



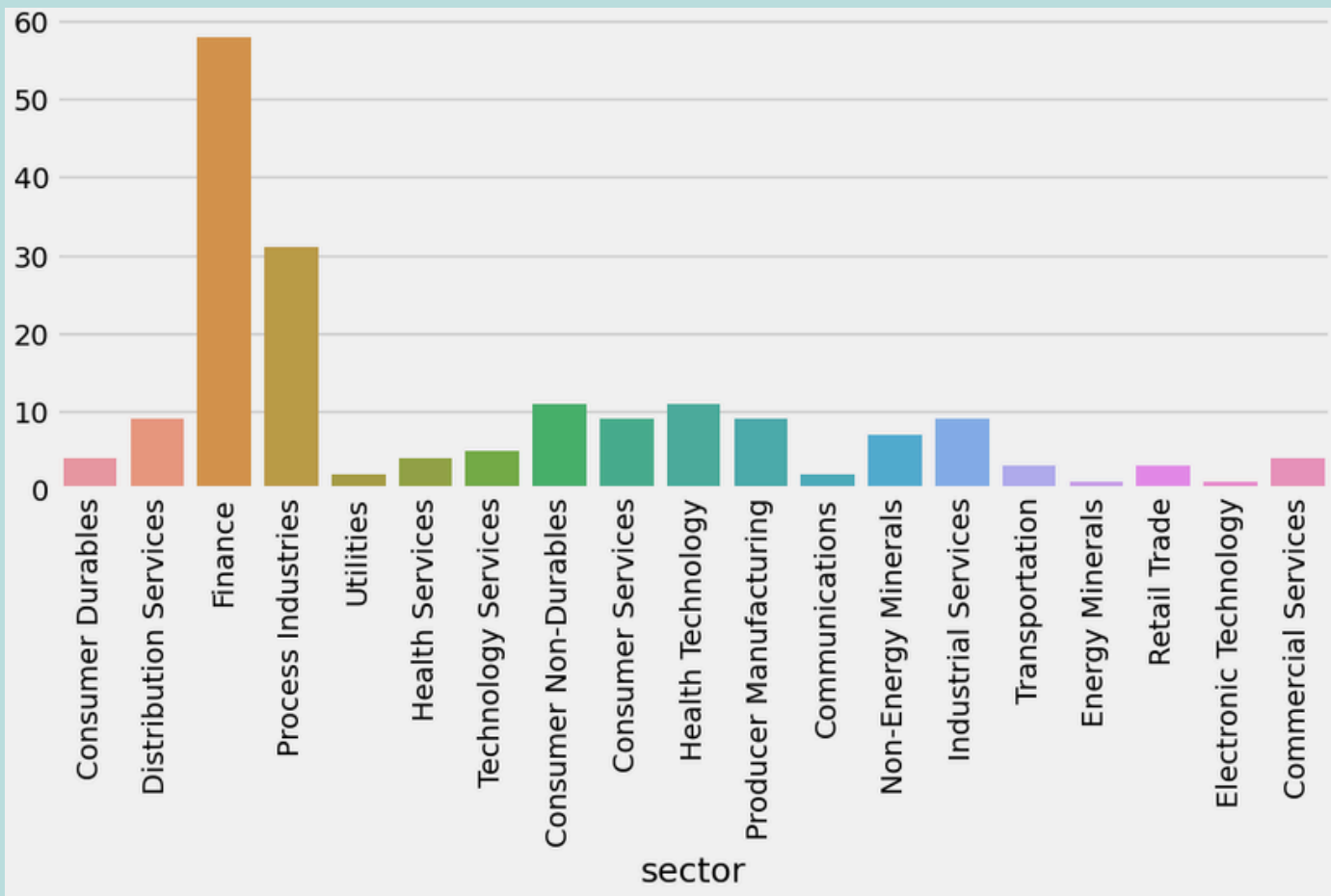
جامعة مصر للمعلوماتية
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first INTRODUCTION

- The project targets the Egyptian stocks in 8/5/2024 .We want to analyse each sector and study more about companies in Egypt. The population in the stock market is 240. We filtered Null data and took the data in interest such as RSI , sector names , companies name and the debt to equity frequency
- Here is a bar plot that illustrates the sectors



second ANALYSIS

We want to study the impact of debt to equity frequency on the RSI ;We already have the whole population in the Egyptian stock market. Firstly, we've studied the RSI itself and the debt to equity as a whole then we studied each sector separately and the impact of RSI on the debt to equity.

Third HYPOTHESIS

Our hypothesis is that the debt to equity ratio does affect the RSI within at least one sector

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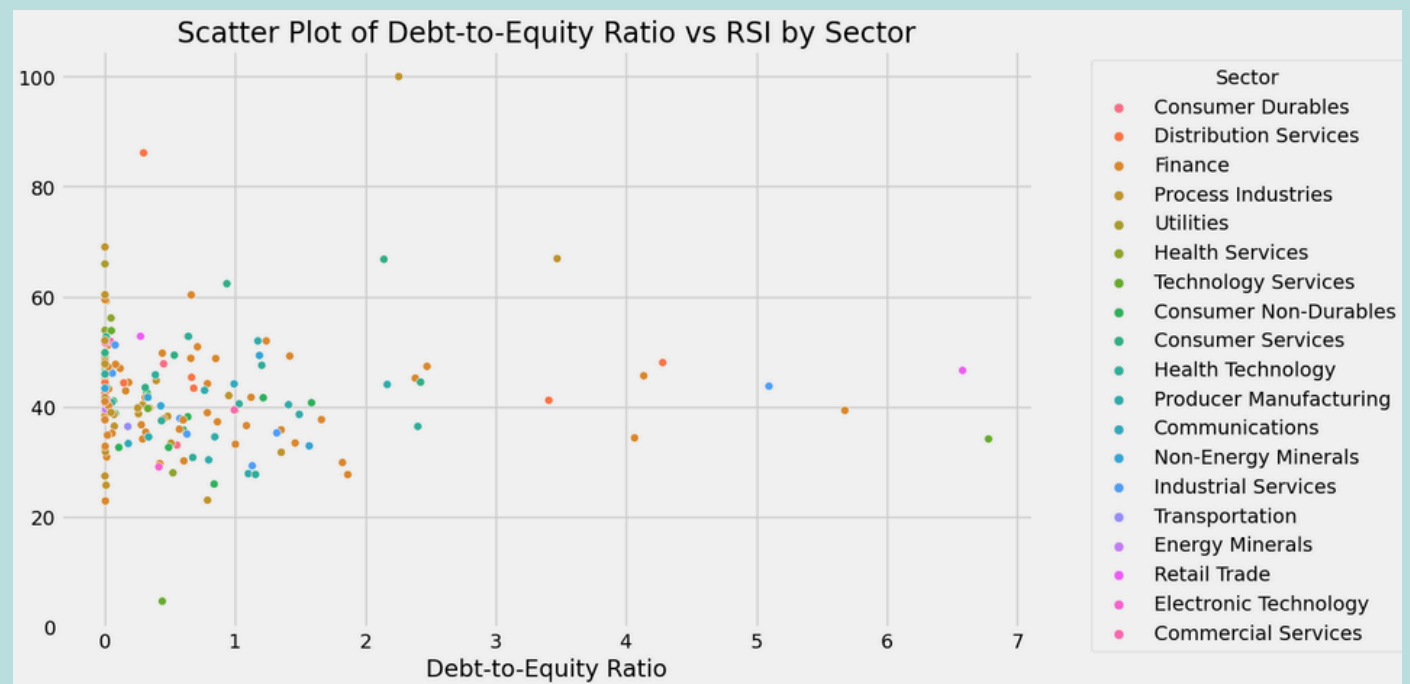
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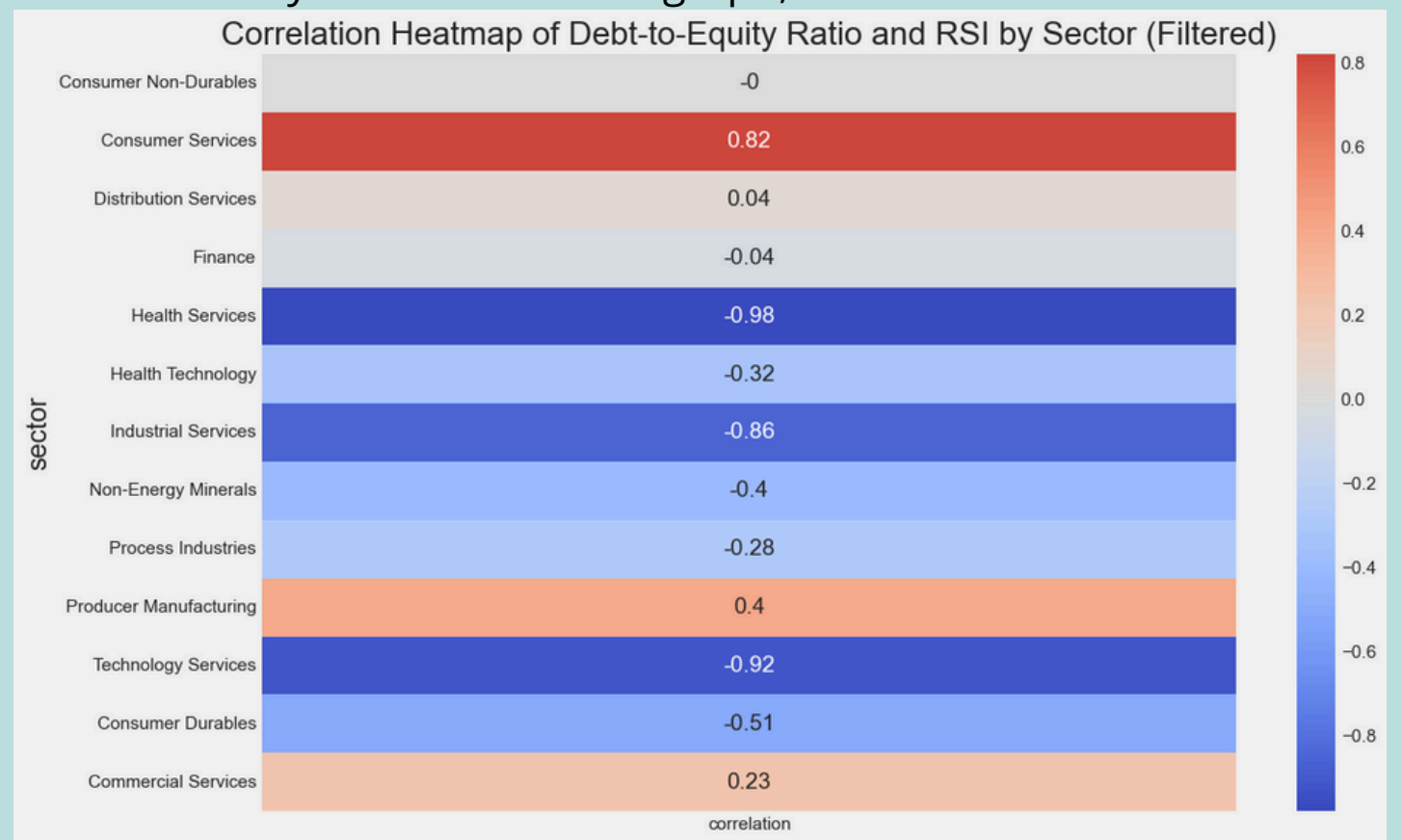
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THank YOU

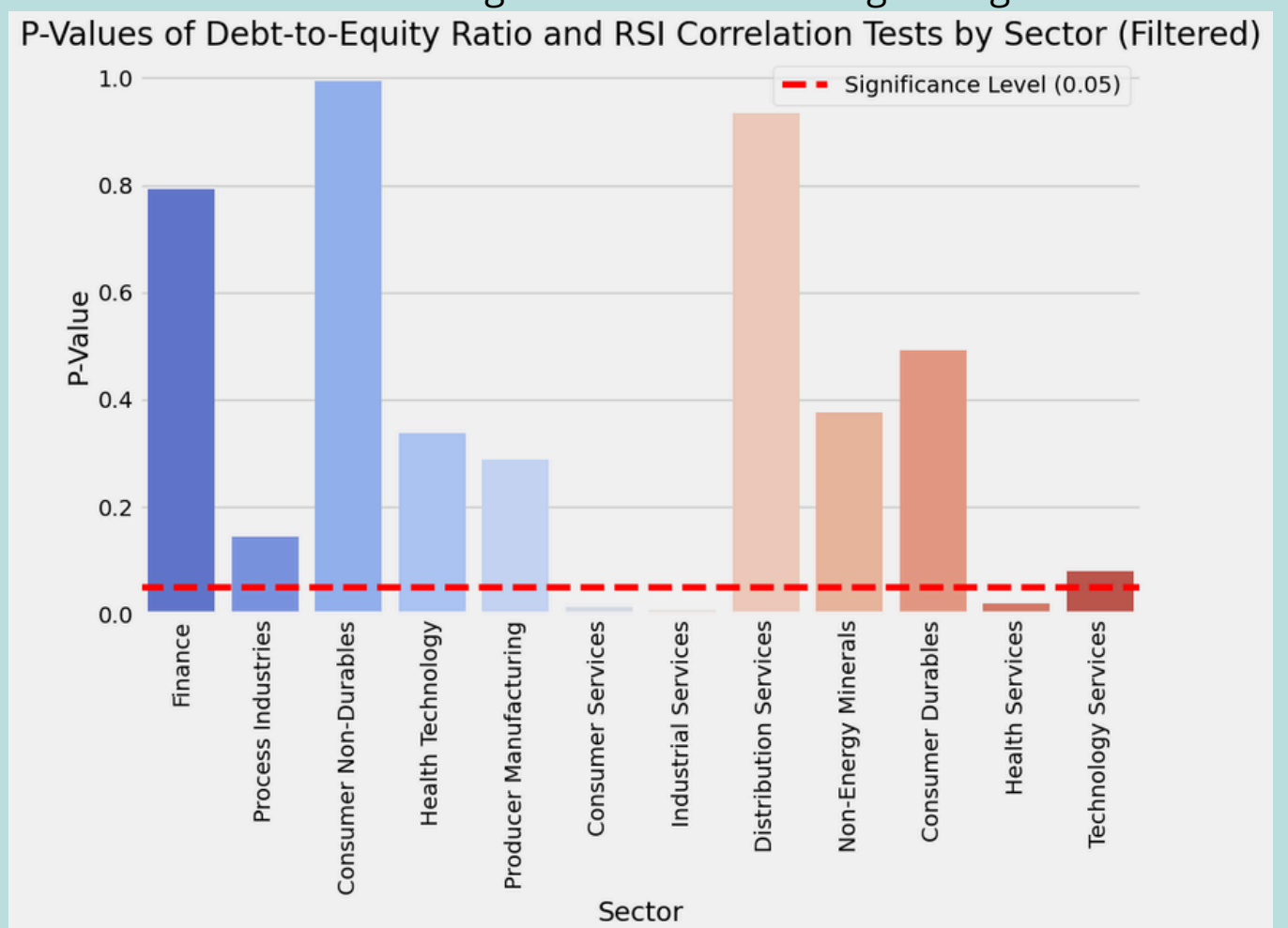
fourth GRAPHS



This scatter plot shows the relationship between debt-to-equity ratio and RSI by sector. Companies, color-coded by sector, helping to identify trends. From the graph, no relation is obvious



This heatmap visualizes the correlation coefficients between debt-to-equity ratio and RSI for each sector. Higher absolute values indicate stronger correlations, while colors represent the direction and strength of the correlations. It shows that correlation varies amongst sectors some being strong and others weak.



This bar plot shows the p-values of the correlation tests for each sector. The red dashed line represents the significance level (0.05). Sectors with p-values below this threshold have significant correlations, indicating statistically significant relationships between the debt-to-equity ratio and RSI. The 3 significant sectors are Consumer , Health and Industrial services.

Last CONCLUSION

Since Consumer Services, Industrial Services, and Health Services have p-values less than 0.05, we have at least three sectors showing a significant relationship between the debt-to-equity ratio and RSI. Therefore, based on our aggregated analysis, we reject the null hypothesis (H0) and conclude that the debt-to-equity ratio significantly impacts the RSI within at least one sector.