The Olympic medal analysis aimed to uncover factors influencing medal success in the Tokyo 2021 Olympics. By cleaning the data, exploring relationships through summary statistics, and applying hypothesis testing, the analysis identified significant differences in medal counts across continents, with Europe/Asia and Australia leading. Regression models showed that gold and silver medals had a stronger impact on total medals compared to bronze. Logistic regression further highlighted that winning these medals significantly increased the odds of higher medal counts. The findings suggest that focusing on gold and silver medal achievements and understanding regional performance variations can help countries improve their Olympic strategies and outcomes.