

## 3 Myths About Algorithmic Trading

*Algorithmic Trading is often confused with similar concepts and terminologies like quantitative trading, HFT and Automated trading, here are few of them that everyone needs to have clarity about*



**13** October, 2018  
by Nitesh Khandelwal

With the emergence of new technologies, it becomes essential to have clarity of the concepts related to it, which may otherwise cause unpardonable mistakes resulting in losses. Algorithmic Trading is one such domain which is witnessing a rapid growth and hence is surrounded by many myths arising due to misinformation and lack of clarity. Among the few misconceptions which I came across, these are few of them which I feel everyone needs to have clarity about.

### **Algorithmic Trading is the same as Quantitative Trading, High Frequency Trading (HFT) and Automated Trading**

Algorithmic Trading is often confused with similar concepts and terminologies like quantitative trading, HFT and Automated trading. Though these are quite related, but are different from each other. Let us understand these differences by explaining what each term means.

**Algorithmic Trading** - Algorithmic Trading is the process of converting a trading strategy into an algorithm or computer code, and checking whether the strategy provides us with good returns by performing backtesting on historical data.

**Quantitative Trading** – Quantitative trading involves using advanced mathematical and statistical computations along with quantitative analysis to devise trading strategies. This can then be executed manually or in an automated fashion, depending on the strategy (and the strategist!)

**Automated Trading** – It is automating the overall process of order executions like buying or selling and would often have portfolio & risk management automated as well..

**HFT (High-Frequency) Trading** – High Frequency Trading involves executing orders in an extremely short span of time, usually in a sub second, and targeting minuscule profit from each trade but doing a vast number of them overall. HFT is a subset of Algorithmic Trading and given the speed at which you'd need to send the orders, must be automated. Interestingly, most of the HFT strategies, except for plain vanilla arbitrage, are quite quantitative in nature.

### **Retail traders are at a loss due to the use of colocation by High Frequency Traders**

This is one of the most common myth regarding the use of colocation and stands completely incorrect as the High Frequency Traders do not compete with retail traders, rather they compete amongst themselves.

Colocation involves placing the servers of the HFT traders in close proximity to the exchange. Given that most of the markets are made (market making) by HFT desks, and since they target to collect few pennies on an average per trade, any sudden event/news can cause significant losses. Being in colocation facility ensures that they are able to update their orders to the fair price within a very short time. This ensures that they are able to offer much better quotes, resulting in significant saving in transaction cost for an average retail trader. Effectively, it potentially benefits the retail traders as the bid-ask spread is reduced and they can execute their orders at a better price in general.

### **Individual traders can't do Algorithmic Trading**

As opposed to HFT which can't be done by an individual trader, Algorithmic Trading can be done by individual traders in most major geographies globally. Algorithmic trading needn't involve huge capital investments in infrastructure and technology, which is why it is an open domain for everyone to explore. What it requires is a trading idea or strategy converted into an algorithm or code and implemented. Many might be skeptical to try out Algorithmic Trading on their own in live markets for which backtesting, a process which involves testing the strategies on historical data, is of great benefit to ensure maximum efficiency of the trading strategy.

Now that you are familiar with these concepts and have gained clarity about these common myths, you can start exploring the field of Algorithmic trading and bust more such myths surrounding this topic.

*Disclaimer: The views expressed in the article above are those of the authors' and do not necessarily represent or reflect the views of this publishing house. Unless otherwise noted, the author is writing in his/her personal capacity. They are not intended and should not be thought to represent official ideas, attitudes, or policies of any agency or institution.*

---