Shanara Hawkins

Data Science – 2023 Module 2 Summary

Professor Booth

**Data Science Summary: Generated Stock Market Data Analysis**

**Given the historical swings in volatility and stability that comes with investing in the stock market, an analysis of its performance data can reveal the best and worst valued stocks within any size portfolio. There are several key metrics that one can include in an Excel Worksheet for analysis including the ticker name, the opening and closing prices, the highest and lowest prices, and the stocks’ volume. The timeframe such as day, month, or year can also provide insights into a stocks performance that could be pertinent to achieving specific and lucrative investment goals.**

**Using a large dataset of various stock tickers, and their metrics charted out over the course of the year, made it easier to understand the different purposes that metrics played in rightly judging a particular stock’s performance. For example, the yearly change price, which represents the difference between a stock’s closing and opening price on the last and first day of the year, would typically not prove to be an insightful metric to use in comparison to the other metrics, especially for a novice analyst in stock metrics. On the other hand, the yearly percentage change could be a more useful metric for either a novice or an expert investor because the percentage values make it easier to accurately gauge a stock’s performance over a longer span of time. Another metric that could be useful for analyzing stock data is the total volume of the stock. Total volume is the number of shares traded in a stock. When applying this metric as a comparison tool against other tickers, it may be useful for an analysis of shorter spans of time, like days or months, but it may not be as useful when analyzing which stock had the best performance over the course of a year. For instance, ticker “QKN,” analyzed on the 2018 sheet of the Excel workbook had the greatest total volume for the year at 1.68954E+12, but it did not yield the greatest yearly percentage increase, which was ticker “THB” whose annual return was 141.42%. Interestingly, the lowest performer by yearly percentage was ticker” RKS.” One thing that’s striking to note here is that despite several other stocks (QUY, SII, and RRLR) reporting annual volume totals of less than 4.5 million, “RKS’s” annual volume was a whopping 214,055,393 with a depressingly annual percentage return of negative 90.02%!**

**Ultimately, savvy investors are keen on mitigating their financial risks and losses to maintain a healthy amount of value above their initial investment to maximize returns in their portfolios. Analysis of the stock data discussed in the above paragraphs illustrates that stocks can have mixed periods of stability and/or volatility in performance over various time periods. The variability shown in the stock data Excel Sheets provides basic, fundamental insights that it would be wise and more appropriate to use a combination of various stock performance metrics to gain an accurate and comprehensive perspective of past, current, and future market activity. Armed with that information investors can create the best strategy plan that leans in their favor when making important financial decisions.**