fin-sight

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MOTILAL OSWAL Financial Services

Knowledge First

"As part of our ongoing initiative to share knowledge on the Indian financial services sector, Motilal Oswal Investor Relations presents its article series – Fin Sight. In each issue, we discuss a topic impacting this sector. We draw upon the Group's learning, experience and current thinking to develop these insights. We look forward to your questions and feedback to help us provide you a better perspective of this sector…"

Sameer Kamath, Chief Financial Officer

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- Institutional Equities
- Investment Banking
- Asset Management
- Private Equity
- Wealth Management
- Principal Strategies

Business Updates:

- Motilal Oswal AMC launched MOSt Focused 25 Fund investing in up to 25 companies with long term sustainable competitive advantage and growth potential
- Following the 4th close of its 2nd growth capital PE fund – IBEF II, Motilal Oswal Private Equity has received total commitments of Rs 6.3 billion till date
- Motilal Oswal Private Equity appointed Sharad Mittal as Head - Real Estate business
- Motilal Oswal Insurance Brokers has received in-principal approval for insurance broking license from IRDA
- Motilal Oswal Asset Management conducted the 3rd MOSt Shares ETF Conclave in June 2013

Meet our Management:

Please email us at investorrelations@motilaloswal.com or sourajit.aiyer@motilaloswal.com ; or call **Sourajit Aiyer** on +91 22 3982 5510 if you want to schedule a meeting to discuss this sector, its long-term opportunity and the company's strategy

Algorithmic Trading and Direct Market Access

Algorithmic Trading (Algo) and Direct Market Access (DMA) have altered the integration relationship between clients and brokers, and are now a must-have for brokers to gain and retain clients. Origin of DMA globally can be traced to FIX (Financial Interface exchange) networks, with Fidelity and Salomon Smith being the first firms in 1994 to go live. FIX gained in popularity as it reduced chances of manual errors, order duplication etc. On the algo front, while variations of programme trading have existed in USA since 1980s-90s, aspects like electronic markets, ECNs (electronic communication networks), decimalization etc furthered the popularity of algo trading from early 2000s onwards. In India specifically, while algos started in 2005, it was after DMA was allowed that algos started gaining wider acceptance from 2008-09 onwards.

Given their recent uptick, ***the purpose of this note*** is to (a) demystify these concepts to some extent - how they work, why they picked up, etc, (b) benefit to clients, and (c) how this impacts the institutional broking segment (the segment where it is available currently in India).

How they work…

Direct Market Access:- ***What:*** DMA enables clients to get direct access automatically to the exchange's system without manual intervention by the broker. It is mainly used by institutional clients globally, though some countries have opened it for retail segment as well. In India, it is available only to institutional clients. At the broker's end, it works on the same system as other orders, except that the order type will change. ***Variants:*** One-touch DMA and Zero-touch DMA. Under one-touch DMA, the broker has a dedicated person at it's end to accept or reject the order, before sending the order 'as it is' for execution at the exchange. This helps checking the order as per risk management guidelines (RMS). In case of discrepancies, RMS can reject the order, or broker can send a feedback to the client. The broker cannot modify the order, he can just accept or reject it – i.e. give authorization. Any modification can be done only at client's end. Zero-touch DMA bypasses the broker altogether, and there is no control of the broker, per se. Zero-touch DMA trades also undergoes RMS checks, which are pre-defined and automated in the system. The broker will get to know such orders only from end-of-day reports, or if the client calls the RMS desk in case of problems or notifications received. ***Why:*** a) Lowers the transaction costs (cost has been in focus of most buy-sides post-2008 given volatile earnings from investment returns). b) helps maintain order confidentiality (broker cannot see order details during the day under zero-touch, while he is not supposed to reveal any info in one-touch), c) reduces errors due to omission and commission etc, d) helps extract best price for the trade, esp zero-touch, e) ability to integrate back-office operations into the system led to increased usage. ***RMS:*** Checks for buy/sell limits (on value/no. of shares basis), order type, tolerance limits, compliance with max holding % norms etc. ***Market share:*** DMA has gained significant market share globally recent years. In India, they comprise approx 20% of volumes currently. This share had gone up to approx 30% at it's peak, indicating the disproportionate incremental growth this segment can see as overall volume levels pick up. ***Documentation:*** Clients using DMA services need to complete specific agreements with the broker. SEBI is seeking certain modifications to enable simpler agreement documents. Investment managers acting on behalf of clients can use DMA as long as they undergo KYC, get the broker's authorization and furnish `client-manager' agreements.

In India, one-touch DMA is more preferred due to vulnerability of technical glitches, risk of fat fingers, etc. Also, clients often want a verbal confirmation from the broker before final execution, which is doable under one-touch DMA

Algorithmic Trading:- ***What:*** Algos is a type of automated-electronic trading. It is a quantitative-based computer programme built by subject experts, into which the trading strategy is codified. The programme analyzes metrics like quotes, volume, timing, liquidity opportunities and turns this into automated trading decision, often slicing a large order into several smaller pieces. Algos observe market data based on parameters set in the programme, and sends back trading instructions within fraction of a second, automatically generating the timing and size of orders. While algos executed via DMA earn lower yield for brokers in line with DMA, algos via manual orders earn yields comparable to normal trades. ***How:*** Algos can be executed via both DMA or manual order. Algos run on FIX connectivity placed between the client and broker - be it proprietary or of third-party vendors. Every new algo has to be approved by the exchange, and it is thereafter uploaded in the client's OMS via FIX network where the client can then view it and choose to execute. An algo sent to the client by a particular broker can be executed only on the specific FIX mapped to that broker, so the broker gets the business for his algo. Algos developed by the buy-side can be executed via any broker. While the same FIX connectivity can connect to different clients, no client information gets shared - ensuring confidentiality. ***Why:*** a) Processes more, at faster speed, b) Cheaper (if done via DMA), c) Allows buy-side to take control of their trading process, d) Disguises orders by slicing it into smaller pieces. ***RMS:*** For algos running through DMA, RMS checks are both at the basket level and individual order level. ***Market structure:*** Both sell-side and the buy-side develop algos in India currently. Majority of the development is from the sell-side, for whom this is now an essential product in a competitive market. While this is a product for the sell-side to sell to as many clients as possible, they may customize the parameters for specific large clients in order to make it more relevant and gain market share. In terms of buy or build, most foreign brokers have experienced these evolutions in the developed markets and already have in-house development experience. Most domestic brokers are largely utilizing third-party vendors as of now, though some are looking to build in-house capabilities. ***Types:*** Algos are based on 'parent parameter' & 'child parameter'. Parent parameters are based on a basic framework, and are more popular in India currently. Complex strategies (variants of child parameter) are yet to pick up as the market here is still evolving. Popular algos include VWAP (value traded is % of total volume traded in a period), TWAP (match the average price over a specified period with a desired quantity), Percent of volume (constant % participation of the daily volume in the market), Liquidity Seeker (esp for illiquid securities), Display Size (displays a certain volume of shares which will be replaced by another set once the earlier set gets traded, like Iceberg strategy).

Simply put, every trade is triggered by a decision. Algo programmes help to automate this very decision

Sales Traders now actively market algos to clients, esp during discussions for manual orders. Role of the Sales Trader is critical for higher algo-based business

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Benefits to clients

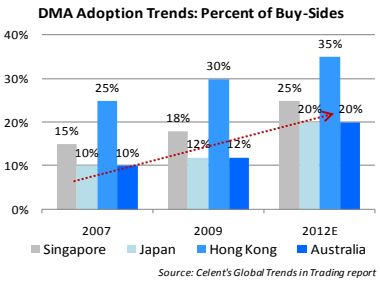
Reduction in latency	Lowers transaction costs	Captures best price and lowering of impact
Disguises orders by slicing it into small pieces	Reduces risk of manual errors	Faster execution
Reduces the time to react to market events	Allows clients to take more control of trades	Identify opportunities for all market trends

Challenges/Opportunities for the Institutional Broking business…

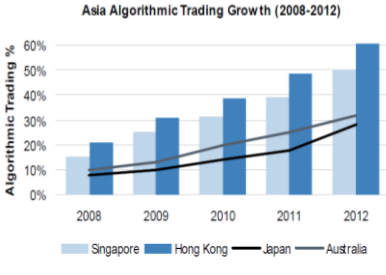
- **A Must-Have:** These technologies are here to stay. Brokers will need to adapt to meet these market evolutions. Those who cannot adapt fast may lose market share in this competitive market. Nevertheless, it might also give the adaptable firms an opportunity to create a USP
- **USP within USP:** With brokers fast matching peers in offering these segments, providing these services may not remain a USP by itself much longer. Infra and documentation requirements are not a major challenge. As a result, brokers may have to drill further and look to create a further unique positioning. Advising proactively on which algo to use in which situation as a value-add might give an opportunity to create a new USP, since every buy-side may not always have the tools to be able to evaluate which is the optimal algo for which situation/trend. Developing innovative algos using clients' trading patterns/specific parameter requirements might help capture orders from early-users before peers catch up. There might be demand for algos that respond to risk conditions on real-time basis. Ability to meet evolving demands of clients may help gain market share for those periods in this 'Race for Innovation'. However, while algo opportunities might exist for various market trends, it does require a high level of skill and expertise to correctly advise and develop them
- **Skill requirements:** Hiring decisions of brokerages may see a gradual shift, with rising demand for talent with domain knowledge and quantitative/programming skills, in place of the traditional equity salespeople/traders. In terms of direct impact on brokers, it will be more on brokerages who are actively seeking to build their in-house capabilities, as compared to brokers who use outsourced services more often
- **Build or Buy:** Demand for outsourced software services might be expected to continue as achieving in-house expertise in line with global standards is still some time away. While brokers can get customized products made from outsourced vendors using one-to-one agreements, making continuous changes in products as per ever-evolving client demands/market conditions might be more cost-effective if eventually developed in-house. Developing in-house may also help maintain secrecy on proprietary product methodologies, etc. Whereas in outsourced services, the vendor might use that method for developing their own stable of products once the contract period ends (if there is a limited contract time-period). Nevertheless, in either case of build or buy, technology costs will come in focus
- **Additional costs:** While incremental tech outlays might be offset by lower incremental sales/sales trading costs, the extent of this would depend on case to case. Apart from the initial outlay, the need for continuous innovations in algos means tech costs will be recurring. Globally, tech costs are about 1/3rd of total costs. Indian brokers would need to manage their opex such that incremental impact of tech costs is minimal. Nevertheless, it can be a cost-effective option for low-urgency/low-maintenance orders and can also free up the Sales Trader's bandwith to work on larger, trickier orders. Also, automation can help in executing multiple parallel processes that might be a cost advantage
- **Reduction in yields:** Yields earned under DMA are lower due to lower human intervention, and these may not increase anytime soon. Hence, the increased emphasis on cost-control and possible unbundling of research and other specialized services. These processes do help in reducing chances of human errors. But they may not always be 100% fool-proof. For ex: in case the trader enters a wrong order type (buy instead of sell), the system may still execute as long as it's compliant per RMS. Brokers might also need to revisit target client segments in terms of firms' positioning, for ex: target active funds who seek advice for selling relevant algo products via manual orders, etc
- **Challenges in customization processes:** While customized products may help gain market share, the ability to make a relevant product for a client might depend on the extent of opinion/analysis shared between the buy-side and sell-side, since such past discussions can give relevant clues. However, buy-sides might be a bit wary of disclosing too much information about their trading strategies for fear of it being misused to make a saleable product for other clients, bringing the emphasis on one-on-one agreements and information security measures for such products for the client's comfort. Developing new algos might need some collaboration with clients for initial testing, since the feedback received would help meet the client's end-objectives better. Also, any change to an algo involves NSE scrutiny, just as sanctioning of any new algo product does. Nevertheless, ability to deliver relevant products which show results would help increase brand-recall for those firms
- **Regulations in India are quite well-established:** These include strong pre-trade risk controls, collateral checks, control on number of orders submitted per second, exchange approvals for algorithms, etc. Mandatory systems audit every 6 months for surveillance and monitoring needs might also provide a comfort factor to clients in terms of choosing their sell-sides in an otherwise crowded broker market
- **Multi-asset algos/multi-exchange algos:** With DMA/algos possibly impacting equity arbitrage spreads, firms might start exploring possibilities in commodity algos. NSE does not allow multi-exchange algos so cross-exchange arbitrage is not possible. However globally, the use of algos in multiple assets seems set to increase, especially in the forex segment

Going forward…

1. **Get on the bandwagon:**
Celent's estimates show an increasing number of buy-sides in Asian peers adopting DMA. Sell-sides need to adopt these services fast to maintain relevance of their intermediation business to the buy-side, and maintain market share as compared to peers. Rapid growth of algo trading as a percent of volumes in Asian peers shows the growing importance of this segment in recent years and that firms cannot afford to ignore this segment



Source: Celent's Global Trends in Trading report



2. **Is India prepared to handle the next level of algo/DMA activity?** a) India has been putting relevant regulations in place like risk and collateral controls, monitoring measures etc to prevent problems, b) Co-location facilities has been available from both the main equity exchanges, c) Smart order routing between these exchanges has also been operational since some time, d) Availability of educated manpower in fields of technology/quants to build the next generation of algorithms and technology requirements, e) Has the ability to handle larger number of smaller sized trades as the average trade size in India is anyway smaller than most developed markets (a feature seen globally post-algo/DMA adoption was the increasing fragmentation in terms of average size of trade, i.e. a need to handle a higher number of trades per day)

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3. **Brokers need to adapt fast to meet evolving market trends, however it may offer opportunities to gain market share and create an USP in a crowded market:** In a competitive industry with clients demanding results and speed of execution, brokers do not have much choice except to meet these evolving trends. Algos and DMA are now a must-have on every brokers' service offerings and a basic service that clients want. Tech costs are now an incremental cost item and these will be recurring in nature. Hiring patterns will see a change towards those with quantitative/programming skills and domain knowledge, especially as brokers move towards in-house capability development. Incremental costs have to be aligned with cost-control measures in a climate of volatile earnings, especially as yield levels are already lower under the DMA segment. However, this environment can also give opportunities to tap market share ahead of peers. DMA can handle low-urgency/low-maintenance orders at a lower transaction cost which benefits the client, while it also frees up the Sales Traders' time for concentrating on larger, trickier orders as that is where his expertise is best utilized. Algo development provides an opportunity for sell-side firms to develop relevant products as per changing market situations to pitch to clients and thus develop a unique positioning. Pre-packaged algos are not enough, instead firms who can introduce innovative algorithms quickly, while keeping its costs in line, may eventually outpace peers in terms of market share and profitability

DMA and algos usage in India so far has been seen across almost all types of client-funds. While it is in both cash & F&O volumes, a comparatively larger portion of F&O trades occurs via these routes

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