

Retail Store Customer Analytics

 Dataset Contains a European Retail Store Transactional data(Dec 2009 - Dec 2011)

Customer Lifecycle

Acquire > Understand > **Communicate** > Upsell > **Retain**

Customer Segmentation

Churn or Cohort Analysis



Devarapu Lokesh

Customer Cohort Analysis:

1.Cohort analysis by

- . Retention
- . Churn
- . Customer Life time value(CLV)

2.Trends

- . Lost customers
- . Retained Customers
- . Resurrected Customers
- . New Customers

Cohort analysis : It is a method to track and analyze the behavior of group of customers who share a common period .

Retention : Number of Customers who continue to use a service or products over a period .

Churn: Number of Customers who stop using a service or products over a period .

Customer Life Time Value (CLV) : Total Revenue a business expects to earn from a customer throughout their relationship(number of total purchases * Avg Spend per purchase).

Resurrected Customers: customers who are inactive in previous month but active current month.

Customer Cohort Analysis



■ Cohort value

☐ churned customers

☐ Retention rate

☐ churned rate


☐ Avg Customer Lifeti...


Months since First Transaction

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Customer Cohort Analysis

Date ▼

01-12-2009 

31-12-2011 

Metrics

- ☐ Cohort value
- ☒ churned customers
- ☐ Retention rate
- ☐ churned rate
- ☐ Avg Customer Lifeti...

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Customer Cohort Analysis



- ☐ Cohort value
- ☐ churned customers
- ☒ Retention rate
- ☐ churned rate
- ☐ Avg Customer Lifeti...

		Months since First Transaction																							
Cohort	New Customers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
December, 2009	955	35%	33%	43%	38%	36%	38%	34%	34%	36%	42%	50%	38%	28%	24%	30%	26%	30%	28%	26%	26%	32%	30%	41%	20%
March, 2010	443	21%	31%	31%	26%	30%	26%	23%	28%	32%	30%	17%	22%	18%	19%	15%	23%	20%	19%	20%	24%	19%	25%	6%	
January, 2010	383	24%	22%	29%	25%	20%	19%	29%	25%	28%	11%	13%	15%	17%	12%	20%	16%	16%	14%	23%	23%	16%	6%		
October, 2010	377	19%	23%	24%	23%	20%	25%	30%	28%	11%	12%	14%	20%	16%	20%	17%	17%	16%	18%	20%	21%	8%			
February, 2010	374	19%	19%	16%	18%	22%	28%	26%	11%	11%	7%	14%	14%	16%	16%	16%	14%	15%	18%	22%	6%				
November, 2010	325	16%	17%	17%	18%	26%	21%	13%	6%	8%	11%	13%	15%	15%	10%	13%	14%	17%	15%	5%					
April, 2010	294	17%	19%	20%	23%	29%	13%	9%	8%	12%	11%	14%	15%	12%	11%	12%	13%	20%	5%						
June, 2010	270	16%	18%	30%	29%	14%	11%	15%	15%	11%	13%	15%	13%	13%	19%	17%	24%	8%							
May, 2010	254	20%	30%	32%	17%	12%	10%	12%	14%	13%	13%	12%	15%	19%	18%	20%	7%								
September, 2010	243	23%	23%	12%	9%	10%	14%	10%	13%	13%	12%	10%	22%	16%	16%	5%									
October, 2011	221	26%	15%	12%	9%	8%	13%	14%	11%	9%	11%	13%	19%	23%	7%										
November, 2011	191	18%	9%	10%	8%	9%	13%	10%	9%	9%	11%	14%	26%	6%											
September, 2011	189	9%	5%	9%	12%	7%	5%	9%	5%	3%	9%	20%	3%												
July, 2010	186	17%	21%	20%	21%	15%	15%	13%	11%	21%	25%	11%													
March, 2011	179	16%	15%	19%	22%	15%	15%	15%	15%	18%	6%														
August, 2010	162	18%	22%	20%	22%	15%	21%	20%	24%	9%															
February, 2011	124	25%	20%	20%	18%	24%	18%	25%	11%																
May, 2011	111	23%	24%	16%	22%	21%	26%	12%																	
June, 2011	108	23%	21%	27%	20%	29%	8%																		
April, 2011	106	22%	30%	27%	34%	16%																			
August, 2011	106	27%	31%	26%	17%																				
July, 2011	102	27%	38%	15%																					
December, 2010	76	32%	16%																						
January, 2011	71	14%																							
December, 2011	28																								
Total	5,878																								

Customer Cohort Analysis

☐ Avg Customer Lifeti...[illegible]

Customer Cohort Analysis



Metrics

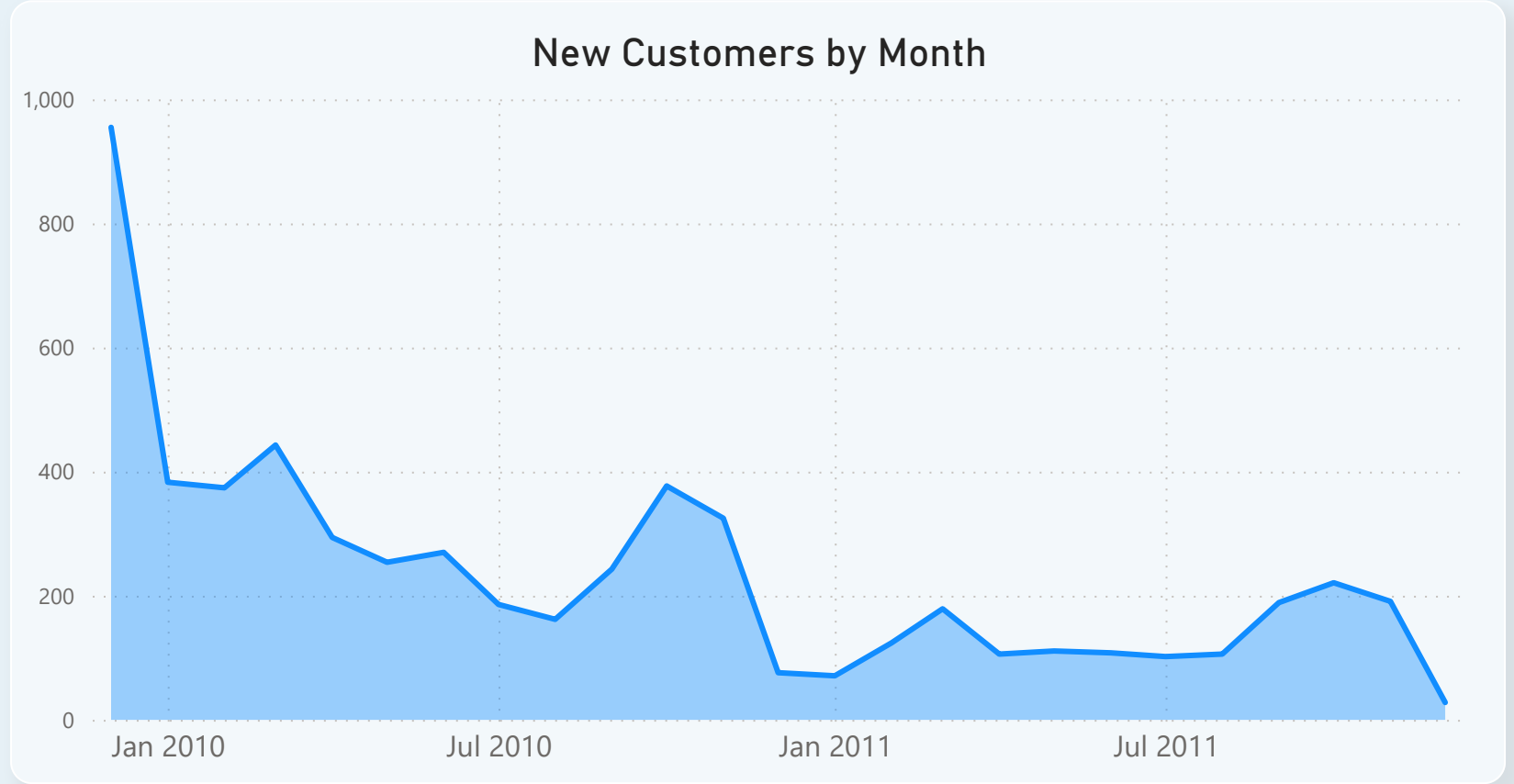
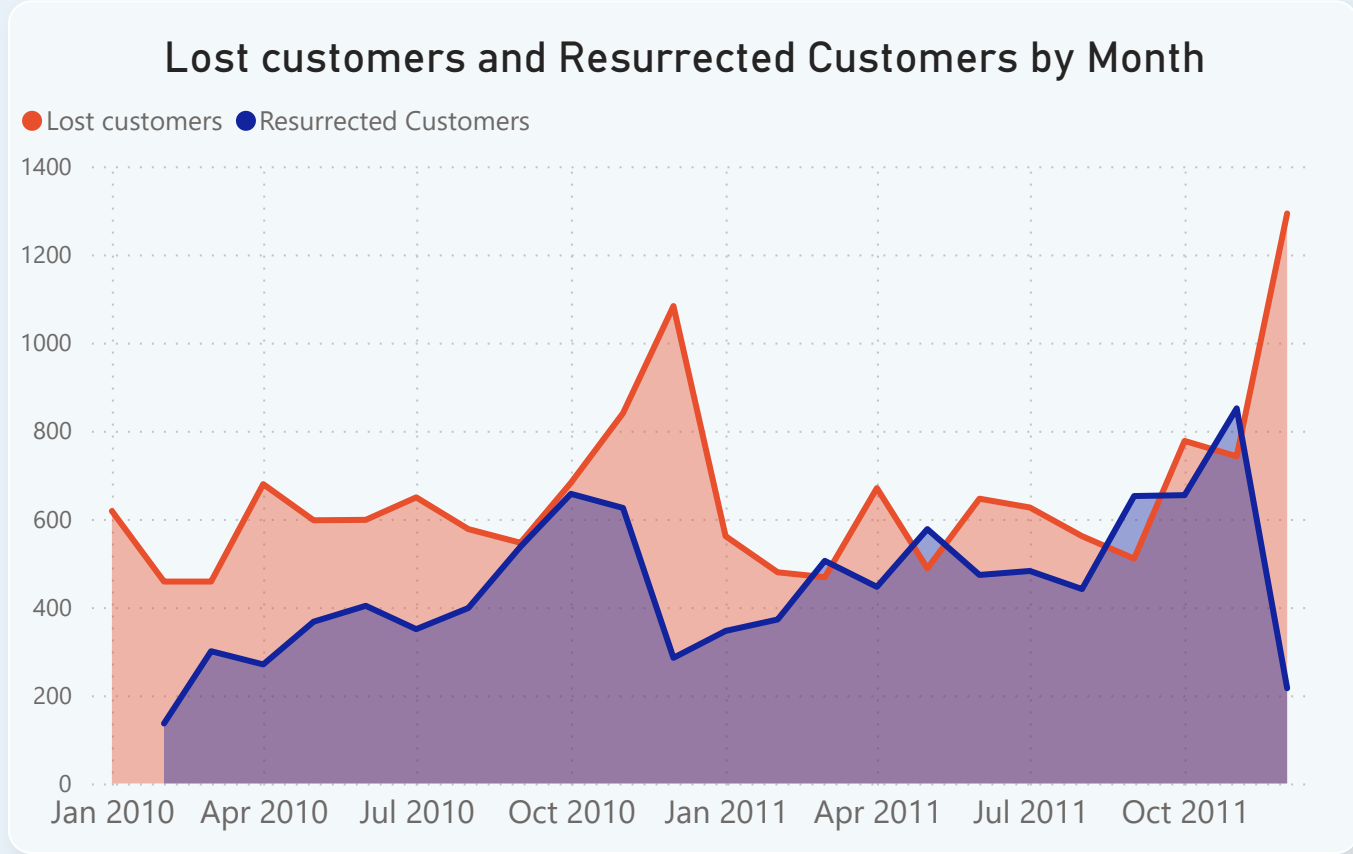
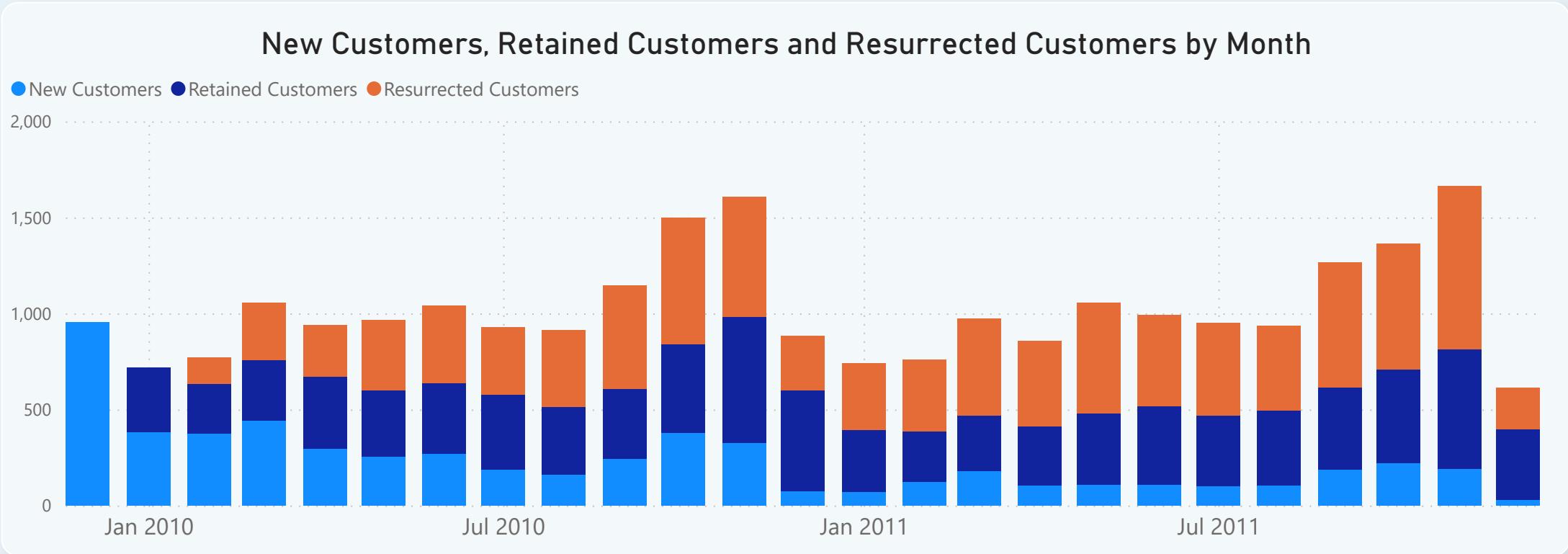
- ☐ Cohort value
- ☐ churned customers
- ☐ Retention rate
- ☐ churned rate
- ☒ Avg Customer Lifetime Value

[illegible]

Date

01-12-2009

31-12-2011



Customer Segmentation(RFM Analysis):

Segmented based on Recency(Recent purchase by EOD 2011 in days) , Frequency(Number of total transactions) , Monetary(Purchase value per transaction)

1.RFM analysis

2.Trends

- Avg CLV by months since 1st transaction
- Avg CLV by month
- Histogram of CLV

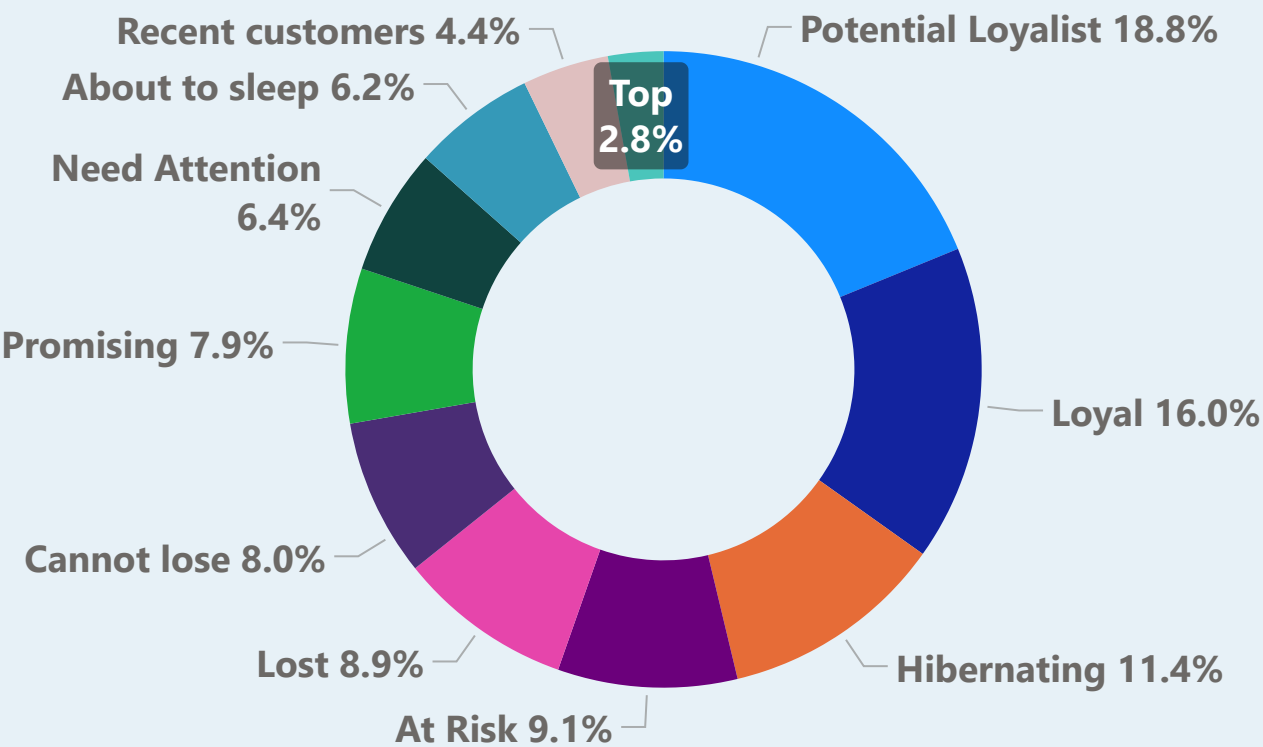
Segment	Behavior
Top :	Bought Recently ,buy often & spend the most.
Loyal :	spend good money often.
Potential Loyalist:	Recent Customers and spend good money , potential to be loyal.
Recent Customers :	Bought more recently but not often.
Promising:	Recent shoppers but haven't spend much.
Need Attention :	Above Average Recency, Frequency, and monetary values.
About to sleep:	Below Average Recency, Frequency, and monetary values.
At Risk:	Spend more money and often but long time ago.
Can't lose them:	Spend more money and often but haven't returned for a long time.
Hibernating:	Last purchase was long back, low spenders and less often.
Lost:	Lowest Recency ,Frequency , Monetary Values

Customer Segmentation(RFM Analysis)

19% **Top Customers(Top & Loyal):** These customers have purchased Avg of 19 times , spending an avg of \$842 which has Avg CLV of \$16k and have visited within last 2 months.

25% **Need Attention(Potential Loyalist & Need Attention):** These customers have purchased Avg of 7 times , spending an avg of \$337 which has Avg CLV of \$2.3k and have visited within last 3 months.

Segment	Avg Recency(days)	Avg Frequency	Avg Monetary
Top	30	28	€ 1,085
Promising	67	1	€ 856
Cannot lose	510	1	€ 733
At Risk	394	4	€ 606
Loyal	69	10	€ 599
Need Attention	91	4	€ 444
Potential Loyalist	64	9	€ 230
Hibernating	349	2	€ 210
About to sleep	253	2	€ 171
Recent customers	76	1	€ 144
Lost	586	1	€ 137

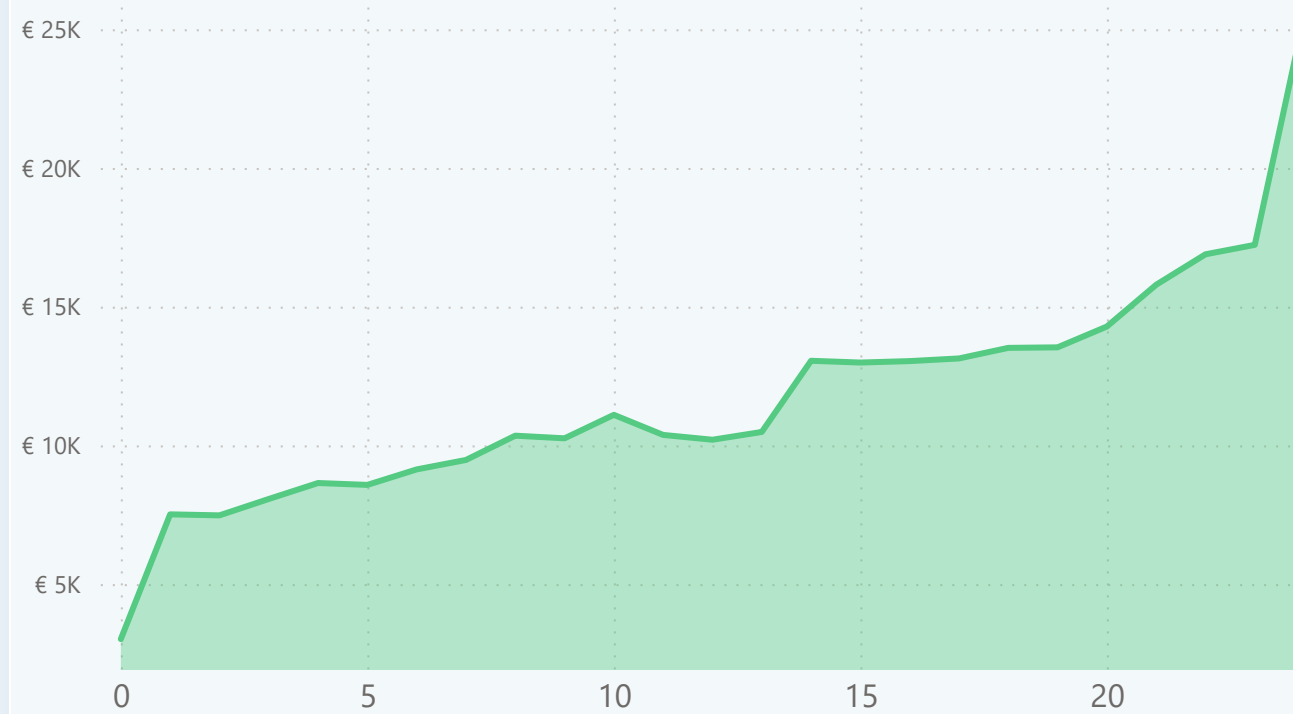


17% **Immediate Attention(At Risk & Cannot lose):** These customers have purchased Avg of 2 times , spending an avg of \$670 have visited more than 1year back.

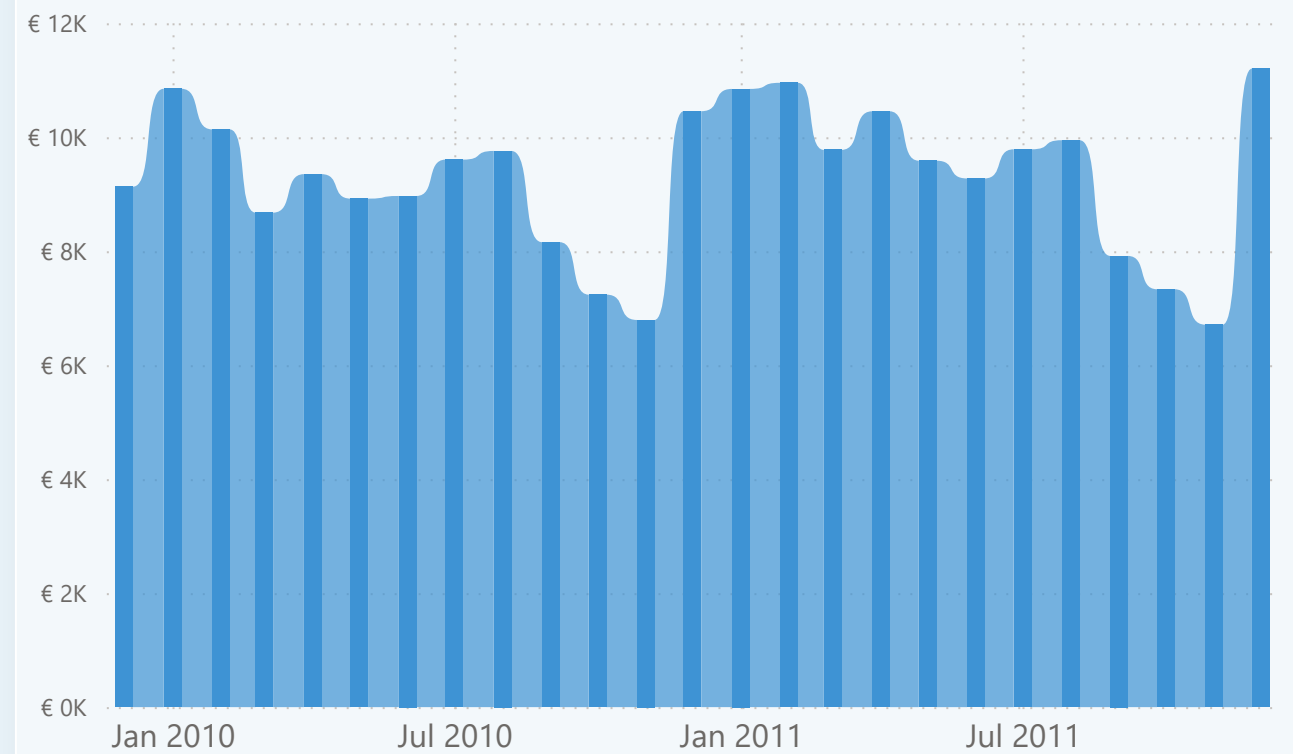
12% **New Customers(Promising & Recent Customers):** These customers have purchased avg of 1time , spending an avg of \$500 and have visited within last 3 months.

26% **Risk of Churn(About to sleep, Hibernating, Lost):** These Customers have avg Spending of \$259.

Average CLV by Months since first transaction



Average CLV by Month



Segment

All

Histogram of Customer Lifetime Value (CLV)

