MODULE 6 FINAL PROJECT -DATA ANALYSIS

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The dataset I have chosen for my final project is “Layoff dataset” from Kaggle website.

It contains data about layoff undertaken by companies with region, city, company and total percentage laid off. The dataset consists of 2233 records and 9 attributes. The data availability is from when COVID-19 was declared as a pandemic i.e., **11 March 2020** to present (**14 February 2023**). Qualitative information contains company,location,industry,stage and country. Quantitative information contains total laid off,percentage,date and funds raised. Finding the top 10 countries layoff, and number of cities layoff are the main goals of using data analysis. Tableau and R are used for this R data analysis,

The attributes include:

* Company: name of the corporation,
* Location: City where layoff took place
* Industry: Under what industry the company is operating
* total\_laid\_off: Number of people laid off.
* Percentage: Percentage of total employee that has been laid off
* Date: Date of layoffs
* Fund Raised: How much funding has been secured from investors, banks etc
* Stage: Stage of funding
* Country: Country where layoffs took place

Summary of the dataset

Using summary () function, the dataset’s summary has been determined. Only columns with quantitative data have had mean and median calculations.

A picture containing qr code

Description automatically generated

Chart

Description automatically generated

Total number of layoffs vs. frequency, where the x axis represents total number of layoffs and the y axis represents frequency. As of March 2020, there will be a lot of layoffs due to the recession. Whole layoffs are common, and they can have serious and far-reaching effects for both the company and its employees.

Companies must examine the potential consequences of layoffs and approach them ethically, transparently, and compassionately.

Chart, scatter chart

Description automatically generated

The most of IPO stage companies have undertaken layoffs, and many IPO stage employees have been fired.

Chart

Description automatically generated

The global yearly layoff trend corresponds to the global yearly layoff trend in the sense that layoffs were higher in 2020, then declined in 2021, then exploded in 2022. This shows that United States is unproportionally affected by layoffs, compared to the rest of the world.

This could be because most of the data in the dataset is about the United States.

Chart, bar chart, histogram

Description automatically generated

Initially, the travel business was the most affected, as evidenced by layoffs in 2020, but they have recovered extremely well since then. Unexpectedly, the education and retail industries experienced a significant increase in layoffs in 2022 compared to 2020.

When compared to 2020, the travel and finance industries performed strongly in 2022.

Chart, histogram

Description automatically generated

According to the above graph Month vs Total laid off,Layoffs were generally higher in 2020, then they dropped in 2021 and greatly increased in 2022.Yearly layoff trend for the whole world (minus USA data) matches somewhat with that of yearly trend in USA in the sense that layoffs were higher in 2020, then they dropped in 2021 and are generally higher in 2022.

Chart, radar chart

Description automatically generated

* Meta, Amazon and google are the companies with most layoffs, with Amazon topping the chart with over most layoffs.

Chart

Description automatically generated

The funds raised is very high with respective to percentage of laid off. The relationship between funds raised and percentage laid off can vary depending on the specific circumstances of a company. In general, a higher amount of funds raised may indicate that a company is well-capitalized and has the resources to invest in growth and expansion. However, there may be situations where a company with a high amount of funds raised still decides to lay off employees, either as part of a cost-cutting strategy or due to changes in the company's strategic direction.

Key considerations:

* United States suffered most layoffs followed by India, compared to the rest of the world. More than 75% of the employees laid off since 2020 belong to USA.
* Consumer industry in USA is hit hardest with layoffs in 2022 while Food industry is affected most outside USA in 2022.
* Transportation and Food industries are affected by layoffs globally.
* Travel industry faced considerably less layoffs globally in 2022 compared to 2022.

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