

Shark Tank Portfolio Analysis

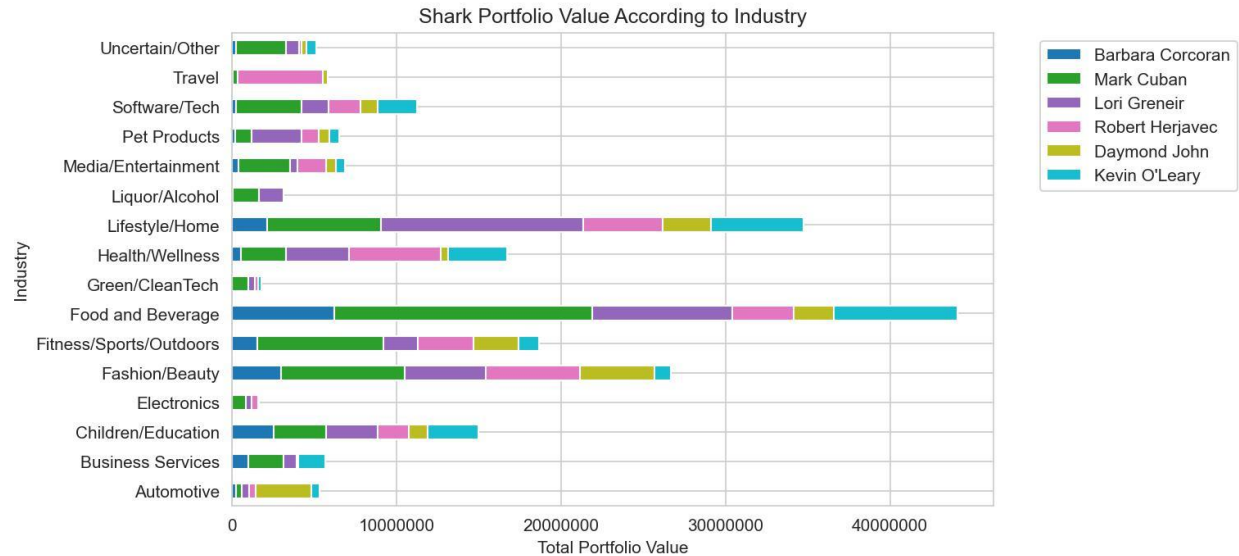


Figure 1

Figure 1: This graph highlights the Total Portfolio amount in millions of dollars from the “Sharks” on the television show Shark Tank. For the y-axis, the industry that each company falls in is displayed, and the x-axis shows the total dollar Portfolio Value in a dollar amount. The Stacked portion of the bar graph highlights each name of the Sharks, with blue representing Barbara Corcoran, green representing Mark Cuba, purple representing Lori Greneir, pink representing Robert Herjavec, yellow representing Daymond John, and light blue representing Kevin O’Leary

Gender Comparison of Common Industries Highlighted on Shark Tank

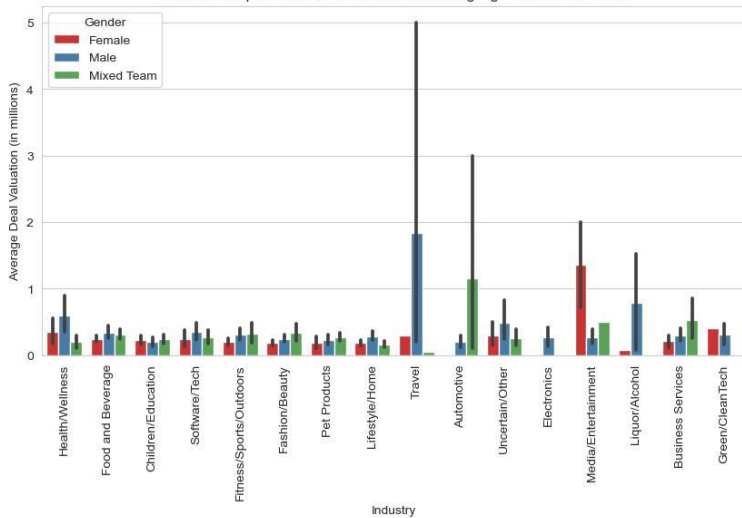


Figure 2

Comparison of Gender-Specific Operated Companies and Average Portfolio Value Per Shark

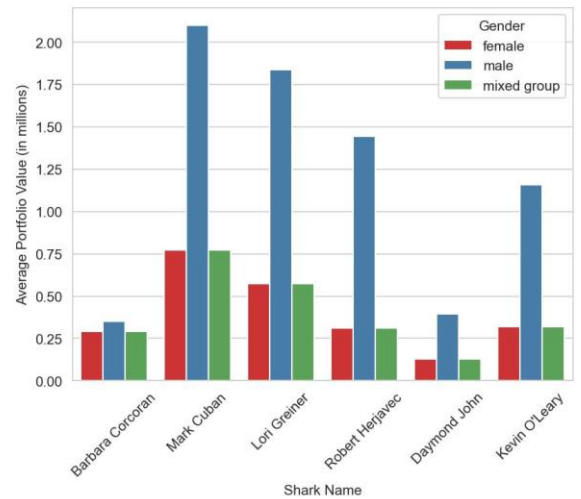


Figure 3

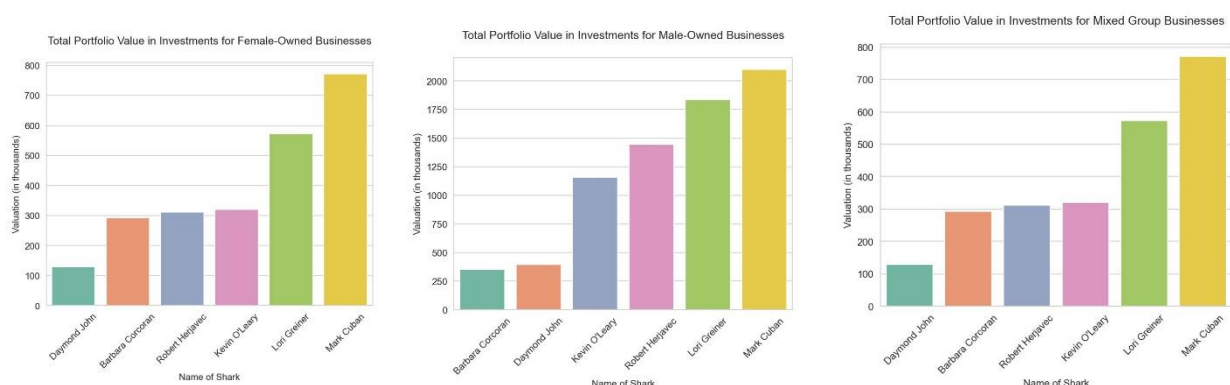
Figure 2: This bar graph shows the average deal amount in millions of dollars per industry on the y-axis but shows the distribution according to the gender of the business owners. Female business owners are represented in red, male in blue, mixed gender teams in green. Each tick on the x-axis represents the industry that the businesses fall in.

Figure 3: The last graph shows the average portfolio value in millions of dollars of each Shark. The x-axis shows the name of the sharks, while the y-axis shows this average dollar amount in millions. The grouped bar graph breaks down the gender distribution of company leadership. Red represents female, blue represents male, and green represents mixed groups.

Methods

I utilized the Shark Tank dataset available on Kaggle. The creator of the dataset pulled information from the companies and the episodes of Shark Tank from online forums, blogs, and episode descriptions. Initially, I wanted to solely focus on female-owned businesses, and the value of those businesses specifically, but I thought the overall data was valuable in gaining insights from. This dataset was exceptionally large, so I initially removed all of the values that displayed the episode description, such as season and episode number, ratings, etc., and primarily focused on the investment amount of each company that was successful in receiving a deal on their respective episode.

The main calculation to execute was the portfolio value. On Shark Tank, the Sharks mention a phrase called a valuation, which is the value of the company. If a company asks for \$100,000, but also offers 10% equity in their company to a Shark, the valuation is calculated at $100,000/10\%$, which is a valuation of \$1,000,000. For each Shark, I started by analyzing successful female-owned businesses, then male-owned businesses, and finally mixed group businesses. I found the average valuation for each Shark by calculating the sum of their investments divided by the mean equity percentage offered, which resulted in a total portfolio valuation. Figure 3 was produced by combining the following graphs:



The final graph was produced from aggregating the values calculated from the sum of investments into industry type. initial dataset into industry type.

Significance

Shark Tank is a television show that has aired on television for more than 15 years and started right after the 2008 financial crisis. Many people turned to entrepreneurship to sustain a living for themselves, and even today, it is inspiring to hear the success story of many of these businesses. It is important to keep a record of the success stories of how much the companies are valued because it promotes opportunities for entrepreneurship and innovation for many groups of people and in many different industries, which may require change over time.

GitHub Repository: <https://github.com/JNyashaT/Shark-Tank-Portfolio-Analysis>