WHITEPAPER

Data migrations and the risk to financial institutions

Moving from one IT system to another is among the biggest risks financial institutions face. Just ask the UK's TSB Bank.

The UK Financial Conduct Authority (FCA) and Prudential Regulation Authority (PRA) fined TSB £48.6 million in December 2022 for operational risk management and governance failures stemming from its catastrophic April 2018 IT upgrade project[1]. Technical failures left many of the bank's 5.2 million customers unable to access banking services, with full business-as-usual service not restored until eight months later. Redressing affected customers cost TSB another £32.7 million.

"The firm failed to plan for the IT migration properly, the governance of the project was insufficiently robust and the firm failed to take reasonable care to organise and control its affairs responsibly and effectively, with adequate risk management systems," said Mark Steward, FCA Executive Director of Enforcement and Market Oversight.

Former TSB Chief Information Officer Carlos Abarca was subsequently fined over £80,000 individually for his role in the technology update. The fine, levied in April 2023, was imposed for breaching PRA Senior Manager Conduct Rule 2[2].

Fear of failure paralyses progress

Fear of IT implementation failure is a key reason so many financial organisations remain on creaking legacy systems that are unable to deliver the operating efficiencies, customer service quality and digital experiences today's institutions need to boost their competitiveness. Troubled technology integration projects are also why corporate acquisitions often fail to deliver the economies of scale and cost streamlining benefits that the merger was supposed to deliver.

1. TSB fined £48.65m for operational resilience failings, Bank of England, 20 December 2022, https://www.bankofengland.co.uk/news/2022/december/tsb-fined-for-operational-resilience-failings
2. PRA fines the former Chief Information Officer of TSB Bank plc for a breach of the PRA's Senior Manager Conduct Rules, Bank of England, 13 April 2023, https://www.bankofengland.co.uk/news/2023/april/pra-fines-former-cio-of-tsb-bank-plc-for-breach-of-pra-senior-manager-conduct-rules

Fear of implementation failure is a key reason so many financial organisations remain on creaking legacy systems

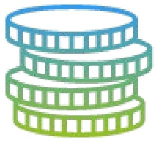
And data migration issues are at the root of much of that risk.

Data migrations have always been problematic. But margin pressures, new fintech competitors, client service expectations and increasing industry consolidation to cope with those challenges are forcing financial institutions to reassess their technology strategies. Infrastructure rationalisation and capability upgrades that enable firms to become more efficient and agile can no longer be ducked – especially as the acceleration in technology innovation shortens systems' shelf life and increases the pace at which legacy platforms become obsolete.

Firms in turn will be forced to grasp the data migration nettle.

The 3 costs of data migration

Fear of starting



Cost of transitioning

Post-migration clean-up

Troubled data migrations – or the fear they will be – cost firms in three important ways.

1. Fear of starting

The first is that they promote inertia. The huge data migration effort and associated anxieties are one of the primary reasons firms resist upgrading or moving on to new technology platforms. Delay has an aggregating impact though. The financial cost of running old systems, maintaining integrations, and patching functionality and security weaknesses only grows as the technology ages. Firms also suffer the opportunity costs from not moving on to more modern, functionality-rich solutions.

2. Cost of transitioning

Data migrations are complex and require expert help. Firms may need to hire external consultants to undertake the work. Software vendors often charge for the time and effort involved in migrating on to their systems, amplifying the expense. Given the reputational risk if a system migration is difficult, prolonged or ultimately fails, software firms are increasingly moving away from implementing the migrations themselves and are partnering instead with specialist third-party implementation teams, adding a further level of fees.

3. Post-migration clean-up

Data migrations are never seamless. However smooth the migration process, some degree of data clean-up will be necessary post-system implementation. That effort is usually substantial.

Data errors, duplications and missing fields are commonplace, meaning firms end up migrating garbage from one place to another. If the new system is to work properly, those data issues have to be resolved.

Why is migrating data so difficult?

Much of the migration pain stems from firms putting insufficient structure and control around their data. Financial institutions with true golden source datasets are vanishingly rare. Rather, the data tends to be siloed across teams, business lines and geographies, and replicated in multiple places.

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And the replications are seldom uniform. Data points may occupy a certain field or format in one system or business unit, and something different elsewhere. Spare fields are often employed for a variety of purposes, with different people across the organisation putting the same piece of data in multiple places. The result is that important lines of data end up in the wrong place post-migration, or parts of it go missing, leaving staff unable to do whatever they were doing previously with it on the new system.

Fee rates are a common problem area. An employee will create a fee rate in the system. But when the next employee wants to use that rate, they often can’t find it because so many already exist. So they create another almost identical fee rate, adding to the melange. And the older the data and the systems are, the more of a mess it will be in. This proliferation of garbage data points will then be transferred to the new system during the migration, perpetuating the problem.

Another issue is that different systems handle processes in different ways. One platform might calculate corporate actions using a particular workflow, while another adopts an alternative approach, making it hard to translate them across.

Many migrations fall over because firms try to build rules to map the data from their existing system to the new one. But because there are so many data variations, the mapping becomes enormous as they try to cater for every possible situation. And with the volume of data growing exponentially, that job is becoming progressively harder.

The result: massive delays and cost. To resolve the problems, firms will have to employ staff or pay consultants to tidy up and harmonise the data that has been migrated – work that may take months to complete. Any residual issues will leave institutions carrying a tail of garbage data that acts as a drag on their business by antagonising customers, exacerbating regulatory and reputational risk, impairing decision making, and hindering innovation and critical business initiatives, including moves to automate, digitalise and adopt AI solutions.

The clean data solution

The key to a successful data migration lies in understanding what you have at the outset. Getting visibility of the state of the dataset at an early stage by identifying any discrepancies and missing elements allows firms to enhance the quality, integrity and consistency of their data before it is moved from point A to point B. That minimises the data errors and duplication that come across during the transition. Clean, uniform data also tightens the mapping to the new platform and makes it less complex to implement.

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All of which requires focus and control. Troubled system implementations often occur where no one in the organisation takes full responsibility for the data clean-up and migration. In many cases, institutions hope their software company will take charge of bringing the data over during the system implementation or upgrade. A number of software vendors, wary of being blamed for any failed migrations, will no longer start the system implementation though until there has been a sufficient degree of data validation.

Data migrations tend to work best when someone with sufficient authority within the financial institution takes ownership of the process. One option is then to commit bodies to the data cleansing tasks – often by running spreadsheets and comparing them against downloaded data and data scripts to check for discrepancies – while dedicating people to the mapping to ensure all the necessary data translates across and goes where it should.

The downside is that takes time and consumes valuable resources. And even where it seems everything has been correctly mapped, rogue lines of data that put a spanner in the works are inevitable.

Automated data quality tools offer a faster, more reliable alternative. An automated system removes the expense and variability of human checking. Data errors, inconsistencies and duplication can be identified much quicker, enabling staff to concentrate their efforts on resolving issues. By seeing where and why an issue emerged and how to fix it, users can avoid repeating the same mistakes. For acquiring firms in M&A transactions, automated checks can also evidence where data problems lie and ease the integration effort.

Plus an automated system is always on. It offers financial institutions a 24/7 data analyst that takes no holidays, requires no training and makes no errors.

All parties benefit from pre-migration data cleansing

Cleaning up the data before a system migration saves enormous time and money in the actual process, and produces far better post-system implementation results. But it also offers longer-term strategic benefits, for all parties involved.

- ### Financial institutions

Eliminating – or at least minimising – data migration fears gives companies far greater freedom and confidence to pursue the business strategy they want. Knowing they can adapt their IT infrastructure where needed to deliver the requisite business support creates more nimble firms. It allows them to grow through acquisition, diversify into new customer segments, product lines or markets, and meet clients' service expectations.

Whereas avoiding a technology upgrade or new system implementation because they are too scared of the consequences, or only undertaking one out of desperation when they face no alternative, restricts institutions' growth and change possibilities.

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Clean data can also help companies that want to be acquired. Having a solid data platform that isn't riddled with errors will make them a more attractive prospect for prospective suitors. Any subsequent M&A transaction stands a better chance of success as well.

Whatever the firm's growth strategy, clean data and more seamless system migrations will help financial institutions improve their client service capabilities, customer retention and market reputation.

The damage suffered by TSB shows how high the financial and reputational costs can be when IT migrations go awry.

- ### Consultants

Consultants are a growing fixture in system migration projects. While it provides work and business relationships, the risk of a troubled or failed migration can have damaging consequences. Making migrations smoother, faster and more efficient, and completing them on time and budget, will result in happier clients. And happy clients are more likely to become returning clients. By showing they can do a better job than rival consultants, firms can also develop a competitive advantage.

- ### Software vendors

Client experiences determine a vendor's reputation in the market. The user experience with many software platforms though ranges from middling to frustrated. Often that is not down to the solution per se, but the consequences of poor data in the system.

Having clean data properly migrated results in a much better user experience and a higher return on their technology investment. Clients then become much stickier for the right reasons, rather than because they are too terrified to move.

Similarly, easing prospects' migration concerns will help get potential clients over the line during the sales process.

Migration opens up opportunities

The pace of change in financial services continues to accelerate – and with it the speed of technology developments to support that change. New markets are opening up. Product innovations proliferate. Target client markets are expanding and transforming. Service demands are growing. And regulation is evolving.

Firms' ability to thrive through these changes increasingly lies in leveraging modern technology solutions fuelled by accurate data. And ensuring that technology infrastructure is agile enough to keep pace with the business lines' shifting requirements.

Data-induced system stasis will be fatal in this environment. Don't let the fear of data migrations hold you back. It's time to embrace change and the possibilities it holds.

For more information on how financial institutions can get the data quality they need to optimise their migration processes, visit

www.wealth-dci.com