Making Data-Driven Decisions

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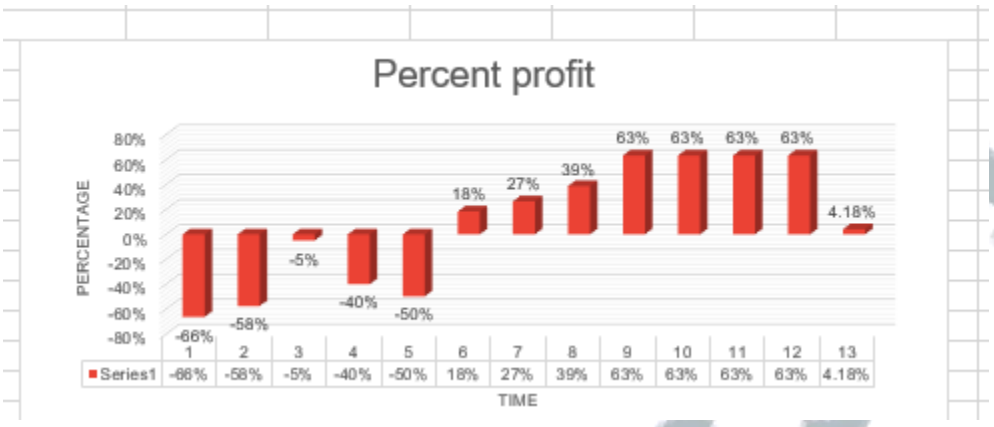
Data analysis is necessary to identify patterns and trends in data sets that can inform decision-making. Data analysis enables businesses to make better decisions based on evidence, saving time and money by making more informed decisions. It also allows organizations to gain valuable insights about their operations or customer base, which can help them create new strategies and optimize performance. Data analysis can improve customer satisfaction by offering more personalized products or services. Ultimately, data analysis is a powerful tool that helps organizations unlock the potential of their data.

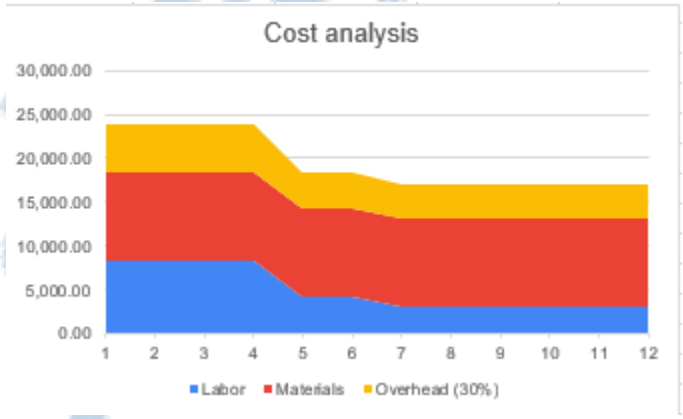
Importance

Data visualization is an integral part of data analysis as it helps to make complex data sets more straightforward to understand and interpret. By visualizing data, patterns and trends that may have been more difficult to uncover can be quickly identified. Data visualization also makes it easier for stakeholders to comprehend the results of data analysis and make decisions based on these insights. Data visualizations can also create a more engaging experience for stakeholders and allow them to interact with the data more quickly. Finally, data visualizations help to effectively communicate insights from the data analysis process and make it easier for stakeholders to understand the implications of the results.

Analysis

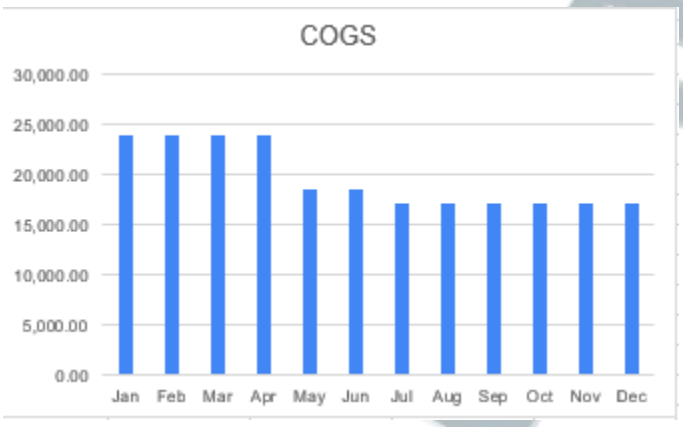


Through rigorous analysis of the Cost, Revenue, and Profit Spreadsheet retrieved from the company's data center, it has been determined that for a 25% profit margin, the Revenue must exceed the Cost of Goods Sold (COGS) by 35% to be viable. I employed cluster columns and histograms to examine percentage profits through the operation timeline to ascertain this goal. In addition, a stacked area chart was applied to conduct a complete cost analysis of the product to make informed decisions regarding potential revenue growth. The analytical processes were vital in determining whether or not launching this new product should be considered viable.



Cluster columns are used to compare the percentage profit through different points of an operation timeline, allowing for easy comparison of performance over time (Li et al., 2021). A histogram is used to analyze the cost of goods sold (COGS) to assess profitability and efficiency (Jia et al., 2019). Stacked area charts are used in cost analysis as it allows for comparing different

expenses and investments over time, giving a better understanding of cost savings or increases. Both cluster columns and stacked area charts provide an effective way to visualize the data to make informed decisions.



Importance of visuals

Adding visual representations of the data made my analysis easier to understand and interpret. Visuals often make complex data sets more accessible, allowing for quick identification of patterns and trends that may have been difficult to uncover in a textual format (Chen et al., 2020). Additionally, visuals can create an engaging experience for stakeholders reviewing the analysis and make it easier for them to interact with the data.

Influence on the target audience

Yes, the target audience does influence the way information is displayed. Different types of graphical representation can be used to communicate effectively with different audiences. For example, if a stakeholder needs to analyze and compare data sets quickly, then more visually intensive representations such as cluster columns or histograms can be used, as they provide an effective way to review the data efficiently.

References

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