

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. So many of those firms, however, 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 re-do reports they have received, costing firms time and money without guaranteeing the quality demanded of financial firms by regulatory authorities. Schroders decided that it was time for them 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, and after looking at a number of options they 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 its wider operational processes. The ability to shift from re-actively fixing things after an error or issue has arisen, to pro-actively preventing failures 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 prove obvious to 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, and they 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 firms' 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 fire-fighting to first eliminating quick-wins and then moving onto more profound underlying problems. While there are cost savings to this approach, the tools can yield much more, with 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 came in a large part due to the way in which they were able to make relatively full use of the tool within weeks of testing, with it 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 both have significant financial penalties as well as regulatory repercussions. This can also result in many businesses failing to properly make use of the wealth of data available across their organizations, with both systems and siloed structures often getting in the way of some teams being able to fully exploit high quality datasets that they could potentially make use of.

Schroders is a major 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 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 sub-optimal 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 in 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 those investors maintaining trust in the ability of the company to look after their assets, low error rates in processes are 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 of 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 complimentary measures, which could be made possible through an existing investment data-store that received feeds from the operational systems and processes. As a result 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, which could be applied to the problem. These were quickly discounted as they didn't 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, of which Experian was ultimately chosen. A number were quickly ruled out due to high implementation costs and being too heavyweight for the intended task. Those on the short-list were 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 were able to test their Experian Pandora solution using a trial key, and as it appeared to meet the requirements it was chosen for a 'proof of concept' test. Schroders therefore 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, it was decided to go forward with Experian's Pandora, given the flexibility it provided and as it would be easiest and quickest of the available options to implement, with the solution scoring well in all the key factors for assessment.

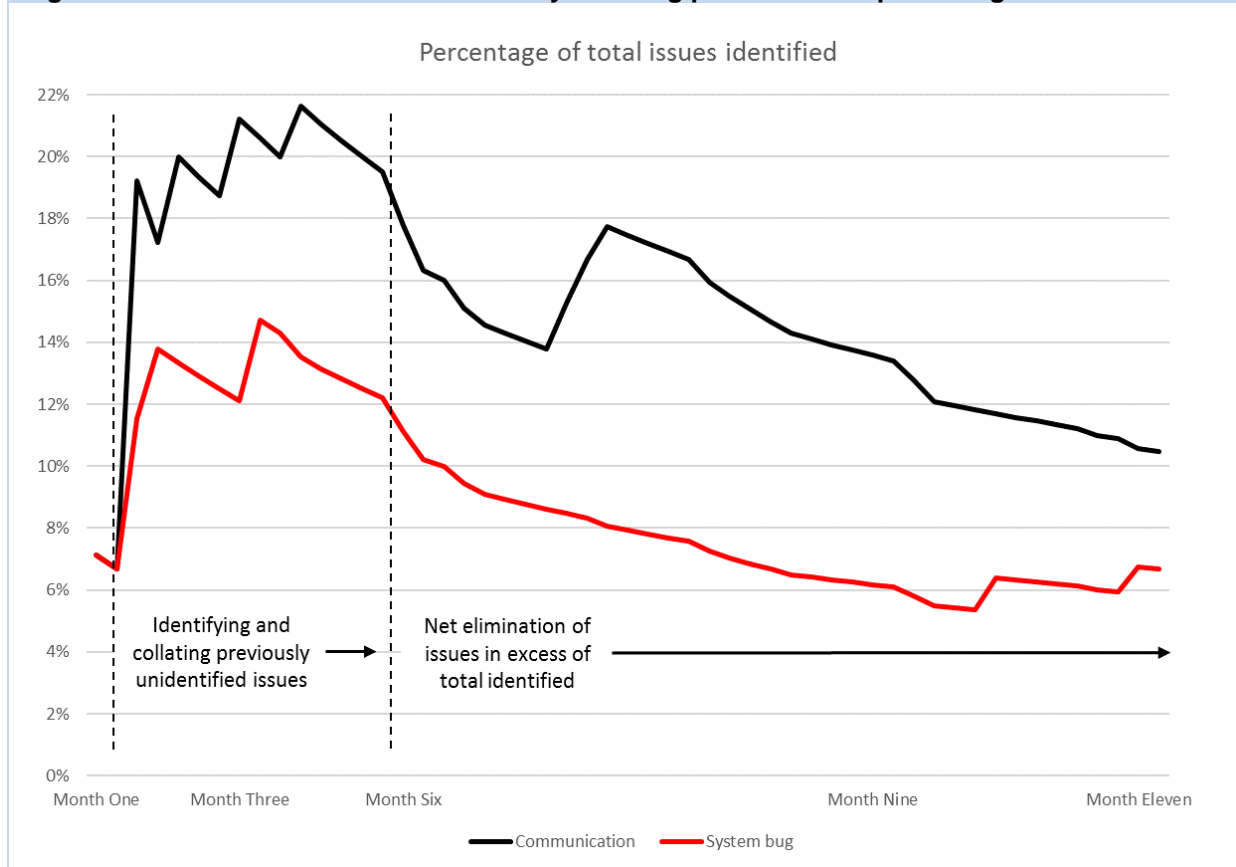
Experian Pandora went from launch to bedded-down within three months

Implementation of Experian Pandora was a relatively rapid process, with Schroders using it as a service and so only three months were required to bed down the software and integrate into the existing technical infrastructure. 95% of the integration work was done by Schroders' in-house, 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 roll-out, clearly defined ownership of the different data streams and aspects of the data flow were established, with engagement from 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 then investigate what the underlying cause was and offer potential remedies. One of the key features of Experian Pandora in regards to those improvement efforts was its 'impact analysis' function, which enables companies to conduct impact and benefit assessments of potentially fixes, helping them to identify where the greatest rewards could be secured.

Significant successes secured within a relatively short timeframe

Once Experian Pandora was fully bedded down as a part of Schroders' investment operations capabilities, the rewards soon started to become apparent. After an initial increase in identified failures and faults, resulting from the solution's better monitoring capabilities, identifying and resolving issues 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 timeframes – ideal for the start-of-day when timing is essential. Not only did Experian Pandora identify short-term system fixes, but it highlighted the challenges that the existing systems faced in order to provide high quality and 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



Source: Schrodgers and Ovum

Some of the subtler changes have been highly valued by Schrodgers

Schrodgers has come to really value some of the subtler but still profound benefits of using Experian Pandora, such as a 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. Breaking down a heavily siloed legacy environment for example, encouraging better communication between teams, Schrodgers has seen reduced errors and a more positive and happier working environment. After bedding-down, Experian Pandora had 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 therefore 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, which Schrodgers is particularly proud of and is perhaps a too-often underrated reward from improved processes within the financial services industry.

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, there was a reduction in the amount of duplication. This was enhanced by the higher quality of data flows throughout the business, making it unnecessary for the replication of reports that had been occurring when teams did not trust the data being sent to them. 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 towards 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 get to explore and influence the new version of the system, enabling a swifter decision whether or not to switch to it after launch.

Lessons learned

Data management tools free operations teams for bigger tasks

Before Schroders' operations team were able to utilize Experian Pandora, a significant portion of their 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 re-active tasks and enable them to start looking to prevent problems before they arise. That shift to an approach similar to the 'preventative maintenance' used in manufacturing, is a vital change that looks to avoid faults, mistakes, and ultimately failures of business processes before they happen, and so 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 so where greater ROIs 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, ultimately they are non-core to the running of the business. For vendors to really prove the value of their solutions, they need to be able 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 where they are uncertain what the returns may be. A part of Experian Pandora's success was due 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 towards 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. Whilst benefitting 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 has 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

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

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

Banking Software Contracts Analytics: Quarterly Analysis 1Q16, IT0003-000691 (July 2016)

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