**Module 1: Business Partner and First 16 US President**

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**Introduction**

This report will discuss the concept of business partners in Part 1. We will explore how business partners can help businesses develop and benefit from the partnership. In Part 2, we will share historical data for the first 16 United States Presidents' physical data through visualization. This will help to justify the physical and political appearance of Presidents.

**Part 1: Business Partners**

Business partners contribute resources, skills, and knowledge that are complementary to one another. Companies that work together with partners can take advantage of one another's advantages and foster synergy to accomplish common objectives. A business partner is a member of the organization who works with another firm to accomplish a shared objective. Business partners can offer a range of advantages, including improved risk sharing, access to new markets, pooled expertise, lower prices, and increased efficiency. Businesses can accomplish more when they collaborate than when they operate alone.

However, working together with business partners encourages knowledge exchange and education. Partnerships enable firms to share industry insights, best practices, and subject-matter knowledge, establishing a culture of innovation and constant development. Decision-making and operational efficiency may both benefit from this shared learning.

**Benefits:**

Few areas where businesses can be beneficial with business partners:

* **Sales growth**: By collaborating, firms can access a larger market and offer more goods and services.
* **Better customer service**: Businesses can provide their clients with better customer service by pooling their resources and knowledge.
* **Cost savings**: Companies can cut costs and improve efficiency by pooling resources.
* **Collaboration**: Collaboration among firms allows for sharing ideas and creating new goods and services, which boosts innovation.

Here we will explore a few of the many elements that go into creating a real budget, including the budgeting process and collaboration with others.

* **Budget Allocation**: Distribute resources and money in accordance with each department's or business unit's strategic priorities and needs. Work together with the managers of departments to identify their budget needs, considering things like staff costs, operating expenses, expenditures on capital, and reserve funds for unforeseen circumstances. To better understand their unique requirements and to offer advice on cost-cutting or efficiency initiatives, seek the managers' involvement.
* **Monitoring and Control**: Establishing tools for continuing budget monitoring and management is important. Work together with the financial teams and the department managers to compare the actual costs, income, and key performance metrics to the planned amounts. Review budget variations frequently, spot trends, and take immediate action to mitigate any deviations or concerns.
* **Collaboration and coordination**: When creating the budget, coordinate with many stakeholders. Involve department leaders, team members, and other important employees to collect feedback, verify presumptions, and improve budget projections. Encourage open channels of communication to ensure departmental alignment and resolve any contrasting priorities or difficulties.
* **Analysis and Reporting**: Work with the finance teams to produce regular financial statements and performance evaluations. Inform stakeholders, such as executives, members of the board, and department managers, on the budget. Work together to assess the data, pinpoint problem areas, and create improvement plans.

Throughout the budgeting process, collaboration with multiple stakeholders, such as managers from departments, accounting teams, and executives, is essential. Organizations can establish a real budget that considers the strategic goals, matches with operational demands, and promotes financial stability and growth by incorporating the appropriate people, fostering open discussion, and encouraging collaborative decision-making.

**Interpretation and Conclusions:**

To establish a collaborative Budget, it is crucial to set shared goals, work together on financial data, identify budget responsibilities, evaluate resource contributions, jointly plan the budget, review, and approve it, keep track of expenses, and collaborate constantly. Finally, it's critical to continue working together and communicating. This entails keeping in touch with each partner and adjusting as necessary. This will make it more likely that the budget will be effective and that everyone will agree.

**Part 2: Historical Data for First 16 United States Presidents' Physical and Political Data**

We will share historical data for the first 16 United States Presidents physical data through visualization. This data includes political party, place of birth, height, BMI, and physical attributes. We will use this data to justify Presidents' physical and political appearance.

**Data Cleanup**

The analysis in Power BI employed Kaggle data and concentrated on the presidents' beginning and ending tenures, BMI, political party affiliation, and places of birth. The data was cleansed after extra columns were deleted. The relationship between physical characteristics (BMI) and political party membership was investigated. The information gathered gives a succinct picture of the connections between these factors.

**Data Visualization**

Created a line chart to illustrate the inverse relationship between the "Begin age" at the time of their election and the "End age" at the end of their administration. Plot the data points for the presidents according to their ages. Show how William Henry Harrison's age contributed to the overall "Begin age" and finish age indicating that it was the same, the US's shortest-serving president at the time. While Thomas Jefferson, George Washington, and Andrew Jackson each held office for eight years.

Used a bar chart or table to create a visual depiction of each political party's total BMI. Show Whig as having the lowest BMI at 102.40, Democratic-Republican as having 100.90, and Democrat as having the highest BMI at 124.

Used a line chart to compare the average height (height\_cm) of each president. With a height of 193.00, Abraham Lincoln stands out as having the highest average. Thomas Jefferson and George Washington are the next tallest. Mention that James Madison was 163.00 tall on average. Use a range bar chart or range slider to display the height variations among the 16 presidents. Mention that the average height was between 163 and 193 inches.

On the bottom left corner show the maps of Presidents’ birthplace in North America through which we can analyze the birthplace of the president with different colors with respect to the political party they have elected. Through this visualization, we can check the data of different presidents which will reflect the data of the president.

The Power BI report's bottom left corner featured a map visualization showing the North American presidents' birthplaces. For each President's political party affiliation, the map uses a different hue. Users can explore and examine the information regarding the political parties and various Presidents' respective birthplaces with this interactive visualization. Users can learn more about the geographic distribution and political connections of North American presidents by choosing data points or applying filters.

A close-up of a graph

Description automatically generated

**Interpretation and Conclusions**

By utilizing the features of Power BI, we can develop interactive visualizations, carry out computations, and present the data in a meaningful way that enables people to explore and comprehend the information regarding the BMI, age, and height of U.S. Presidents.

In this research, Power BI was used to show historical data for the first 16 U.S. Presidents. The information contained specifics like political affiliation, place of birth, height, BMI, and physical characteristics. To study the correlations between these characteristics, visualizations were made after the data had been cleaned up by eliminating extraneous columns. The results supported the link between political allegiance and outward appearance. The relationship between the presidents' ages at the start and conclusion of their terms was depicted in a line chart, emphasizing William Henry Harrison's brief term in office. The overall BMI for each political party was displayed in a bar graph, with Democrats having the highest BMI. Abraham Lincoln was the tallest president, and a line chart showed their average height.

**References:**

**[1] US Presidents Data EDA ahmedsayed13**

[**https://www.kaggle.com/code/ahmedsayed13/us-presidents-data-eda/notebook**](https://www.kaggle.com/code/ahmedsayed13/us-presidents-data-eda/notebook)

**[2] List of presidents of the United States**

[**https://en.wikipedia.org/wiki/List\_of\_presidents\_of\_the\_United\_States**](https://en.wikipedia.org/wiki/List_of_presidents_of_the_United_States)