# The 2017 APAC Algorithmic Trading Survey

# Asian algos: Catching up and taking over

## This year could mark the shift when Asia goes from being viewed as a developing market for electronic trading to being a leader.

As the importance of Asia to the global economy has grown, its financial markets have inevitably become more sophisticated and this is a trend which our Asian Algorithmic Trading Survey has tracked for the past six years.

During that time this market has moved on from being a satellite of the big financial centres in North America and Europe, with providers and products which were all imports from the West. Now Asia clearly has its own distinct algo environment, reflecting its own market structure and the diversity of the region.

And with both the US and Europe suffering from a decade of economic and political turmoil, it is perhaps right for Asia to chart its own path and many expect that it could become the most important economic region in the world well before this century is over.

With that in mind, Fig 1 demonstrates the significant developments taking place in this market. Average scores are, for the most part, up and some areas in particular have seen a major jump in scores.

The two areas with the biggest score growth were speed and cost, which increased to 5.63 and 5.58 respectively. This may reflect the increasing commodification of algorithms, where low cost and high speed have come to be expected as a standard offering for all brokers. High scores seen on anonymity, averaging 5.68, suggest a growing sophistication and understanding of historic client needs, and anonymity has long been one of the major reasons for using algorithms over sales traders. However, as we'll see on the next chart, this may no longer be such a crucial concern for the buy-side, as cost and regulatory pressures have

**Fig 1: AVERAGE SURVEY SCORE FINAL**

| Year | Trader Produc-tivity | Reduced Market Impact | Execution Consist-ency | Cost | Speed | Anonym-ity | Price Improve-ment | Customi-sation | Ease of Use | Internal Crossing | Execution Consult-ing | Client Sup-port |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 2012 | 5.31 | 5.18 | 5.21 | 5.29 | 5.23 | 5.34 | 5.04 | 4.96 | 5.29 | 4.78 | 4.91 | n/a |
| 2013 | 5.26 | 5.08 | 5.10 | 5.22 | 5.11 | 5.18 | 5.06 | 4.85 | 5.34 | 4.89 | 5.05 | 5.03 |
| 2014 | 5.61 | 5.51 | 5.53 | 5.56 | 5.64 | 5.58 | 5.36 | 5.29 | 5.69 | 5.41 | 5.60 | 5.72 |
| 2015 | 5.26 | 5.22 | 5.26 | 5.18 | 5.26 | 5.37 | 4.99 | 5.23 | 5.26 | 4.97 | 5.25 | 5.41 |
| 2016 | 5.60 | 5.40 | 5.48 | 5.15 | 5.19 | 5.62 | 5.41 | 5.17 | 5.50 | 5.05 | 5.70 | 5.57 |
| 2017 | 5.64 | 5.56 | 5.57 | 5.58 | 5.63 | 5.68 | 5.40 | 5.13 | 5.61 | 5.25 | 5.58 | 5.65 |

**Fig 2: IMPORTANCE**

| Feature | % | % | % | % | % | % |
|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Price Improvement | 9.85 | 10.48 | 8.76 | 9.23 | 8.53 | 8.50 |
| Consistency of Execution | 10.50 | 8.75 | 10.05 | 8.86 | 11.37 | 14.29 |
| Customisation | 6.08 | 7.40 | 6.17 | 5.78 | 6.16 | 5.44 |
| Ease-of-Use | 14.41 | 11.22 | 11.20 | 11.93 | 11.78 | 13.61 |
| Anonymity | 11.39 | 11.59 | 10.88 | 11.44 | 8.76 | 10.20 |
| Higher Speed Lower Latency | 7.50 | 5.86 | 4.49 | 7.50 | 5.82 | 6.32 |
| Increase Trader Productivity | 10.23 | 12.70 | 10.63 | 10.82 | 10.55 | 10.78 |
| Internal Crossing | 8.72 | 12.27 | 8.15 | 5.54 | 7.01 | 6.58 |
| Lower Commission Rates/Cost | 9.13 | 8.32 | 8.55 | 8.61 | 8.48 | 6.12 |
| Reduced Market Impact | 10.53 | 10.67 | 11.45 | 8.73 | 11.78 | 10.97 |
| Execution Consulting | 1.66 | 0.74 | 3.49 | 5.78 | 3.59 | 4.08 |
| Client Support | N/A | N/A | 6.47 | 5.78 | 6.16 | 6.12 |

**Fig 3: AVERAGE NUMBER OF PROVIDERS**

| Assets Under Management | Average Providers | Average Providers | Average Providers | Average Providers | Average Providers | Average Providers |
|---|---|---|---|---|---|---|
| ($ billion) | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Not Answered | 1.97 | 2.07 | 2.03 | 2.83 | 1.93 | 3.03 |
| Up to 0.25 | 2.25 | 1.75 | 1.87 | 3.02 | 2.73 | 1.83 |
| 0.25 - 0.50 | 2.50 | 3.33 | 3.33 | 1.45 | 2.33 | 2.61 |
| 0.50 - 1.00 | 3.82 | 4.25 | 2.71 | 1.67 | 2.01 | 2.82 |
| 1.00 - 10.0 | 3.87 | 5.33 | 3.83 | 3.42 | 3.93 | 3.31 |
| 10.0 - 50.0 | 4.41 | 5.11 | 4.16 | 4.72 | 3.40 | 3.38 |
| Greater than 50.0 | 5.76 | 5.41 | 5.34 | 5.01 | 3.67 | 3.81 |

increased and a high level of anonymity has come to be seen as routine expectation of any trading algorithm.

Execution consulting was the highest scoring area last year at 5.70, but this fell back this year to a still respectable 5.58, while client support increased from 5.57 to 5.65 over the same period. Both these areas have been of crucial concern in recent years due to the aforementioned commodification of algos, which

means providing high level service and in-depth consulting are more important than ever before.

That Asian providers seem to already be providing a high-quality execution consulting service bodes well for the future, though they have set themselves a high bar. Similarly, client support is set to become more important in the future as buy-siders become much more selective about their algo providers, again driven by

**Fig 4: PROVIDER COUNT**

| Provider Count | % | % | % | % | % | % |
|---|---|---|---|---|---|---|
| | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** |
| **1** | 34.15 | 23.19 | 23.93 | 24.39 | 33.01 | 20.75 |
| **2** | 14.63 | 10.14 | 22.22 | 19.51 | 15.95 | 16.98 |
| **3** | 13.41 | 17.39 | 11.15 | 17.07 | 9.97 | 18.87 |
| **4** | 12.20 | 11.59 | 5.98 | 14.63 | 18.04 | 13.21 |
| **5+** | 25.61 | 37.68 | 36.75 | 24.39 | 23.02 | 30.19 |

a desire to get best execution, but also the increasing trend towards unbundling commission and research that was sparked by regulation in Europe but which appears to be spreading across the world. Providing excellent support to clients should inevitably be at the top of any sell-side priority list.

Moving on to Fig 2, which examines the priorities for the buy-side when using a trading algorithm, we can see that execution consistency is seen as the most vital component. This comes as little surprise as getting consistent execution is surely the reason to use an algorithm over a sales trader anyway. However, this has notably increased in importance for the buy-side with 14.29% of respondents saying this was their priority when using algorithms, up from 11.37% in 2016. As alluded to above, this may be due to a greater focus on execution quality by both regulators and end investors and being able to achieve consistent results is crucial to benchmark and judge the quality of each individual algorithm and each provider.

Mirroring our global algorithmic trading survey, ease-of-use also continues to be a major factor for algo users with 13.61% saying this was a reason for using algorithms, and the reasons are likely to be much the same. The level of technology available to buy-siders has become far more sophisticated in recent years as has borrowing user interface ideas from the consumer software sector. Clunky, ugly and complex interfaces seen in older proprietary systems are increasingly unattractive and inefficient for buy-side firms who expect a much sleeker experience.

One word of warning for the Asian algo community however is that both in 2017 and historically, the areas where they scored highest, customer support and execution consulting, are fairly low on the priority list for asset managers. Execution consulting in particular

was seen as a priority by just 4.08% of respondents, while 6.12% mentioned customer support. It will be interesting to see if this changes as the focus on best execution increases or whether the high scores in this area are sufficient to mean that buy-side firms do not see this as a major concern when selecting provider as they already believe performance is good.

When looking at the average number of providers the buy-side are using seen in Fig 3, the recent trend of declining broker lists among larger firms seem to have reached a resting point, with the largest asset managers (those with $50 billion or more of assets under management) levelling out at an average of 3.8 after having fallen for several years. This mirrors a similar trend seen in the rest of the world.

Not surprisingly we see the number of brokers used increasing alongside AUM. This has become a more pronounced trend in recent years and now shows a much heavier correlation than in the past. Given there have been reports this year that brokers are streamlining their client lists, focusing more on the biggest asset managers who are more profitable at a time when bank trading desks are squeezed. We expect this will continue post-MiFID II as more brokers look to maximise profitability and make their broking business sustainable.

Fig 4 shows a slightly different angle on this issue by looking at the percentage of respondents using different numbers of brokers. Notably the top and bottom ends are the largest here, with 20.75% of respondents using just one provider and over 30% using five or more. Those firms using just a single broker are of concern as such behaviour seems to fly in the face of the concept of best execution and could become a very serious problem if regulators begin to take a tougher line on this issue. It is hard to argue you are getting the

best execution possible when your brokerage window on the markets is so narrow.

Looking at Fig 5, which shows the extent to which asset managers are using algos to execute their flow, shows the breaking of a trend which has seen more and more flow heading to algos. The proportion of firms executing 40% or more of their flow by algo has been growing steadily for years but has dramatically fallen back this year to 42.57%, lower than it was even back in 2014. Reasons for this trend are unclear, but it has been speculated that firms may be getting a better handle on when it is appropriate to use algos and when to instead use a sales trader. Also, a drive for

more block trades could be pushing asset managers away from algos and towards negotiated trade options.

Lastly, Fig 6 shows the types of algos firms in Asia are using. VWAP has long been a popular algo for firms across the world and in Asia and it still is with 69.8% of firms using this algo. TWAP has also seen a boost in its popularity, going from less than 20% in 2016 to over 49% this year. Participation algos have also been among the most popular in Asia and this year they have proved the most popular algo, used by close to 68% of firms.

**Fig 5: PROPORTION OF TRADING USING ALGOS**

| Proportion of Trades by Value | % of Respondents | % of Respondents | % of Respondents | % of Respondents | % of Respondents |
|---|---|---|---|---|---|
| | **2013** | **2014** | **2015** | **2016** | **2017** |
| **Not Answered** | 3.04 | 3.32 | 3.62 | 3.43 | 7.55 |
| **0-5%** | 9.12 | 7.85 | 7.24 | 6.23 | 12.14 |
| **5-10%** | 9.46 | 10.09 | 8.69 | 11.22 | 5.66 |
| **10-20%** | 18.58 | 14.57 | 4.34 | 7.79 | 7.55 |
| **20-30%** | 14.53 | 10.99 | 7.97 | 12.46 | 15.09 |
| **30-40%** | 15.54 | 10.13 | 21.01 | 9.66 | 9.43 |
| **40% and over** | 29.73 | 43.05 | 47.10 | 49.22 | 42.57 |

**Fig 6: TYPE OF ALGO USED**

| Algo Type | % of Respondents | % of Respondents | % of Respondents | % of Respondents | % of Respondents | % of Respondents |
|---|---|---|---|---|---|---|
| | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** |
| **% Volume (Participation)** | 67.37 | 64.53 | 56.71 | 57.24 | 58.26 | 67.86 |
| **Dark Liquidity Seeking** | 49.10 | 55.07 | 60.30 | 26.81 | 56.39 | 45.38 |
| **Implementation Shortfall (Basket)** | 10.11 | 17.57 | 16.39 | 7.24 | 16.51 | 27.62 |
| **Implementation Shortfall (Single Stock)** | 44.54 | 50.68 | 45.73 | 38.40 | 45.79 | 37.73 |
| **Other** | 9.62 | 9.46 | 7.19 | 13.04 | 8.41 | 9.42 |
| **TWAP** | 30.67 | 26.01 | 12.84 | 24.63 | 18.06 | 49.05 |
| **VWAP** | 70.47 | 74.32 | 57.20 | 57.25 | 60.74 | 69.80 |