

# Data Analysis

## Introduction

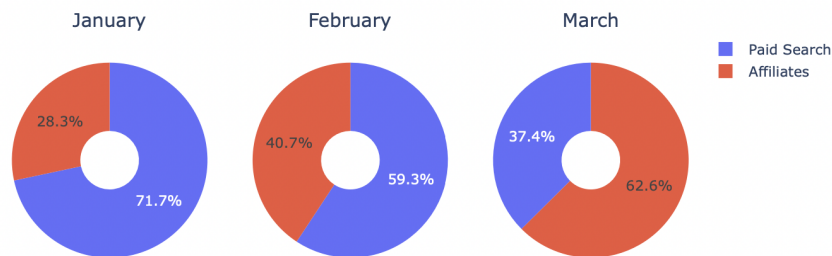
There are 3 observations explored from the data analysis: Marketing Efforts, Customer Demographics, and Customer Retention Each observation provides actionable advice on how the retailer should proceed given these new insights.

## Marketing Efforts

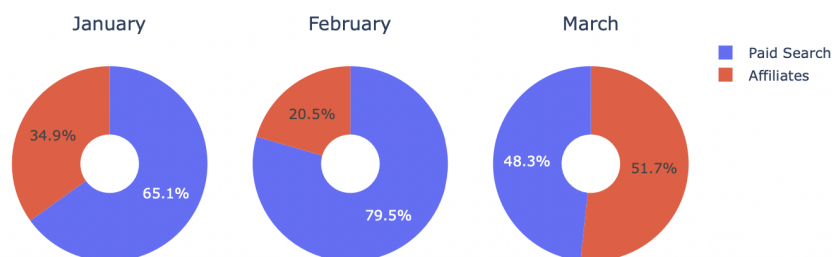
### Allocating Investment Between Paid Search and Affiliates

Parts of the data given detailed the spending over three months on Paid Search and Affiliate advertising methods, as well as the customers brought in by each respective source. This data has been visualised by two rows of pie charts. The first row shows the monthly proportion of money invested into Paid Search vs. Paid Affiliates, and the second row shows the monthly proportion of customers gained by Paid Search vs. Paid Affiliates.

Monthly Money Invested

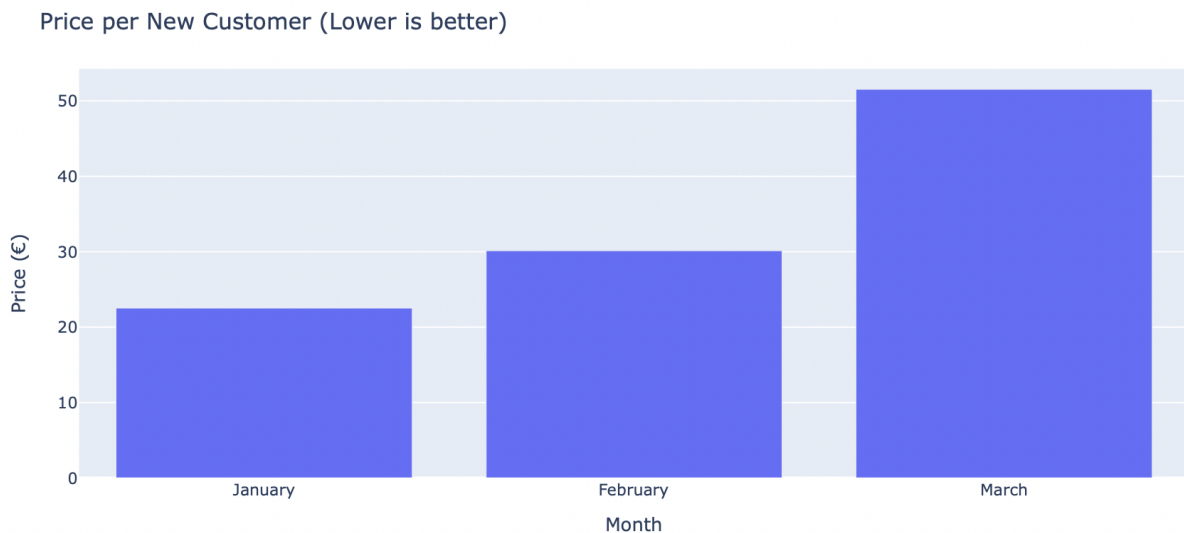


Monthly Customers Gained



From these charts we see that on average, Paid Search accounts for a greater proportion of new customers than the proportion of money invested in it. This suggests that Paid Search provides greater returns on investment than Paid Affiliate, and should be prioritised as such in the marketing budget.

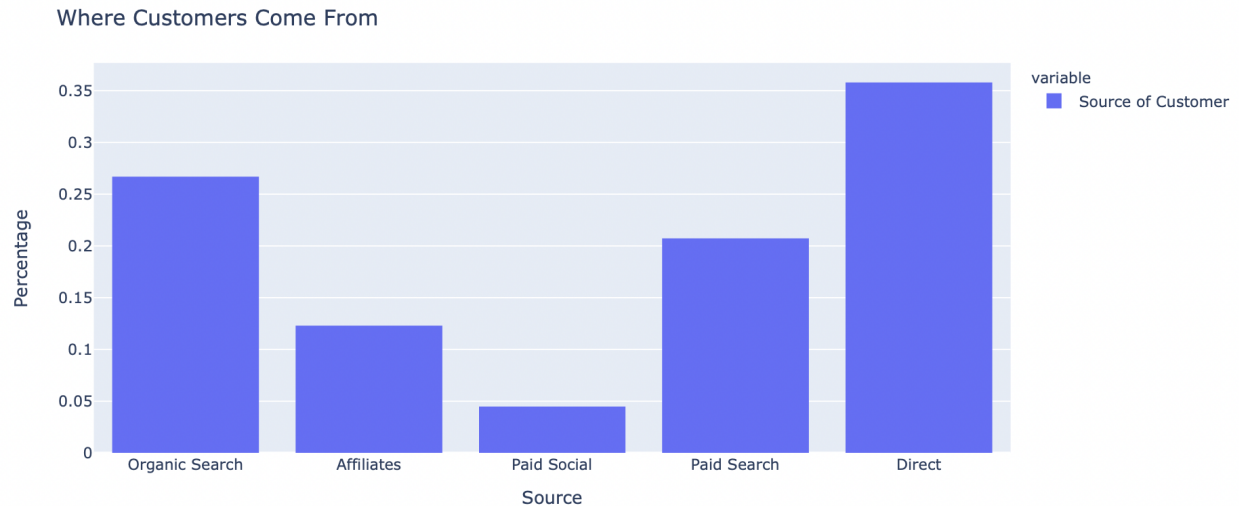
For another visualisation of this relationship, see the below bar chart. It shows the monthly price per customer, which is the amount of money spent for each new customer. The price per customer increases as the proportion of money spent on Affiliates increases which shows that it offers worse returns than money invested into Paid Search.



Note that no information is given about Paid Social, so it is hard to comment on how valuable investment in it is, which is necessary information in order to determine how to shape the overall budgeting of paid advertisements.

## Customer Sources

The following bar chart shows how many customers were brought to the retailers site by each marketing source over the given three months.

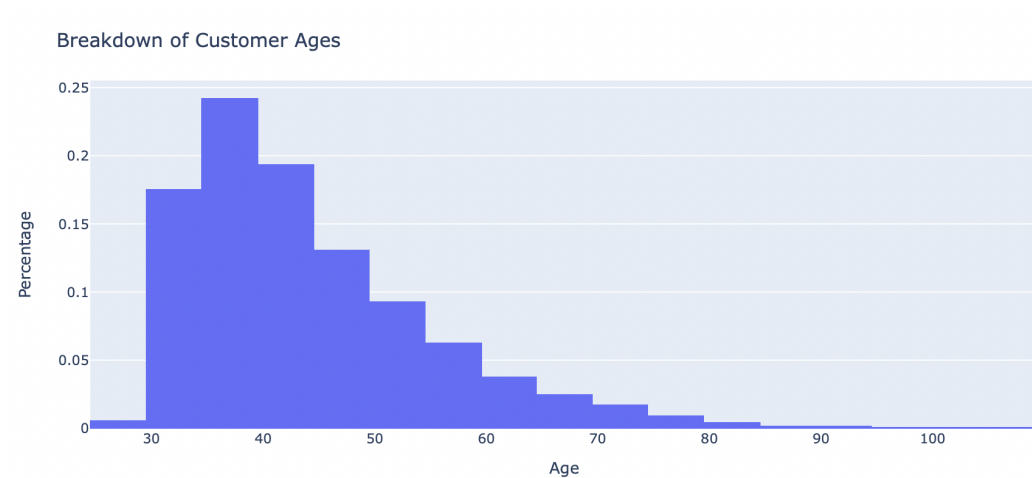


Organic Search and Direct accounts for how 60% of the customers' land on the retailer's website to sign up, which is good because it suggests that the retailer is somewhat self-reliant and can generate traffic without the help of paid advertisements.

We can also see that Paid Social accounts for only 5% of customers who signed up. Assuming that more than 5% of the advertising budget was invested into Paid Socials in these months, it is a strong indication that the retailers Paid Social advertisements should be investigated further.

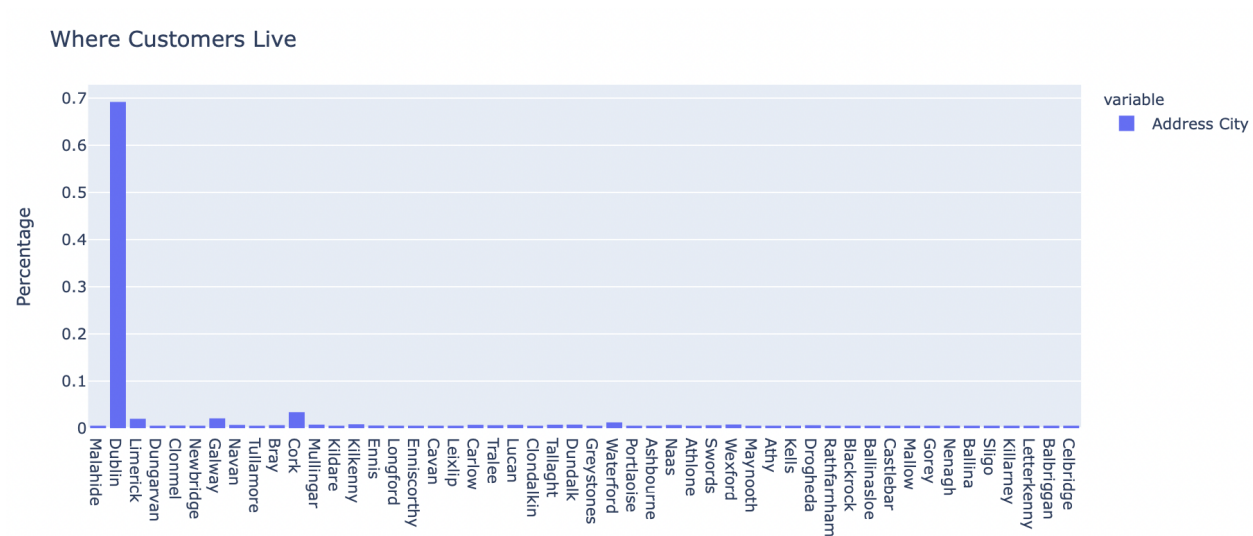
# Customer Demographics

## Age



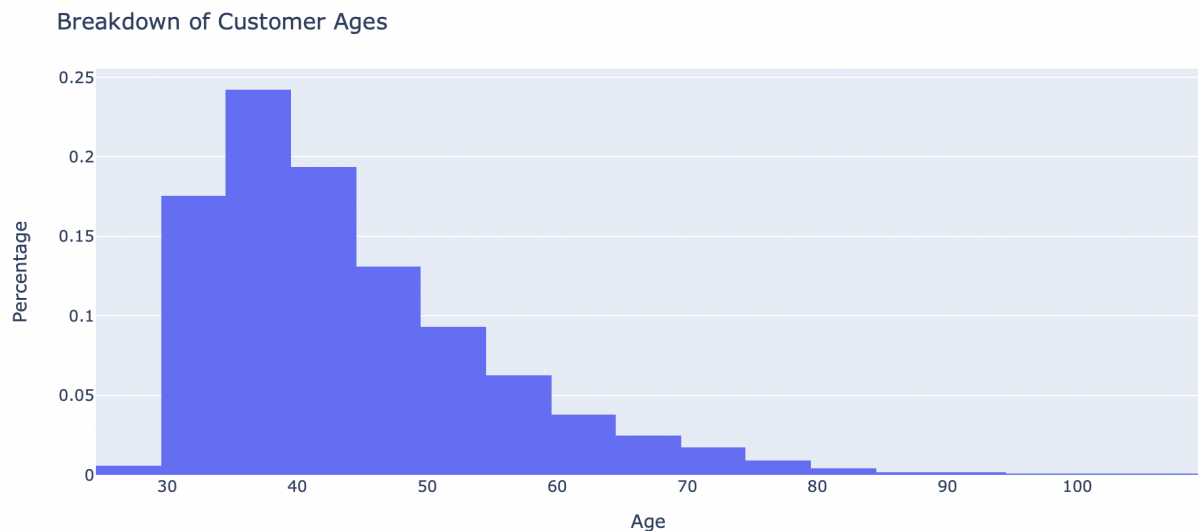
The above histogram shows the distribution of the customer's ages. 24% of customers are 35-39, and around 63% of the retailer's customers are aged 30-44. Customers aged 20-25 account for only 0.05% of the retailer's customer base. Unless the clients specialises in fashion for older men, it is likely that the retailer is failing in its marketing efforts to reach a younger audience. Exploring new approaches should be a high priority for the retailer.

## Location



As seen above, 70% of customers are located in Dublin. However, according to [cso.ie](https://cso.ie), Dublin accounted for only 28.5% of Ireland's population in April 2021. This suggests that there is a large untapped pool of customers in other regions of the country who aren't being reached by the current marketing efforts.

# Customer Retention



The above histogram shows how many additional orders a customer makes with the retailer after their first purchase. 35% of customers have never returned to make another order, Discounts and sales can entice customers into returning, and additional research should be done to determine the execution of these sales can be improved, whether by making the sales more significant and thus more attractive, or whether marketing about these sales are not reaching the intended audience.

## Conclusion

3 months of data is a small sample size to draw conclusions from, but it suggests that there are a number of potential improvements that the retailer can make in their marketing efforts which could boost their commercial success significantly. Primarily, the retailer seems to be missing out on a sizable portion of what should be its target demographic.