**Executive Summary**

The purpose of this study is to examine the past noble prize winners dataset. Therefore in this study the researcher used Quantitative analysis as our statistical method of analyzing our data (Hennik, et.al 2021). From the analysis we performed we found out that:

* According to (Gurnah, 2021) There is large number of men who won noble prize as compared to women.
* The researcher also established that there is high number of individuals who won the prize under the category of Medicine as compare to economics which had the lowest number.
* The researcher also found out that United Kingdom is leading in the number of prize won over the past years (Donthu, et.al 2021).

However, based on the finding the researcher come up some few recommendation which are presented to the Business school.

* The selection criteria for the noble prize winner should consider gender balance while selecting.
* Individual in the field of economic should put more efforts to moderate the completion with among other field such as medicine.

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**Business problem.**

The business problem is examine the dataset for the past noble prize winners and establish the trends and uncover some insight that will arise in the analysis. The researcher wants to determine generally how the entire world is fairing as in Nobel laureates (Gallo-CruZ¸2021).

**Statistical problem.**

The study statistical problem is divided into six independent section. The first three sections include calculation of our data value, and summing up a concise and succinct report. This will give us pictorial visualization of our entire dataset.

The fourth, fifth and sixth section will call for inferential statistical techniques which will enable us gain deeper insight from our study (Hayes, 2020).

**Part 1: question 1.**

|  |  |
| --- | --- |
|  |  |
| **Row Labels** | **Count of prize** |
| Male | 876 |
| Female | 58 |
| **Grand Total** | **934** |

There is a very big difference in the

Number of Men (876) and Women (58) who

Nobel Laureates in the past years. Which make 94%

And 6% respectively.

Figure 1.

|  |  |
| --- | --- |
|  |  |

**Part 1: question 2**

In this section we had Medicine category leading with (222 number of prizes won followed by Physics (216,) Chemistry (186), Peace (135), Literature (117) respectively with economic being the least with (86) prizes this shows how we need to put more effort to make some positive impact towards our economy (Naseem, et.al 2021).

Figure 2.

A vertical bar graph visualizing split between men and women in each category. From the figure below we have Men leading in Physics category with (212) followed by Medicine with (210). For the women they have quite a number in Peace (17) and Literature (16). It is clear that men are dominating in each category (Root-Bernstein, et.al 2022).

Figure 3

**Part 2: question 1**

In this section the researcher is showing the number of prize per country. In this case we will not use country of birth as they data has countries which no longer exists. However we selected top 20 countries in our data which has United Kingdom leading with (281) prizes (Brown et.al 2021).

Figure 4.

A cross – classification table which groups the prize according to the country and the category. The figure below shows United States of America with the most prize in each category.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Count of prize** | **Column Labels** | |  |  |  |  |  |
| **Row Labels** | **France** | **Germany** | **NA** | **Sweden** | **United Kingdom** | **United States of America** | **Grand Total** |
| Chemistry | 10 | 26 |  | 4 | 27 | 55 | 122 |
| Economics | 4 | 1 |  | 2 | 8 | 49 | 64 |
| Literature | 11 | 8 |  | 7 | 7 | 10 | 43 |
| Medicine | 12 | 18 |  | 7 | 28 | 78 | 143 |
| Peace | 10 | 5 | 28 | 5 | 11 | 19 | 78 |
| Physics | 10 | 26 |  | 4 | 24 | 70 | 134 |
| **Grand Total** | **57** | **84** | **28** | **29** | **105** | **281** | **584** |

Table 1.

The researcher also plotted a graph with prize as (y variable) and category (x variable). As shown below. Germany have more prize in physic (26) and UK has (24). And France Have more literature (11), economics (4) and peace (10) while Germany have literature (8), economics (1) and peace (5) respectively. Germany (1) and japan (0) are weakest as compared United States (49) . (LenZen et.al 2020)

Figure 6.

**Part 2: question 2**

The age of laureate in the time being awarded the prize. After calculating the age we established that the oldest laureate had (93) years by the time of award. His name is John Goodenough the Nobel Prize in Chemistry 2019 (Seeman, et.al 2020).

|  |  |  |
| --- | --- | --- |
| **full\_name** | **prize** | **Max of Age** |
| **John Goodenough** | The Nobel Prize in Chemistry 2019 | 93 |
| **Arthur Ashkin** | The Nobel Prize in Physics 2018 | 92 |
| **Peyton Rous** | The Nobel Prize in Physiology or Medicine 1966 | 87 |
| **Karl von Frisch** | The Nobel Prize in Physiology or Medicine 1973 | 87 |
| **Grand Total** |  | **93** |

Table 2.

Whereas the youngest laureate had 13 years he was called Malala Yousfzai he won The Nobel Peace Prize 2014 (Saboo, 2021).

However, the average age for the Nobel Prize winner was 56 years for the period range in our dataset

|  |
| --- |
| **Average of Age** |
| 55.51247401 |
|  |

**Part 3: question 1**

In thi section we are calculating mean, meadian ,Mode, Standard Deviation and Coefficient of variation the winning age at each category . According to the table below the avarege winng

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Row Labels** | **Average of Age** | **StdDevp of Age** | **median of age** | **Coefficient of Variation** |
| Chemistry | 56 | 12 | 56 | 0 |
| Economics | 63 | 9 | 63 | 0 |
| Literature | 63 | 10 | 63 | 0 |
| Medicine | 56 | 12 | 55 | 0 |
| Peace | 47 | 27 | 56 | 1 |
| Physics | 53 | 14 | 53 | 0 |
| **Grand Total** | **56** | **16** | **57** | **0** |

Table 3.

**Part 3: Question 2**

The average age for physics is lesser than that of chemistry

Part 3: question 3

In this section we come up with a line graph the show the winner age against the year he or she was born

Firgue 7.

**General Conclusion**.

Generally there a number of Noble laureate in United State as compared to other countries in the world (Kerr, 2020). Moreover, men are the leading gender in the number of prize won the given period and also the average age for the winner age is 56 and the lowest age for the winner being 13.

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