**Business Data Analysis of the World Bank Data**

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**Abstract :**

The data gives information about total tax, contribution rate, and labor tax contribution correlation, business start-up time requirements according to male and female over the years across many countries in the world, start-up procedures for different countries over the years, and total tax and contribution percentages. This data has been analysed using different techniques and found the impact and development of the world.

**GitHub Link:**

[**https://github.com/stanleygundapu/Assignment2-Applied-Datascience-1-.git**](https://github.com/stanleygundapu/Assignment2-Applied-Datascience-1-.git)

**Data Source:** [**https://databank.worldbank.org/reports.aspx?source=2&series=AG.LND.FRST.ZS&country=#**](https://databank.worldbank.org/reports.aspx?source=2&series=AG.LND.FRST.ZS&country=)

The following analysis shows the developments in business, investments, tax-related correlations, and time requirements to start a business in different countries over the years.

**Analysis 1:**

A red and blue squares with white text

Description automatically generated

The correlation matrix for the indicators of labor tax and contributions and total tax and contribution rate. It indicates that there is a positive correlation; it means that when labor tax and contributions increased, the total tax and contribution rate increased. It shows that labor tax and contributions and the total tax and contribution rate are directly proportional.

**Analysis 2:**

A graph of bar graph

Description automatically generated with medium confidence

The bar plot shows the group of indicators called time required to start a business for a female, time required to start a business for a male, and time required to start a business for both males and females in the United Kingdom. It indicates that all three indicators are always equal in all the years from 2009 to 2019. We can see that the percentage has decreased from 2009 to 2019.

**Analysis 3**:

A graph with lines and numbers

Description automatically generated

The line graph indicated the start-up procedure over the years for Sri Lanka, Sweden, the United Kingdom, Ukraine, and the United States from 2010 to 2015. For Sri Lanka, the percentage was stable from 2010 to 2014, and it increased in 2015. For Sweden, the percentage has been stable for all the years. For the United Kingdom, the percentage has been stable from 2010 to 2014, and it has increased in 2015. For Ukraine, the percentage has been fluctuating; it decreased in the year 2012 and increased in 2013, and it was stable until 2015. For the United States, the percentage is high, and it was stable from 2010 to 2012, and it has decreased since 2013.

**Analysis 4:**

A pie chart with numbers and a number of different colored circles

Description automatically generated with medium confidence

The pie chart is of the total tax and contribution rate for Sweden from 2009 to 2019. It was 9.7 in 2009, and it's been decreasing over the years. From 2010 to 2013, the percentage was 9.4 and then decreased to 8.8% from 2014 to 2019. We can say that business and investment have decreased.

**Analysis 5:**

A graph of different colored lines

Description automatically generated

The line graph is for the time required to start a business in Sri Lanka, Sweden, Switzerland, the United Kingdom, Ukraine, and the United States. For Sri Lanka, the time has increased from 2010 to 2018. For Sweden, it was stable until 2014, and it has increased from 2014 to 2018. For Switzerland, the time was initially high from 2010 to 2014 and decreased in 2014, which is the same till 2018. For the United Kingdom, the time has increased from lower to higher, and it has been stable from 2015 to 2018. For Ukraine, the time was fluctuating; it was high in 2010, then decreased drastically in 2015, and again increased from 2016 to 2018. For the United States, the time has risen over the years.

**Analysis 6:**

A pie chart with numbers and a diagram

Description automatically generated

The pie chart shows the total taxes and contributions for the United States from 2013 to 2019. From 2013 to 2015, the percentage was 14.6%. In 2016, the percentage increased to 14.7%; from 2017 to 2018, the percentage decreased to 14.6%; and in 2019, the percentage even decreased to 12.2%. From this, we can see that investment has decreased over the years.

Conclusion:

We can see that business investments, total tax, contribution rates for given countries, time requirements for a business start-up, labor tax, and contributions in relation to total tax and contribution rate affect world countries and their impacts, which leads to development over the year.