Financial Analysis Opportunities

Computer Science Engineering (CSE), MScs Auditing
MBA focus Banking/Finance, Executive Master in Management (EMM)
Certified: Insurance Broker, Scrum Master, Data Science

Data Science applied to Finance

This new discipline of Data Science has its advantages and benefits. To begin with we must be clear that methods and techniques are used with advanced mathematical-statistical algorithms where data are a fundamental asset in the organization.

With the expert criteria of each organization, historical and current data in this discipline are considered as individuals and variables, thus forming a set of data under a mathematical foundation.

Defining the objectives of the analysis and research domain is one of the first steps that organizations must establish. Based on this, the next steps of data-driven analytics are performed with known methodologies.

To understand the competitive advantage of doing Data Science in organizations it can be cited that doing analysis with 3 variables of information could have a lot of difficulty. As we include more variables to the data set it becomes even more difficult to understand and make decisions. This is where advanced data analytics by automating these advanced mathematical-statistical algorithms highlight the relevance of data depth from other perspectives.

Data Science Usage Cases

In the business world it is very common to make comparative analysis based on amounts per day, week and year. In sports, for better understanding, a basic example illustrates the applicability. To evaluate or measure the batting performance of various baseball players, records and counts are kept calculating the average and other statistical measures of the player based on batting history. This is how the major sports industries season by season perform their calculations on the different positions and plays creating multi-variate data to know the performance of the players and identify a probability of success.

Accounting/Finance Opportunities

A scenario in accounting and finance would be to take accounting and financial records as data sources that are in systems such as ERP, spreadsheets or others to apply Data Science.

With the information obtained you can design data models that using the appropriate algorithms generate new variables to make the respective studies to analyze and interpret the results.

Performing Data Science helps to:

- ✓ To know a better performance of the information
- ✓ Visualize deviations in the information
- ✓ Review and perform internal control
- ✓ Generate opportunities for customers
- ✓ View similarity of information
- ✓ Identify data patterns
- ✓ Find irregularities, anomalies
- ✓ Find unintentional and malicious records
- ✓ Observe atypical information
- ✓ Improve the quality of financial reports
- ✓ Reduce and mitigate organizational risk
- ✓ Find possible frauds

Final Conclusions

The responsibility of financial analysts is to ensure that organizations have healthy finances and sustainable growth. This is where Data Science brings value.

In conclusion, Data Science is a discipline that integrates mathematics, statistics and computing that well used in organizations allows financial analysts to review, monitor, control and know the trend of their financial ratios for better performance and decision making in business.