



Data Driven Investment Process Key to Achieving Alpha

**Data science and behavioral analytics can create more quantifiable,
data-driven outcomes.**



**NORTHERN
TRUST**

Asset management is a multi-asset class, global business characterized by constant change and evolving challenges. Traditional managers, especially active ones, are under pressure from passive investing, other long-only firms and substitute competitors such as private equity and hedge funds. As a result, asset managers are looking to implement strategies that enable growth and demonstrate their value.

In Q1 2023, Northern Trust partnered with Coalition Greenwich to survey 151 senior asset management professionals in North America, Europe and Asia-Pacific with assets under management ranging from \$250 million to over \$150 billion. Respondents included leaders from operations, trading, portfolio management, and other key lines of business. Questions focused on the challenges and opportunities within traditional, long-only asset management with an emphasis on how the design of an operating model can support strategic growth priorities. Given current performance pressures, respondents were asked about new avenues they are considering for achieving alpha. 47% of respondents answered that a more quantifiable/disciplined investment process was the key to achieving alpha.

Northern Trust's Investment Data Science (IDS) enables asset managers and asset allocators to optimize their investment process through quantifiable data to deliver enhanced outcomes. IDS harnesses the power of data science to turn information into insights. Through collaborations with Equity Data Science and Essentia Analytics, Northern Trust offers a curated suite of solutions that combines foundational data with both data science and behavioral analytics. The power of these tools enables institutions to enrich their investment process, delivering faster and smarter investment decisions.



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Delivering Behavioral Alpha for a Concentrated, Low Turnover Fund

Behavioral analytics offer managers a unique advantage by providing actionable data on their own decision-making skills and biases. Essentia Analytics uses machine learning to analyze highly granular investment activity and identify a portfolio manager's value-adding (and destroying) behavioral patterns, ultimately helping them unlock "behavioral alpha" – the excess performance that was previously lost to decision-making deficiencies.

Essentia's behavioral analysis, tailored nudges and expert coaching helped one concentrated, low turnover equity fund enhance its investment process, improve decision-making and unlock over four percent of incremental alpha.

This \$1 billion equity portfolio, within a \$50-plus billion investment on management firm, is highly concentrated (30 positions) and has low

turnover (annual turnover ratio averages less than five percent). Focused on continuous improvement, the portfolio managers saw Essentia as a perfect partner to establish a data-driven feedback loop to improve their process.

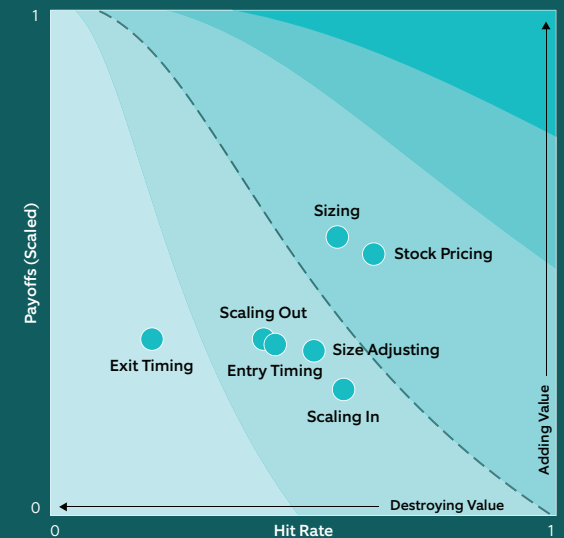
Essentia's mandate was to identify any specific strengths and weaknesses in their decision-making, and then to formulate an action plan to continuously improve.



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Challenges	Solutions	Results
<ul style="list-style-type: none"> Essentia's data analysis found that the largest holdings were disproportionately responsible for driving performance, and low-conviction ideas – in which less capital was usually invested – were consistently destroying value Essentia's Alpha Lifecycle analysis revealed poor exit timing ability – i.e., the managers were holding on to positions for too long and exiting (the few times they did) very late As a concentrated, low turnover fund, the portfolio initially had relatively few trade data points for drawing statistically significant conclusions about the managers' decision-making process 	<ul style="list-style-type: none"> Analyzed the managers' various decision-making skills (stock picking, sizing, entry and exit timing, scaling in and out, adding and trimming) to identify deficiencies and formulate plans to address them Coached the managers on optimizing capital allocation and avoiding the small, low-conviction positions that were producing a drag on portfolio returns Incorporated "Alpha Decay" and "Vulnerable Position" nudges to alert the managers when a position had passed its "peak alpha" point, encouraging them to re-examine the investment thesis and make a deliberate decision on how to act Compiled a richer data set by implementing Essentia's "Brain Dump" nudges — automated digital journal entries – that captured the managers' decisions <i>not</i> to trade 	<ul style="list-style-type: none"> Reduced the time it takes to exit a stock once the managers have decided to do so – from as long as 70 days to less than a week Unlocked roughly 6% of additional alpha at the overall portfolio level, 4% of which is attributable to the rotation out of smaller, low-conviction positions From the 400-bps improvement alone, achieved an annualized 733% ROI on the Essentia investment

Essentia's Behavioral Alpha Frontier uses Hit Rate (the frequency of value-accretive decisions) and Payoff (the magnitude of the value added or destroyed in each decision or decision type) to present a concise picture of how a fund manager performs in each of these key decision-making skills. The upper right quadrant – furthest away from 0,0 – represents the highest value-add.



Optimize Decision-Making While Improving Productivity

Effective data aggregation and streamlined workflows are pivotal when making investment decisions. Equity Data Science (EDS) empowers fundamental investors to build, operate and sustain a modernized, repeatable investment process to drive continuous improvements. The EDS platform is a cloud-based, fully configurable, measurable and scalable platform with purpose-built analytics to support the entire investment lifecycle. It leverages modern data science technology that replaces ad hoc, siloed, repetitive and error-prone processes, with a centralized, streamlined, efficient and disciplined investment process.

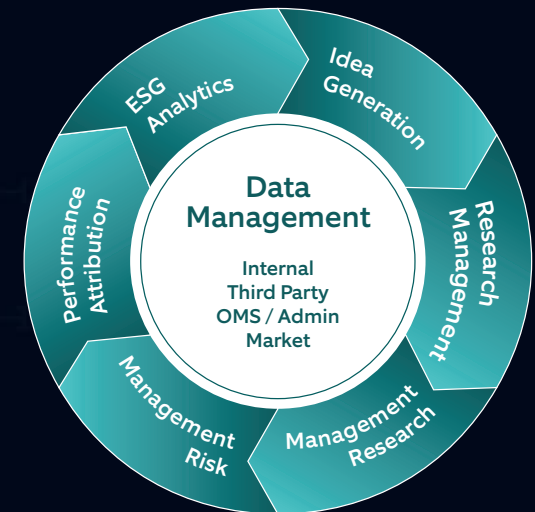
EDS worked with Pzena Investment Management, a value-oriented investment management firm with over \$50 billion in AUM. Since its inception in 1995, the firm has employed a disciplined, research driven

approach to long-term value investing and has subsequently built a diverse, global client base. Pzena follows a classic value investment philosophy; as such, they seek to invest in good businesses at low prices, focusing exclusively on companies that are underperforming their historically demonstrated earnings power.

Pzena looked to EDS to help them update their data infrastructure. The target state will allow them to generate insights on their decision-making across the investment lifecycle and facilitate efficiencies in areas of the business dependent on this data.



Challenges	Solutions	Results
<ul style="list-style-type: none"> • Needed to modernize workflows and data infrastructure • Lacked scalable solutions that would enable the consistent capture and storage of data generated throughout their investment process • Needed a feature-rich user interface and data-driven environment to efficiently store and curate data and intelligence sourced by multiple internal and external systems • Lacked the ability to seamlessly analyze this information to generate understanding and insights 	<ul style="list-style-type: none"> • Updated their investment process management (IPM) solution • Offered flexibility, performance, and domain expertise • Automated a previously Excel-based workflow • Provided a more intelligent and efficient solution to assist in the portfolio construction and management process • Provided them with historical data and analysis capabilities 	<ul style="list-style-type: none"> • EDS's IPM platform improved the speed and efficiency of their end-to-end investment process • Improved data availability, while providing a single pane of glass for information used by the investment team • Modernized their investment management data infrastructure in a cost-effective manner • Optimized decision-making and vastly improved the speed of reviewing and adjusting their portfolios



Conclusion

Asset managers operate under relentless performance pressure. Due to this pressure, many managers are pursuing more quantifiable and disciplined investment processes, recognizing the importance of data-driven solutions. By incorporating measurable data into the investment process, asset managers can extract valuable insights that can potentially lead to increased alpha.



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