**Descriptive Statistics of Key Variables, Interpretation of Mean & Skewness**

Descriptive Statistics

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Statistic | N | Mean | Std. Dev. | Median | Pctl(25) | Pctl(75) | IQR |
| box\_office\_revenue | 250 | 201.964 | 137.082 | 187.046 | 77.490 | 303.494 | 226.004 |
| movie\_budget | 250 | 81.003 | 35.276 | 84.766 | 58.688 | 105.967 | 47.279 |
| audience\_score | 250 | 64.023 | 16.694 | 62.993 | 51.986 | 76.599 | 24.613 |

*Table 1.1 Summary Statistics for box\_office\_revenue, movie\_budget, audience\_score*

Interpretation of Mean:

The average box office revenue at theatres for movies in this sample is $201.964m, a baseline estimate for the total box office collections. Similarly, the mean production budget for the films in the sample is $81.003m. The average audience score for movies in this sample is 64.023 out of 100, the rating on Rotten Tomatoes.

Symmetry:

The median box office revenue for films in this sample is $187.046m, which is less than the mean of $201.964m. The distance between the third quartile (Q3) from the median ($116.448m) is slightly larger than the distance between the first quartile and the median ($109.556m). These two factors suggest that box office revenue is positively skewed.

The median movie budget is $84.766m, which is slightly higher than the mean of $81.003m. The distance between Q1 and the median ($26.078m) is larger than the distance between Q3 and the median ($21.201m). Consequently, these observations imply a negative skew in movie budgets.

The median audience score is 62.993 out of 100, slightly lower than the mean audience score of 64.023 out of 100. The distance between Q3 and the median (13.606 points) is larger than the distance between Q1 and the median ($11.007m). As a result, we can infer that there is a positive skew in audience scores on Rotten Tomatoes.

**Confidence Intervals for Means**

95% CI(**μbox\_office\_revenue**) = [184.972, 218.957] ($m)

95% CI(**μmovie\_budget**) = [76.631, 85.376] ($m)

95% CI(**μaudience\_score**) = [61.954, 66.093] (out of 100)