Assignment Applied Data Science Clustring and Fitting

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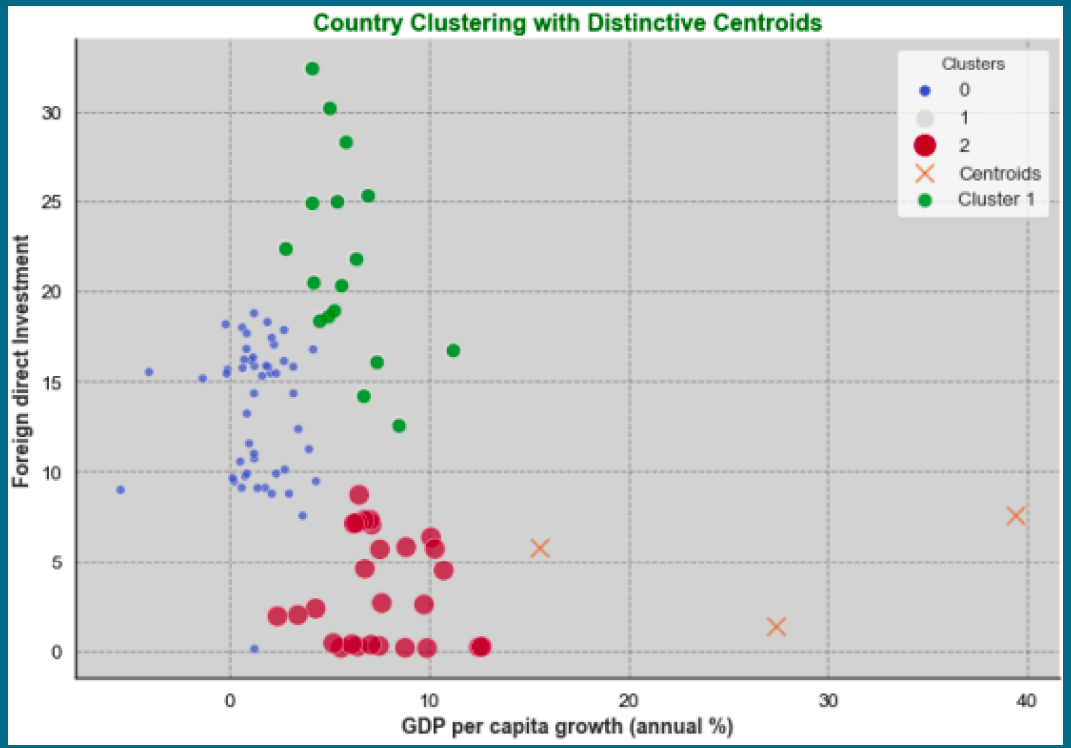
Introduction

Foreign direct investment plays a pivotal role in shaping a nation's economic landscape, influencing GDP growth . This study employs a comprehensive methodology, utilizing KMeans clustering, to categorize countries based on economic and environmental indicators. The ensuing scatter plot offers a visual representation of the clusters, unraveling the intricate relationship between GDP per capita growth and FDI. Through curve fitting and predictive modeling, we delve into future FDI trends globally and focus on specific countries—China, Pakistan, Canada, and Australia. This exploration aims to provide understanding of the dynamic interplay between economic development and country domestic policy.

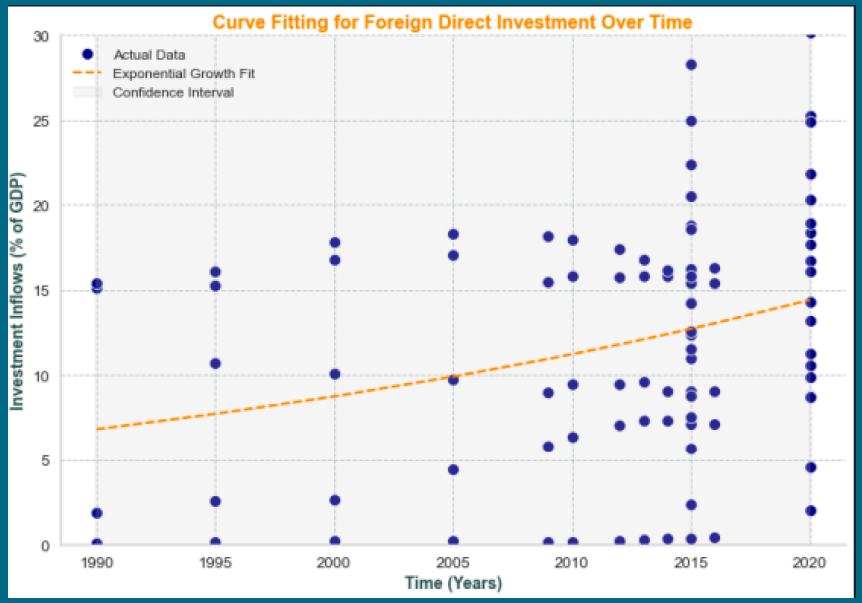
Scatter Plot to Show Clustring



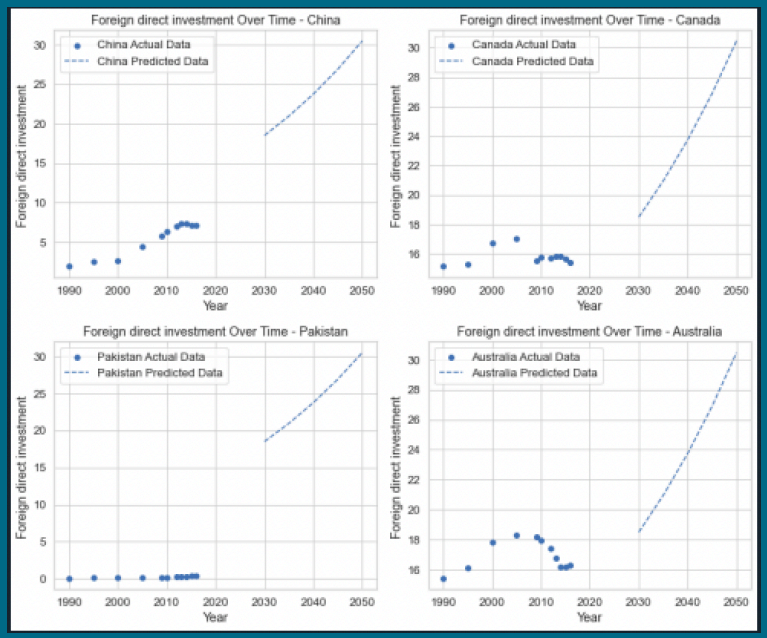
Our analysis used K Means clustering to categorize countries based on GDP per capita growth and foreign direct investment. The resulting scatter plot visually captures the nuanced relationship between economic development and foreign investment, offering valuable insights into global economic dynamics

We analyzed foreign direct investment trends using an exponential growth model from 1990 to 2020, revealing insightful patterns. The confidence interval enhances the reliability of our predictions, providing a valuable tool for policymakers and analysts.

Scatter Plot to show Fitting



Sub Plot with Foreign Domestic Investment of four



Analyzing China, Pakistan, Canada, and Australia, our study compares past and predicted future of foreign direct investment using scatter plots.Plots are showing past data and future prediction that how much investment will come in these countries in future. These predictions can be very use fun in order to make important decisions for any country .