The hypothesis of the study will be term paper examples

This research paper will seek to answer the research question " Does the amount of baby deaths get affected by the GDP of the country?" The study thus seeks to determine whether the GDP of a country has an effect on the number of baby deaths that may be experienced in the country.

- The GDP of a country is inversely proportional to the rate of baby deaths in that country.

In order to answer the research question and test the proposed hypothesis of the study data was collected from 30 different countries indicating the number of recorded baby deaths and the GDP in 2008. The dataset is shown in table 1 below. From the selected dataset the independent variable is the GDP while the dependent variable is the number of baby deaths in the country. This is because as stated earlier the study seeks to determine whether the GDP of a country has an effect on the number of baby deaths that may be experienced in the country. The data of the rate of baby deaths and the GDP of a country has been collected from Gapminder. The sample has been collected in a random manner. The data was organized according to country in alphabetical order. The data used was taken from the 30 first items on this list. The data contains two values. The first value is the number of deaths per million in that country. The second value is the GDP of the country. According to the data, there is a hypothesis that the GDP of a country is inversely proportional to the rate of baby deaths in that country. This means that countries with higher GDP have fewer baby deaths per thousand.

5-number summary:

Using excel the following analysis was carried out on the data in order to prepare a five number summary table. The table below shows the five number summary which shows the range of number from the lowest to highest and the first, second and third quartile.

For the baby death's data set:

For the GDP data set:

Histogram and frequency tables:

Excel was also used to create frequency tables and a histogram based on the data collected. Below are the frequency tables and histograms for both datasets. The frequency table has been grouped in classes of 1000. From the frequency table and the histogram it is evident that the largest number (80%) of the recorded baby deaths in the dataset are below 1000. Only a few countries (6. 7%) had data that is greater than 3000 baby deaths in the year 2008.

The chart below is the histogram that represents the frequency table shown above. The histogram clearly shows that the lower values of baby deaths make up the greatest portion of the dataset.

Chart 1: Histogram showing the deaths of babies from the collected dataset.

The frequency table for the GDP dataset has been grouped in classes of 5000. From the frequency table and the histogram it is evident that the largest number (73%) of the recorded a GPD OF 10, 000 and below.

The histogram shown below is a graphical representation of the frequency table shown above. From the histogram it is clear that GDP below the $10, 000 represents the bulk of the data collected.

Chart 2: Histogram showing the GDP from the collected dataset.

A similarity of both datasets is that from the analysis carried out, it is clear that both recorded both high and low figures. Both datasets had a number of sales that were above 100, 000. Lastly, the auctions are similar because they have high values of standard deviation. This implies that the prices of the pieces of art sold at both auctions are not closely related to the average. The first histogram shows the distribution of the rate of baby deaths. The second histogram shows the frequency distribution of the GDP of the sample countries. Apart from the first figure, the histogram shows a normal curve for distribution. Afghanistan has the 2nd lowest GDP among the sample countries. With 2825 baby deaths per million is among the highest rates. The country with the lowest GDP, Burundi has a rate of 602. This clearly shows that there is a drastic drop in the number of baby deaths. Among the countries with the highest GDP, the rate of baby deaths is significantly small. Austria has the highest GDP among the countries on the list and has a baby death rate of 39. Canada has a GDP that is among the highest but a significant number of baby deaths. Brazil has the highest number of baby deaths despite having a GDP that is way above the lowest on the list. Bangladesh has the second highest rate of baby deaths and has a GDP that seems to confirm the hypothesis stated.

Scatter plot:

Chart 3: Scatter plot showing baby deaths vs. GDP from the collected dataset

The chart above shows that baby deaths and GDP have an inverse relationship. This indicates that as the GDP increases then the value of baby deaths decreases. This is indicated by the negative gradient of the line. This supports the hypothesis of the paper that the GDP of a country is inversely proportional to baby deaths.

Correlation and regression analysis:

The table shown below shows the correlation and regression analysis. From the correlation analysis table and the regression model it is evident that the value of regression coefficient is (R = - 0. 24616). This indicates that 24. 6% of the baby deaths can be explained by the GDP of the country. The value of R Square is 0. 060595.

The test to be used to determine if there was a statistically significant difference in baby death numbers and GDP is a t-test. The table below shows the t-test carried out. From the table below it is evident that P (T <= t) one-tail < t Critical one-tail (0. 000273744 < 1. 697260887) and P(T <= t) two-tail > t Critical two-tail (0. 000547487 < 2. 042272456). In this case, we can accept the hypothesis of the study.

In conclusion, the major problem with this data is that it does not account for the population size of the concerned countries. This leads to a deviation from what the hypothesis suggests. This is because a country with a high population will tend to have more deaths despite having a higher GDP. This

is evident in the data by a country like Brazil. Among the sample data, it has a GDP closer to the mean, but has the highest death rate. A figure that is not captured by the data is the population of the countries. Brazil has the highest population among the sample countries. A better figure to use would be the percentage of baby deaths to the population of the country. That figure would give us a better presentation of the facts.

Work Cited:

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