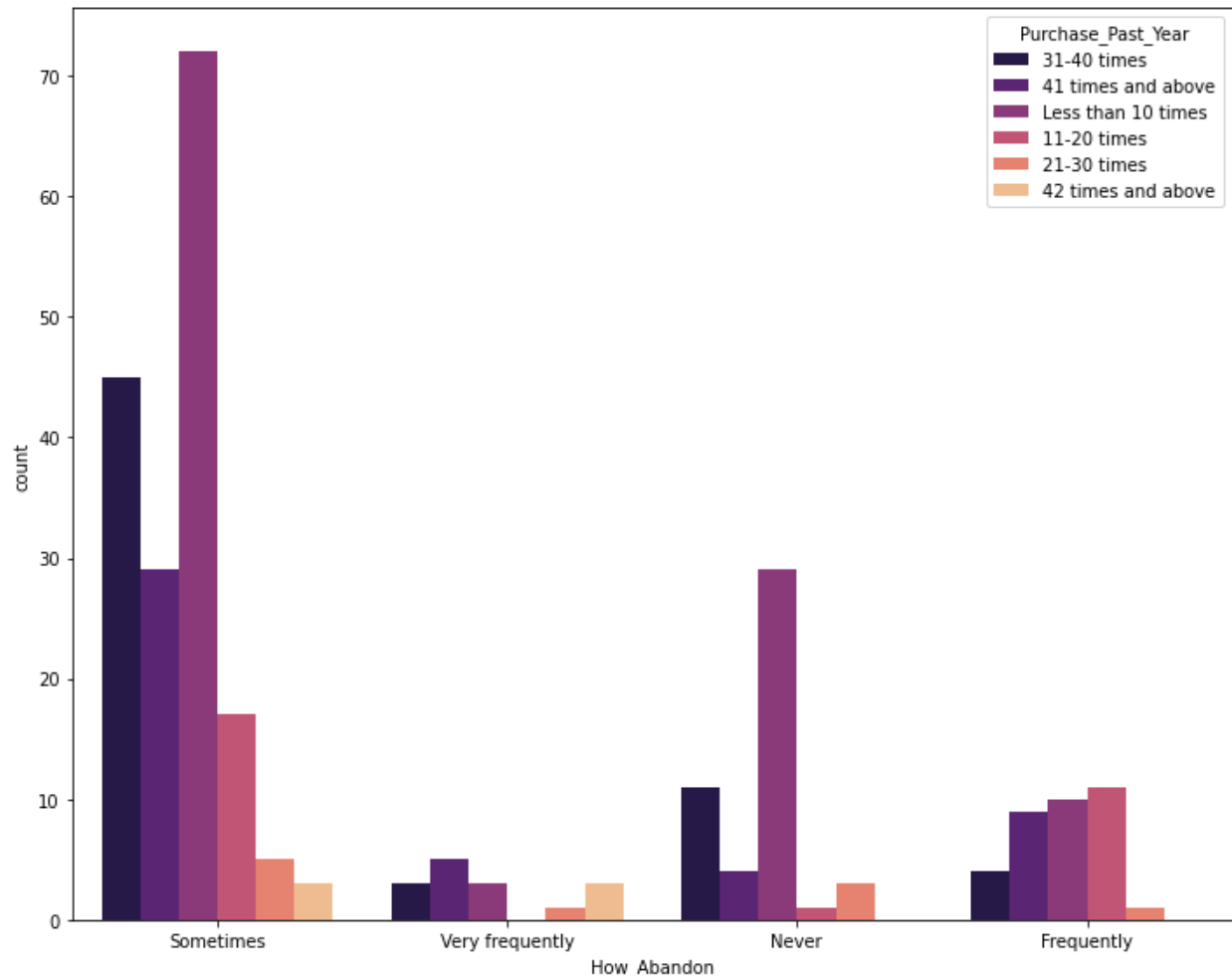
Preferred_Payment_Option	Cash on delivery (CoD)	Credit/Debit cards	E-wallets (Paytm, Freecharge etc.)	Total
How_Abandon				
Frequently	7	15	13	35
Never	23	25	0	48
Sometimes	46	93	32	171
Very frequently	0	15	0	15
Total	76	148	45	269

Here is a break up analysis of mode used and cart left. COD and Wallet options are 100% genuine. That may be due to return facilities provided or in case of COD returning the parcel.

	Age		21-30 years		31-40 years		41-50 yaers		51 years and above		Less than 20 years		Total
	Gender		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Why_Abandon													
Better alternative offer			30	16	32	11	19	7	12	0	5	1	133
Change in price			7	1	5	7	5	9	3	0	0	0	37
Lack of trust			5	0	11	11	4	0	0	0	0	0	31
No preferred mode of payment			2	0	0	0	0	1	0	3	8	0	14
Promo code not applicable			15	3	3	1	15	10	0	1	0	6	54
Total			59	20	51	30	43	27	15	4	13	7	269

Why_Abandon	Better alternative offer	Change in price	Lack of trust	No preferred mode of payment	Promo code not applicable	Total
How_Abandon						
Frequently	35	0	0	0	0	35
Never	40	0	0	0	8	48
Sometimes	58	37	31	14	31	171
Very frequently	0	0	0	0	15	15
Total	133	37	31	14	54	269

Around 50% customers abandon cart due to better alternative offer which is obvious reason. Another most common reason to abandon purchase decision is promo code not applicable on particular product. Followed by next most common reason is change in price.



- ✓ Customer who are spending more than 15 minutes before making any purchase decision are 45% and these customers around 25 customer done online shopping more than 41 times in past year.
- ✓ 15 Customer purchase shopping within less than 1 min, Majority of them ,7 customer made shopping less than 10 times in past year.
- ✓ 171 Customer out of total 269 customers sometimes abandon shopping cart.
- ✓ Customer who spends less than 5 minutes before making purchase decision have seen with very less tendency to abandon cart, more specifically they never leave cart or rare abandon cart. It seems they are very sure for what they need or confident before buying.

3.1.4 Features describing Website and performance, online shopping convenience and satisfaction

Observations (Refer [Annexure-1](#) for Pie Charts and Gender wise breakup)

- ❖ 61 % customer strongly agree and 29.7% customer agree that content on website must be easy to read and understand.
- ❖ 43.1% customer strongly agree
- ❖ 34.2% customer agrees that information on similar product to highlight on website for product comparison.
- ❖ More than 60% of customer agree or strongly agree that complete information on listed seller and product being offered is important for purchase decision.
- ❖ More than 90% of customer agree or strongly agree that all relevant information on listed products must be stated clearly.
- ❖ Around 93% of customer agree or strongly agree that website should be easy for navigation. 23 Project Report on Data Analysis of Customer Retention in Ecommerce Sector
- ❖ 42.8 % customer strongly agrees and 41.6 % customer agrees over high loading & processing speed.
- ❖ 70.3 % customer strongly agrees and 16.7 % customers agree that website should be user friendly.
- ❖ 72.1% Customer strongly agree thinks that company's readiness to assist customer queries related to product is important factor in purchase decision.
- ❖ Pie plot also show that being able to guarantee the privacy of the customer is important silent feature for product selection.
- ❖ Another most important for product companies is availability of communication channels.
- ❖ Most of people enjoy physical shopping, we can see that for 32% customer enjoyment from online shopping strongly matter and for around 46% customer this online shopping enjoyment do not matter.

- ❖ Online shopping is 24/7 available with lot of varieties of product and with product return facility. This led to thinking among almost 85 % of customer thinks, online shopping is convenient & flexible than physical shopping.
- ❖ 73.6% customer thinks that return & replacement policy of e-seller is important factor for making purchase decision.
- ❖ 49.4% customer strongly agrees and 29.7% customers agree that displaying quality information on website helps in decision making in turn improves customer satisfaction.
- ❖ 45.4% of customer strongly agrees over fact that user satisfaction cannot exist without trust.
- ❖ 50.2% Customer strongly agree & 36.4% customer agrees that for good online shopping complete and relevant product information.
- ❖ Around 83% customers pursue online shopping for Monetary Savings.
- ❖ For 37.5 % customers Online shopping on website strongly gives the sense of adventure.
- ❖ We can see different peoples have different opinions about connection between website used & social status as well as gratification.
- ❖ 55.4% people strongly agree and 30.5% people agree that they prefer online shopping because they get value of money spent.

3.1.5 Features Describing thoughts about various stores available and recommendations

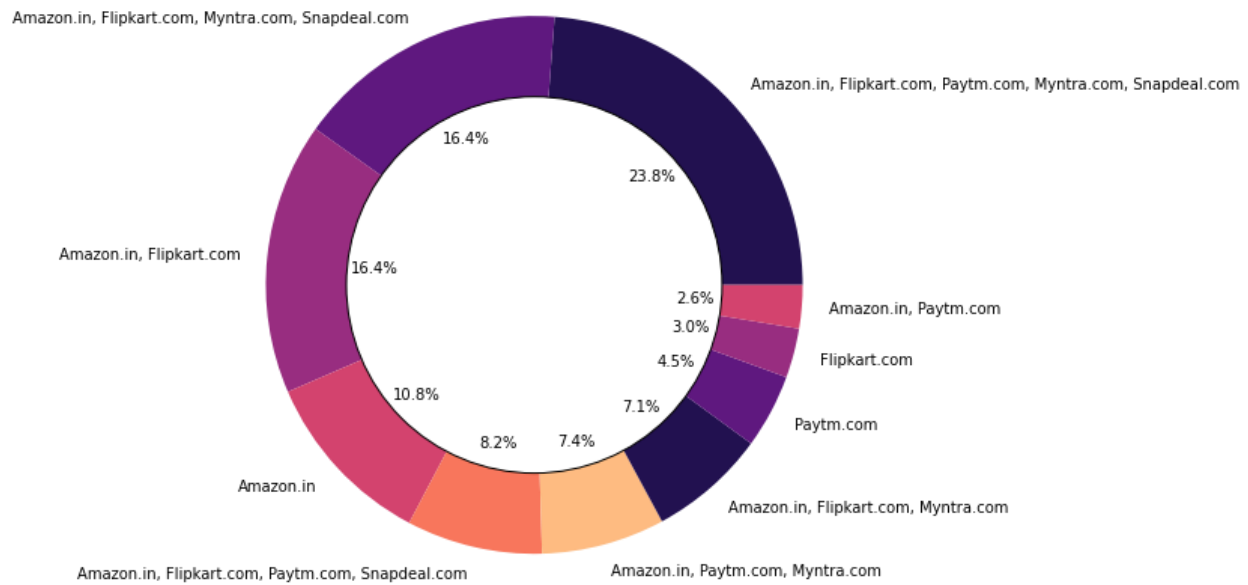
Observations:

- ❖ Majority, 64 customers agree that Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are Easy to use website or application. But overall if we look at count plot of easy-to-use application & website Amazon.in got individually 1st Rank.
- ❖ 87 customers agree that Amazon.in, Flipkart.com have Visual appealing web-page layout than most of other market players.
- ❖ Around according to 125 people Amazon.in, Flipkart.com provides wide variety of offer on product.

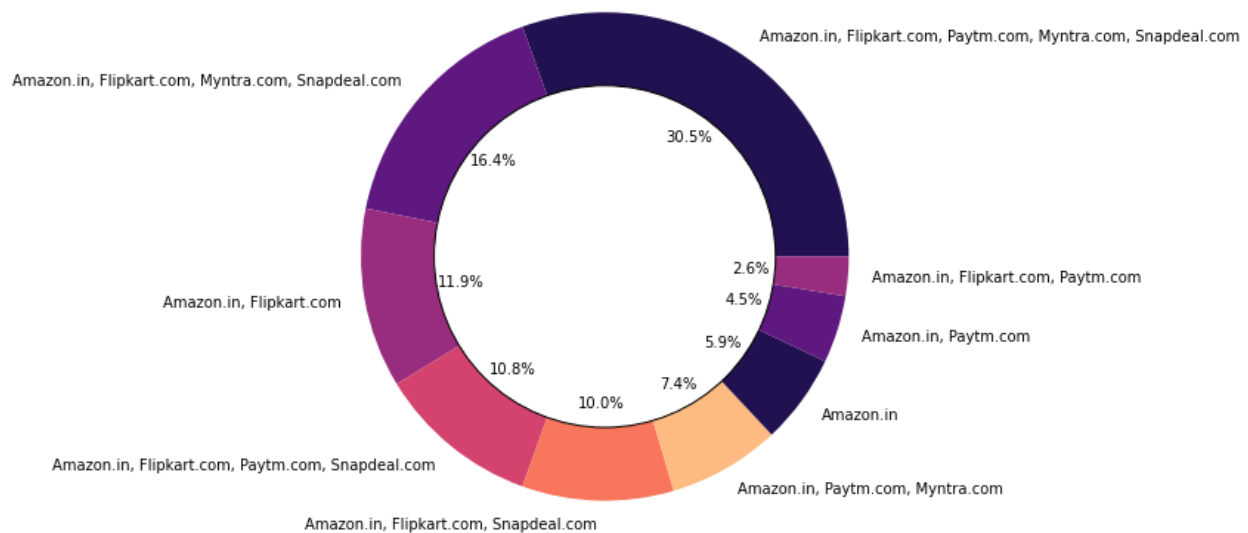
- ❖ We already know 50.2% strongly agrees over providing complete relevant product information, and here we can see that 100 customer think that Amazon.in, Flipkart.com provides complete information compare to others.
- ❖ Previously we know that 42.8 % customer strongly agree and 41.6 % customer agree over high loading & processing speed of website. Here we can see Majority of people think that loading speed of Amazon.in is fastest while Flipkart.com slowest website to load.
- ❖ In terms of Reliability of website or application again Amazon top list.
- ❖ Majority of people also think that Amazon.in tops the chart in terms of quickness purchase process compare to others.
- ❖ Majority of customers think that Amazon.in, Flipkart.com provides several payment options compare to others.
- ❖ Safe & Speed delivery very much deciding factor in terms of purchase. In terms of speed of delivery Amazon.in is much better than other online shopping platform and Flipkart.com worst among all in terms of speed delivery of product.
- ❖ We already know more than 90% Customer thinks that guarantee on privacy of their information is important for them. Majority of customers trust Amazon.in more than other shopping platform for Privacy of customers' information
- ❖ Majority of customer trust Amazon.in followed by Flipkart.in over Security of their financial information. We also see very few peoples trust payment platform Paytm.
- ❖ Amazon.in, Flipkart.com, Myntra.com, Snapdeal.com provide assistance through different multi-channel.
- ❖ Longer time to get logged in can annoyed customer. Amazon.in take longer time to logged in while Flipkart.com take least time among all.
- ❖ Majority of people agree that Amazon.in, Flipkart.com takes longer time in displaying and photos.
- ❖ Myntra.com followed by Paytm.com takes longer page loading time.
- ❖ Most of people want shorter delivery time frame, majority customer agrees that Paytm.com takes longest time for delivery compare to others.
- ❖ Amazon.in website is as efficient as earlier after up gradation.

A huge 80% recommendation goes to Amazon.in by the users to their friends.

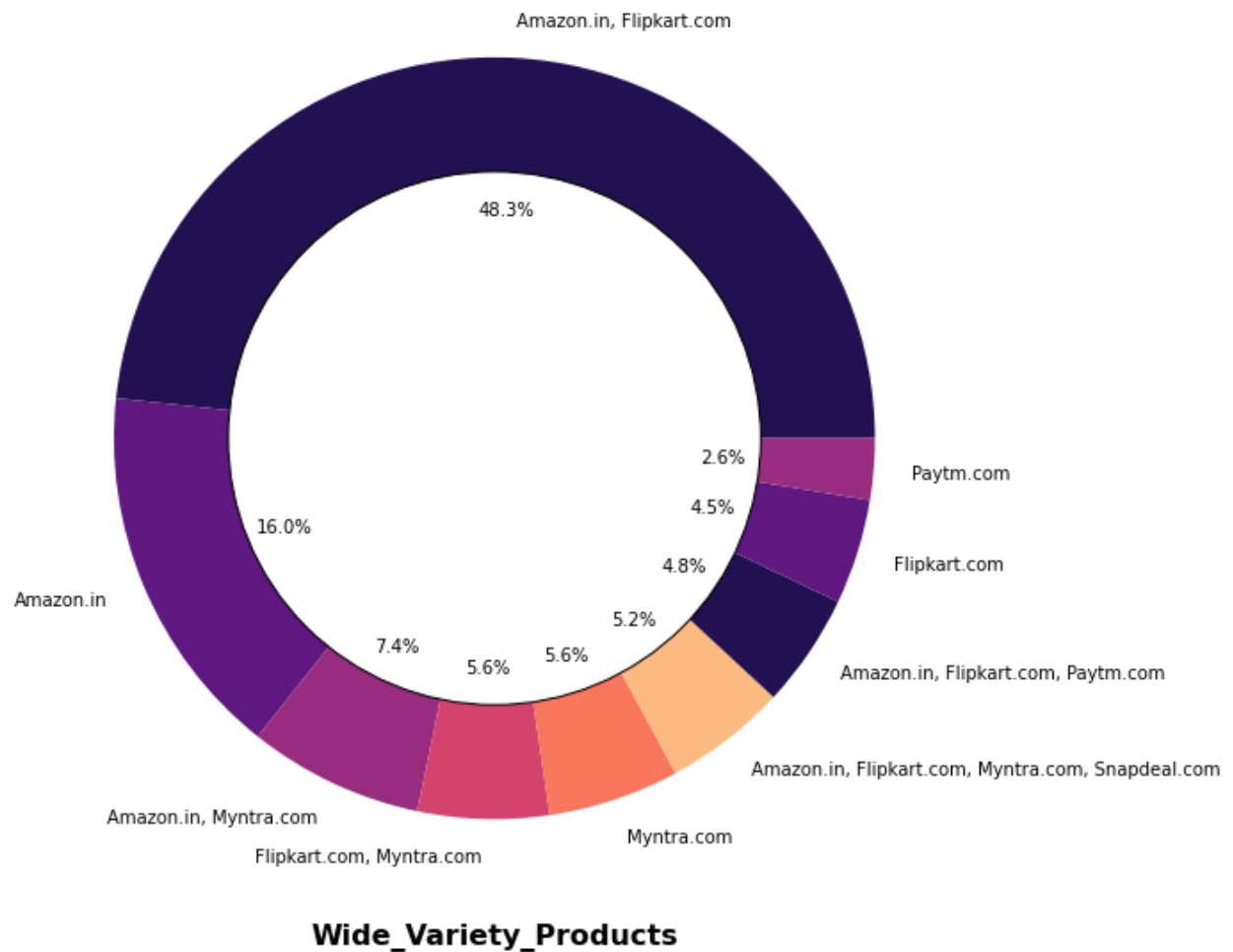
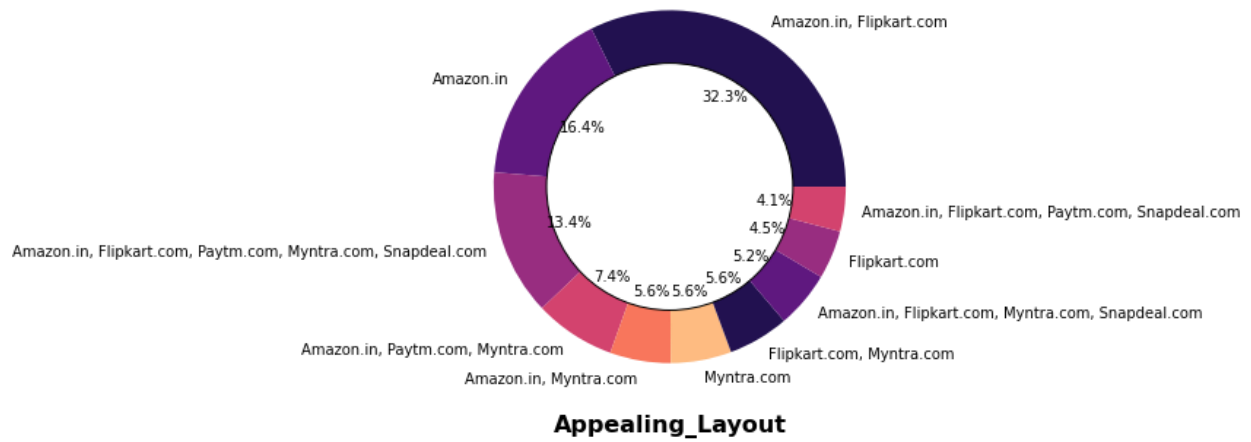
Supporting food for above thoughts

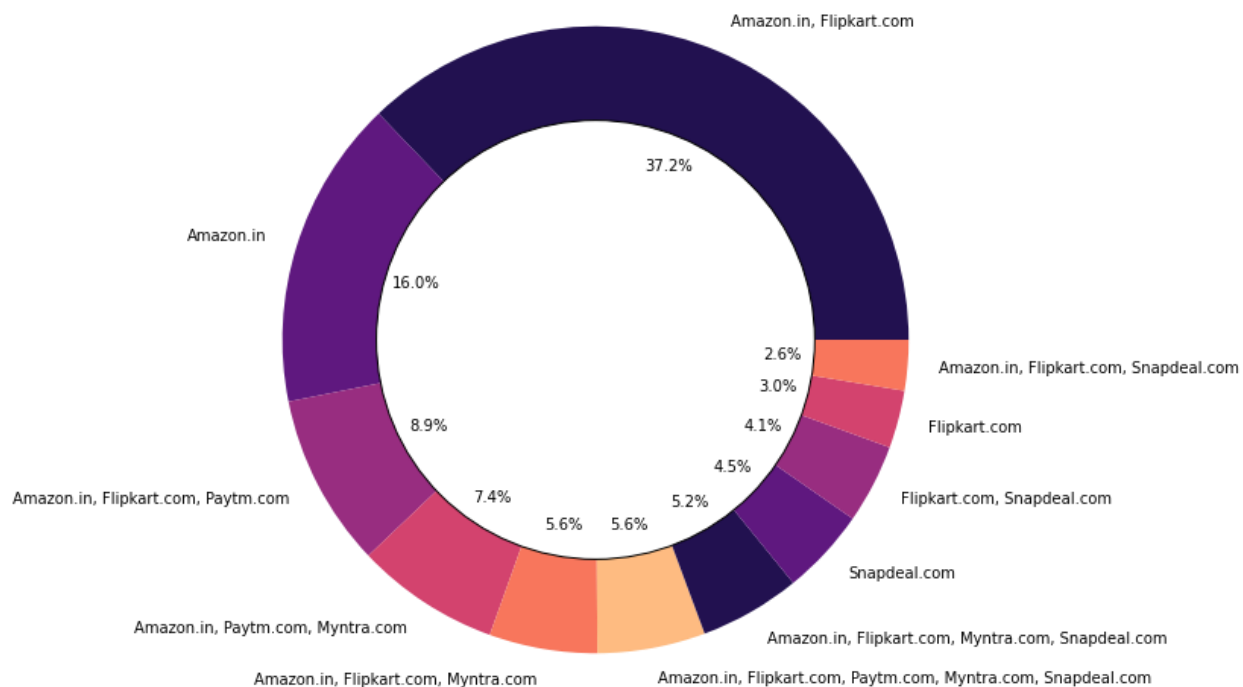


Ease_To_Use

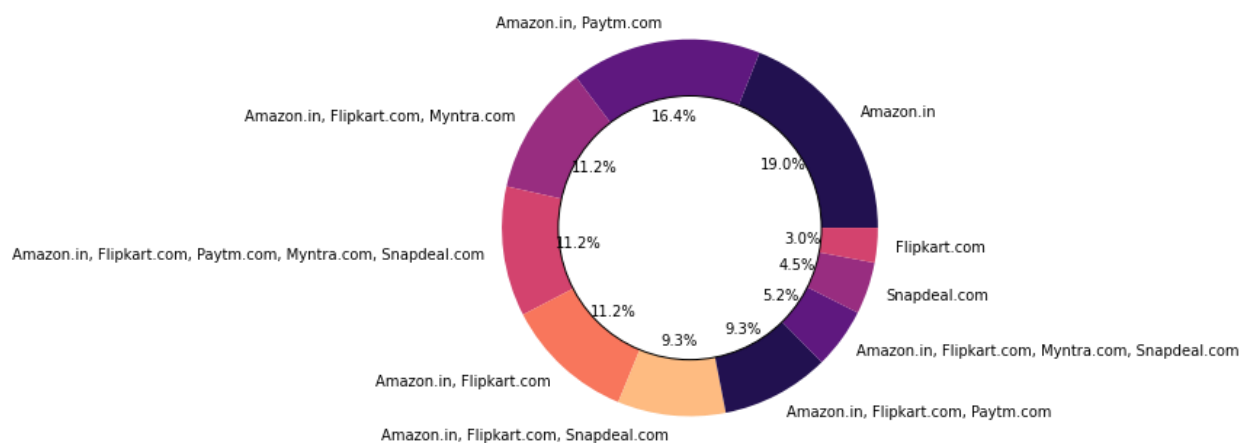


Retailers_Used

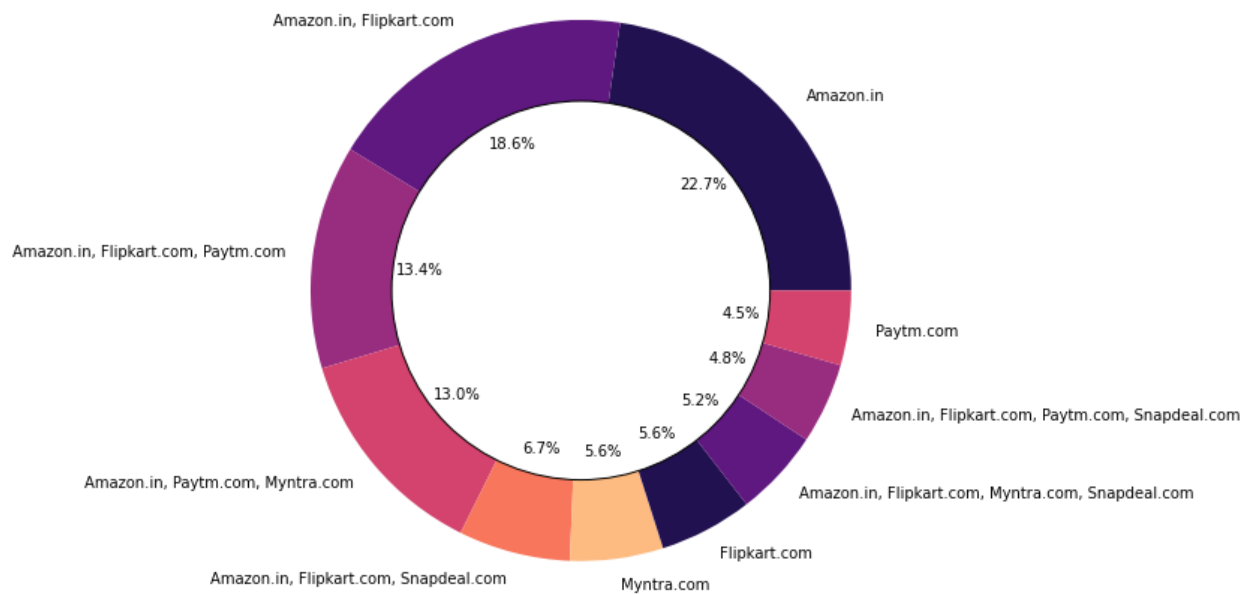




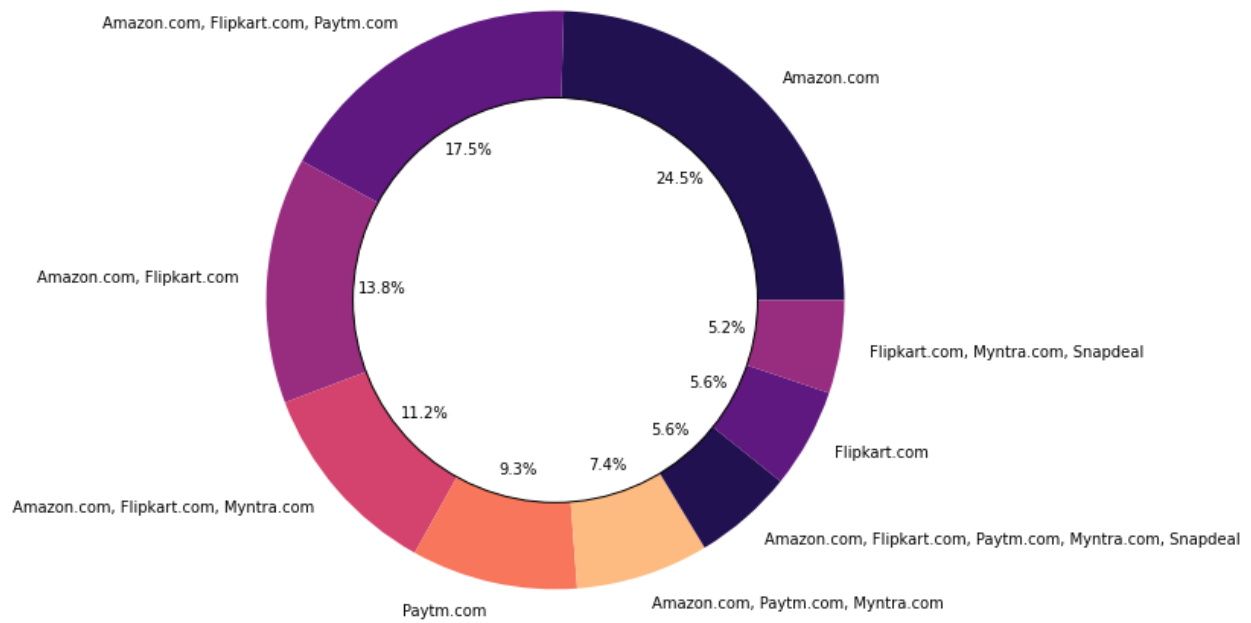
Complete_Relevant_Description



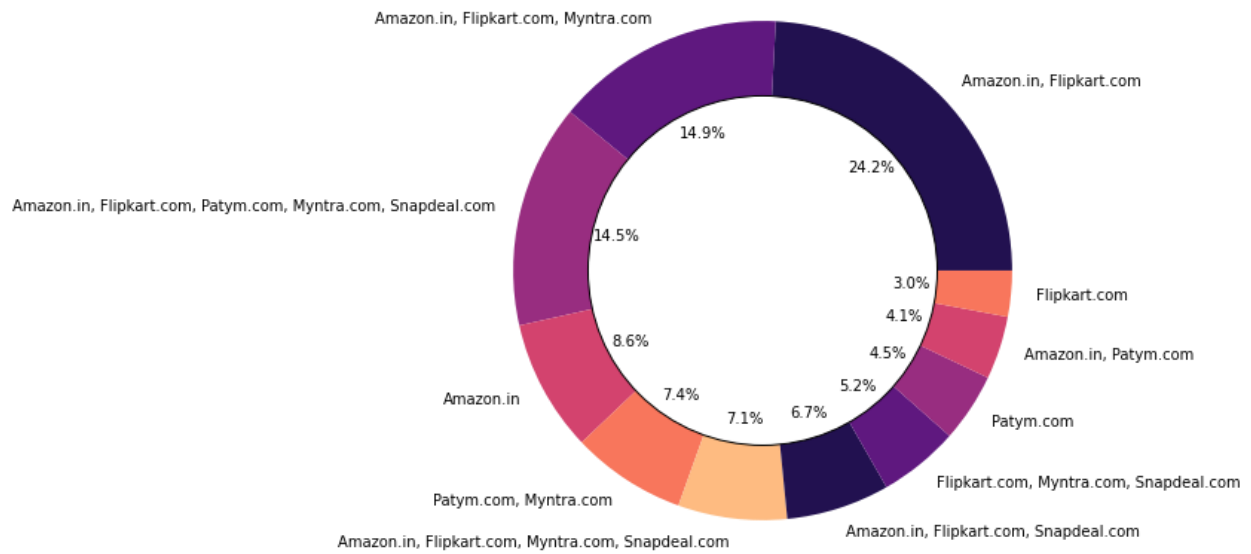
Fast_Loading



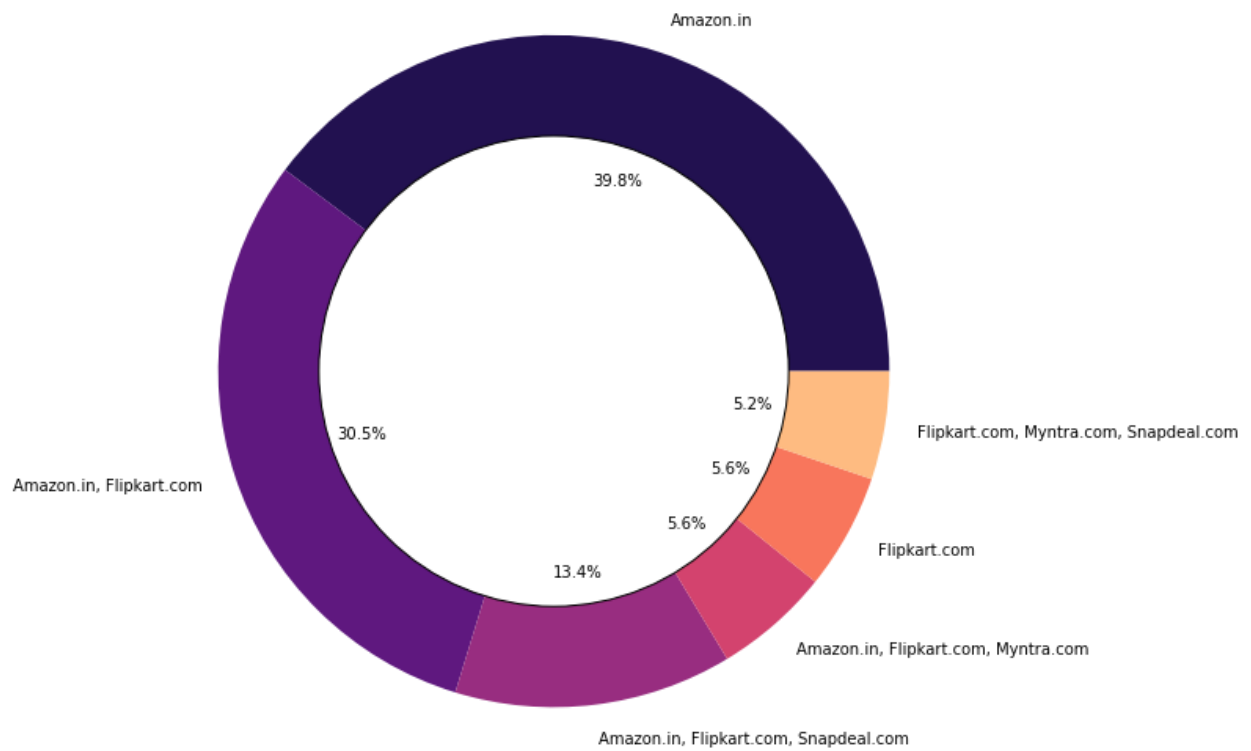
Realibility



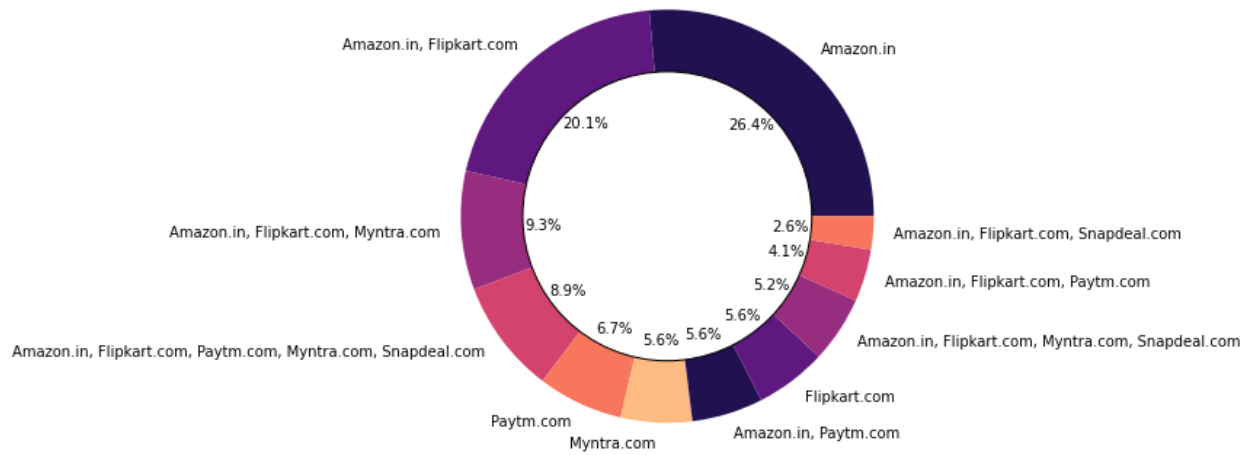
Quickness_Purchase



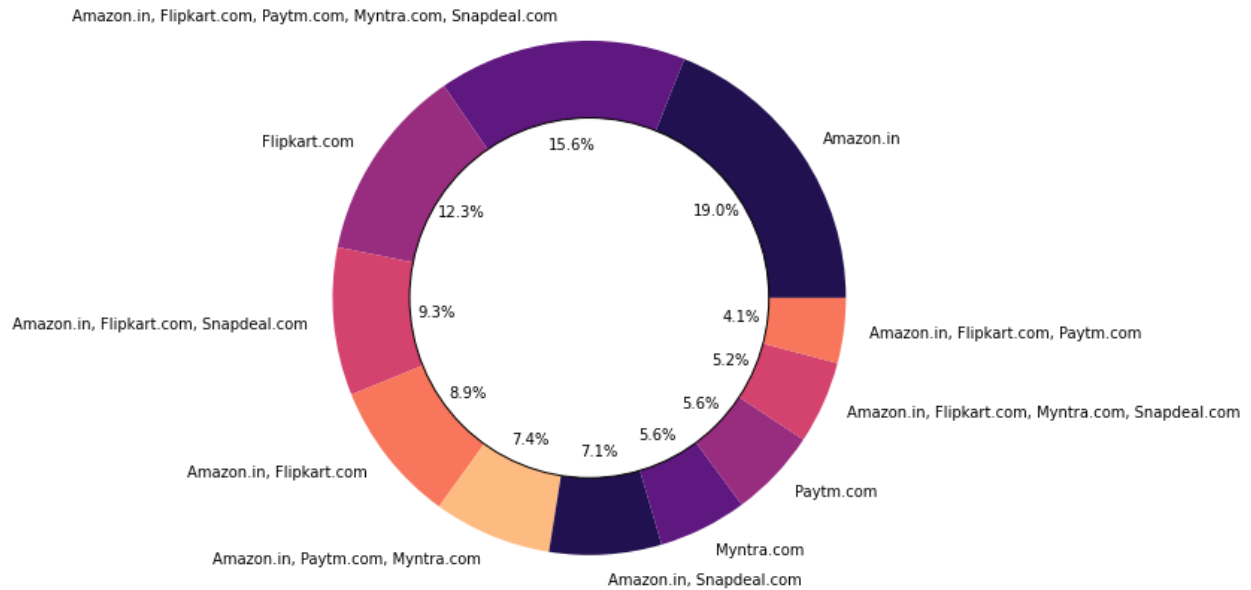
Several_Payment_Options



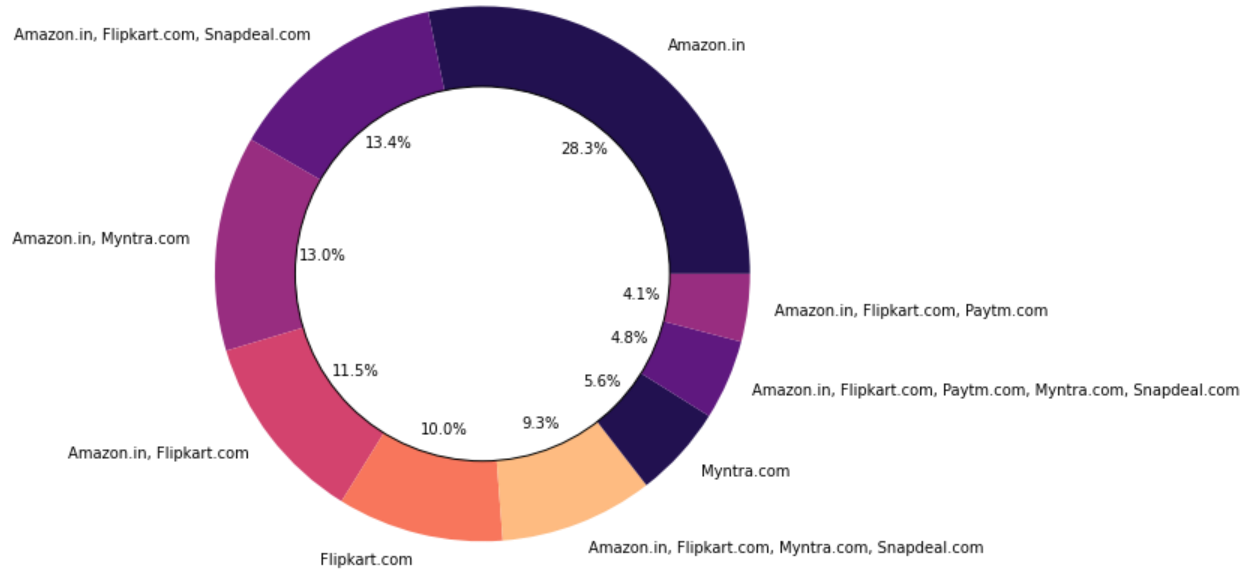
Speedy_Order_Delivery



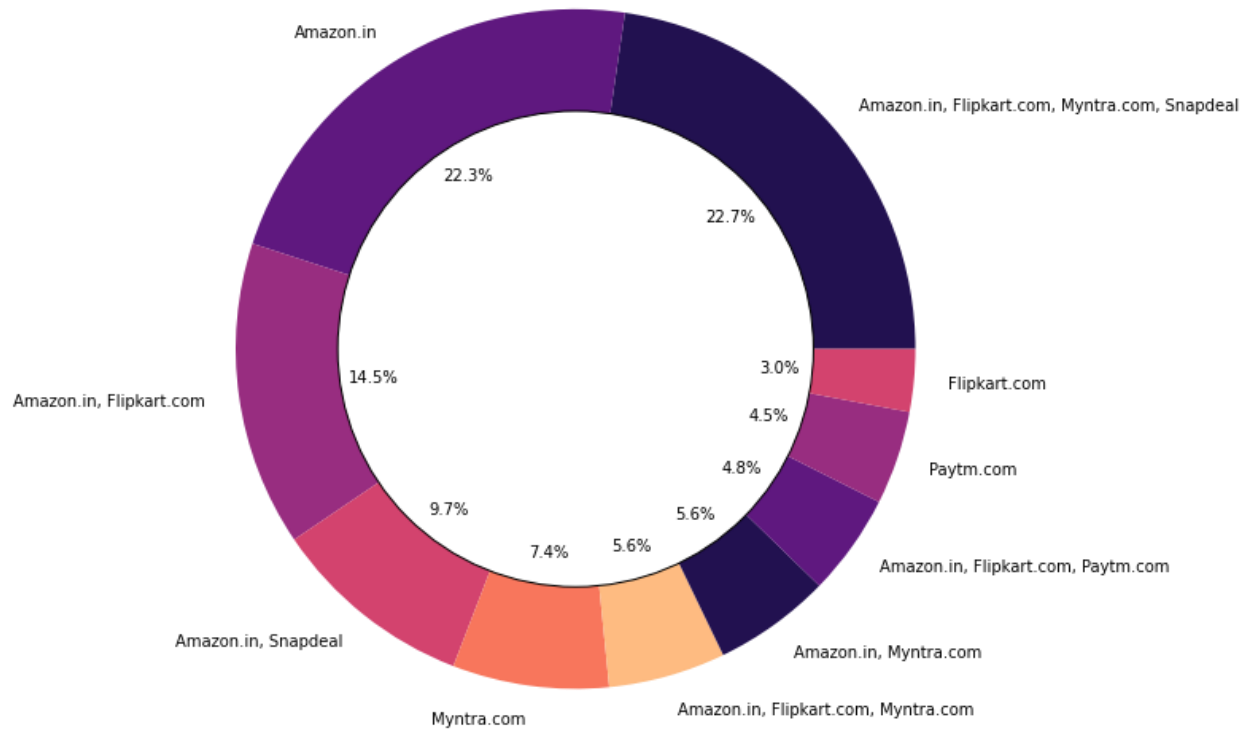
Information_Privacy



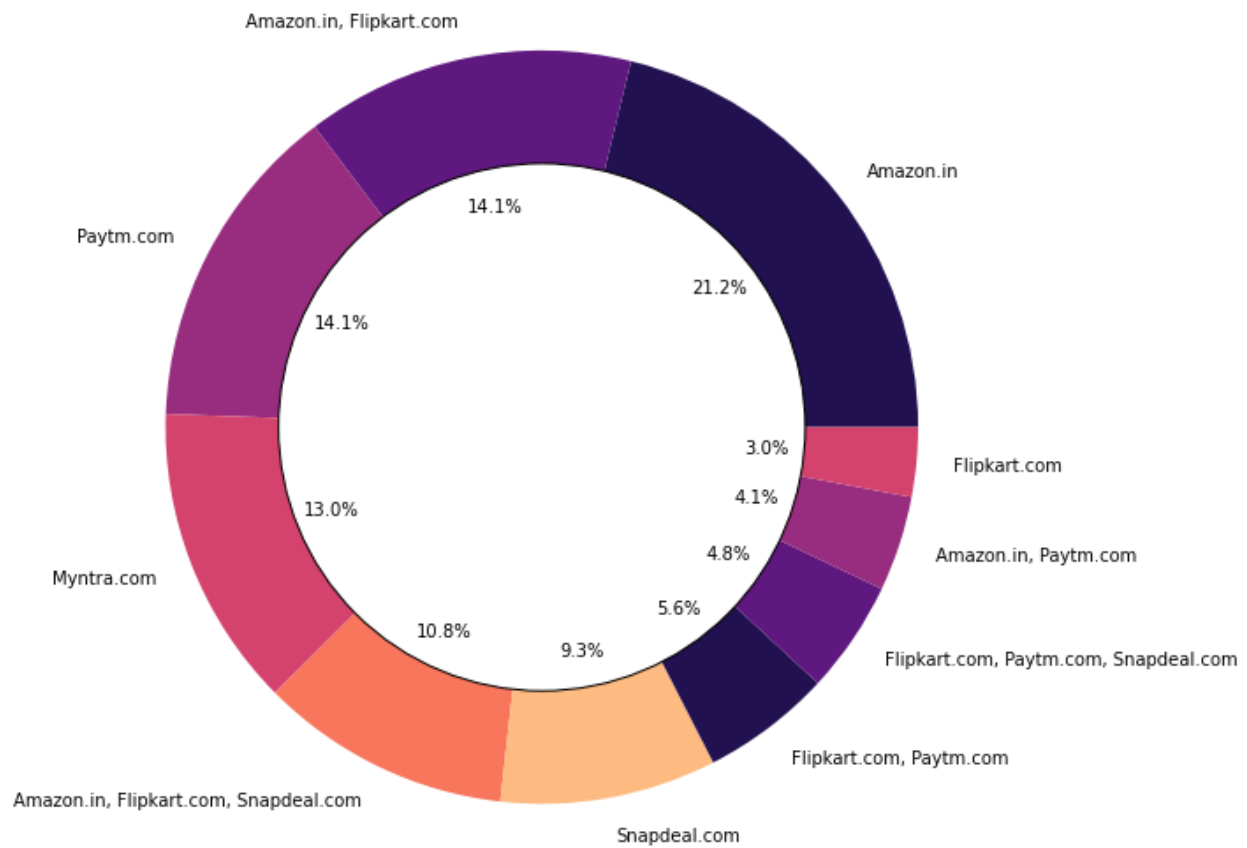
Financial_Information_Security



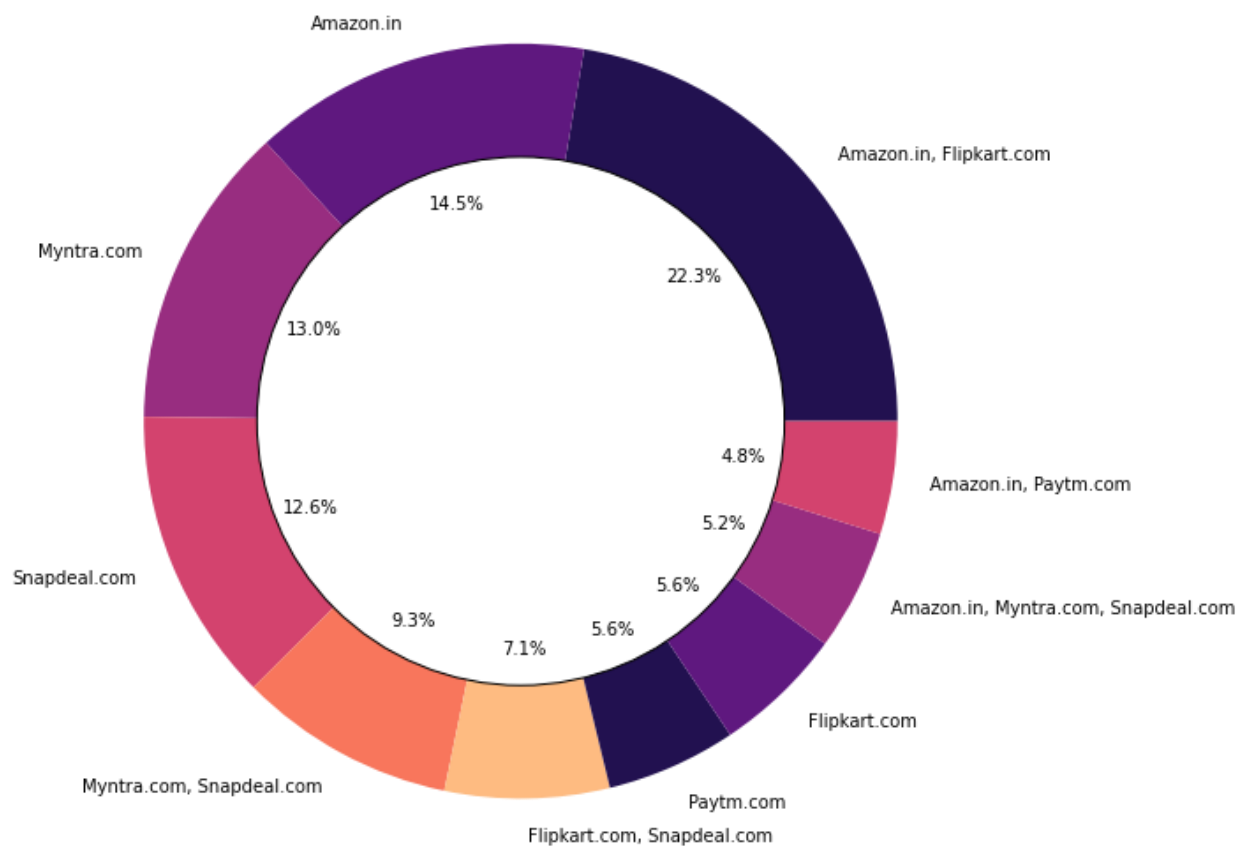
Perceived_Trustworthiness



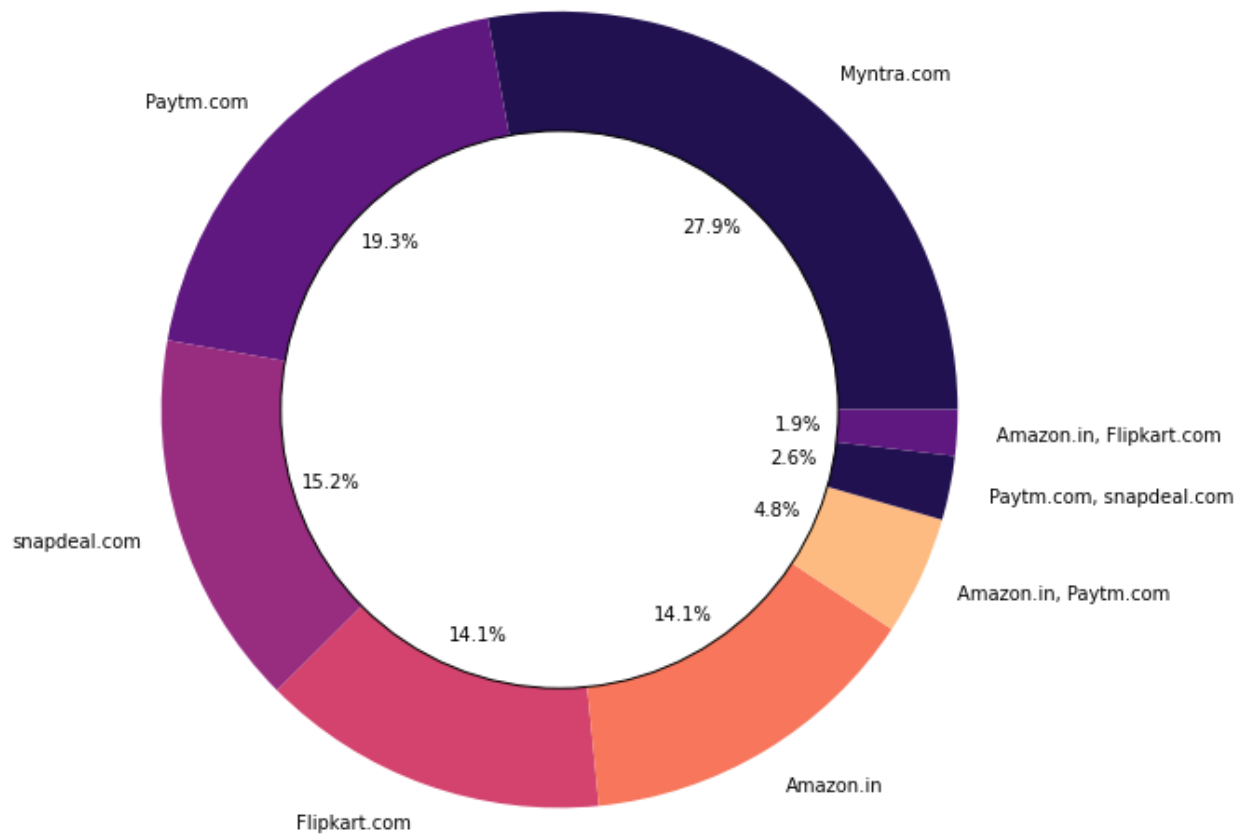
Online_Assistance



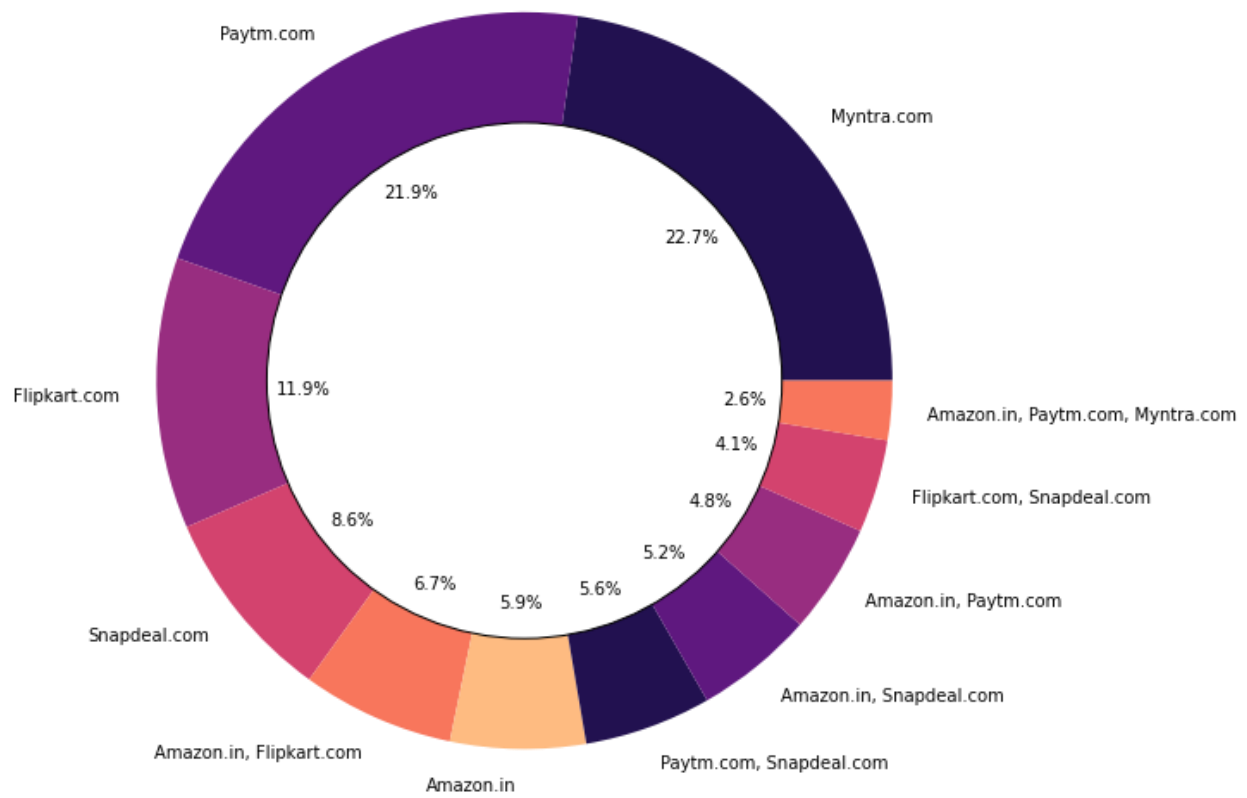
Longer_Logging_Promotion_Sales



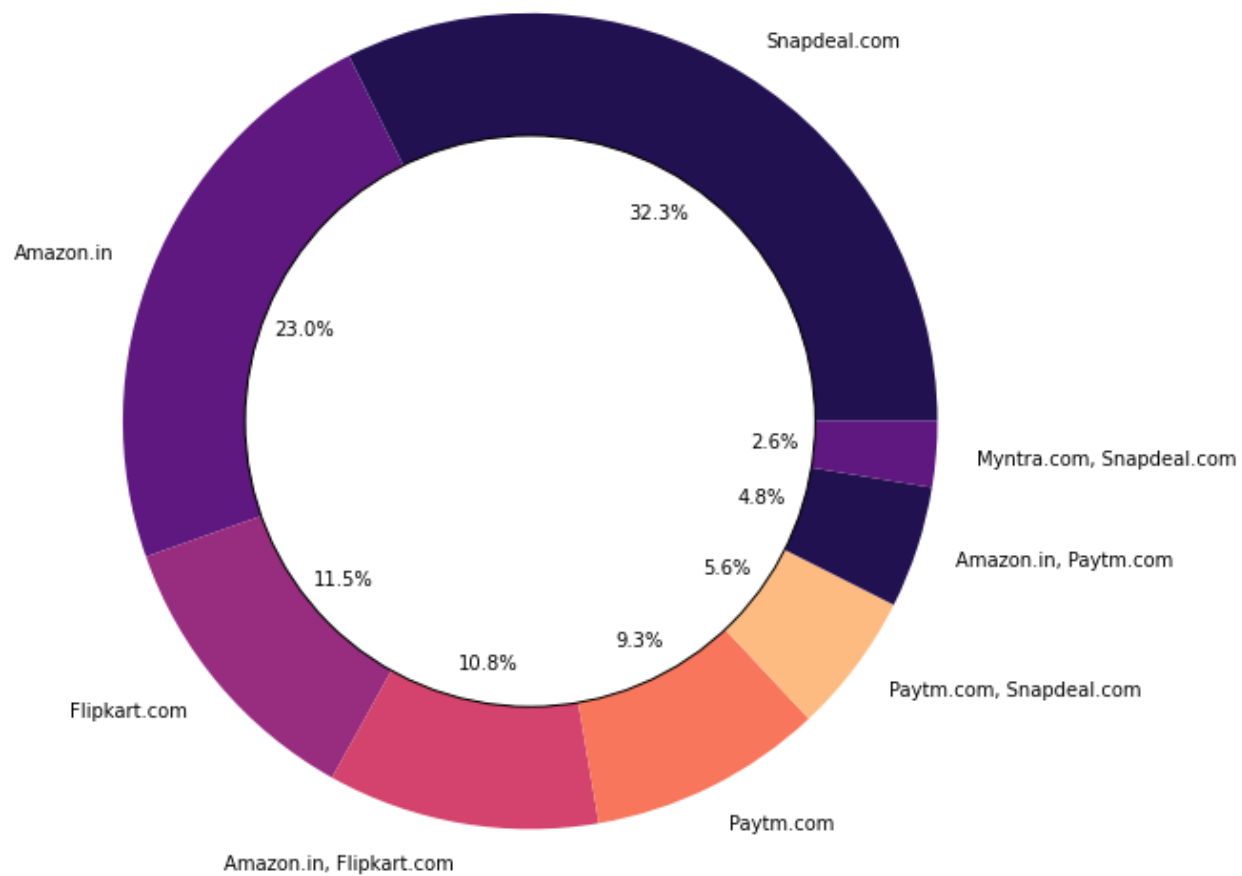
Longer_Display_Promotion_Sales



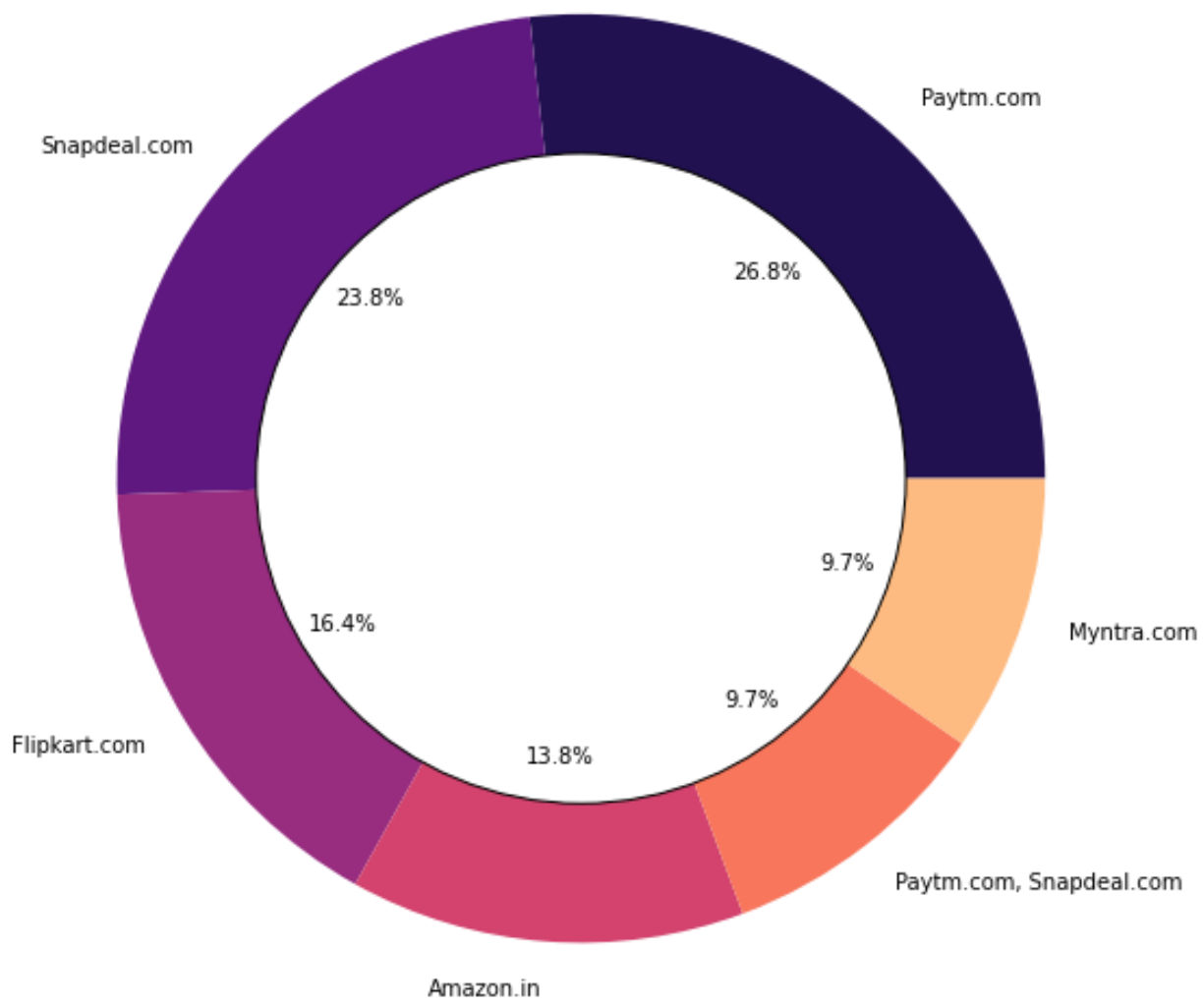
Late_Price_Declaration_Promotion_Sales



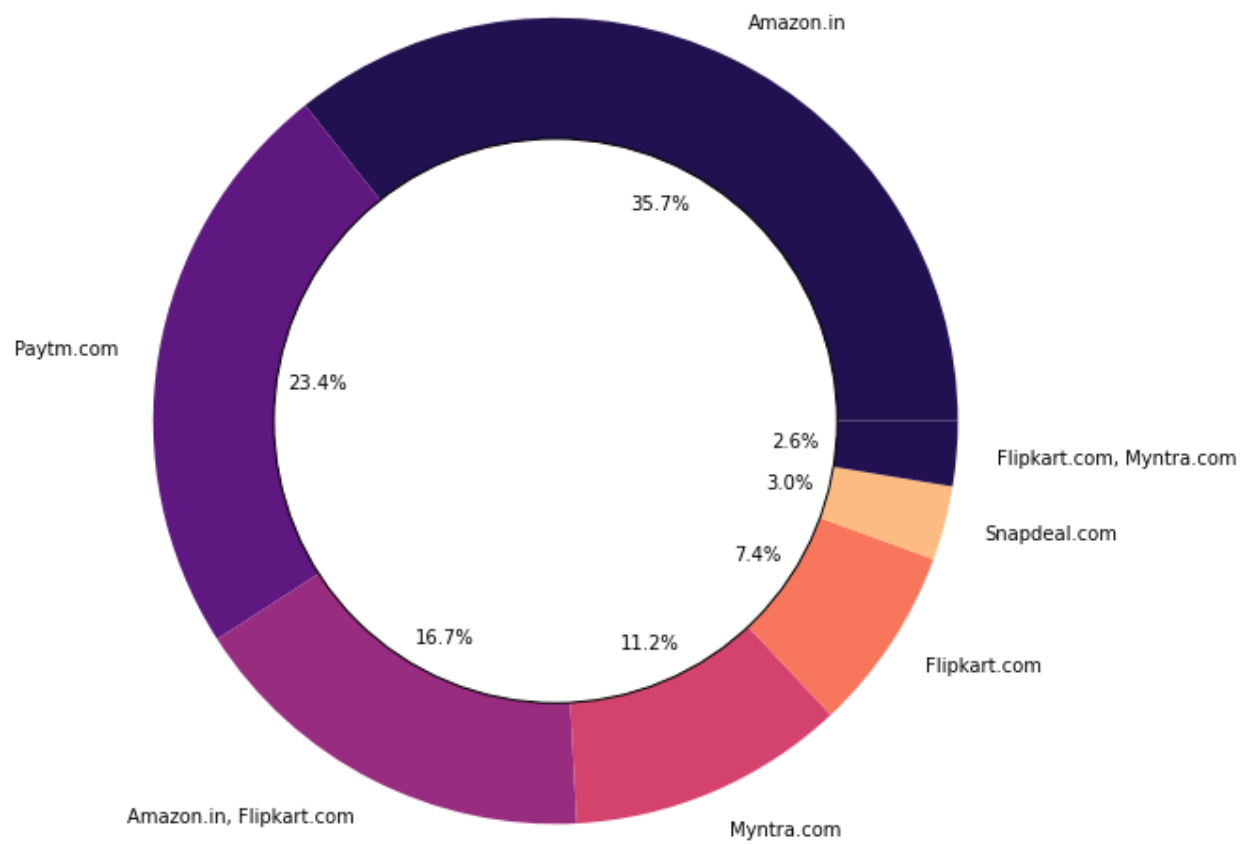
Longer_Page_Load_Promotion_Sales



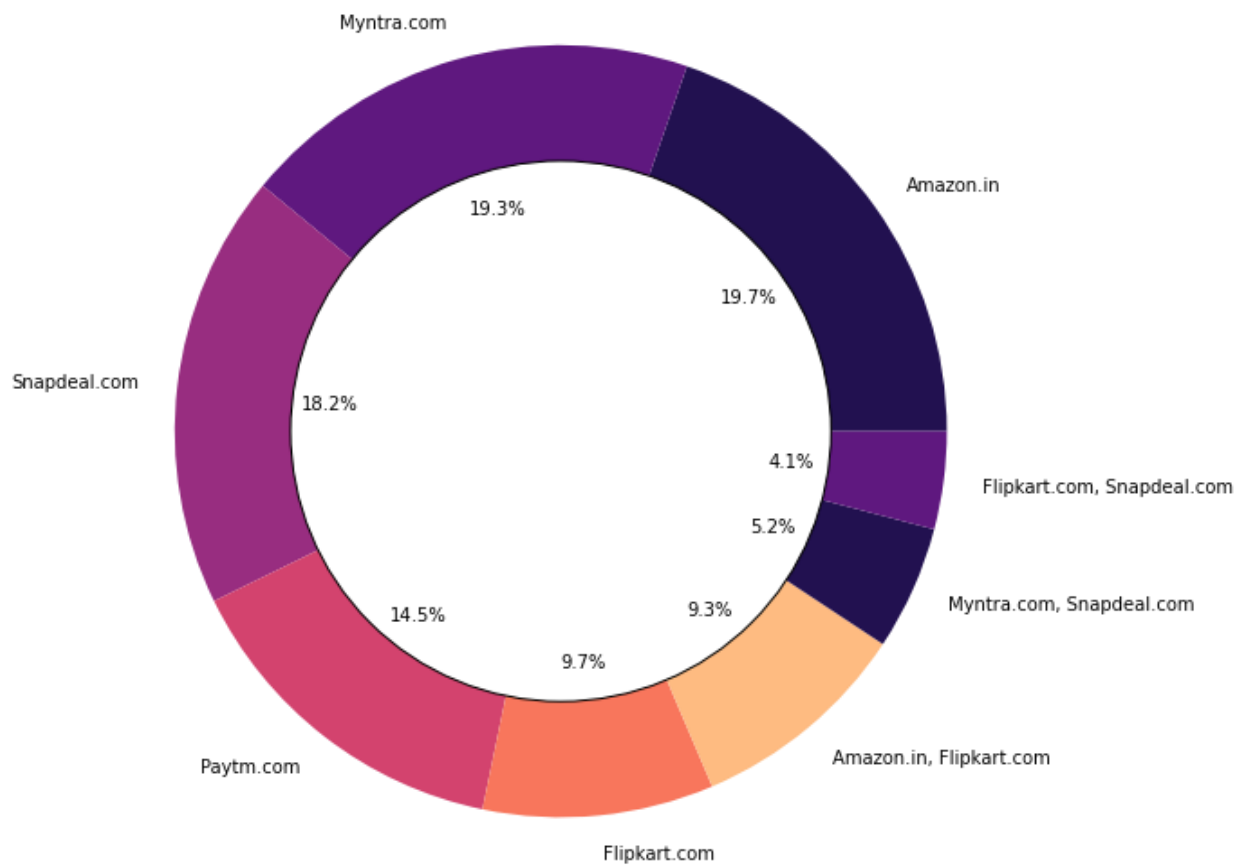
Limited_Payment_Mode_Promotion_Sales



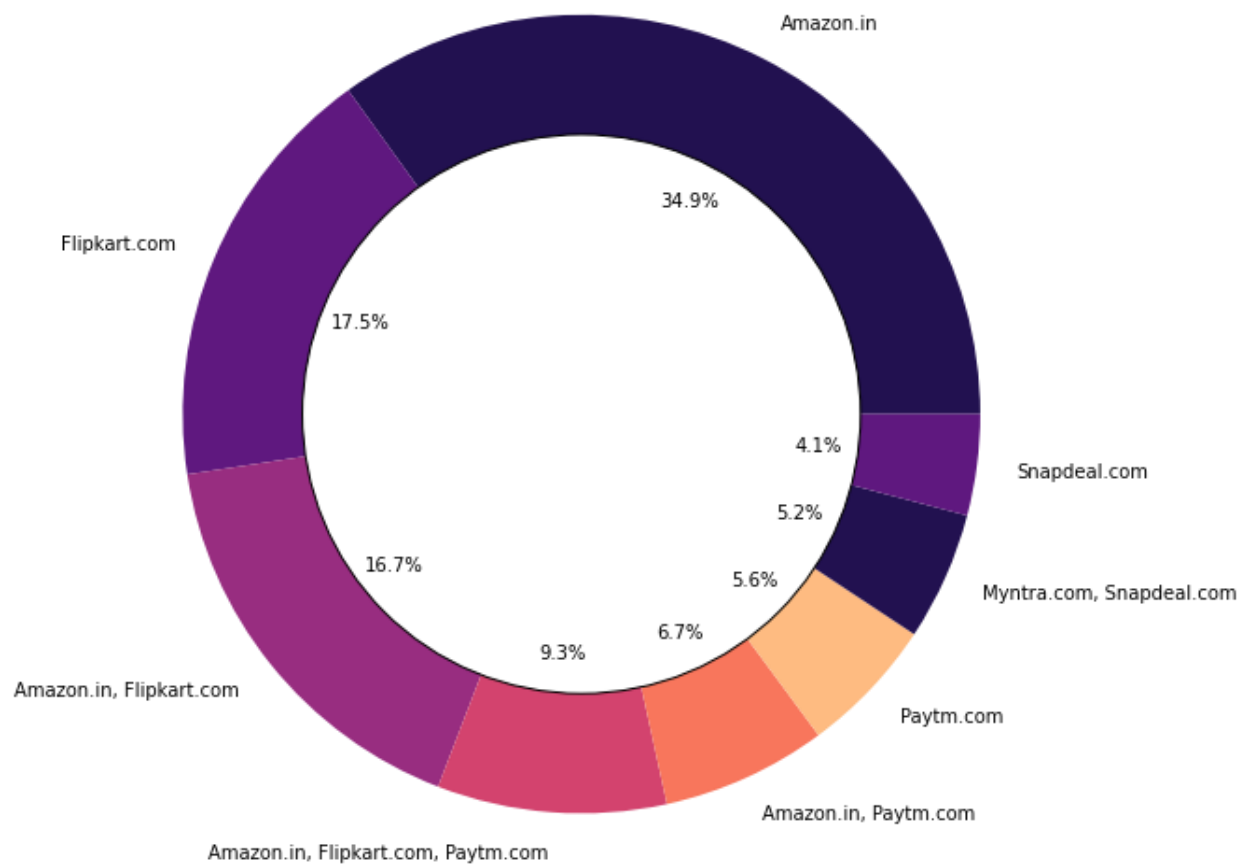
Longer_Delivery_Time



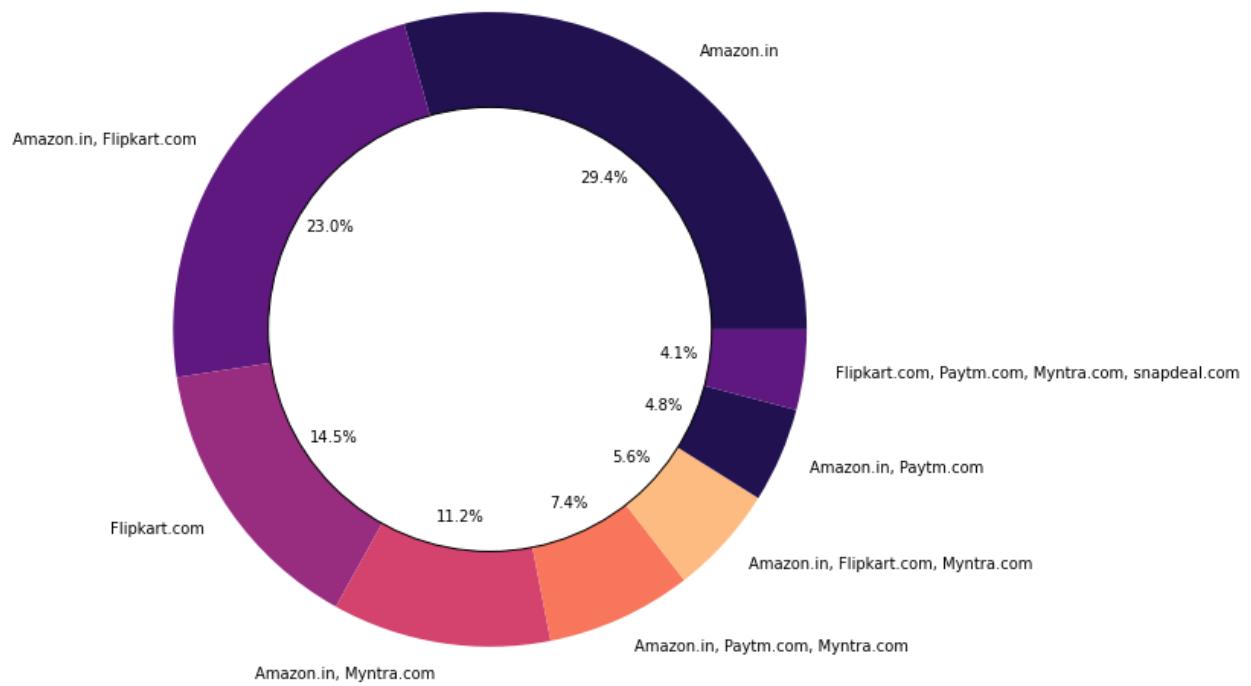
Change_In_Design



Frequent_Disruptions



Website_Efficient_As_Before



Recommendation

Chapter-4 Conclusion and Findings

Final thoughts

It is strong recommendation to companies that don't spend more money over social media marketing & Display Adverts in their Digital Marketing campaign instead of that focus on Search engine Optimization & Email Marketing which will likely to be more effective to earlier.

Complete description product on website or app is essential from making purchase decision.

For both gender tendency of shopping is less for age greater than 51 years old.

Most of them agrees that the functioning of app efficiently is also a major factor which helps in enhance user experience while doing online shopping.

Around 50% customers abandon cart due to better alternative offer which is obvious reason. Another most common reason is promo code not applicable on particular product.

Paytm and Snapdeal have poor customer services and there is lot of scope for further improvement.

Amazon and Flipkart are standing best out in the market competent business strategies and lot advantages over there competitor.

Mostly because, it is convenient and flexible, people prefer online shopping.

People who have been shopping for more then 3-4 years are the ones who frequently shops.

We can observe that most of the people, abandoned them cart as they were having better alternative offers

To conclude,

Having the right customer retention strategy will keep sellers company growing if they know how to take advantage of it. Then customers will find their way back and continue buying stuff from the best company.

Gather multiple data points to make relevant recommendations.

Leverage social proof when possible.

Turn insightful data into concrete action

Annexure 1:

PieChart and Graphs

