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Paper Trading: Waste of Time or Valid Learning Method?

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Numerous discussions of paper trading, and its value as a learning tool, usually see participants divided into two camps. One claims total uselessness of paper trading, another vows never to start without it. The scoffing camp points out the obvious limitations of paper trading:

- It doesn't allow you to estimate slippage during your execution.
- It leaves unanswered the question of whether your order has a chance to be executed at all.
- It keeps you in a relatively relaxed state of mind as there is no pressure of endangering real money.
- It also doesn't allow you to master your order routing tools in full.
- Finally, it's very easy to cheat oneself, changing one's decision after the fact and booking corrected results.

Is this all true? Why, of course it is. Does it render paper trading useless? By no means. Paper trading can be extremely helpful if two conditions are met. The first is apply this learning tool at the right time and with the right purpose. The second condition is do your paper trading right.

Let's try and build the rules of paper trading that will allow us to turn it into powerful learning tool. We can identify three cases where paper trading instead of live trading is in order:

1. A beginner getting his feet wet.
2. A trader testing a new trading system.
3. A trader hitting a losing streak.

The first case is the most common. Let's analyze the right way to structure paper trading for this situation.

Paper trading allows you to ease into real trading and see if your theoretical approach works. It is a stage where you start measuring your method against market movements. You are going to have enough time to deal with the psychological pressure and execution side later on, adding them gradually as you start trading with a small size. However, before real money is used, theory should be checked against the reality, and this first experiment should be as painless for your trading account as possible. Obviously paper trading does not pursue any meaningful target unless your trading system is structured so you can test it; thus, start with constructing your trading approach, then proceed with testing it in real time.

Paper trading is done in a fairly simple way. It is an imitation of your actions without actually sending your orders to the marketplace. You define your setup with all of its components: trigger for entry, stop level, signs of exit, possibly with partial exit and stop trailing. Then when observing the market action you are imitating your responses and writing them down. This is going to be your first encounter with the market so take it seriously. Paper trading will teach you plenty about market action without risking your money if you are watching carefully and acting responsibly.

Observe whether your set-ups are working. Watch the market action and define if your response is reasonable. If you lose money on paper day-by-day, something is not right with your approach. Try to make corrections, find out what factors have not been considered. This is your troubleshooting stage – look for problems to solve. If you get negative results, do not get frustrated – take them as a blessing in disguise. It's much better to find out about a problem before committing actual money to a flawed method.

Watch if your risk control is working. Do you lose within your defined limits on any given trade and on any given day? Maintain strict discipline at this stage – your future trading results are going to suffer if disciplined behavior doesn't become your second nature.

The crucially important purpose of paper trading is to find out the maximum drawdown that you can run into. This element might require a somewhat prolonged paper trading stage. The point here is, losses and wins are not necessarily distributed evenly along the timeline of your trading. You can run into cluster of losses. While the average loss might be affordable in terms of your trading capital, such a cluster may not. It is very important to make sure that a losing streak is not taking you out of the game.

Here are the rules of paper trading that allow it to be as realistic as possible and make paper trading an effective learning tool:

1. **Make your decisions real time only, not after the fact.** Looking at the chart and deciding where you would have entered and exited won't do you any good. Everything is easy in hindsight and looks very different when you are up against what Alan Farley called The Hard Right Edge – end of the real-time chart leading you into unknown. Write down your entry when your setup is triggered; write down your exit when the chart hits your profit target or stop.
2. **Keep you trading rules exactly as if you were trading real money.** Any decision of "I'll do this although with real money I would do that" kind renders your paper trading worthless. If your stop level is hit, your paper trade is stopped and should be written down as such, even if a stock immediately bounced back up. If your profit target is not hit, do not write it down as less profit but still profit – it negates the very purpose of paper trading, which is to see if your targets are realistic and your stops are placed correctly.
3. **Take trades with the same degree of risk as if you were trading real money.** A decision to paper trade a risky stock that you do not intend to trade when doing live trading makes no sense. You paper trade to test your strategy, not to play around.
4. **Use the same set of tools as you intend for live trading.** If your trading strategy requires Level II, for instance, paper trading without it with idea that with it your trading will be even better makes no sense. It won't be better, it will be different.
5. **Consider your entry and exit executed only if there are actual prints at the price you target.** Just seeing bid or offer where you want them is not a guarantee that you could get your order filled at that price.
6. **Consider the amount of shares available at your price.** If you intend to trade 1,000 shares but there are only 100 shares offered, chances are in real trading you wouldn't get your order filled in full. Watch actual prints to determine how many shares there really are.
7. **Do not use paper trading to project what kind of money you are going to make.** This is not the purpose of this stage. It can only make you unnecessarily impatient and eager to start trading live before you are ready. Simply write down the results to see if your planned strategy is working.

One more purpose of this stage is to get comfortable with your tools. Configure everything as you need it for live trading. Move windows around your screens to have them placed as conveniently as possible. Start with your charting software. Play with the fonts to have all the information that you need on the screen while text is still easy to read. Play with the colors so that different windows are easy to distinguish. Learn to quickly manipulate your charting software. Change symbols, link windows, change time frames – do everything that you will need to do in the course of trading. Draw necessary lines on the charts, add and delete studies and indicators that you are going to use. Do it long enough to make the process automatic.

Learn your order routing software. Manipulate the controls, changing quantity of shares, price of your order, type of order and route. Switch from limit order to market order and back, practice changing the price quickly. Play with controls long enough to make the process automatic. See how to set advanced orders. If necessary, print out excerpts from order routing instructions and place it within easy reach.

Finally, start routing orders in a way that keeps your money safe. Do it in the following way.

Set small amount of shares – from ten to fifty. Set the price far enough from the market price to not get filled. If a stock is trading at $20, prepare your buy order at $10 and short order at $30. Send the order. Observe how a confirmation appears. Now cancel the order and observe the confirmation. Make sure that all the messages you receive become familiar so you do not spend much time reading them later. Make sure that confirmation pop-ups do not get in the way of observing the action. Observe the reliability of your quote feed, especially in the most active periods – market opening produces fast conditions when the quotes are most likely to lag. Make sure that you have trading desk phone number on a speed dial to be able to reach help as fast as possible if something happens to your internet connection or quote feed – no technology is perfect.

It’s often asked how long this stage should be. There is no fit-for-all answer. There are traders that breathe through it in a week, and I know a trader that paper traded for a full year. It doesn’t mean he was a slow learner. He just was perfecting his trading system until he was totally satisfied with it. Although a year is probably a bit on an extreme side, a week or two is not really what suits most people. This is usually not a matter of exact time that would be the same for everyone. Paper trading serves certain purposes, and you should move ahead when those purposes are achieved. Keeping all the rules of paper trading, do you show consistent profit? Have you observed how your setups work and gotten comfortable with them? Have you made sure that you know the drawdown your system can produce and that you can sustain it? Have you become comfortable with your charting and order entering software? If you can answer Yes to all these questions, then paper trade just for a couple weeks more. If not for any other reason, do it to practice one of crucial elements of your psychological makeover – patience. The skill to sit on a sideline will serve you well. It will also allow you to get into your first trading day with more feeling of self-control.

We mentioned two more cases when paper trading is appropriate.

Testing a new system or to tweak an existing one is obviously calling for going back to paper. You are changing something – why risk real money before you make sure it works well? Usually when a trader is doing that he already has enough experience under his belt to know how to paper trade effectively. Just make sure that you give it enough time so your results are statistically significant. I know a trader who does this kind of new tweak testing not even stopping his live entries and exits. While making real trades he simultaneously writes down optimized ones, comparing the results and making conclusions about the quality of optimization.

Going through a losing streak, a trader wants to find out the cause of under-performance. Is it market conditions that change in a way that ruins his system? Is it a trader himself acting in an undisciplined manner? If it's the market, does something get changed fundamentally or is it a short-lived fluke? Does a major trend change? Is it just a temporary range contraction with no volume? What is likely to come next? These kind of questions are not easy to answer in the heat of the battle. Thus stepping aside to re-evaluate things, to regroup and to regain your confidence or to re-tune your approach is a good decision.

For whatever reason you go to paper trading, your major step to assure the success of it, is to define the purpose and to work out the steps to achieve it.