OLIST MARKETING FUNNEL

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Introduction

This project aims to analyze the marketing funnel dataset of Olist which is a Brazilian e-commerce giant. Olist can be termed as a 'Marketplace of Marketplaces' which provides a platform to ease the access of sellers to the vast but fragmentated marketplaces based in Brazil. Following are the research questions which we seek to explore:

RQ1. What is the distribution of Lead generated per marketing channel?

RQ2. What is the variation in lead generation throughout the fiscal year?

RQ3. What is the conversion rate by marketing channel?

RQ4. What is the time to convert by each marketing channel?

RQ5. What is the performance of the landing pages in terms of attracting qualified leads?

RQ6. Which business segment had the highest conversion rate?

RQ7. What is the count of the average number of days taken to close a deal?

RQ8. Which sales representatives performed the best in each of the business segments?

Today, companies employ huge capital and resources in marketing activities with the aim of acquiring qualified leads and subsequent conversion of those leads into viable customers. As a result, cogent analysis of each aspect of the marketing funnel can be a highly effective tool in optimal resource utilization and effective acquisition of potential customers. Our research is primarily aimed at Olist but in general can be extrapolated by companies which aim to optimize their marketing strategies. Olist can utilize our research for discovery of both high and low yielding processes with respect to gaining and conversion of qualified leads, eventuating in a reform marketing strategy.

Overview

We have used the following two datasets:

1. Marketing funnel dataset from sellers that filled-in requests of contact to sell their products on Olist Store.

This dataset has information of 8000 Marketing Qualified Leads (MQLs) that requested contact between Jun. 1st, 2017 and Jun 1st 2018.

2. Brazilian E-Commerce Public Dataset by Olist.

Contains information regarding 100k orders and related seller data.

For this project, we decided to go with 2 software's, Microsoft Access and Tableau

For database creation and relationship definition, we will be using MS Access. We firstly load our data set in the database and then create appropriate fact tables. In our dataset, we combined 3 datasets to form FACT_DAYS table in which it calculates how many days it took for one deal to close. **[Appendix A]**

After this, we defined the relationship between the datasets. We have a total of 4 Tables

Dimension Table:

a. Olist_Closed_Deals_Dataset
b. Olist_Sellars_Dataset
c. Olist_Marketing_Qualifier_Dataset

Fact Table:

a. FACT_DAYS

Tableau will be used to create visualizations so we exported the tables from MS Access database and brought them here. In the next few topics, you will take a closer look on how we used the data to create visualizations.

Our research reveals multiple solutions to optimising the sales funnel for Olist. We were successful in doing so by answering the following business questions:

RQ1. What is the distribution of Lead generated per marketing channel?

The distribution of leads generated per marketing channel is visualised using a bar graph and pie chart to view the count of leads and percentage distribution respectively from every marketing channel. The 'organic_search' marketing channel garnered most leads with a count of 2296. Organic search refers to leads who naturally landed on the Olist website followed by paid search lead type with a count of 1586. This was an unexpected winner and meant SEO strategies brought in better results compared to others. **[Appendix E]**

RQ2. Variation in lead generation throughout the fiscal year

A time series graph was plotted to show the distribution of number of leads per month. The graph starts with the count of leads from June 2017 with a minimum count of 4. There is a constant rise in number of leads moving forward with a sudden spike in Jan 2018 to 1141 hitting an all time high in May 2018, this can be associated to new and improved marketing strategies undertaken by the company. This came in as no surprise because of the massive focus on marketing and branding. **[Appendix E]**

RQ3. Conversion rate by marketing channel

This visualisation helps determine the most successful marketing channel in terms of number of conversions. Here Organic Search is a clear winner bringing in a whopping 32.73 successful conversions from every 100 leads. Paid search has the second highest count of successful conversions. **[Appendix D]**

RQ4. Time to convert by marketing channel

This visualisation helps determine the most efficient marketing channel in terms of least time taken to convert a lead to a successful seller on Olist. Digital display ads had the fastest conversions which isn't surprising as humans tend to be more attracted to visual graphics. Organic Search has a low conversion time as well, proving its efficiency yet again. **[Appendix D]**

RQ5. What is the performance of the landing pages in terms of attracting qualified leads?

The graph shows the distribution of the number of clicks per landing page. What is surprising is that only 8 pages amount for more than 50% of the traffic. Hence the lower performing channels can improve their efficiency by following the strategies of top performing pages such increasing social media activity and lowering resources spent on media such as paid searches and emails. **[Appendix C]**

RQ6. Which business segment had the highest conversion rate.

A comparative bar graph with help from tableau calculations was implemented to count the number of conversions per business segment and leading 15 segments were plotted on the graph. Health & beauty segment saw the maximum conversions at 45, followed by home decor and household utilities both with 44 conversions. The massive difference in count between the leading

segments and subordinate segments was unexpected and asks for more effort to be dedicated to the business segments with the least number of sellers. **[Appendix B]**

RQ7. What is the count of the average number of days taken to close a deal?

A comparative analysis was implemented to understand the number of days taken to close a deal per lead type. Lead type variable categorises the sellers based on their online/offline popularity. With this we could see that construction & home garden tools lead type that operate as industries take upto 94 days on average to convert (highest). This is followed by health and beauty product sellers who have a small online presence, customer base with a count of 63.25 days on average. **[Appendix B]**

RQ8. Which sales representatives who performed the best in each of the business segments.

An interactive visualisation with a filter allows the end user to view the count of conversions for top 18 sales representatives in our choice of business segment. As mentioned above we were particularly focused on the top performing business segments and could determine that 'Mark' was the best performing representative bagging 32 conversions performing his best in the health & beauty segment with James ranking 2nd with a total of 17 conversions with 7 conversions of household utilities. **[Appendix B]**

Conclusion and Recommendation:

The aim of the study was to optimize the sales funnel of Olist by figuring out the best fit marketing strategy and increasing the top of the funnel growth (brand awareness) for the B2B Brazilian e-commerce giant; Olist. The study followed a two-fold methodology, corresponding to the two levels of Olist's sales funnel:

- Analysis of the leads generated
- Analysis of the lead conversions to full time customers

To assess the leads generated the KPI: ‘Leads generated per month’ was examined. The variation of the leads by month throughout the fiscal year led to the first conclusion of the study: There was a spike in the number of leads generated from December 2017 to January 2018. Upon further examination of this spike, it was found that ‘Organic search’ was the channel responsible for this spike.

Coming to the second part of the study, analysis of sales conversions was examined using 2 KPIs:

- Time to convert (in days)
- Conversion rate (in percentage)

This part of the analysis led to the conclusion that ‘Direct_Traffic’ is a very efficient marketing channel (in terms of the 2 KPIs), but was being under utilised by Olist.

Building on the conclusions of the analysis of this study, the 2 marketing channels Olist must invest in are: Organic search and Direct Traffic. This can be achieved by investing their marketing funds in Search Engine Optimization. Hence, as strategy consultants to Olist, we firmly recommend Olist to invest in search engine optimization and track the improvements in the defined KPIs.

References

[1] Sean Kandel, Andreas Paepcke, Joseph M. Hellerstein, and Jeffrey Heer, 2012. ”Enterprise Data Analysis and Visualisation: An Interview Study”.

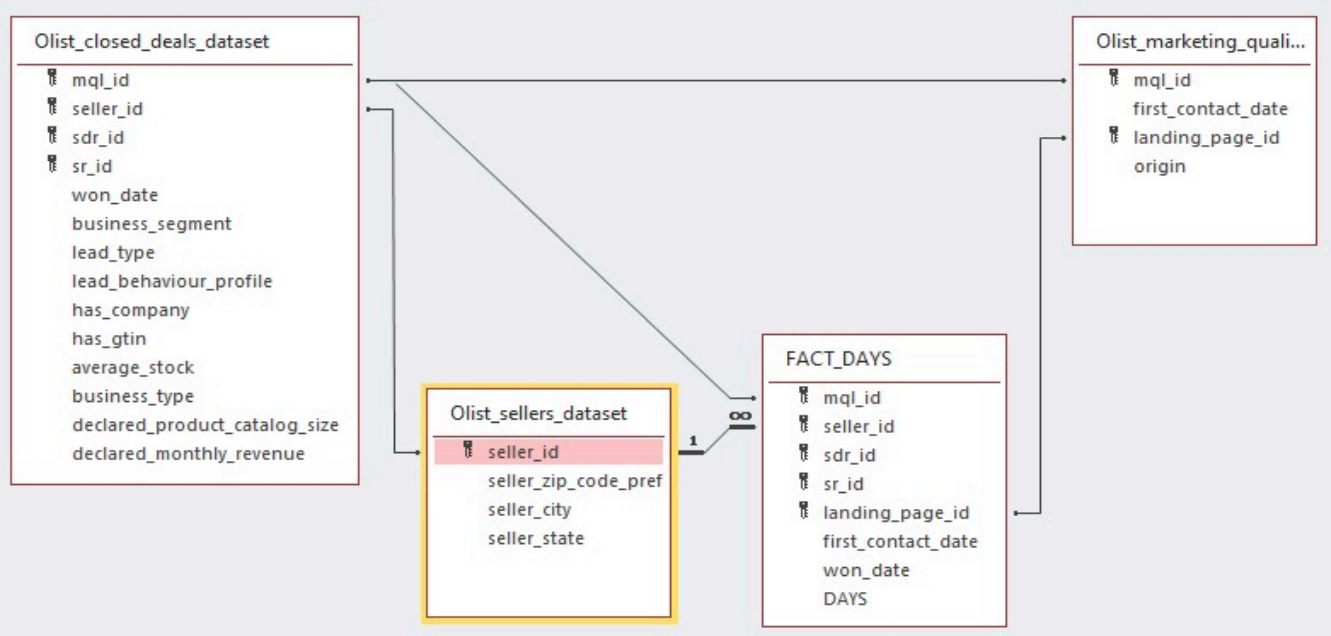
[2] Wong, A. N., & Marikannan, B. P. (2020, December). Optimising e-commerce customer satisfaction with machine learning. In Journal of Physics: Conference Series (Vol. 1712, No. 1, p. 012044). IOP Publishing.

[3] BASHYAL, A., CHINDASOOK, T., FISCHER, J., INTISAR, H., KOERNER, M., & MANSOUR, P. S. (2019). Data Analytics for Supply Chain Management.

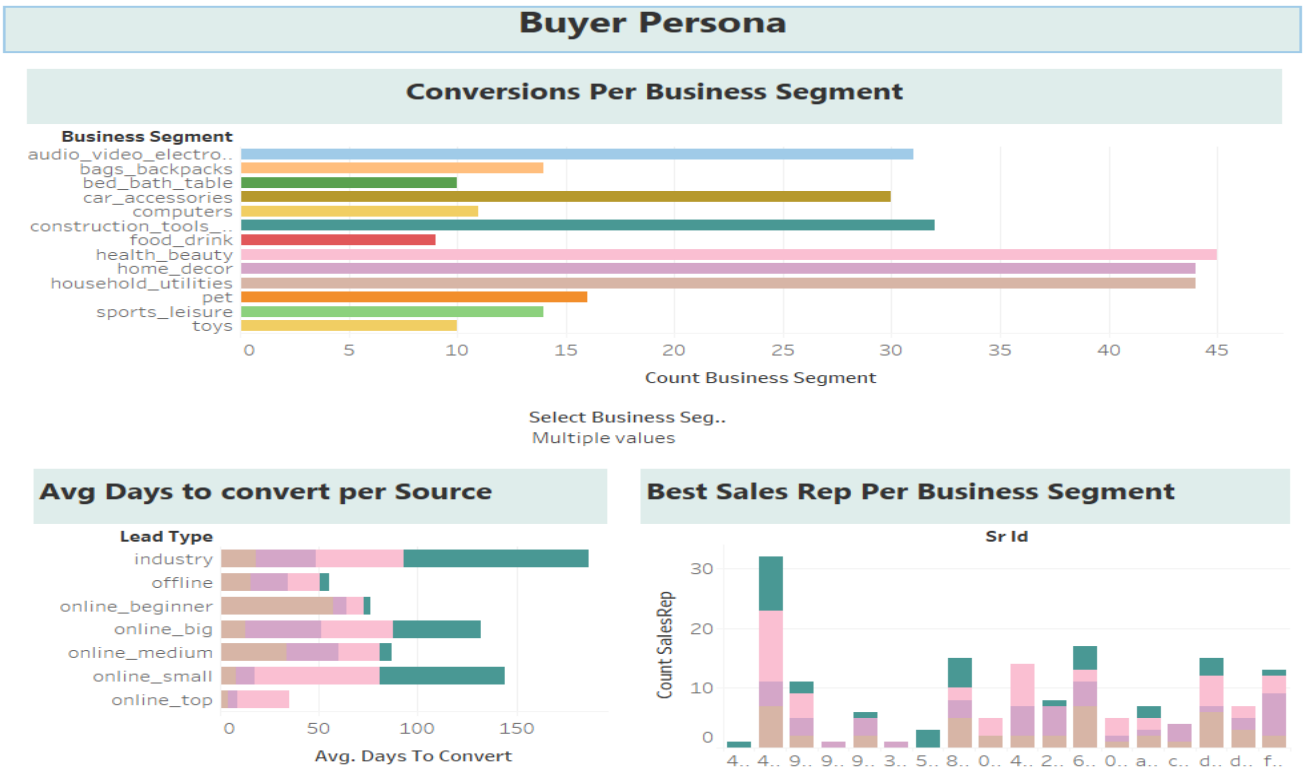
[4] Yoshinori Fukue, Kessoku Masayuki, Kazuhiko Tsuda, 2004.”Extracting Purchase Patterns in Convenience Store E-Commerce Market Using Customer Cube Analysis”.

Appendix

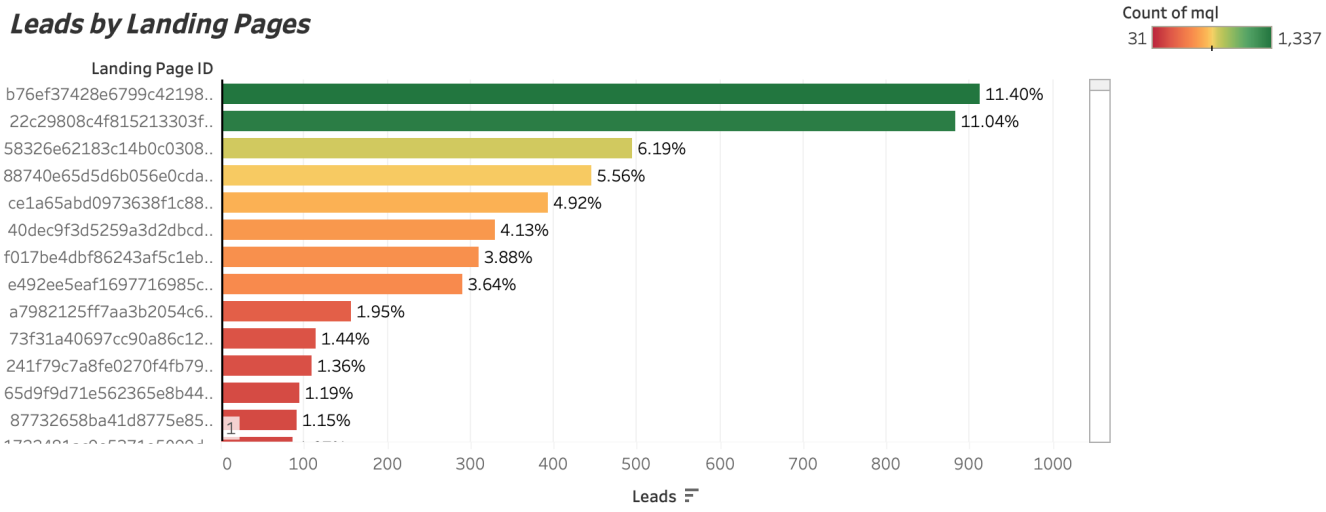
a.


Olist_closed_deals_dataset
mql_id
seller_id
sdr_id
sr_id
won_date
business_segment
lead_type
lead_behaviour_profile
has_company
has_gtin
average_stock
business_type
declared_product_catalog_size
declared_monthly_revenue
Olist_marketing_quali...
mql_id
first_contact_date
landing_page_id
origin
Olist_sellers_dataset
seller_id
seller_zip_code_pref
seller_city
seller_state
1
∞
FACT_DAYS
mql_id
seller_id
sdr_id
sr_id
landing_page_id
first_contact_date
won_date
DAYS

b.


Buyer Persona
Conversions Per Business Segment
Business Segment
audio_video_electro..
bags_backpacks
bed_bath_table
car_accessories
computers
construction_tools_..
food_drink
health_beauty
home_decor
household_utilities
pet
sports_leisure
toys
0
5
10
15
20
25
30
35
40
45
Count Business Segment
Select Business Seg..
Multiple values
Avg Days to convert per Source
Lead Type
industry
offline
online_beginner
online_big
online_medium
online_small
online_top
0
50
100
150
Avg. Days To Convert
Best Sales Rep Per Business Segment
Sr Id
Count SalesRep
30
20
10
0
4..
4..
9..
9..
9..
3..
5..
8..
0..
4..
2..
6..
0..
a..
c..
d..
d..
f..

c.


Leads by Landing Pages
Count of mql
31
1,337
Landing Page ID
b76ef37428e6799c42198..
22c29808c4f815213303f..
58326e62183c14b0c0308..
88740e65d5d6b056e0cda..
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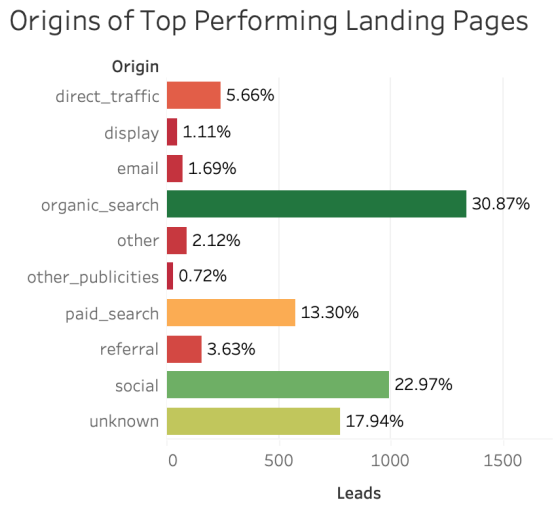
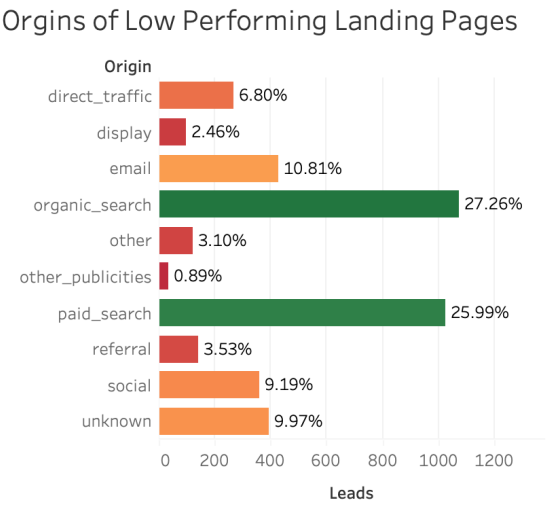
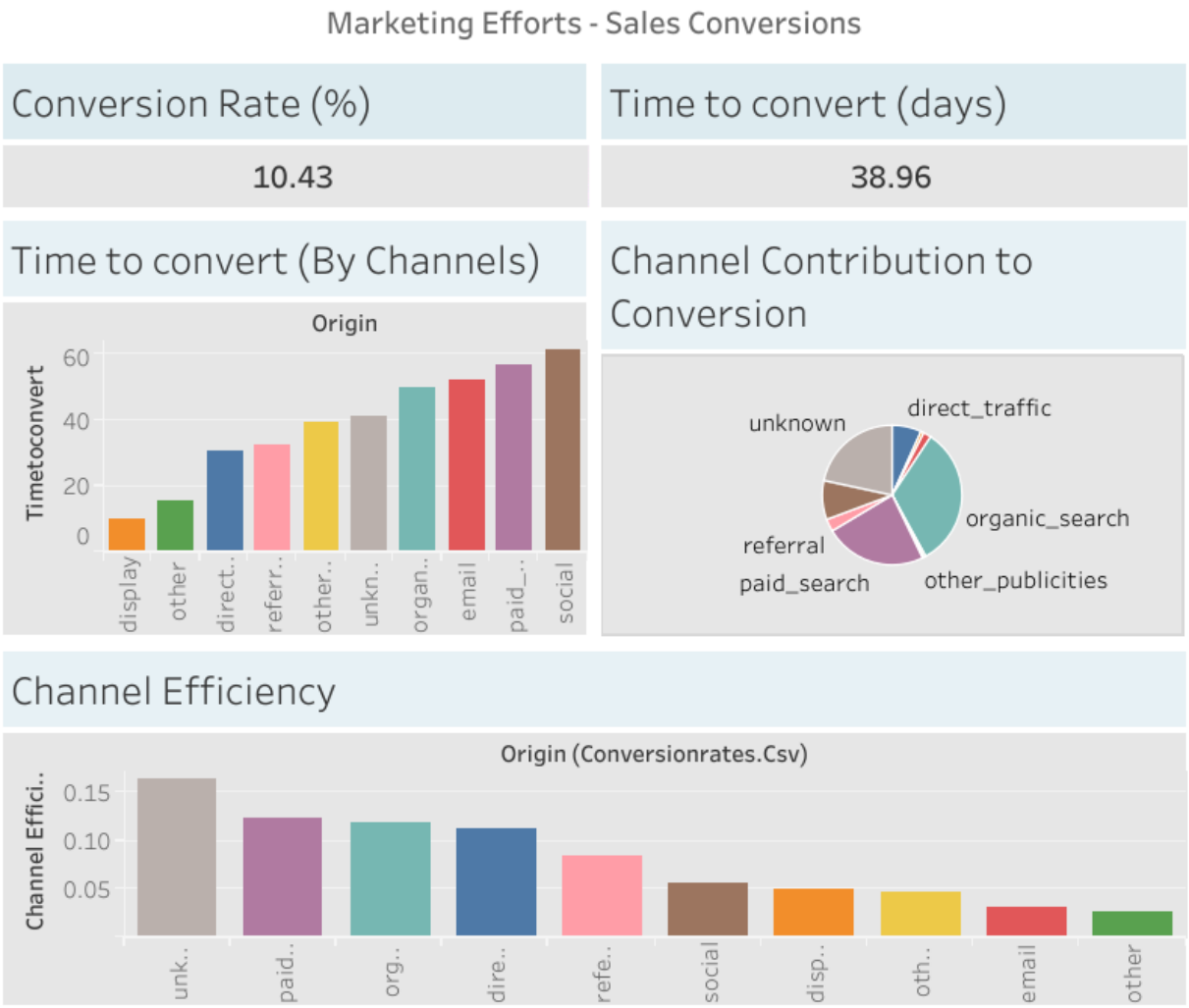
65d9f9d71e562365e8b44..
87732658ba41d8775e85..
11.40%
11.04%
6.19%
5.56%
4.92%
4.13%
3.88%
3.64%
1.95%
1.44%
1.36%
1.19%
1.15%
0
100
200
300
400
500
600
700
800
900
1000
Leads


Origins of Top Performing Landing Pages
Origin
direct_traffic
display
email
organic_search
other
other_publicities
paid_search
referral
social
unknown
5.66%
1.11%
1.69%
30.87%
2.12%
0.72%
13.30%
3.63%
22.97%
17.94%
0
500
1000
1500
Leads


Orgins of Low Performing Landing Pages
Origin
direct_traffic
display
email
organic_search
other
other_publicities
paid_search
referral
social
unknown
6.80%
2.46%
10.81%
27.26%
3.10%
0.89%
25.99%
3.53%
9.19%
9.97%
0
200
400
600
800
1000
1200
Leads

d.


Marketing Efforts - Sales Conversions
Conversion Rate (%)
10.43
Time to convert (days)
38.96
Time to convert (By Channels)
Origin
Timetoconvert
60
40
20
0
display
other
direct..
referr..
other..
unkn..
organ..
email
paid_...
social
Channel Contribution to Conversion
direct_traffic
unknown
organic_search
referral
paid_search
other_publicities
Channel Efficiency
Origin (Conversionrates.Csv)
Channel Effici..
0.15
0.10
0.05
unk..
paid..
org..
dire..
refe..
social
disp..
oth..
email
other

e.


Marketing Efforts - Top of the Funnel
Total Leads
8,000
Marketing Channels
Origin
Leads
2,000
1,000
0
organic_...
paid_se..
social
unknown
direct_t..
email
referral
other
display
other_p..
Null
Marketing Channel Contribution
unknown
13.74%
direct_traffic
6.24%
social
16.88%
organic_search
28.70%
paid_search
19.82%
other_publicities
0.81%
Leads : 2017-2018
Leads
1000
500
0
June 2017
September 2017
December 2017
March 2018
Month of First Contact Date