1. About Dataset and Significant Features:

The dataset supplied offers a glimpse into the online business operations of multiple websites and platforms for the year 2013. It contains a range of important performance metrics and customer behavior statistics, such as visit counts, unique sessions, order volumes, total sales, bounce rates, product interactions, and platform usage. This dataset is of great significance for evaluating website efficiency, customer interaction, and sales patterns, making it crucial for companies to gain insight into their online activities, enhance areas that are not performing well, and pinpoint potential areas for growth.

The salient attributes in the dataset include:

- day: The recording date.
- site: The website or company's name.
- new_customer: An indicator for visitor status (1 for new, 0 for existing).
- platform: The visitor's device or platform of choice.
- visits: The website's visit count.
- distinct_sessions: The unique session count on the website.
- orders: The quantity of orders made.
- gross_sales: The total sales revenue.
- bounces: The count of visitors who left without taking action.
- add_to_cart: The number of items added to the shopping cart.
- product_page_views: The views on product pages.
- search_page_views: The views on search pages.

2. Discover underperforming demographical segments.
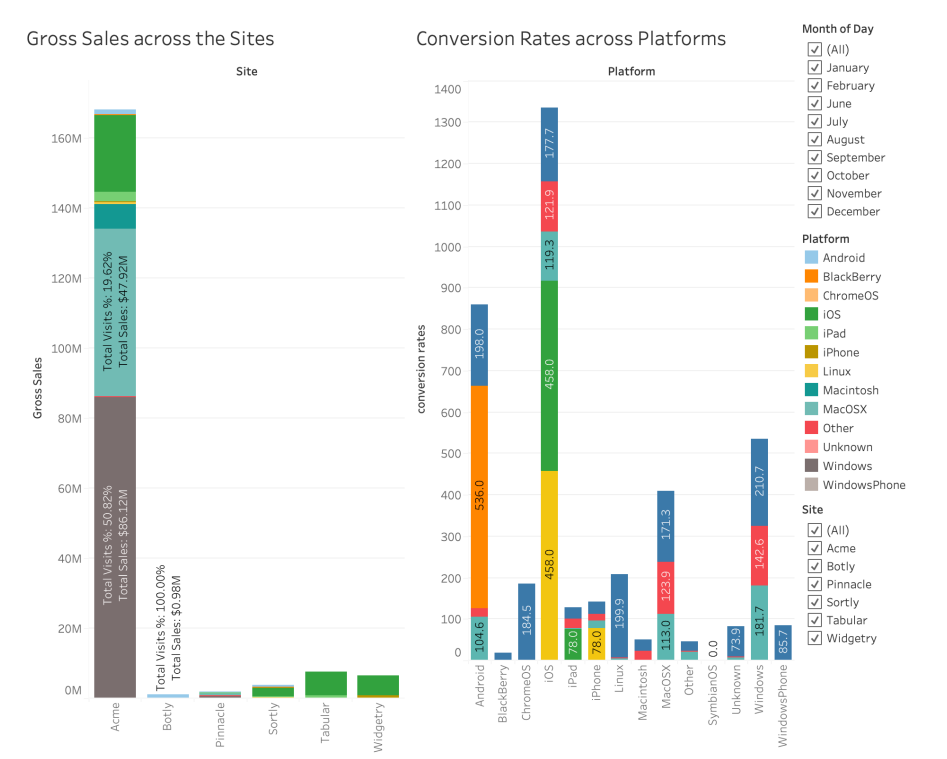
The data indicates that not all websites, excluding 'Acme,' are performing well. For instance, sites like Botly, Pinnacle, Sortly, Tabular, and Widgetry appear to be underperforming. Among these, Botly stands out with the lowest gross sales, signaling a need for a thorough review and potential overhaul of strategies to enhance their performance.

The choice of platforms also plays a crucial role. 'Windows' and 'Macintosh' users contribute the most to 'Acme' site sales, while 'iPad' and 'iOS' users dominate the other sites. This information offers valuable insights for tailoring marketing and user experience strategies for each platform.

From the plot on the right we can see that conversion rate (Orders/Visits) is highest for the module users that is 'iOS'/ 'Android' compared to PC users.

3. Analyze the past and current business trends.
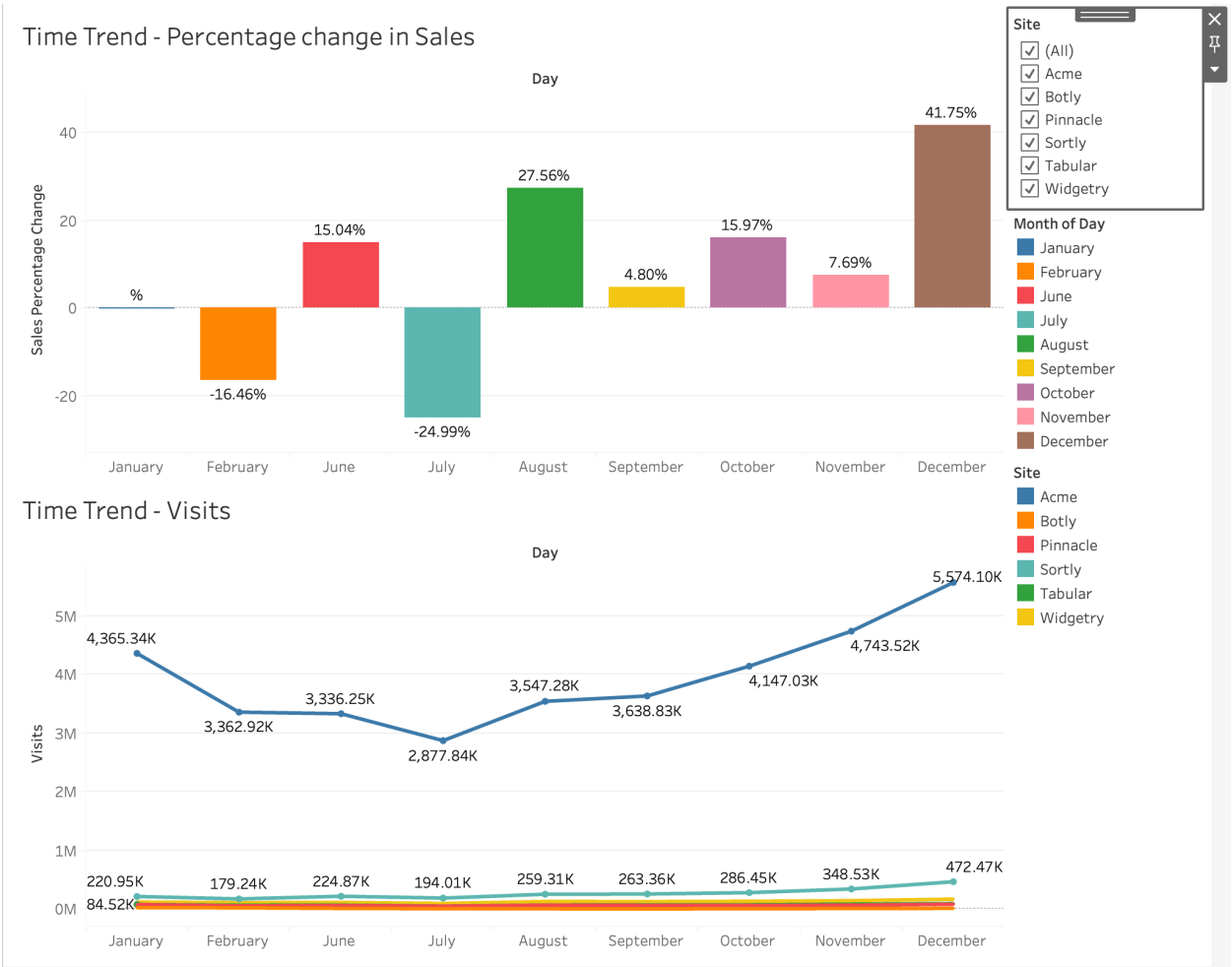
The trend analysis reveals a significant upswing in sales during the latter half of the year, likely linked to holiday seasons and special sales events. To capitalize on this trend, the business could plan focused marketing campaigns and promotions during these peak periods to maximize revenue.

Site visits decrease from January to July and then start to rise, reaching their zenith in December. This trend can be leveraged for marketing planning, with an emphasis on attracting

and retaining visitors during the off-peak season and intensifying efforts during the high season.

4. Report potential growth areas and strategies.

To address the underperforming sites (e.g., Botly, Pinnacle, Sortly), the business should consider conducting a comprehensive evaluation of their online presence, user experience, and marketing strategies. Enhancing user-friendly interfaces, expanding product offerings, and optimizing marketing efforts can bolster their sales performance.

Targeted marketing campaigns should be designed for 'Windows' and 'Macintosh' users on the 'Acme' site, capitalizing on the platforms responsible for the highest sales. Similarly, for other sites, specific strategies should be devised to cater to 'iPad' and 'iOS' users.

Harness the observed seasonality by planning annual events, sales, or promotions during the high-sales months. This could involve offering discounts tailored to specific holidays and implementing marketing efforts to attract more customers during peak periods.

Pay close attention to user engagement metrics, such as the conversion rate, which is notably higher for 'iOS' and 'Android' users compared to PC users. This implies that optimizing the mobile user experience is crucial. Consider developing mobile apps or implementing responsive web designs to enhance the user journey for mobile users.

In summary, the business should prioritize site-specific strategies, make the most of seasonal trends, and give high importance to enhancing mobile user experiences to drive growth, boost sales, and increase conversions.