Analytics Challenge Data – Online Retail Sites and Visits by Platform

When ‘users’ are interested in browsing online sites with the potential to purchase something from the sites, a vast amount of data can be collected and used to determine specific demographics worth investing in. The *Analytics Challenge Data* workbook provides information on a users’ process of browsing and potentially purchasing from various online sites. Data collected includes the site visited, the operating system/platform used to browse the site, as well as counts on various steps in the browsing-to-purchase process.

In *Sheet 1*, you can see the *Platform vs. Sales* outlook for the year. The top area chart shows the average sales over the course of a month and the lower chart is a running total of sales—all separated by platform used to visit the sites. You can see from the top chart that users increase slowly from the start of a month, peaking around the middle of the month, and then sales decrease sharply at the very end of the month. Although there is no data included as to why, one possibility could be that people often have financial obligations to pay toward the end of the month, making it less likely that they will spend their money online.

*Sheet 2* is a simple display of the top 5 platforms used to make purchases and their respective share in total sales. A peculiar thing to note about this pie chart is that although there are 5 platforms, 4 of the 5 happen to be Apple platforms and the last being windows (just an observation).

Attracting new customers to your site is potentially a major driver for sales/orders. In *Sheet 3* you can see that new customer counts can vary throughout the year; however, overall, the trend is positive. We will see in *Sheet 4* that this may be related to the spike in orders within the last two months of the year. This sheets displays the gross sales and visits from June through the end of 2013. The number of visits is positively correlated to the sales. Additionally, I added ‘bounce’ as the size-determinant. The size is inflated in December most as the number of visit-the-exit hits increases. Seeing this, I would assure a client that despite a spike in bounce-visits, there is no need to worry as we can expect an almost as significant boost in visits that turn into sales. To visually assure correlations, I would present *Sheet 5*, where the correlations between visits, orders, and sales is direct. Additionally, similar to many online retailers, online sales increase sharply toward the end of the year, followed by an even sharper drop before the year concludes. This is because of the holiday season and online sites should begin their marketing phases prior to this to ensure traffic increases to the site.

Diving deeper in *Sheet 6*, I explore the conversion rate (the percent of visits that actually turn into orders). The data is separated by site, and then by platform. You can see that Botly is making its sales via Android users only, while Widgetry is iOS/iPhone driven only. Because of this observation, I would recommend that these companies either continue to focus their marketing efforts on these platforms only, or explore additional information on the idea that sales could increase if they can break into other platforms.

Pivoting slightly and focusing only on mobile users, *Sheet 7* shows the Orders per site for the different mobile platforms. Sites should continue to leverage Android users and iPhone users; however, as Acme is the only platform receiving orders, in a minimal margin, from Blackberry and WindowsPhone, I recommend any focus or marketing toward these platforms be scrapped.

Another interesting point in a user’s process of potentially making a purchase is what happens once the user commits a product to their cart. In *Sheet 8,* each site can see the cart-to-order conversion rates by platform. With this information, site could turn focus onto improving retention once an item is added to cart. You can see that the rate is higher for larger platforms versus mobile platforms. I would recommend to a client the idea of presenting coupons or ‘last-chance’ deals if a user removes an item from their cart—this could change their mind and result in a sale.

Finally, in the dashboard, you can see the bar-chart from sheet 6, but accompanying is a very important metric available in *Sheet 9*: Profit per Order. What good is making a sale if you lose money? Within the dashboard, you can see that despite Pinnacle’s low conversion rate, the sales that are made on this site yields the most profit. Alternatively, Widgetry and Botly (the two mobile-only order site) are converting their sales better than other sites, but receive lower profits per sale compared to those other sites. Because of these profit margins, I would highly recommend that Pinnacle implement a plan to increase conversions on their site. A minor increase in conversion would result in a strong increase in sales (since more money is made per conversion).