About the dataset:

The name of the dataset is ‘Analytics Challenge Data’. It contains data related to sales of various website with other information about, number of new customers brought by the website, product page views, search page views, date etc. There are in total 12 columns in the dataset.

Recommendation as Business Analyst:

All the visualization show us that ‘Acme’ website is the best website as compared to other websites it brings greater number of customers, contributes in greater percentage of gross sales and has a greater number in all the three metric number of visits, add to cart and orders. Hence, more investment can be dedicated to Acme website advertisements for the new products.

We found out that there is a direct correlation between the number of visits, orders and gross sales. Hence, more money can be invested in designing the website to attract more customers which will in turn bring more revenue as the more customers purchase the products.

As Acme website brings in the most gross sale, we tried to find out which platform did the customer like best while using the website. The result was that Acme website brings in most orders from the Windows, MacOSX, Macintosh and Android. Hence, effort could be made to better the performance of the website on other platform to increase the influx of the customers.

It was also found out about the customer behavior that the greater number of visits convert in a greater number of add to cart which leads to more order and increase number of gross sales. Hence, design and visual of website are important and significant features that should be given more in importance while distribution of revenue.

The gross sales tend to increase during the end of the year hence, advertisement and new product can be released during this time to attract more customers and increase the gross sales and orders.

Visualization 1:

Chart, bar chart

Description automatically generated

About the visualization:

The above bar plot tells us about the orders placed through various platforms. The type of site used by these devices have been color coded to help us get in-depth knowledge about the customers. A stacked bar chart has been used to show customers order from various platform using different sites.

Inference from the visualization:

It is clearly visible from the graph that most of the orders have been placed from the ‘Acme’ website. Also, the performance of Acme website on platforms like Windows, MacOS, Macintosh, Linux, iPhone, iPad, IOS and Android is best as more people like to use this website to order from these platforms. Also, Acme website dominates the order placed from Windows and MacOS as no other website comes close to the sales placed from Windows, MacOS and IOS.

Visualization 2:

Chart, waterfall chart

Description automatically generated

About the visualization:

This visualization had been plotted to give us information about how product pages view, search page view and visits correlate with each other on different device. It tells us whether the product page view and search page view by the customer help the customer and increase the number of the visits.

Inference from the visualization:

It can be inferred from the graph that as a percentage the Windows user, Android user, IOS user and MacOSX user are much likely to visit a page after viewing the search page and the product page.

Visualization 3:

Graphical user interface, application

Description automatically generated

About the visualization:

The above circle view graph helps us understand which sites brings us a greater number of orders, new customers and in general has higher gross sale. This information is very valuable for the business as the resources can then be invested in the correct website that will increase the revenue.

Inference from the visualization:

From the graph in can be inferred that Acme websites performance is best in all the three comparison parameters. Although, all the website brings new customers, but the largest portion of sale and orders are made through the Acme website.

Visualization 4:

Chart, waterfall chart

Description automatically generated

About the visualization:

We already know that Acme website dominates the gross sales and order placed metric. This visualization was drawn to understand the performance of Acme website on various platforms available to the user.

Inference from the visualization:

We can see that the performance Acme website is better that every other website except for the ‘Unknown’ platform in which it comes second to ‘Sortly’. But the major success of Acme website comes from Windows, Macintosh, IOS, MacOS and Android. Although, it performs well for other platforms as well but the numbers put up in the above mentioned platform are comparatively greater than other competing websites.

Visualization 5:

Chart

Description automatically generated

About the visualization:

The above side by side bar plot helps us visualize the comparison of number of visits of various sites/platforms to add to carts and orders. This helps us obtain information to see if a customer goes through with a purchase or not.

Inference from the visualization:

We can infer that the number of visits to and add to cart directly correlates with the orders of the website. While Acme dominates in all the three metric and platform such as Windows, MacOSX, Macintosh and IOS other website like Sortly, Tabular and Widgetry receives orders from IOS

Visualization 6:

Graphical user interface, application, Word

Description automatically generated

Chart, histogram

Description automatically generated

About the visualization:

The graph tells us about the new customers brought in by various website which in turn helps us in generating revenue.

Inference from the visualization:

Majority of the new customers use Windows platform 268 new customer use Pinnacle and Acme and 255 use Sortly. The distribution is almost the same for the Macintosh and MacOSX platform. Other platform are either divided evenly in distribution by all the website or have acme as website that brings new customers. The platform symbianOS does not bring any new customer.

Visualization 7:

Chart, line chart

Description automatically generated

About the visualization:

The graph above is a line graph that can be used to do time series analysis of the total gross sales throughout the Quarters of the year 2013.

Inference from the visualization:

It can be inferred from the above graph that the sales of the products in during the end of the year. The sales dipped from Q1 to Q2 and then it continues to increase in a linear fashion. This information can be used to advertise new product accordingly to increase the gross sales.