Algorithmic Trading with Angel Smart API: An Electronic Market Making Strategy

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Multiple Stocks > Single Stock

WHY?

We are spreading our positions & algo trading strategy across more than one stock. So even if one stock misbehaves, there is a good probability that rest will behave well.

This increases the probability of an overall profit.

Basic Strategy or Advanced Strategy

NOT YET SURE!

Advanced Strategy should in theory perform better as we are volume weighting our entry into a position. This should result in higher trade executions and better overall performance.

However, both strategies are affected by the Trade Margins.

Trade Margins

HOW MUCH?

Depends on Cost Structure!

Depends on Data Analysis to arrive at optimal values.

THERE IS A TRADE OFF

Higher Margins = Less Trade Executions

Lower Margins = More Trade Executions

Trade Quantities

DEPENDS ON CAPITAL

Make sure that the position value of all stocks are equal. This is to ensure that we have a uniform distribution or equal weightage on all stocks.

If any one stock has higher weightage, then the results are also affected by those different weights.

Main Challenge to Scalability

ANGEL API LIMITATION - ONLY ONE NET POSITION

- Each client code can only trade one version of the Algo at a given time as there is only one net position.
- We cannot trade the Basic and Advanced strategies on the same day and make a direct comparison to see which is better.
- We cannot trade one strategy with different Trade Margins on the same day and make a direct comparison to see what level of Trade Margins are optimal.

Thoughts to Improve Profitability

USE THE Q&A SECTION

- Suggest changes to the strategy and I can code it.
- Share your results with parameters used and we can make comparisons to identify the profitable Trade Margins.
- Maybe a combined / crowd-sourced effort may succeed.

Final Thoughts

- Do NOT under any circumstances blindly copy and start trading with this code.
- It can have very bad outcomes !!!
- Please understand the logic and try it out incrementally.
 - Use small trade quantities and trade for a few cycles / iterations / minutes.
 - Check the price and quantity of the sent orders and if the orders are sent as expected.
 - Then repeat again to double check for edge cases like partial execution.
 - After a turnover of 1 or 2 lakhs, stop and wait for the daily trade statement.
 - Check that the cost of trading is within expected margins.
 - If the costs are very high, you will need to change the trade parameters.
 - This algo will require a daily monitoring and tweaking. It is never optimal for long.

Good Luck!