

Aite Matrix of Multi-Asset Class TCA Providers: Diamonds in the Rough

This excerpt provided compliments of this Best-in-Class vendor:



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INTRODUCTION

A plethora of macro forces has pushed the adoption of TCA. Regulatory pressure, including the Markets in Financial Instruments Directive (MiFID II), and the need to quantify trading cost to achieve best execution have motivated the high adoption rates of TCA solutions by both buy-side and sell-side firms over the past few years. Most recently, the COVID-19 pandemic has accelerated the speed of electronification across all asset classes in an unprecedented trading environment in March 2020 characterized by high transaction volume and price volatility—combined forces that have further driven demand for more TCA usage.

Meanwhile, the development and use of advanced technology for trading and analytics have also had an impact on TCA, exacerbated by 2020 market conditions. Adoption of execution algos for equity and FX has been ongoing for some time but increased over the peak of market stress between March 2020 and April 2020. During that period, trade automation also experienced an uptick in usage by buy-side traders. With everyone working from home, TCA tools assure traders that trades are executed at a fair price across different asset classes as meaningful and actionable insights are extracted from post-trade TCA reports and pre-trade analytics.

This Impact Report explores some of the key trends within the TCA market and discusses how technology is evolving to address new market needs and challenges. The landscape of independent TCA vendors with multi-asset-class capabilities has evolved greatly over the past five years—a development traders and other market participants should pay close attention to as the COVID-19 pandemic reshapes market structure and workflows.

METHODOLOGY

Aite Group conducted interviews with seven third-party providers of TCA solutions based in the U.S. and U.K., and their global clients between June 2020 and October 2020 to better understand challenges in cost analytics and recent technological developments and practices in the space impacting investors.

THE PLAYERS

This section presents comparative data and profiles for the individual vendors that participated in the research. This is by no means an exhaustive list of vendors, and firms looking to undergo a vendor selection process should conduct initial due diligence prior to assembling a list of vendors appropriate for their own unique needs. Table A presents basic vendor information for the participating solutions.

Table A: Evaluated Vendors

Firm	Headquarters	Years in business	Target market	Number of employees	Number of clients
Abel Noser Solutions	New York	45	Buy-side, sell-side, asset owners, brokers, and fixed income managers of all sizes	60	Over 500
BestX Ltd (State Street)	London	229 (4.5 for BestX)	Asset managers, hedge funds, asset owners, banks, and liquidity providers	39,000	N/A
Bloomberg LP	New York	39	Buy-side and sell-side	20,000	325,000 users
GTA Babelfish (GTAB)	Rutherford, New Jersey	15	Buy-side, sell-side, and asset owner clients ranging in assets under management (AUM) from US\$250 million to over US\$500 billion	13	199
IHS Markit	London	17	Investment managers, pension plans, exchange-traded fund providers, risk and compliance officers, investment consultants, transition managers, algorithmic trading firms, and investment banks	16,000	Over 50,000
Institutional Shareholder Services (ISS) LiquidMetrix	London	23	Buy-side and sell-side firms	2,000	Over 4,000
Virtu Financial	New York	33	All client sizes—the typical customer is a global or regional asset manager	1,049	N/A

Source: Vendors

Note: These are companywide figures.

THE MARKET

The following market trends are shaping the present and future of the TCA market (Table B).

Table B: The Market

Market trends	Market implications
TCA vendors continue expanding capabilities supporting multi-asset classes.	As one of the top unique selling points for TCA vendors, having the capability to support true global multi-asset classes on a single application is driving the most investment and effort. The expansion is particularly focused on fixed income TCA and other OTC products as more pricing and trade data has become available.
The need for front-end dashboards and the ability to handle large and complex trading operations grows.	Major features required by users include robust front-end performance, professional services supplemented with a client services support team, and data specialists. Users also have high demand for TCA solutions designed for large, complex fund structures, and workflows of asset managers and hedge funds.
Peer data analytics become a differentiator.	Peer analysis remains one of the top unique selling points of third- party TCA solutions providers. More TCA vendors are offering peer group analysis; however, users prefer a high-quality and sizable peer universe that represents a large community.
Pre-trade TCA tools have gained momentum, although post-trade analytics remain most used.	Pre-trade TCA analytics has been hyped up. In practice, this function is still in the early days. The design is to allow post-trade analysis to feed into pre-trade analytics. Outside equity, in FX and fixed income, many buy-side users aren't using pre-trade tools. TCA vendors and order and execution management system (OEMS) providers are trying to differentiate their platform by having pre-trade and other analytics.
Venue analytics and algo analysis become more important under market stress.	Algo usage continues to increase—a trend that's accelerated due to the COVID-19 pandemic. With over 180 variances of algos from more than 20 providers, TCA solutions offer the tools to assess algo performance to assist traders in the process of choosing the right algos for changing market conditions.
Solution interoperability is also an important differentiator.	A lot of modeling in TCA solutions is on a stand-alone basis and is not linked directly to an OEMS or other internal trading systems. Users prefer deeper integration and interoperability for easy access to data and analytics. More streamlined workflows are typically associated with a lower total cost of ownership.
The long-term goal for TCA is to go beyond regulatory reporting and the compliance checkbox.	The long-term goal for TCA is to cut out all regulatory interference so users can appreciate the true value of TCA if used in a sensible way. For buy-side users, it's getting tough to win over investor clients without a robust TCA process.

Source: Aite Group

KEY STATISTICS

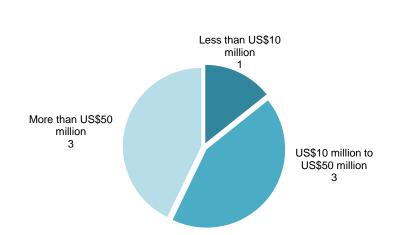
This section provides information and analysis on key market statistics as well as projected IT spending related to the vendor market.

ANNUAL REVENUE ESTIMATES ANALYSIS

Most vendors in the TCA space included in the analysis had annual revenue estimates over US\$10 million (Figure 1). Larger vendors expanding to support multi-asset classes are gaining more clients and revenue. Vendors with less than US\$10 million tend to be smaller vendors specializing in one asset class, focused on a specific type of buy-side institution or region.

Annual Revenue Estimates Breakdown (N=7 vendors)

Figure 1: Annual Revenue Estimates Breakdown



Source: Vendors

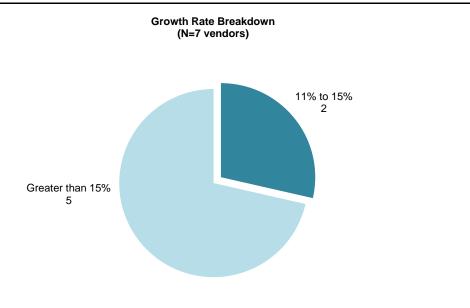
PROFITABILITY ANALYSIS

TCA vendors in this research have all reported positive profits. This is a result of larger firms offering multi-asset analytics supporting a large pool of clients and smaller vendors finding the right niche in which demand continues to drive growth opportunities. Regulatory needs and market uncertainty with high trading volume and volatility in recent months have driven more buy-side usage of TCA products.

GROWTH RATE ANALYSIS

Figure 2 provides a measure for the revenue growth experienced by the profiled vendors. The majority of firms reported a growth rate greater than 15% in 2019. Meanwhile, two firms have experienced growth between 11% and 15%, and no vendor reported a growth rate below 10% or no growth. This suggests rapid growth in this space is being experienced by both large and small vendors. The TCA space demonstrates maturity in equity, but in FX and fixed income, much improvement and growth are expected in the coming years.

Figure 2: Growth Rate Breakdown



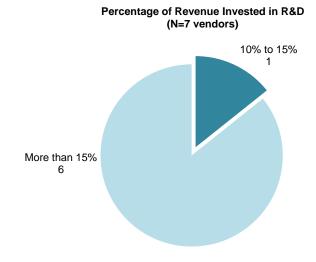
Source: Vendors

Note: No vendor reported a growth rate below 10% or negative to no growth.

RESEARCH AND DEVELOPMENT (R&D) INVESTMENT ANALYSIS

Figure 3 shows that parts of multi-asset class TCA are a less-mature market, as all but one vendor invests more than 15% of revenue in R&D. No vendor reports below 10%—a fact that highlights the commitment by all vendors for fast expansion to keep pace with the demand for front-end dashboards, greater workflow tools, and broader asset class coverage. Moreover, highly innovative vendors are also likely developing ML-based tools to support greater automation.

Figure 3: Percentage of Revenue Invested in R&D



Source: Vendors

Note: No vendor reported a percentage of revenue invested in R&D below 10%.

CLIENT BREAKDOWN BY TYPE

TCA vendors Aite Group analysts spoke with mention most often that traditional asset managers comprise the largest percentage of their client base—typically more than 50% or even 60%. Other buy-side firms, including hedge funds, pensions, and insurers, make up a smaller portion of the client base compared to sell-side banks and dealers.

CLIENT BREAKDOWN BY REGION

The majority of TCA users on both the buy-side and the sell-side are located in the U.S. and Europe. For several vendors, this is an even split. Canada and the Asia-Pacific typically make up a smaller portion of the client book. Some vendors suggest that more penetration into emerging markets could be a possible avenue for growth; however, with the expansion of capabilities, growth is most likely to continue to come from the major financial centers.

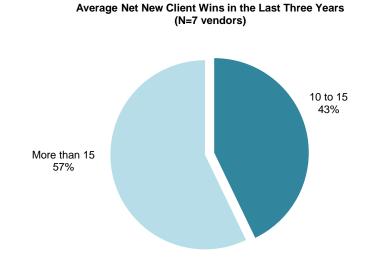
ANNUAL CLIENT RETENTION RATE

Client retention is a good indicator of client satisfaction and stickiness. All of the vendors report a retention rate of more than 90%. In end-user interviews, more than half report that they don't feel the need to switch vendors. They only review alternative solutions after at least three years of usage of current vendors. Fewer clients have the procedures to reevaluate different vendors every two or three years. Interviewees suggest the reasons for switching vendors are usually related to a lack of responsiveness to clients' feedback.

AVERAGE NEW CLIENT WINS

Average new client wins depict the growth rate of the vendors. Figure 4 shows that all vendors report more than an average of 10 new client wins in a year. The TCA industry has experienced fast growth in the past five years due to regulatory push and the increasing demand to quantify trading costs and achieve best execution across buy-side and sell-side firms.

Figure 4: Average New Client Wins in Last Three Years



Source: Vendors

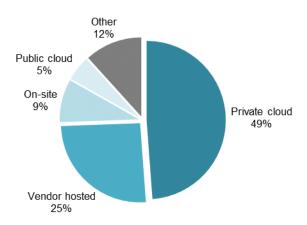
Note: No vendor reported fewer than 10 average net new clients.

DEPLOYMENT OPTIONS ANALYSIS

Figure 5 demonstrates that private-cloud deployment is the most common type of deployment model, impacting 49% of end users. Vendor-hosted is the next most popular deployment option (25%). A small portion of clients use the public cloud (5%), and Amazon Web Services and Microsoft Azure are the most oft-mentioned cloud providers. Cloud migration is an inevitable trend for fintech firms to scale and stay agile. TCA vendors' use of the private cloud will greatly benefit further expansion into multi-asset class analytics (due to the siloed nature of data storage) while preserving privacy and security.

Figure 5: Deployment Options

Client Deployment Options (n=2,868 identified clients)



Source: Vendors

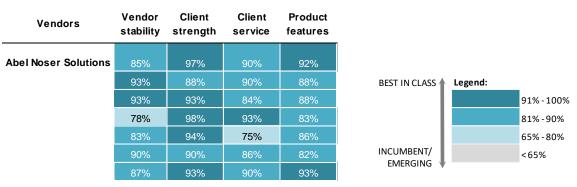
AITE MATRIX EVALUATION

This section breaks down the individual Aite Matrix components, drawing out the vendors that are strong in each area and how they are differentiated in the market.

THE AITE MATRIX COMPONENTS ANALYSIS

Figure 6 overviews how each vendor scored in the various areas of importance. Each vendor is rated, in part, based on its own data provided when responding to the request for information (RFI) distributed by Aite Group as well as on product demos and follow-up discussions as part of the Aite Matrix process. Ratings are also driven by the reference customers of the examined vendors to support a multidimensional rating.

Figure 6: Aite Matrix Components Analysis by Heat Map



Source: Vendors, Aite Group

VENDOR STABILITY

Vendors that are highly ranked in the category of vendor stability tend to be long-lived businesses with a larger office presence and global footprint, and are financially stable with annual revenue estimates of US\$50 million or higher, positive profitability, a high percentage of reoccurring revenue, substantial growth rates, and a significant portion of revenue invested in R&D. Additionally, their third-party risk management practices, such as written security and data privacy policies and procedures, are strong. Abel Noser also has strong financials and solid third-party risk management practices, but it is a smaller company with fewer employees, and its global footprint is not as extensive.

CLIENT STRENGTH

All vendors scored quite high in the client strength category, which ranks solutions providers according to the number of TCA clients, diversity of client base, client global footprint, and average client tenure and retention rates. All vendors have a variety of clients, such as hedge funds, asset managers, investment funds, pensions, insurers, broker-dealers, banks, and exchanges, spread out across the globe. The persistence of global regulations, such as the best-execution requirement in MiFID II and other fiduciary responsibilities, coupled with the drive to

gain more insights about the quality of execution, has increased the adoption of TCA solutions, particularly beyond equities, and has benefitted solutions providers.

CLIENT SERVICE

Client service can be the "make or break" of Aite Matrix vendor rankings. This is the one category most directly influenced by client feedback. In addition, vendors are judged by their client service offerings and pricing structure practices. This combination can often fly in the face of vendors achieving high client strength scores.

Solutions providers that scored well in this area, such as Abel Noser, typically offer dedicated salespeople, provide 24-hour support, and entertain client requests for customization. Additionally, clients appear to have some influence over the development of future offerings and enhancements, and are often part of that process, working closely with developers and other staff. Lastly, high marks were given to vendors because they kept their promises. In some cases, clients admitted this took longer than they expected, but they were typically pleased with higher degrees of accommodation. Vendors that properly manage client expectations are also held in high regard—particularly if an ask is too large or doesn't make sense.

PRODUCT FEATURES

Product features is an important category for vendors to demonstrate competitive differentiation. While some vendors may score higher than others, each has certain standout features. Often, the more niche a vendor is, the lower it scores in the product features category. This is because the subject of this study is dedicated to multi-asset-class TCA rather than asset-class-specific solutions.

Thus, a more specialized vendor carries a lower score because of the firm's focus on deep and robust statistics linking execution quality to individual fills and venues in the equity market. Clients are also able to gain insights into their individual strategies, such as cash versus liquidity-seeking strategies, dark pools, and volume weighted average price (VWAP) using a new, slick dashboard.

Abel Noser scored well in the product features category. The company covers a wide array of asset classes globally and has offered TCA solutions for years. The addition of peer analytics has been well-received by clients that enjoy the single application for all products. Abel Noser has made an impact with corporate clients in FX and fixed income. Last year, the company introduced Liquidity Threshold Analytics (LTA), a fund capacity analysis product that calculates the effect of fund growth on alpha and overall performance. Aimed at asset owners, consultants, and the investment management community, the tool allows clients to estimate how much performance declines as trade costs increase and as a firm's liquidity profile changes. Currently, Abel Noser offers a RESTful API to users and has plans to beef up its foray into advanced tech by including the use of ML techniques.

^{1. &}quot;Abel Noser Solutions Introduces Unique Capacity Analysis Tool," Abel Noser, March 9, 2020, accessed January 31, 2021, https://www.abelnoser.com/news.html.

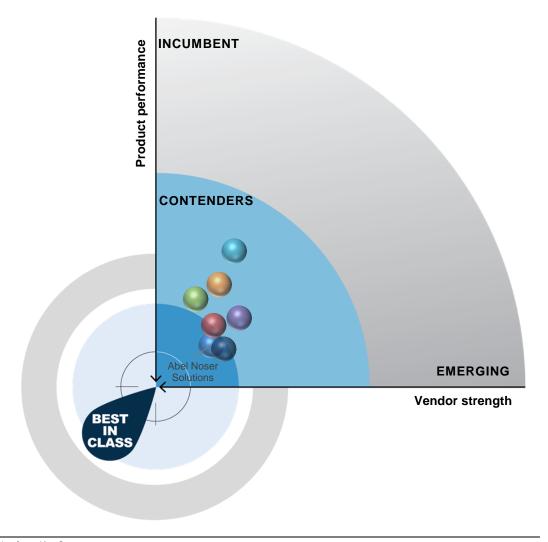
THE AITE MATRIX RECOGNITION

To recap, the final results of the Aite Matrix recognition are driven by three major factors:

- Vendor-provided information based on Aite Group's detailed Aite Matrix RFI document
- Participating vendors' client reference feedback or feedback sourced independently by Aite Group
- Analysis based on market knowledge and product demos provided by participating vendors

Figure 7 represents the final Aite Matrix evaluation, highlighting the leading vendors in the market.

Figure 7: Multi-Asset Class TCA Providers Aite Matrix



Source: Vendors, Aite Group

BEST IN CLASS: ABEL NOSER

Abel Noser has continued to find ways to evolve its technology by providing TCA solutions for a wide range of products while creating new analytics aimed at the changing dynamics of the company's client base. Abel Noser's outstanding client service has helped it win over new business in an evolving area of analytics.

BEST IN CLASS: ABEL NOSER

Abel Noser Holdings LLC is a New York-based provider of TCA services through its Abel Noser Solutions subsidiary. The company was formed in 1975 and currently offers TCA, trade surveillance, and regulatory reporting capabilities. Abel Noser's solutions span global assets, including the coverage of equities, FX, fixed income, commodities, OTC derivatives, and futures and options.

AITE GROUP'S TAKE

Abel Noser has long been an industry leader and an innovator driving the charge to reduce trading cost. The company's roots are grounded in the equities market, in which founders pioneered TCA tools several decades ago. Since then, Abel Noser has gone through a generational change in 2016, which saw a departure of the company's founders due to a management-led buyout and investment by Estancia Capital Partners. The transition strengthened the firm with capital for its core business as well as expansion in additional services such as analytics into other asset class solutions such as fixed income TCA. Additionally, in 2018, Abel Noser purchased Zeno Consulting Group (formerly Plexus Group), creating a dominant market share position in the asset owner TCA segment.

Abel Noser offers three TCA solutions: Trade Zoom for post-trade TCA, Trade Compass for pre-trade TCA analytics, and Trade Pulse, the company's real-time trading analysis tool. Abel Noser's TCA platform allows clients to recreate their workflow in order to assess inefficiencies based on frequency, asset class, and strategy. For instance, users can compare costs incurred at each stage of the trade life cycle with the ability to drill down to granular levels and data points such as timestamps, entities, market data, and cost results. Advanced functionality, such as peer analytics, is included in all three solutions to enhance cost analysis. Abel Noser has one of the largest global peer benchmark universes with trillions of U.S. dollars in fixed income, FX, equities, and futures.

While equity market TCA benefits from pre-trade and real-time analytics, which include estimates for gains and losses, anticipated market conditions, and other nuances, OTC markets still rely on post-trade TCA. Abel Noser has invested in its FX and, more recently, its fixed income TCA solutions, and it has incorporated a number of measurements across different security types within the asset classes. The company's multi-asset class TCA platform caters well to buy-side firms that want deep insights into their equity trading costs and workflows or are happy with a bevy of T+1 analytics across their portfolio. Recent investment in computing capacity has allowed Abel Noser to win market share in the broker-dealer space with timely reports that fit hand in glove with the reports the buy-side is comfortable with.

BASIC FIRM AND PRODUCT INFORMATION

• Headquarters: New York

Founded in: 1975

Number of employees: 60

Ownership: Privately owned

- Key financial information: Abel Noser is a profitable company that has between US\$20 million and US\$50 million in revenue, with between 50% to 75% of that figure in recurring revenue. The company invests more than 15% of revenue back into R&D.
- Key products and services: The company provides solutions services for both buyside and sell-side clients, including brokers, asset owners, exchanges, and investment consultants:
 - Trade Zoom: Abel Noser's multi-asset class post-trade analytics software covers fixed income, FX, equities, and futures.
 - **Trade Compass:** The company's pre-trade analysis software is designed to estimate the cost of trades prior to execution and is available for equities.
 - **Trade Pulse:** This is a real-time analytical solution that allows equity traders to follow their progress at the portfolio and order level.
 - **Compliance Plus:** This is a centralized web-based solution for compliance and regulatory reporting as well as trade surveillance.
 - **Liquidity Plus:** This is Abel Noser's solution for SEC Rule 22e-4 compliance and monitoring, **a**long with MiFID II and PRIIPs reporting.
- Target customer base: Investment managers, brokers, and asset owners
- Number of clients: Abel Noser has over 500 clients at the firm level.
- Average net new clients per year (or average client tenure): N/A
- Global footprint: The company has offices in New York, London, Metro DC, Atlanta, Los Angeles, and Boston
- Implementation options: Abel Noser Solutions are deployed on private clouds.
- **Pricing structure:** Pricing is relationship-based by product and asset class, and is bundled as needed. There are no per-user fees.

KEY FEATURES AND FUNCTIONALITY BASED ON PRODUCT DEMO

- Data portal for active analysis: Abel Noser has won business by providing a central
 portal for all products alongside its benchmarking breadth and methodology,
 software performance, and client services.
- Single destination for all data: Investors are keenly aware of high market data costs and often have to sort out the harmonization of trade data files; Abel Noser's platform includes a database of intraday dealer quotes to evaluate the client trade among other data sources via the platform.
- **High-speed performance:** Computing speed is one of the top trends influencing the trade analytics peer group; the platform is fast, as implementation uses the private cloud to deal with swaths of data and calculations.

• Charting capabilities: The TCA platform offers a variety of visualization capabilities.

TOP THREE STRATEGIC PRODUCT INITIATIVES OVER LAST THREE YEARS

- Enhanced fixed income: Comprehensive fixed income coverage coupled with nextday reporting
- Trade surveillance: Insider trading reports on news, spoofing, and layering reports
- Equity: Order handling and routing of regulatory requirements

TOP THREE STRATEGIC PRODUCT INITIATIVES IN THE NEXT 12 TO 18 MONTHS

- Enhanced equity derivative products: Equity option TCA capturing prices, quotes, strike prices, and expiration dates
- Regulatory reporting: Enhanced order handling reporting leveraging 606(a)(1), 606(b)(1), and 606(b)(3) routing data
- Trade surveillance reporting: Continued build-out of a dashboard of reports in fixed income and other asset classes

CLIENT FEEDBACK

Clients using the Abel Noser TCA platform are happy with the overall level of service and support provided by the vendor, citing a knowledgeable and engaged management team and staff. Client requests or concerns are often listened to, and product development changes are implemented in a transparent and logical manner. Good presentation and handholding were among key factors driving many clients to select Abel Noser over peers. Clients that didn't have an in-house cost analysis team to report to the board commented that Abel Noser did a good job of walking their firm through the report at a number of different altitudes depending on the audience.

Abel Noser's clients also pointed to the firm's methodology as a major selling point in the vendor selection process. One client mentioned the firm's approach was "right-sized" for the market and included practical features rather than relying on the marketing department to push AI and ML buzzwords without much substance underneath the hood. Another manager suggested that pricewise, the TCA solution was competitive and included more service for the same cost as some of its peers. For firms using an order management system (OMS), such as CRD, this client also liked the simple integration of the system and ease of providing trade files to the vendor for analysis.

Finally, another firm Aite Group spoke with believes that Abel Noser started its business from an overall true sense of best execution. The additional content the firm provides allowed this manager to make the most of the platform's peer data and dashboarding capabilities. While clients made many positive comments about Abel Noser, some users mentioned they would still like to see some enhancements. For instance, some clients would like to see additional custom reporting creation. Others mentioned they would like to see a more robust solution for FX TCA, including pre-trade analytics and more fixed income instrument and derivatives TCA.

Table C displays the vendor's strengths and challenges.

Table C: Key Strengths and Challenges—Abel Noser

Strengths	Challenges
Abel Noser has a strong reputation as a long-lived leader in equity TCA analytics, providing a good foundation of cost analytics linked to other asset classes.	While the company offers solutions across asset classes, many investors see it as an equity TCA software provider.
One of the key features of Abel Noser's service is the human component—the firm is among the best in terms of providing content and feedback to clients.	Some clients mentioned that they are able to bundle systems in order to achieve better pricing for their TCA solutions by using systems of larger firms.
Abel Noser peer analytics are highly regarded as a valuable TCA tool.	Reporting is an area in which clients would like to see more custom features.
The cost of the TCA platform is consistent with its peers, although clients suggest they get more service from Abel Noser for that price tag.	

Source: Aite Group

CONCLUSION

Buyers:

- Buy-side consumers of third-party TCA solutions should continue to ask their
 providers for more customization and support, as client needs, such as requests for
 more robust TCA metrics and reports, have risen. This trend will continue to
 influence more analytics that closely track firms' unique business models and
 strategies, such as peer analysis and the use of custom benchmarks.
- While post-trade analytics continues to be the most oft-used flavor of TCA for the
 buy-side and even some sell-side firms, the shift to more pre-trade analysis is
 happening. Firms that are not yet incorporating the post-trade to pre-trade feedback
 loop or the use of real-time information driven by AI/ML techniques will eventually
 become less competitive as these practices evolve.
- Shifting TCA practices beyond regulatory use seems old hat, yet many firms still find
 themselves stuck in this practice. It will become harder and harder for buy-side firms
 to win over clients without robust TCA practices—especially across less-liquid asset
 classes, such as fixed income and OTC derivatives. It is time to get the most out of
 these analytics.

ABOUT AITE GROUP

Aite Group is a global research and advisory firm delivering comprehensive, actionable advice on business, technology, and regulatory issues and their impact on the financial services industry. With expertise in banking, payments, insurance, wealth management, and the capital markets, we guide financial institutions, technology providers, and consulting firms worldwide. We partner with our clients, revealing their blind spots and delivering insights to make their businesses smarter and stronger. Visit us on the web and connect with us on Twitter and LinkedIn.

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