Enterprise Case Study: Improving Data Management

How Schroders created a data assurance capability for its investment group

Summary

Catalyst

Financial services firms have at their disposal vast quantities of data, much of which is used during the course of their day-to-day operations. However, many of those firms fail to fully exploit the data available across their organizations, due to a combination of inadequate systems and siloed teams. Not only that, but too often concerns over the quality of that data results in process duplication as teams feel the need to redo reports they have received, costing firms time and money without guaranteeing the quality demanded of financial firms by regulatory authorities. Schroders decided it was time to implement a solution aimed at identifying data issues and assuring the quality of operational investment data to the benefit of external clients and internal teams. After looking at a number of options, the company implemented Experian's Pandora.

Ovum view

Ovum believes that Schroders provides an interesting example of the benefits that can be obtained from using a data management tool to identify how to improve not only the way a business controls and uses data but also its wider operational processes. The ability to shift from reactively fixing things after an error or issue has arisen to proactively preventing failures from happening in the first place has profound implications for the long-term development of a company. Many of the problems identified by data management systems are those that would not be obvious using existing manual techniques, due to the capability of the tool to process significantly high quantities of data. Not only that, but the tool then allows operations teams to present cases to management with strong data-backed arguments, where further investment or significant change is required.

Schroders went through the process using Experian's Pandora solution, which was chosen for its adaptability, ease of implementation, and affordability. With a user-friendly interface, the team at Schroders found it easy to use from early on in the process, and were using it to almost its full potential within a few months of launching. Not only was the bedding-down process rapid, but 95% of the effort that went into it was done by Schroders' data analysts, who were able to call on expert advice from Experian when required. Experian Pandora was sufficiently intuitive that Schroders' operations team were quickly able to get back to focusing on their core role, rather than spending months learning how to make full use of the service.

Ovum believes that Schroders' experience with Experian provides a good example of how a data management tool can quickly fit into a financial services firm's operations and provide a range of tangible, and sometimes subtler, rewards.

Key messages
- Benefits to the wider business can be even more significant than direct cost savings.
- Improving data processes can improve efficiency, risk management, and staff morale.
- Ease of implementation is key to securing management buy-in to the project.

Recommendations for the industry

Data management tools provide more than just efficiency benefits

Schroders' experience has shown that financial services firms should definitely consider using data management tools to improve their understanding of how efficient and robust their operations are. Identifying and quantifying the exact causes of errors and failures in passing data between teams and operational systems – a key component of financial services – enables operations teams to move from firefighting to first eliminating quick wins and then moving on to more profound underlying problems. While there are cost savings to this approach, the tools can yield much more, including better compliance and risk management, freeing up employees' time to focus on higher value-added tasks, improving the user experience, and ultimately boosting perceptions around data and morale.

Vendors need to consider ease of use and implementation more

While it may sound rather intuitive, this case has highlighted the need for vendors to think deeply about how easy their solutions are to use and implement, especially when providing a service that is non-core to the client business. In this case, while data is key to financial services, a data management tool is not business-critical for the client. As a result, both the operations team looking to use the tool and the management board required to sign off on the project needed to be convinced that the returns would come quickly and at a modest implementation cost. Experian Pandora's success and popularity with Schroders' operations team was in large part due to the way in which they were able to make relatively full use of the tool within weeks of testing; it was completely bedded down with their operations within three months of launching.

Improving data quality within Schroders

Gaining insights into complex data processes and architectures to enable operational improvements

Legacy data processes and data flows are not always optimized to meet business requirements

Within any organization, there are always challenges in ensuring that accurate information is passed quickly between teams and departments, but it is particularly important for investment funds, where the nature of their activities is so highly time- and accuracy-sensitive. Low-quality data can have both significant financial penalties and regulatory repercussions. This can also result in many businesses failing to properly make use of the wealth of data available across their organizations, with systems and siloed structures often getting in the way of some teams being able to fully exploit high-quality data sets that they could potentially make use of.

Schroders is a large global asset management firm with almost £400bn under its stewardship on behalf of institutional and individual investors. When investigating such problems within its own organization, Schroders discovered that processes for assuring data quality at key points in the day

were being duplicated, either at consumers' desks, by central teams, or as part of IT support processes. Challenges around assuring large volumes of prices and positions for a global start-of-day for the investment group were being accentuated by greater data usage demands, as well as by the increasing complexity of the overall data architecture environment. Those problems with data quality were costing vital time and money, as well as frustrating users through a suboptimal experience.

As Schroders' Investment Operations team continued to investigate the problems with the existing system, they found that some business processes producing data had become siloed. The technical infrastructure of how data is produced, stored, and shared had also become more complex and less transparent to those producing and consuming it. A simple process of intercepting and logging data issues, followed by root cause analysis, found that there were three equally important factors causing the problems – business process, data quality, and technology. Business process issues are those where deviations from normal process were occurring, for example a four-eyes check not being followed, leading to data inaccuracies. Roughly a third of problems were simply down to data quality issues, such as an external vendor submitting incorrect data. The technical architecture issues were those such as batch jobs failing to move data between systems or data stores in a timely manner.

Changes to legacy systems and processes in the financial services industry needed to address operational risks and inefficiencies

With asset management fundamentally about maintaining investors' trust, ensuring low error rates in processes is a key focus for the industry. After identifying and understanding the root cause issues around data quality, the insights were shared around Schroders to help improve understanding of the cost involved in not addressing the opportunities from a client, risk, reputational, and operational efficiency perspective. Existing controls were also examined for robustness and effectiveness, along with more qualitative measures around consumer satisfaction and morale/trust in the data quality and the impact on other key processes.

A significant insight gained during the exercise was that no one team was able to assess the quality of the data once it had been delivered through the existing architecture and before consumption. A change was therefore necessary to enable Schroders to be proactive in the assurance of data quality and get ahead of potential data quality issues. The range of data issues also suggested that the quality could be assessed effectively by examining the data using various complementary measures, which could be made possible through an existing investment data store that received feeds from the operational systems and processes. Because of this, a project was launched to implement a data quality assurance capability.

Installing a new data management and monitoring system

Adaptability and implementation were key sells for Schroders

Schroders' first port of call was to explore what in-house tools it had available that could be applied to the problem. These were quickly discounted because they did not provide sufficient adaptability, particularly with non-numeric data, and tended to be functionally aligned in capability. As a result, Schroders explored a range of different vendors, and ultimately chose Experian. A number of vendors were quickly ruled out due to high implementation costs and being too heavyweight for the intended task. The shortlist was further reduced by eliminating those that were less user-friendly and required a longer implementation process involving significant consulting costs. After speaking to Experian, Schroders was able to test the Experian Pandora solution using a trial key, and because the solution

appeared to meet the requirements, it was chosen for a "proof of concept" test. Schroders leased the software on a six-month contract. During the first two months, there was a degree of manual working while getting to understand the software's capabilities, but after bedding it down, the resulting ability to explore the data was found to be positive. As a result of that test phase, the company decided to go forward with Experian's Pandora, given the flexibility it provided and that it would be the easiest and quickest of the available options to implement, with the solution scoring well in all the key factors for assessment.

Experian Pandora went from launch to bedded-down within three months

Implementation of Experian Pandora was a relatively rapid process, with Schroders using it as a service – only three months were required to bed down the software and integrate it into the existing technical infrastructure. Schroders' in-house team did 95% of the integration work, with Experian providing expert advice when and where required to ensure a smooth process. Experian Pandora was set up to monitor the data, flagging unusual shifts and data points, with Tableau used to provide a visualized set of the end results. In conjunction with its rollout, clearly defined ownership of the different data streams and aspects of the data flow were established, with engagement from the teams responsible for data protection as part of the start-of-day processes.

The new insights gained from the Experian Pandora output highlighted areas where there were repeated errors so that the investment operations team could investigate the underlying cause and offer potential remedies. One of the key features of Experian Pandora in regard to those improvement efforts was its "impact analysis" function, which enables companies to conduct impact and benefit assessments of potential fixes, helping them to identify where the greatest rewards could be secured.

Significant successes secured within a relatively short time frame

Once Experian Pandora was fully bedded down as a part of Schroders' investment operations capabilities, the rewards soon became apparent. After an initial increase in identified failures and faults, resulting from the solution's better monitoring capabilities, issue identification and resolution came at a faster pace. As a result, Schroders has seen a marked increase in the quality of start-of-day data since using Experian Pandora. One of the most significant short-term contributors was the reduction in the proportion of issues caused by applications and flows of data between them. Once Experian Pandora was bedded down and started identifying the full scale of issues with the existing processes, it was established that just under 15% were a result of system interactions – a figure that eight months later had been reduced to half that figure (see Figure 1). That represents a huge reduction in process breakdowns as a result of systems interactions, given that the total number of problems identified was also reduced during that period. Experian Pandora's speed also meant that the investment operations team is now able to target those problems much more quickly, reducing the impact due to the volumes of data that can be loaded in short time frames – ideal for the start of day, when timing is essential. Not only did Experian Pandora identify short-term system fixes, but it also highlighted the challenges that the existing systems faced in order to provide high-quality, timely data for the investment process, which led to further discussions around future data strategy and architecture upgrades. Schroders' operations team was also able to provide high-quality quantitative evidence to support that discussion.

Figure 1: Decline in communication and system bug problems as a percentage of total issues

Percentage of total issues identified

—— Communication —— System bug
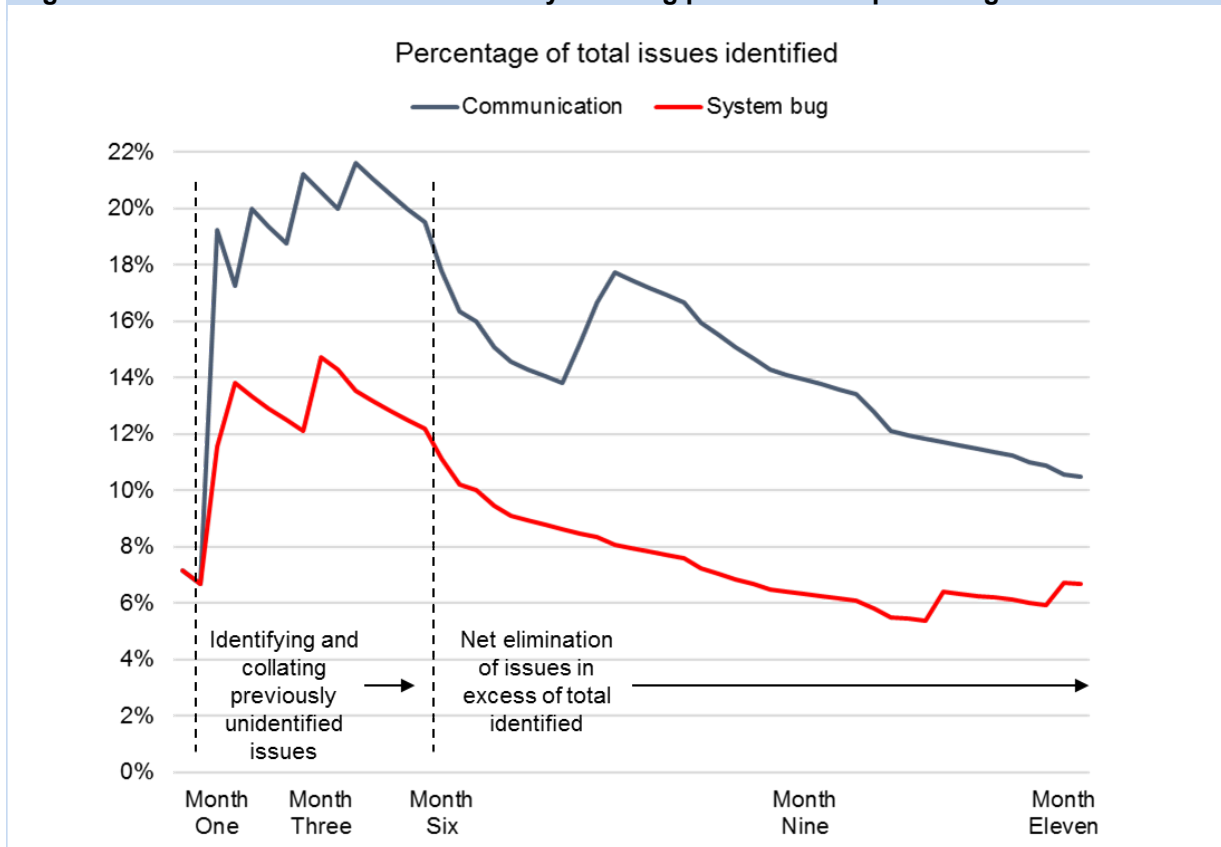
Source: Schroders and Ovum

Some of the subtler changes have been highly valued by Schroders

Schroders has come to really value some of the subtler but profound benefits of using Experian Pandora, such as the reduction in time spent reacting to data issues. With an improvement in data quality, and assurance now quantified, the operations team are free to focus on remedying data issues, investigating and communicating the results of data analysis work, and generally managing client expectations and experiences. By breaking down a heavily siloed legacy environment, for example, encouraging better communication between teams, Schroders has seen fewer errors, less duplication, and a happier, more positive working environment. After bedding-down, Experian Pandora identified that almost one-quarter of all issues involved communication between teams, a figure that was reduced within months (see Figure 1). The operations team is now able to focus on more complicated underlying issues that had been relatively small contributors to the overall picture, but now account for a higher percentage. These results from Experian Pandora have all yielded a significant morale-boosting effect, a perhaps a too-often-underrated reward from improved processes within the financial services industry that Schroders is particularly proud of.

There were also a range of benefits that took a little longer to become evident, mainly from the sharing of data quality information with the use of Experian Pandora. By breaking down barriers between teams and clarifying responsibilities, duplication was reduced. This was enhanced by the higher quality of data flows throughout the business, making the replication of reports that had been occurring when teams did not trust the data sent to them unnecessary.

As a result of these factors, it was possible to reduce the number of staff who had been hired for those data re-processing tasks, while also freeing up more time for the data consumers to focus on their primary roles. There has also been a shift in culture within the organization, spawning a data strategy with greater focus on improving the technology infrastructure and capabilities well beyond the areas directly affected by the use of Experian Pandora.

The subtle but collaborative relationship between Schroders and Experian has continued well after the implementation phase, and Schroders has played an active role in providing feedback about where improvements could be made, a process Experian has encouraged. There are mutual benefits to that engagement, as Experian works toward launching the latest version of its Pandora platform. Experian is gaining regular and honest insights into how it can improve what is a relatively mature product, such as automating elements of the data-loading process to reduce administration time. In return, Schroders gets to explore and influence the new version of the system, enabling a swifter decision as to whether or not to switch to it after launch.

Lessons learned

Data management tools free operations teams for bigger tasks

Before Schroders' operations team was able to utilize Experian Pandora, a significant portion of its time was spent reacting to data issues – trying to assure data after consumers had started to use it. Using a data management tool can, and in this case certainly did, free operations teams from those mundane reactive tasks and enable them to start preventing problems before they arise. That shift to an approach similar to the "preventative maintenance" used in manufacturing is a vital change that helps avoid faults, mistakes, and ultimately failures of business processes before they happen, and therefore before they result in significant costs on the company. It also allows a targeted approach to investing in upgrading systems or expanding teams, by qualitatively demonstrating exactly where the biggest weaknesses are within the organization, and therefore where greater ROI can be obtained.

Speed and simplicity are vital for non-core solutions

While tools for processes such as data management can be incredibly valuable for financial services firms, they are ultimately non-core to the running of the business. For a vendor to prove the value of its solution, it needs to demonstrate that it can be implemented quickly and with limited implementation costs. Management are unwilling to invest significant amounts of time and money up-front on such projects if they are uncertain of what the returns might be. Experian Pandora's success was due in part to how user-friendly the Schroders team found the solution to be in testing, convincing them that implementation would be as painless as Experian said it would be. In this case, the resulting belief in the ease of implementation swung Schroders' operations team toward choosing Experian Pandora. Similarly, the speed with which the benefits of using Experian Pandora became apparent helped maximize the positive impact for Schroders.

Fixing data faults boosts morale as well as business efficiency

Schroders' experience of using Experian Pandora demonstrates a wider message for solutions such as Experian Pandora, that financial services firms are not necessarily focused on just short-term financial gains when investing in software. While benefiting from being able to measure, manage, and

assure large amounts of data quickly, many of the real lasting benefits are less tangible and more to do with how employees think and feel. By creating a capability that provides visibility, transparency, and accountability into data quality and assurance, consumers' perceptions of data and its importance have changed for the better. All of those will have long-term positive benefits for the organization and its employees. Vendors with solutions looking to target areas such as data management should be thinking about how their offering can contribute to these wider benefits. Fixing the odd fault and reducing a few costs will provide a small boost, but providing relatively low-cost insights can produce profound sustained returns. A good relationship with the enterprise may also translate into further business, if management then look to replace systems identified as weak by the tool.

Appendix

Methodology

Ovum Enterprise Case Studies leverage in-depth interviews with key enterprise stakeholders as well as a review of any available documentation such as strategic planning, RFP, implementation, and program evaluation documents.

Further reading

Financial Markets Technology Spending Through 2021: Source Segmentation, IT0001-000018 (December 2016)

2017 ICT Enterprise Insights in the Financial Markets Industry, IT0001-000017 (November 2016)

Banking Software Contracts Analytics: Quarterly Analysis 1Q1 6, IT0003-000691 (July 2016)

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