

Delineating an Innovative Value Proposition for Performance Attribution in the Asset Management Industry: A Blueprint for Organizational Restructuring and Capability Enhancement to Optimize Revenue Generation and Client Outcomes

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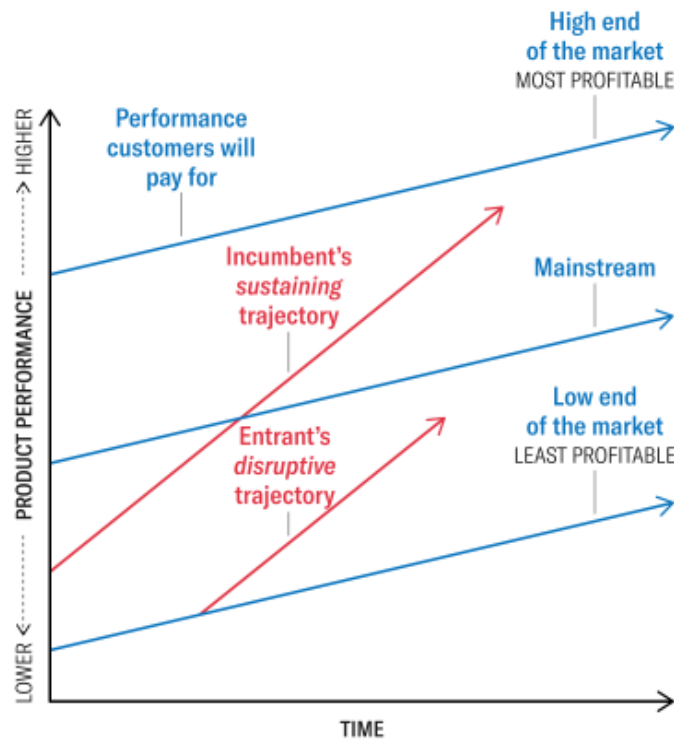


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1. Introduction

Christensen et al (2015) describes the theory of disruptive innovation as a process whereby a company is able to successfully challenge established businesses in the same market or industry. This happens when well-established incumbents focus on improving their services for their most profitable and demanding customers, while ignoring other market segments.. Disruptive newcomers capitalize on these overlooked segments by providing more suitable solutions, often at lower costs, thus gaining a foothold on market share. As established businesses in the market prioritize higher profitability in their primary segments, they often fail to respond effectively. Subsequently, newcomers expand into higher market tiers, catering to the needs of mainstream customers while maintaining their competitive edge. When mainstream customers widely adopt the newcomers' offerings, disruption is evident. Figure 1 below illustrates the disruptive innovation model.



Source: Clayton M. Christensen, Michael E. Raynor, and Rory McDonald
From: "What Is Disruptive Innovation?" December 2015



Figure 1: The Disruptive innovation model (HBR 2015)

This paper will consider the theory of disruptive innovation and apply it to the asset management industry, specifically the discipline of performance attribution. Traditionally, performance attribution analysis has been utilized as a supplementary skill set to optimize the investment management process, but by delineating an innovative value proposition, defining the specialism as a product (or service offering) and making appropriate investment into enhancing the service and capabilities, asset management firms can leverage this complex analysis to gain competitive advantage in a market where differentiation is somewhat limited.

Considering the theory detailed in the academic writings of Christensen et al (2015), where they describe disruptive innovation as being new entrants to the industry, targeting new market segments, we apply this theory in a unique manner. It is challenging for new entrants in the asset management industry to apply this disruptive innovation theory and offer new investment products to a different market segment. Instead, this paper takes this theory and applies it to an already established discipline in the market. We identify an opportunity to take a specialist piece of analysis that many companies already utilize, but

perhaps have not yet conceived the notion of creating a product definition for the discipline and service offering, and leveraging this for competitive advantage. Not specific for new entrants, but a blueprint that can be utilized by any established investment firm, regardless of size and current market share, to gain competitive advantage.

Before we explore the value proposition in detail (chapter 3), it is important for the reader to gain an understanding of the subject matter and how the industry currently utilizes the analysis. This is explored further in the next chapter.

2. Overview of Subject Matter and Industry Perspective

2.1 Types of Performance Analysis Activity

It has been observed that, at other competitor asset management firms in the industry, performance functions can be responsible for various analysis activities. For the purposes of this study, the author separates the areas into three pillars and describes them as follows: Performance Measurement, Performance Attribution and Performance Reporting.

2.1.1 Performance Measurement

Performance measurement, in the context of this paper, is the use of **top-level fund and benchmark returns data** for various pieces of analysis which aid the stakeholders. Most commonly, historical top-level returns are used in ex post risk statistics. The Mutual Fund Directors Forum (2018) describes ex post statistics as the measure of risk over a period in the past. They calculate the volatility of past prices or returns. Ex post risk statistics that are frequently utilized include alpha, the standard deviation, and the Sharpe ratio. Although ex post measures can be calculated for any time period (daily, weekly, or monthly, for example), they are often annualized to facilitate comparisons. Ex post statistics offer a precise gauge of prior price or return volatility. Nevertheless, due to shifts in the makeup of the portfolio or in the performance of its holdings, they might not be a reliable indicator of the future.

Another risk statistic that historical returns are commonly used is Historical VaR. Northstar Risk Corp (2023) states that historical value at risk (VaR), also known as historical simulation or the historical method, refers to a particular way of calculating VaR. In this approach, VaR is calculated directly from past returns. Assume, for instance, that we wish to use 100 days of data to determine the 1-day 95% VaR for an equity. The least bad of the worst 5% of returns is represented by the 95th percentile. Since we are utilizing 100 days of data in this instance, the VaR just relates to the fifth worst day. It is very simple to use the historical approach for an everlasting security like an equity. It gets a little trickier with derivatives, like equity options, or other products that have limited lifespans, like bonds. With these examples of ex post statistics, we can observe the complimenting factors at play and how risk and performance complement each other.

Another example of performance measurement, as defined by this paper, is peer group analysis utilizing top-level returns. Examples which this analysis can take the form of, are correlation analysis and percentile rankings. A useful tool when comparing oneself to market competitors, assessing the product health or defined metrics to measure success against product objectives.

2.1.2 Performance Attribution

Whilst Performance Measurement utilizes top-level returns in the analysis, Performance Attribution is a more granular and detailed analysis, looking at the **holdings or constituent level**.

According to Menchero (2000), the objective of performance attribution is to explain the performance of a portfolio relative to a benchmark, through the identification of the drivers of excess return and attribute them to the active decisions of the portfolio manager.

Attribution analysis not only serves as a key contributor to the investment management process, by providing detailed insights which help drive the investment decision making implemented by fund managers, but the analysis and validation of investment performance is also sought after by various stakeholders throughout an asset management organization.

Ganti (2023) states that the main objective of asset management firms is to maximize the value of an investment portfolio over time whilst maintaining an acceptable level of risk. In this context, value of the investment portfolio is defined by investment returns. One can conclude that, in order to meet the business objectives, clients should receive reasonable return on investment whilst mitigating the risks present appropriately. In other words, portfolio performance is important for the entire organization.

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The primary objective of investment firms is to maximize the value of a portfolio over a time horizon whilst preserving an acceptable level of risk. In this context, value of the investment portfolio is defined by investment returns. One can conclude that in order to meet the organization's objectives, clients should receive reasonable return on investment whilst mitigating the risks present appropriately. In other words, portfolio performance is important for the entire organization. A few examples of key stakeholders and their interest in consuming this analysis are:

- **Distribution** (Sales and Marketing): Provide insights and commentary to investment theory savvy institutional clients in order to retain existing assets and generate new business.
- **Fund Managers**: Input into the investment decision making process, thereby influencing the portfolio management for better outcomes for clients.
- **Investment Risk**: Investment returns utilized to calculate ex-post risk metrics and compliment ex-ante risk analysis to determine risk budgets and effectiveness of portfolio risk management.
- **Product Research**: Portfolio performance analysis used in product health assessments to determine if products are achieving desired objectives. Fund performance is also used in peer group analysis to assess competition in the market and analysis is utilized in product research for potential new fund launches.
- **Finance**: Fund performance is a key business metric and feeds into company performance targets aligned to the enterprise goals, as well as included in published financial statements.
- **Client Services**: Serves as key information used to field client questions to ensure best in class customer care.
- **Executive Leadership and Board**: Analysis feeds into management information metrics to determine whether the organization is meeting key performance targets and objectives.

2.1.3 Performance Reporting

Because performance functions in the industry are typically seen as the stewards of gold copy fund performance data and subject matter experts in organizations, it is often observed that these functions play a role in ensuring investment return data is accurately represented and fit for purpose when included in various reporting activities. These range from **internal reporting**, such as **investment committee or board reporting**, to **external reporting** such as sales and marketing material, fielding client queries and **regulatory reporting** requirements.

An important factor to consider when approaching the subject of performance reporting, is the industry best practice relating to GIPS. Chen, J (2020) states Global Investment Performance Standards (GIPS) are a set of voluntary standards used by investment managers throughout the world to ensure the full disclosure and fair representation of their investment performance. The goal of the standards is to make it possible for investors to compare one firm's performance against that of another firm.

The Global Investment Performance Standards are a "set of standardized, industry-wide ethical principles that guide investment firms on how to calculate and present their investment results to prospective clients," according to the CFA Institute (2024). Investment businesses are free to choose whether or not to abide by the rules because they are voluntary. Nonetheless, due to the standards' widespread use globally, adhering to them facilitates investment businesses' international business dealings by saving them the trouble of utilizing various performance calculation methodologies for investment presentations based on the location.

According to the CFA Institute (2024), the standards enable investors to directly compare one firm's track record with another firm's record. Incorporate a composite presentation that enhances transparency by getting rid of misinformation, biases against survivorship, and omissions of historical data. Change to meet challenges in a changing investment market. Encourage businesses to devote a large amount of time and money to establishing performance benchmarks and internal risk-control systems, which are essential components of dependable long-term success. An investment business must prove that it complies with all applicable regulations for input data, calculation techniques, composite construction, disclosures, presentation, and reporting in order to claim compliance.

Investment management firms have been known to advertise their "GIPS compliant" status. This can lend additional credibility to firms, especially those that do business outside the more mature markets.

GIPS has the benefit of providing a competitive edge in subsidiary markets, where investment firm's strategy might include targeting financial advisors and investment platforms in the non-retail space. More on the benefits can be found in the appendix.

2.1.4 Attribution Methodologies

There are various attribution models used within the industry, each with a specific purpose and often catered to an organization's data infrastructure, as described by Bacon (2019), the use of holdings, transactional or returns based attribution often relies on the data available.

There are different attribution models for each asset class: Equity, Fixed Income and Multi-Asset. As a result, we often see performance subject matter experts specializing in asset class to gain deeper analytical, financial instrument and investment strategy acumen, as these can often be very complex and communication with stakeholders require specialist knowledge and experience.

Fundamentals have been set and there are industry standards in place for appropriate models which firms use, but the concept of attribution models is an ever-evolving discipline. It is important to keep abreast of industry changes and best practices.

Attribution models are primarily based on IBOR (investment book of record). Differentiating factors can be introduced with supplementary analysis using ABOR (accounting book of record) to form a complete performance attribution suite of analysis that follows the fund return lifecycle from the client seen returns to the investment decision making process. This is unique to the industry as far as this study is aware.

Bacon (2019) states there are three types of attribution have been identified, and they are characterized by the information used to calculate attribution effects, as follows:

1. Holdings-based attribution. Holdings-based or position-based attribution is calculated by analyzing the underlying holdings of the portfolio. Holdings-based attribution is calculated from monthly, weekly, or daily data, with the shorter time horizons leading to greater accuracy.
2. Transaction-based attribution. Transaction-based attribution is derived using both the holdings of the portfolio and the transactions (purchases and sales) that occurred during the period.
3. Returns-based attribution. This model uses the returns of the total portfolio and/or individual holdings (constituents/securities) to decompose the total return into various factors. The multifactor model is a regression equation which explains the way a particular security or portfolio reacts to industry sector, macroeconomic, and other market influences.

2.2 Industry Perspectives

2.2.1 Roles and Responsibilities

The spectrum of performance analysis activities within the asset management industry is vast, as detailed in section 2.1 of this paper. As a result, the scope of roles and responsibilities for performance departments vary in the industry. It is not uncommon for organizations to adopt a “one size fits all” approach, resourcing a performance function to undertake all the activities mentioned. These departments tend to be large and generally more operational focused, leaning towards a reporting-type function rather than performing in depth analysis and having subject matter expertise. A critical role of this type of department would be the stewards of gold copy performance book of record data, which would be used for all reporting needs, such as website publications, business metric valuations, internal reporting requirements and regulatory reporting. All using the same data which is quality controlled and validated as fit for purpose across the enterprise.

Another common approach is to separate the top-level returns-based analysis from the detailed, and often more complex, constituent-level attribution analysis. This separation often leads to roles and responsibilities not residing in the same department, but rather having distinct reporting and attribution lines of business, with the latter more closely aligned to the front office. This type of separation can often lead to some confusion with regards to scope of responsibilities and introduce unnecessary risk with regards to lack of clarity or accountability for the data ownership model, leading to different data sets and possibly misalignment of results being used and published.

It can be observed that there is no industry standard for the scope of responsibilities for these types of departments, nor how to best establish them to be setup for success and leverage the opportunity to capture the optimal value add.

2.2.2 Organizational alignment and Stakeholder Engagement

With regards to the discipline of performance attribution, it has been observed that many firms align this discipline to investment risk functions. Where the risk department undertakes the attribution analysis themselves, there is often a lack of focus given to this discipline. Whilst the human resources conducting the analysis are competent (given the transferable skillsets), they would not be subject matter experts. Often suffering from capacity constraints (juggling multiple responsibilities) impacting the depth of analysis and insights, attribution analysis is often deprioritized thereby introducing risk of data quality and assessment of the appropriateness for the models used. Attribution models are complex methodologies and the requirements firms have often exceeded the capacity for part-time resource to be aligned to such analysis. There are many benefits for having performance attribution closely aligned to investment risk analysis functions, due to the ex-post results being a source of validation for the ex-ante view and measurement of success or assessment of the risk models adopted. Risk adjusted performance results add great value, and performance attribution serves as a complementary insight to the investment risk analysis process. This also leads to closer engagement with the front office functions (fund managers, traders, etc.) and these risk departments already have product specialism and deep understanding of the investment strategies adopted.

In some instances, often in medium sized organizations, dedicated performance analytics resources reside within the risk departments, ensuring subject matter expertise being aligned on a full-time basis to fulfil the demanding requirements of the investment process. This can result in prioritization of front office requirements and limit the stakeholder engagement. Often these teams do not engage with many of the stakeholders mentioned in section 2.1.2 of this paper.

It has been seen that attribution teams can also be aligned to middle office functions, often resulting in an operational bias, prioritizing report generation and accuracy, rather than in-depth analysis and commentary. The stakeholder engagement lends itself to service a wider range of requirements and differing levels of investment acumen among the stakeholders who they engage with. A natural engagement model lending itself to the prioritization of reporting responsibilities, but lacking the focus, in-depth analysis and insight needed to fulfil the requirements of stakeholders who demand increased level of investment acumen.

2.2.3 Opportunity Presented

The author has spent more than 15 years in the area of specialism within the sector and has witnessed firsthand how different organizations, who vary in size, investment strategy and target client base, utilize performance attribution in the business. This is often quite diverse but limited in scope. This presents a few opportunities which could add value to an organization and form the basis of a unique value proposition.

One example of value capture being demonstrated in the industry with regards to performance analytics and attribution. Section 2.1.3 details GIPS and the benefits of for firms can be found in the appendix, however it is worth mentioning that the main source of value capture associated with being GIPS compliant is the competitive advantage gained by publishing GIPS reporting, which is used by intermediaries (such as IFAs – Independent Financial Advisors) who invest in the products reported on. The reporting is standardized, and these independents can compare products on a like-for-like basis. Firms who do not comply with the standards are often left out of assessment process and therefore do not benefit from this source of revenue stream.

ESG (environmental, social and governance investing) is a growing trend in the asset management industry and firms who do not offer these products are losing market share, and those who do, face

increasing challenges and complexity with regards to evolving regulations. Generally speaking, when asset managers assess the performance of these products, they employ traditional attribution models based on the asset class. The reality is that there is potential to custom the attribution models based on the ESG ratings and illustrate the value contributed by employing certain strategies correlated to the ratings. Answering the question, if the ESG rating is favorable, does this contribute to performance of the product and if so, how? This is a current gap in the industry and will be explored further.

Traditionally, performance attribution analysis has been used exclusively for active strategies (investment strategies with the objective of outperforming a reference benchmark). This makes sense, given the explanation in 2.1.2 of this document. Attribution needs a point of reference and active strategies with the objective of outperforming a reference benchmark is traditionally where this kind of analysis adds value. A general misconception in the industry is that attribution adds little to no value for passive strategies (investment strategies with the objective of tracking a reference benchmark). The reality is that the scrutiny on tracking error is higher and increased levels of precision when it relates to the analysis is often a requirement, where an investment product has an objective to track an index tightly. Active strategies would often experience hundreds of basis points difference over a given time horizon, by design. Passive strategies, however, are designed to have minimal tracking error and a fraction of a basis point difference is expected to be explained. This is where opportunity presents itself to repurpose a piece of analysis traditionally used by active investment houses and make it suitable for the growing trend of passive investment in the industry.

3. Value Proposition

3.1 Introduction

Asset management firms have a primary objective across the industry, to deliver investment success to their clients based on their investment objectives, which could often differ from organization to organization, leading to various strategies and products on offer in the market. One underlying theme that is consistent throughout, regardless of strategies and products, relates to how success is measured: investment performance. Investment performance can be described as return on investment and is the measure that clients use to evaluate the asset management firm and products for which they invest. It is important for an investment house to be able to explain the performance to existing clients, but also demonstrate how the strategies added value, often compared to competitors, to attract new business.

One can see how this type of analysis would easily touch all parts of the business, with many internal stakeholders having interest in this measure. Section 2.1.2 illustrated examples of the various stakeholder who would be interested in this analysis, all with varying levels of investment acumen. Distribution and sales teams, client services, product research, the fund managers, would all have invested interest in receiving insights into the performance of the products. Because asset management firms have the primary objective of delivering investment success to clients, as measured by returns on investment (performance), this type of analysis is also required by finance divisions as a key success metric for the business, as well as senior leadership and the board.

Firms who do not invest in their performance analytics department, ensuring the function is resourced correctly in terms of specialized talent, utilizes technological solutions to optimize processes and achieve scale, and ultimately setup for success to service its plethora of stakeholders, will not be able to leverage the monetary value this can yield and thus miss an opportunity for competitive advantage.

3.2 Opportunities for Revenue Generation

Distribution, Sales and Marketing departments rely heavily on fund performance data to supplement their sales tactics and materials. They would attempt to tell a story and demonstrate the value added by the fund manager, in order to make the product appealing to potential institutional or retail clients. In many cases, simple historical returns data illustrating the past performance of a product, whilst achieving the objective of demonstrating how a product and the manager performed over the period, would lack the detail and insights to effectively differentiate themselves in a competitive market. Performance attribution can play a role here, not only providing more detail, but the team of specialists who can combine their analytical and communication skills to bridge the gap between detail and creating an effective narrative for the sales personnel who perhaps have less subject matter expertise than a dedicated team of specialist performance professionals. The combination of deeper analytics, connecting the dots with insightful commentary and the possibility of having subject matter experts present at potential client meetings would lead to better outcomes and increased inflows as a result. This attribution analysis can highlight how the fund manager manages the portfolio and how they added value in line with their investment strategy, thus providing this insight to an external audience, within the parameters of appropriate disclosure. This link to in depth analysis, utilized for new business generation is a current gap in the industry for which not many asset management leverage. In many cases, where the firm may be pitching for institutional client investment, not having appropriate level of detailed analysis and supported commentary / specialized talent could lead to a loss of cash inflows.

As mentioned in section 2.1.3, GIPS reporting standards not only serve as a way to standardize reporting of fund performance but aid a firm in apply best practice and governance around performance calculations and the way they are represented. Not being compliant to GIPS could be seen as a competitive disadvantage, due to many intermediaries and financial advisors employing GIPS templates when comparing investment products for their clients. The author has detailed the advantages of being GIPS compliant in the appendix of this document, authored in 2018.

Competitor analysis is crucial part of product research and designing new product offerings, as well as being a useful tool for sales and marketing strategies. The latter is not often utilized due to the complexity of the analysis and the lack of dedicated specialist resources and acumen to support such analysis in these functions. It is often observed at various asset management firms, regardless of their size, that performance analytics pertaining to competitor analysis is not conducted by dedicated performance professionals, but rather seen as an extra-curricular activity for the resources in the product department. This poses risk that the analysis is not fit for purpose, or more importantly, the resources lack the acumen to derive value adding insight from what the analysis should provide, thus not leveraging the power of this analysis to generate sales nor design innovative products which could differentiate themselves from competitors. By utilizing specialist talent and resources correctly, this competitor analysis could prove to be a powerful tool in the generation of investment inflows.

3.3 Client outcomes

As described, internal stakeholders leverage attribution analysis for a variety of reasons, however traditionally it is used by the trading desk and fund managers to assess their portfolio and learn from their decisions. Across the industry, larger firms suffer from the volume and scale of products and portfolios being managed across the organizations. The more products you have, the more analysis is required, and it can quickly become a case of how to scale operations to efficiently service the stakeholders with the analysis, rather than dedicate resource to analyze the results and come to appropriate conclusions and message these to the correct people in a timely and comprehensive manner.

But why is this important? Attribution methodology is a complex subject matter and requires focused attention to derive the appropriate level of insight to make the most of what the analysis can offer. The insights are used to inform the portfolio managers how their investment strategies and decisions resulted in investment returns. The information gathered, when utilized in the appropriate manner, can help shape strategies and discretionary investment decisions for improved results. In an ideal situation, this would be a revolving life cycle of continuous assessment and improvement. Improved results equate to better client outcomes.

The value of this seems logical in the sense that better client outcomes lead to client retention and the avoidance of redemptions from the investment products. When thinking about monetary value, this is an important factor to consider.

It is challenging to directly attribute this outcome to performance analytics activities and the impact they would have. This will be explored further in section 3.5 below.

3.5 Measurement of Value

In order to quantify the value proposition going forward, it is important to set out appropriate measures to capture the value add. This can prove challenging in the discipline of performance attribution, as it generally serves as a supplement to existing processes (be it the investment process or sales activity), but there are ways to overcome this which this paper will describe further.

It is also difficult to assign inflows or prevention of redemptions directly to the impact performance attribution has. But by introducing a basis for which comparisons can be made, the improvements can be tracked post-implementation of the new organizational design. This will be an ongoing effort and the value capture might not be tangible in the short term. Patience will need to be employed to yield meaningful measures of success.

Data capture and analysis regarding sources of revenue need to be gathered and would serve as a baseline for future comparison. Of the mentioned sources of revenue generation, this would equate to the following examples:

1. Gather data regarding inflows related to the existing sales practices for the previous 3 years. There will be outside factors also contributing to these, such as market conditions and shifts in marketing strategies, but the peaks and troughs will be demonstrated in the analysis. With the introduction of improved performance analytics and dedicated specialist resource assisting the sales process, inflows can be tracked and compared to similar situations where this was perhaps lacking previously. Identifying opportunity lost previously, whilst contributing the new design to increased inflows.
2. Obtain feedback from key stakeholders who participated in RFPs to gain new business, gathering data on where feedback was specific to the lack of performance analytics compared to competitors. This will identify specific examples and quantification of the monetary amounts which were lost as part of the RFP process.
3. If a firm is not GIPS compliant, obtaining compliance can be directly attributed the inflows gained. By entering this intermediary market, where GIPS reporting is utilized by the intermediaries, any inflows generated can be directly assigned to this initiative.
4. Improved product performance as a result of introducing focused analysis can be tracked similar to point 1. Obtaining a baseline of the previous 3 years and comparing the results versus the investment objectives going forward.
5. Previous redemption records can be compared to the post-implementation of the new design, thus measuring redemption reduction (client retention) as a result.

3.6 Regulatory Considerations

Many regions have regulatory obligations with regards to reporting performance of investment vehicles. These differ region to region and the details of which are too detailed to outline in this paper. However, regardless of the governing body regulating investment activity in the area, there are significant consequences for failing to comply with this mandatory reporting, often financial but also an element of reputational risk associated as discretions are often published.

In any design of operations and capabilities, regulatory standards and reporting need to be an important point of consideration. These should be designed to fulfil the requirements and obligations to avoid these risks.

This seems an obvious observation, but the financial and reputational damage can be telling, as some firms have experienced. Especially challenging for global corporations who aim to adopt a globally consistent model.

This risk mitigation is a key point that needs to be considered and depending on the region(s) in which the firm operates, the organization needs dedicated resource aligned to scope out the regulatory implications of the design of service offerings and capabilities.

4. Organizational Structure to Facilitate Proposition

4.1 Product Definition

As previously discussed, performance analytics and attribution in the industry often serves as a supporting analytical function looking to provide insight into the drivers of investment performance for internal stakeholders, not as a core function or being classed as business critical, but rather as a supplementary analytical tool. This is what makes this proposal unique to the industry, as this analysis can be viewed as a valuable resource for revenue generation and improving client outcomes.

It has been observed that some vendors in the industry package this analysis as a product or service offering, marketing the operational framework and result generation as a product for which they offer to asset management firms who perhaps do not want to undertake this analysis in house.

This proposal suggests that there is great value in having an internal department performing this analysis and leveraging the subject matter expertise, rather than outsourcing the operations, which could possibly lead to missed opportunity.

For the context of this paper, we suggest that to set up the organizational structure for sustainable success, a firm should look to classify the analysis as a product or service offering internally. This is a shift away from what the author has experienced in the industry and makes this proposal unique.

By treating the analysis as a product, coupled with supplementing the analysis with a consulting element in terms of leveraging specialist resource and subject matter expertise to provide a service to all internal and external stakeholders, the business can look to restructure the organization correctly in order to facilitate the establishment of this new product and grow the capabilities. We look to apply a product ownership model to performance analytics, which is an innovative take not before seen in this area of specialism.

By aligning a product ownership framework to this discipline, which is separate from daily operations, firms can dedicate resource to ensure the analysis is fit for purpose, keeps abreast of market and regulatory trends and ensures operations are optimized in terms of technological advancements.

Indeed (2024) states that a product owner collaborates with clients and stakeholders to understand project specifications, negotiating any technical and business aspects where necessary. Ownership is crucial because it establishes responsibility. Product owners can effectively lead and manage a team and possess strong technical knowledge related to the aspects of the project they oversee. The success of the project and customer satisfaction both increase with the degree to which a project adheres to client specifications. Additionally, ownership assigns tasks to team members, promotes project cohesiveness, and motivates the group to work together effectively.

This paper suggests taking a traditional product ownership model and aligning more responsibility to the strategy of the service offering, separating operations (result generation, distribution and consulting services) and the product and service offering design for long term success, ensuring best in class capabilities in the industry, thus leading to a competitive advantage in the market which leads to return on investment for the enterprise.

4.2 Product Ownership Framework and Decision-Making Model

It is seen in the industry that a senior manager position who heads up operations of a performance analytics department wears multiple hats, responsible for not only the operations, ensuring stakeholders receive accurate outputs in a timely fashion, but also the strategy of the division, involving themselves in industry forums for latest market trends and facilitating implementation of technological enhancements. The issue observed with this model, although streamlined in terms of responsibility, results in prioritization of daily operations and stakeholder management over the much needed forward looking strategic visioning necessary to keep the function relevant and most importantly, seek opportunity to differentiate themselves from competitors. By creating separation of responsibilities, we ensure that not only are operations achieving optimal delivery metrics, but that there is dedicated resource align to exploring the value proposition opportunities outlined in this paper.

The author suggests the following split of decision-making responsibilities:

Product Manager

- Keeping abreast of industry trends and seeking opportunities for new and innovative analysis to leverage competitive advantage.
- Thought leadership in terms of how the operational department connects with all stakeholders to ensure they are leveraging the subject matter expertise to yield business results.
- Medium to long term strategy design relating to organizational structure and capabilities.
- Assessment of technology solutions to facilitate capability enhancements that are fit for purpose.
- Stakeholder management in terms of gathering future requirements and help provide thought leadership and guidance on how to solve business problems through the use of performance analytics.

Operations Manager

- Execution of strategy and decision-making responsibility in terms of operational and process effectiveness (does the technology and process operating model align to the daily running of the department and stakeholder requirements)
- Stakeholder management in terms of current operating model and deliverables
- Subject matter expert for point of escalation, ensuring the daily operations field all relevant queries from all stakeholders in a timely manner.

- Human resource and decision-making responsibilities with regards to head count and budget – facilitating the execution of the strategy.
- Assessment of appropriateness of attribution models utilized.

4.3 Operations and Subject Matter Specialism

4.3.1 Asset Class Specialism

Many asset management firms design their operational functions to cover all asset classes and product types. Through the use of efficient processes and technology solutions, this can be a good scalable solution for firms to deliver the core outputs. For what seems like an efficient use of resources and might be deemed as a cost-effective approach, the issue that arises is that the function is not set up for success to capture the value described in section 3 of this paper. Organizations who look for scale and look to cut costs where they can, often lead to under resources teams and talent who are not deemed as specialists, but rather generalists, able to complete the minimum requirements for an analytical function in an efficient manner but lack the ability to harness the value-add opportunities presented.

Another factor to consider is that asset classes differ in terms of financial instruments, strategies and attribution model complexity. For the same reason an equity trader would not be successful from day 1 switching to the fixed income trading desk, there is a learning curve and asset class specialism assigned to the acumen needed to add the necessary value. When applying this to performance analytics, and attribution specifically, they are immense value in aligning subject matter expertise to asset classes and products to create focus.

This paper proposes aligning resource to asset classes and products, as well as separating operational efficiency to the specialist value add approach.

There is benefit to optimizing the operational process and streamlining the resource requirement to achieve operational excellence. By having a team of generalists who obtain core performance attribution acumen, who can ensure accurate delivery of outputs. We propose supplementing these junior resources with specialist, more senior, talent who can focus on certain asset classes and products, aligning themselves with stakeholders specific to these disciplines. Ensuring they are able to communicate complex themes to all levels of stakeholder seniority and investment acumen, including the trading desks and fund managers.

Figure 2 below illustrates the structure proposed. This makes an assumption for a global operating model across 3 regions and assumes 3 asset class areas of specialism.

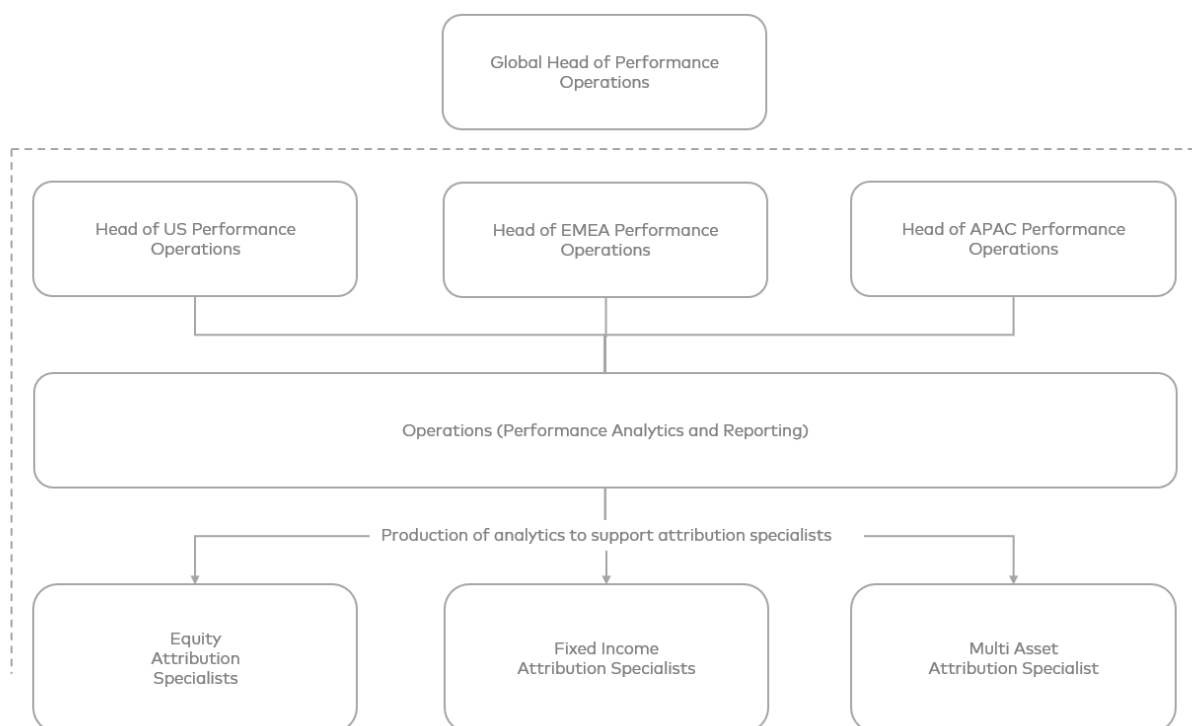


Figure 2: Operational restructure

4.3.2 Roles and Responsibilities

Within earlier sections of this paper, the author describes 3 pillars of types of performance activities. The proposal is to create a center of excellence for all performance data and analytics. This mitigates two key risks. By creating a center of excellence for all performance analytics and data, one creates ownership and responsibility for gold copy data to be used across the enterprise and for external publication, which is sanitized and validated by subject matter professionals. If firms do not do this, there is a risk that multiple functions perform various analytical activities, using different data sets and not understanding the data produced. This leads to different versions of the truth (and investment performance data) being utilized in parts of the business without knowledge of what is correct and accurate. Creating a central ownership and governance framework around all investment performance data, with the skill sets aligned to ensure accuracy, will mitigate these risks.

As can be seen in section 4.3.1, operational resource and talent will provide scale and coverage to produce the results for reporting purposes. This should be supplemented by specialist resource and talent who will become the subject matter experts, consulting stakeholders across the business and providing much needed commentary and insight into the analysis. This is where the value add can be found and how it'll contribute to the value proposition outlined. Particularly in the discipline of performance attribution.

Although it is common in the industry for performance analytics functions to default to operational and reporting responsibilities, a shift from this, whilst keeping those responsibilities intact, will deliver optimal opportunity to deliver additional value.

It is important to keep abreast of industry trends and perspectives, to ensure the capabilities are not outdated through complacency over time. Dedicated resource should be aligned to attend industry forums

and proactively research growing market trends towards different products, such as ESG. This should be planned for as part of the medium-term strategy of the department and resource assigned.

In the proposed product ownership framework, the product manager needs to engage closely with senior stakeholders to assess whether the product (performance analytics and attribution) is fulfilling the requirements of these stakeholders, whilst providing subject matter expertise to discuss potential enhancements to the analysis to create additional value aligned to the value proposition. Thought leadership is a crucial element to consider in this capacity, because connecting the analysis to stakeholders across the enterprise and how to best utilize the

4.4 Interaction Model with Stakeholders and Clients

The operational team's interaction model is limited to key internal stakeholders and shall relate purely to the reporting responsibilities, ensuring that consumers of the results are satisfied in relation to the accuracy of the data and fielding any ad hoc queries which they may have, presenting out the results in certain forums where necessary. This model is not uncommon in the industry.

Where the author attempts to differentiate and create an innovative operating model to facilitate the value proposition, is in creating a new line of stakeholder engagement, which is not currently utilized in the industry. By introducing asset class specialism to the operating model, a performance analytics function can utilize optimized processes and harness the subject matter expertise in an efficient manner, by aligning those specialists to the portfolios, products or funds, thereby creating a deep understanding of investment strategy to layer on the performance attribution insights. This serves as a powerful tool for the front office (traders and fund managers) to have dedicated resource to contribute in a value adding way, rather than the traditional report generation which those key stakeholders would consume without much commentary and insight outside of their own acumen. This would mean that these specialists would be closely aligned to investment desk, in practice conversing with these stakeholders on a daily basis. This would undoubtedly result in lessons being learnt about the investment process and an improvement in the way the products are managed, leading to better outcomes for clients.

These attribution specialists should also bridge the gap between fund managers and other key stakeholders around the business with regards to communicating drivers of investment return. Aiding product research and design initiatives, providing insight into fund performance for business metrics (finance departments), and becoming a value resource for client facing teams to generate new business. This client facing element is not seen in the industry. Normally, client facing employees have to rely on their own investment and performance acumen to communicate an effective narrative to attract investment. Having a dedicated team of specialists in the performance attribution discipline able to support these client activities will differentiate the firm from competitors, creating the optimal change for success in those cash flow opportunities. Truly a competitive edge.

4.4 Organizational alignment

4.5.1 Placement of a Performance function

With the departmental restructure detailed, the question can be asked: Where should the department reside within the organization. There are 3 options available to asset management firms, which the author will outline below.

With a large remit of responsibility, if the function remains as one entity, the best fit would be under the Chief Operating Officer's remit of operations, spanning across all operations this maintains independence

from key stakeholders, ensuring prioritization without favoritism or bias and also aligns to the operational based reporting responsibilities which are core to the department. The risk of having the entire department (and remit of responsibilities) aligned to one stakeholder, the investment desk for example, is that they would unconsciously prioritize the requirements of one stakeholder rather than feed the enterprise with the value adding expertise to leverage the value proposition opportunities. The attribution specialists however need to engage with various stakeholders about the complex subject matter and these resources will need to be flexible, expanding their reach across the enterprise. This stakeholder communication and relationship building will be a key skill which these resources should demonstrate, in addition to their deep attribution and investment acumen.

The second option would be to separate operations and reporting from the attribution specialists, perhaps maintaining reporting lines, but aligning the attribution specialists closer to the investment desk. This would maintain operational excellence but ensure that the investment process benefits from daily interaction. There will be bias introduced here, but the benefits outweigh the risk, in the opinion of the author. Deeper understanding and alignment to the investment strategies will fuel the knowledge base of the specialists to aid their efforts when dealing with client facing departments in a consulting capacity. It is the subject matter expertise gained through this alignment that will ensure the best chance of success to execute value proposition.

The third option would be to align the performance analytics department with investment risk. There are many transferable skills and acumen with the talent in these departments and would benefit from the independent nature of the organizational design. The risk with this approach would be the bias present of services the front office and investment processes. Investment risk departments don't have the reach across the enterprise required by a performance function and the performance division would need to ensure prioritization bias is not present and that they can still service and add the necessary value to all stakeholders to fulfil the value proposition.

4.5.2 Independence

The concept of independence is important when considering investment performance. As discussed, fund performance is a key business metric and success measure for asset management firms. The data also feeds key compensation metrics. For these reasons, the stewardship and governance of performance data should not be influenced by parties who may have conflict of interest. Regardless of approach regarding organizational alignment and the placement of the performance analytics department, this independence is crucial and needs to be present to ensure the legitimacy of the investment performance results and data.

4.6 Technology solutions

Furstenthal, L., Hirt, M. & Roth, E. (2021) suggest that investing in digital and advanced analytics can mitigate some of the risk associated with delegating decision-making lower down the organizational hierarchy by enabling the discovery and tracking of new customer and market insights.

In the asset management industry, the author has observed various vendor technology solutions being implemented within particular firms, often one firm utilizes multiple solutions. Whilst on the surface this might seem inefficient and more expensive, it is often necessary. This is because of the asset class specialism as previously described in this paper. Attribution models and financial instruments used are complex and asset class specific. An equity attribution model would not be appropriate for fixed income portfolios for example. Because of this, we see that vendors tend to specialize and market their service offerings for one asset class, rather than catering for a "one size fits all" approach. There are exceptions

to this and there are a handful of vendors who are competent with all models and also cater for complex financial instruments, supplementing client data with appropriate market data to fulfil requirements and calculations.

The author detailed in the strategic plan (L04 of module 1) that assessment of technology solutions needs to take place and a decision made in terms of what is appropriate for the organization. Risk appetite for accuracy and flexibility / customization of attribution models needs to be taken into account. Where one vendor may cater for all asset classes, it may lack the ability to deal with additional complexity which may arise. If this is deemed a risk for which the firm accepts, one vendor solution may be an appropriate option, given the financial benefits.

One must not underestimate the specialism required for asset class specifics and the author recommends investment to ensure the model and technology solution is appropriate to not only meet current requirements, but have the scale to enhance capabilities and analysis as opportunities are highlighted during market shifts. This is important to facilitate the value proposition outlined earlier.

Data governance and architecture is vital the success of any analytical function. Simply put, the outputs and results are only as good as the data which inputs the process. For a performance analytics and attribution to be set up for success, it needs to be supported by a robust data governance team and process. This not only ensures quality of the data, but also ensures that the operational team do not spend valuable time data cleansing and manipulating the data to ensure accuracy of their outputs. Resourcing a function with specialist talent in the performance profession means that the firm would want that function to be spending their time analyzing fund performance as opposed to playing the role of data analyst.

Although reporting falls under the scope of this proposal, it is important to automate distribution of this information, but also provide the flexibility to view the data in different ways, thus creating a platform for consumers to potentially customize the views which they want to see. This has many benefits, but primarily removes the requirements for the performance analytics department to build many differing reports to cater for many stakeholder requirements. A shift away from the traditional email delivery mechanism towards a data visualization engine such as PowerBI. This also enables the department to monitor, grant and restrict access where necessary and the ability to control which data is visible and when. By signing off and validating the data pre-publication, the department ensures that consumers have access to the data when it is ready, rather than self-serve the data before it has been validated.

This also creates a process whereby gold copy performance book of record data can be audited and locked down to ensure historical returns, which is a key data point in the discipline remains accurate.

4.7 Best in class risk framework

The author has defined a set of practices for which a performance department (or any operational department for that matter) should implement to be considered best in class in terms of risk framework and governance. Important for any firm to ensure compliance and pass internal and external audits of the function. These are summarized below:

- **Risk and Control Self Assessments:** Assessment of business and operational risks and controls to mitigate.
- **Process Inventory:** Process flow documentation to identify risks, pinch points and potential efficiency gains to leverage.
- **Risk Inventory:** Documentation of risks pertaining to processes.
- **Control Inventory:** Documentation of controls either in place or required, leading to prioritization of control implementation.

- **Policies and Procedures:** Appropriate documentation of all procedures and creation of policy documentation to be agreed with stakeholders.
- **Business Continuity Plan:** In unforeseen events, how the department plan to fulfil obligations in these scenarios, including people, location and technology.
- **Capabilities Matrix:** Assessment of knowledge across the function, both in terms of skill set and knowledge of processes to complete the tasks.
- **Risk Metrics:** Risk appetite assessment. How are risks mitigated against and which risks can be accepted?
- **EUCT Inventory and Controls:** End user computing tools which are internally built, manual in nature and pose unnecessary operational risk. Documentation of these and derive a plan to automate where possible or mitigate risk via appropriate controls.
- **Service Level Agreements:** Document and formalize service level agreements with key stakeholders, thereby creating clarity of expectations as well as roles and responsibilities.
- **Third Party Risk Management:** External vendor dependencies need to be tracked and documented. Linked to business continuity plan, as well as assessment of vendor service levels.
- **Checklists:** Operational checklists to document completion of tasks etc. to evidence and manage the operational workflow

5. Post-Covid Considerations and Implications

When considering the Covid pandemic and the implications to this value proposition and the organizational restructuring proposal, there are a few points of consideration.

The pandemic triggered market volatility which has not been seen for many years, as well as certain market events and corporate actions which seemed to be increased when compared to previous years. This all causes additional complexity for investment performance analytics, as well as additional pressure to derive results and provide insights in a timely fashion. Often potential clients would seek these insights when considering investment. The challenge arises where the operational function is not equipped to field high levels of complexity and additional research into performance breaks and drivers. Resource is stretched to find answers to challenging questions and focus is shifted to ensuring accuracy of results rather than value adding commentary and insights. With the proposed model, firms should see flexibility and capacity to field these abnormal market events easier, but more importantly, add the additional value to stakeholders and clients in an environment where competitors would face similar challenges. This automatically creates a competitive advantage to secure market share.

The post-covid working environment and landscape has changed. In an industry where often, firms are in the financial hubs of the globe, with the employees often commuting long hours, these firms traditionally had staff in office premises five days a week. During the global lockdown of 2020 and beyond, these firms were required to shift their approach and rely on staff to perform their responsibilities remotely and virtually. Many firms had to work in this remote environment for more than 12 months. In this time the attitude to work-life balance and flexibility shifted and a once formal finance sector which assumed office presence was a non-negotiable, employees began valuing more time at home above pay rises and career progression. This shift in attitude in the sector is important and firms need to be mindful of this change of approach. When considering staff retention strategies, firms need to consider flexible working arrangements and corporate policies. In markets such as London, this plays a major role, as staff have

employment options in abundance. To leverage and embrace flexible working post-covid will differentiate one from their competitors, not only retained valued staff but possibly lead to reduction of office real estate costs.

Furstenthal, L., Hirt, M. & Roth, E. (2021) states that an organization is typically compelled to abruptly adopt agile working practices when it encounters a crisis. Instead of going back to the previous normal, businesses that are out of crisis mode ought to seize this chance to incorporate these agile models into their next normal.

The investment products on offer and the value proposition laid out in this paper, have minimal implications in the post-covid landscape. Due to the volatile nature of the markets caused by the pandemic, there may be a shift towards passive investing, with clients favoring this strategy and long-term investment to weather the storm.

6. Conclusion

Bar Am, J., Jorge, F. & Furstenthal, L. (2020) suggests that leaders face a challenging landscape surrounding the decision to support innovation-led growth in the short-term, a decision that may have lasting consequences for firms' ability to grow in years to come.

Cohen, D., Quinn, B. & Roth, E. (2019) states that analysis showed a strong, positive correlation between innovation performance and financial performance. According to them, companies that are successful at leveraging and fostering innovation concentrate on two things: first, they must be able to articulate a vision for innovation that is both audacious and realistic, and they must be able to allocate resources wisely in order to capture the value of innovation at a scale that is meaningful enough to have an impact.

It is true that investment firms can continue to pursue traditional lines of new business opportunities and be successful, particularly during a growing investment philosophy trend of long-term investing. This does not mean that firms shouldn't explore opportunity to differentiate themselves against competitors and exploit this opportunity to obtain competitive advantage.

Cost-benefit and return on investment needs to be considered when exploring this further. Not all firms could support the initiative outlined in this paper due to budget constraints and the size of organization. This paper attempts to highlight the opportunity to support business activity in an innovative way and restructure the organization to support this, leveraging existing capabilities, and enhancing the service offering to capture the additional value presented for the firm from a profitability standpoint and aligning to the overarching objective for asset management firms of ensuring clients achieve investment success.

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8. Appendix

Benefits of GPS Compliance as described by Shaun Fennell (2018):

Why does an Investment firm need to be GIPS Compliant?

The Global Investment Performance Standards (GIPS) are an ethical set of standardized, industry-wide principles that provide investment firms with guidance on how to report investment performance to prospective clients. The Standards allow firms to compete globally, and provide investors with the ability to make comparisons between investment firms. The Standards are regularly upgraded to allow for industry changes and to include a wider selection of funds.

Key Advantages

- At one time, firms had an advantage by complying with the GIPS standards; today it's a disadvantage not to comply. If a firm is not compliant (and verified independently as being compliant) they will struggle to sell and retain investment mandates.
- Compliance is a *de facto* requirement in the institutional marketplace and seen by consultants as necessary for any mandate considerations. The same can be said of verifications. In addition to responding to a marketing need, verification will provide a firm (and their clients) claiming compliance with added confidence that they are, in fact, compliant. The prescriptive disclaimers in any sales material state how a firm has been verified and the Firm's disclosures of portfolios included.
- Compliance with the GIPS standards signals to the marketplace that a firm is committed to integrity and adherence to industry best practices and enhances a firm's credibility when competing for assets. These best practices are throughout the end to end processes for managing mandates and the associated oversight of the third parties involved.
- To compare one investment manager to another, a level playing field is required. If a firm is not verified as compliant, they are not even on the same playing field as their peer group.
- Once verified as GIPS compliant, when presenting performance numbers, firms are presenting their capability as an investment manager. The verification is an independent audit process across the operations supporting performance values used within the sales process on top of any external firm audit.
- Being GIPS compliant leads to accurate and consistent performance data calculation, marketing and sales presentations.
- Compliant firms benefit from strengthened internal controls and increase the consistency of their performance data.
- In addition to the conventional Investment Management community, other areas of the investment industry, such as hedge funds, private equity, and real estate are showing increased interest in being GIPS compliant.
- GIPS has achieved Worldwide acceptance as to how all performance numbers are presented in comparable format between firms and countries, which enables fair competition between firms without barriers to entry for international firms.
- Because the GIPS standards are global, compliance provides firms with a passport to compete with other firms worldwide.

GIPS verification is a form of self-regulation but with an annual review of how compliance is adhered to.