

PHASE 2 : INNOVATION (customer segmentation using data science)

Introduction:

customer segmentation using data science. In this presentation, we'll explore how data science techniques can help businesses better understand and serve their customers.

Data Collection:

We began by collecting customer data, including demographics, purchase history, and online behavior. The data was obtained from various sources to gain a comprehensive view of our customers.

Data Preprocessing:

Data cleaning and preprocessing were essential to ensure the data's quality and reliability. This step involved handling missing values, outliers, and data transformation.

Feature Selection:

We carefully selected features such as age, annual income, and spending score. These features were chosen for their relevance to customer segmentation.

Data Filtering:

To focus our analysis, we filtered the data based on specific criteria. Customers under the age of 50 and with an annual income below \$30 were selected for further analysis.

Data Analysis:

K-Means clustering, a popular unsupervised learning technique, was applied to group customers.

We chose to create three clusters to segment our customers effectively.

Results:

The clustering analysis revealed distinct customer segments.
Visualizations and insights were obtained to better understand our customer base.

Cluster Characteristics:

Each cluster exhibited unique characteristics in terms of age, income, and spending behavior.
These insights can guide personalized marketing and service strategies.

Innovation Phase:

Moving forward, we will leverage these segments to tailor our marketing and product offerings.
This innovative phase aims to enhance the customer experience and drive business growth.

Future Work:

In the future, we plan to expand this analysis by incorporating additional data sources.
Further improvements and fine-tuning of our segmentation strategies are on the horizon.

Conclusion:

In conclusion, customer segmentation is a powerful tool for understanding and engaging with our customers.
We have gained valuable insights to drive our business forward.