Capital markets need a new operating model: Built on data, delivered by people

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James Maxfield
Chief Product Officer, Duco, UK

James Maxfield

James Maxfield *is Chief Product Officer at Duco. His background covers senior leadership roles across operations and technology within major global capital markets organisations including UBS, Lehman Brothers and Nomura. Prior to being at Duco, he co-founded and led a boutique consulting practice that specialised in helping financial institutions overcome complexity across their middle and back offices. James has a strong track record of operating model transformation, helping organisations successfully deliver on merger and acquisition (M&A) strategies, regulatory compliance and large-scale automation programmes. He holds a BSc in applied economics from the University of Plymouth, alongside an MBA from Henley Management College.*

Duco,
49 Clerkenwell Green,
London EC1R 0EB,
UK
Tel: +44 (0)20 3111 9294;
E-mail: james.maxfield@du.co

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ABSTRACT

Capital markets companies are in the midst of a series of challenges that they cannot solve with revenue growth. This has increased the impetus for companies to look inwards and think about efficiencies and cost savings. The operating model that serves capital markets — and the legacy technology that powers it — is struggling to keep up, but change has historically been fraught with risk and the chance of failure looms large. This paper explores the need for a 'next-generation' operating model, the transformation pitfalls companies need to avoid when delivering one, the technology that enables it, and why people and data must be at the heart of any change.

Keywords: data, automation, operating model, transformation

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INTRODUCTION

The capital markets industry is beset by challenges and enveloped by possibility in equal measures. Market conditions have changed in recent years and left companies in a place where revenue growth alone is not the answer. The engine of a capital markets organisation has always been its operating model and as the pressure on companies builds, it is becoming increasingly apparent that old technology and ways of operating simply can no longer take companies where they need to go.

Leaders in the industry are already looking at developing next-generation operating models; those that completely rethink the way the company is run and what it can achieve as a result. It is only by undertaking such a significant transformation and harnessing the latest available technology that companies will be able to weather the current challenges, realise the immense opportunities around them, remain competitive and position themselves to thrive in the coming decades.

But the industry has a legacy of failure when it comes to transformation, with leadership often scarred by previous initiatives that fell short of their potential.[1] Much of this comes down to two factors. The first is the fact that data, while prized for its ability to provide insights, has always been viewed as something that needs managing, rather than an enabler of the company's operational engine.

The second factor is that, while data is overlooked when thinking about the operating model itself, it is people that are often

ignored when trying to effect any major change within an organisation. Technology often steals the limelight during transformation initiatives, but technology is an enabler of transformation, not a transformation itself.

As Boston Consulting Group (BCG) notes, 'technology is important, but the people dimension (organization, operating model, processes, and culture) is usually the determining factor. Organizational inertia from deeply rooted behaviors is a big impediment'.[2] And David A. Shore, PhD, an expert in change management and strategy at Southern Illinois University, observes that 'when change initiatives fail (and they do so more often than not) they rarely fail on technical skills (hard skills), they fail on the people skills'.[3]

It is therefore by approaching transformation from a people-oriented perspective that companies have the best chance of breaking free of the cycle of failed projects and actually delivering the next-generation operating model. This paper will explore the reasons why companies need to do more than just tinker around the edges of their operating models and the lessons that can be learned from previous attempts to deliver transformation. It will then chart a realistic path to developing and delivering a next-generation operating model and, once the people aspect has been sufficiently addressed, explore the technology that companies can harness to empower their people, solve the data problem and achieve these transformational outcomes.

WHY NOW?

What is it about the current conditions that make it imperative companies strive for, and achieve, a *next-generation* operating model? Why is it that they cannot simply make legacy architecture work harder, add more headcount to fill in the gaps where manual work is required, continue to operate the same lines of business, and move forward with more or less the same model they have had for years now?

To understand this, it is necessary to explore some of the biggest challenges facing companies today.

THE COST PROBLEM

Cost cutting is never not on the corporate agenda. But the need to save money is becoming more imperative as numerous market conditions coalesce in a way that companies cannot outpace through revenue growth alone.

As Deloitte notes in the 2024 Banking and Capital Market Outlook report:

> With the rising pressure on revenue generation, cost discipline will become even more of a priority, and possibly a competitive differentiator for banks. Efficiency ratio has been improving in the last few years globally, but it is expected to inch higher in 2024, due to sluggish revenue growth and high operating and compensation expenses … In addition, tight labor markets and accelerated wage growth in traditional offshore locations should add to the industry's cost pressures.[4]

John Da Gama-Rose, Head of Banking and Financial Services, Global Growth Markets, Cognizant, wrote:

> While higher rates may buoy profits temporarily at some banks, underlying cost issues plague nearly all. Bulging operating expenses driven by tech investments or redundancies have alarmed investors. So many banks now face the paradox of desperately needing digital innovation to retain competitiveness while scrutinising outlays or headcount bloat warily. I expect most banks to prioritise cost discipline in 2024 by curtailing discretionary tech expenditure and accelerating automation. Leaner

operations can then better weather macro-turbulence.[5]

The traditional operating model in capital markets is plagued by cost. A lot of this is the technology, processes and people associated with managing data. McKinsey reports:

> Large banks typically spend more than $1 billion a year on the IT infrastructure, but for many banks at least 30 percent of the applications and data are duplicative.[6]

This is because companies rely on an array of on-premise point solutions to tackle individual problems. These solutions leave 'automation gaps' in the company's architecture due to their inherent inflexibility, which are usually plugged with thousands — if not tens of thousands — of 'human application programming interfaces (APIs)' (see Figure 1). The systems, expensive in and of themselves, thus generate an enormous people cost. One global systemically important bank Duco spoke to has 9,000 operations workers, half of whom are offshored, in large part to handle the company's 65,000 manual processes that exist to cater for shortfalls in its legacy technology stack.

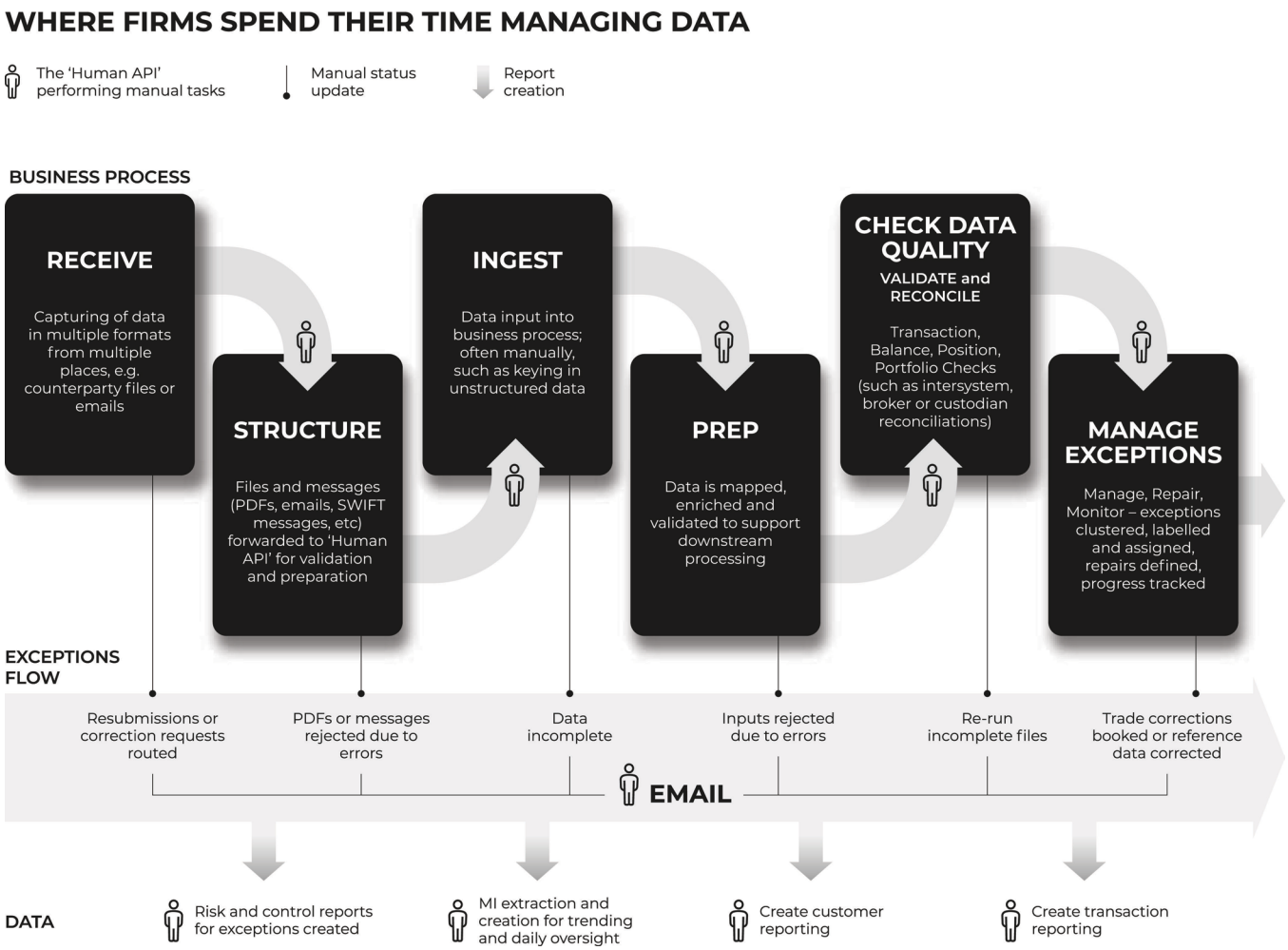

Figure 1 Human intervention in managing data

Research in 2023 by capital markets specialists at management consultancy firm Oliver Wyman[7] revealed that operations departments accounted for 5–6 per cent of the total costs for investment banks and capital markets companies and 8 per cent for asset managers. This was largely due to the number of full-time employees (FTEs), who represented 11–13 per cent of the total FTEs across the firm. Finance departments, by comparison, accounted for 1–3 per cent of total costs and 5–7 per cent of total FTEs (see Table 1). Analysts at Oliver Wyman estimate the global spend on operations across investment banking, capital markets and asset management was US$35–45bn in 2023.

REGULATORY PRESSURE

Capital markets companies are in the midst of a slew of regulatory changes (see Figure 2), each of which is exposing the weaknesses of an operating model designed around and running on legacy technology. The Commodity Futures Trading Commission (CFTC) Rewrite and the European Union (EU) version of European Markets Infrastructure Regulation (EMIR) are live [at time of writing, the UK version was still to follow in September 2024], but there are still changes to Australian Securities and Investments Commission (ASIC) and Monetary Authority of Singapore (MAS) rules to come, not to mention proposals around capital (such as the US Basel 3 Endgame and its EU equivalent) and fledgling rules governing the use of artificial intelligence (AI).

Tied into the previous section, capital requirements rules can have a direct impact on revenues. Oliver Wyman and Morgan Stanley predict that Basel 3 Endgame will see risk-weighted assets required to support the industry rise to 35 per cent. The final shape of the rules is still under consideration, but they expect return on equity for US banks to decline by 1–6 per cent as a result of the changing requirements.[8]

What is key about many of the other regulatory changes, however, is that they often focus on the importance of data quality and require companies to be much better at managing data. The CFTC and EMIR rules, for instance, are much more prescriptive than

Table 1: How much operations and finance departments account for the total cost and FTE numbers of the business

Department	*% of total costs*	*% of total FTEs*
Operations	5–8%	11–13%
Finance	1–3%	5–7%

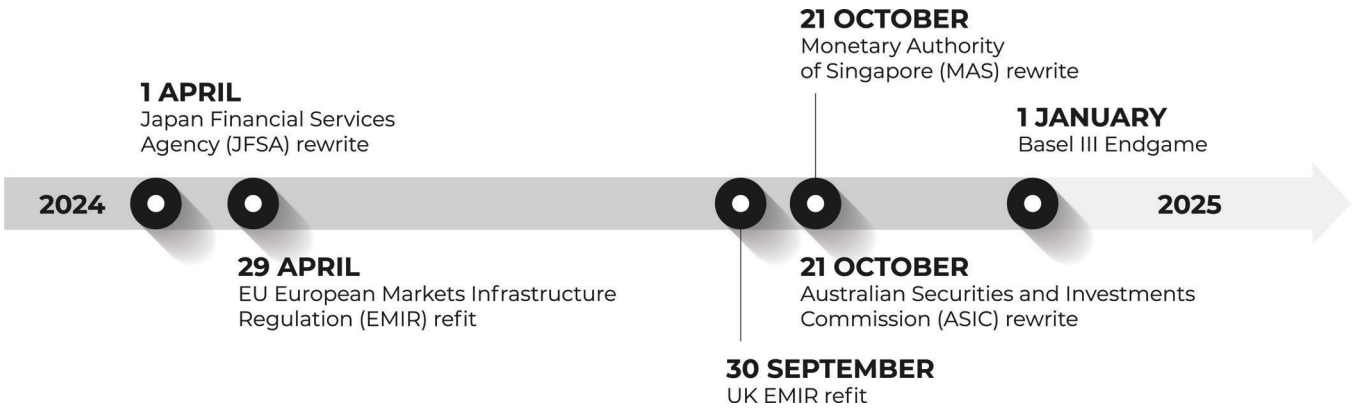

Figure 2 Key regulatory milestones for capital markets

rules past, placing a real focus on the accuracy, completeness and timeliness of data.

The current model is not set up for this: as mentioned already, it is full of opaque gaps between systems where manual work, often in a spreadsheet or some other unauditable tool, compensates for the lack of data automation (the front-to-back automation of data across its life cycle). Multiple teams work independently on the same data, transforming and enriching it to suit their needs. No one can trust the data they are working with, and so multiple processes are being run across the bank to verify its accuracy.

Meanwhile, the move to T+1 settlement and potentially beyond across the world is putting increasing pressure on post-trade functions and mandates evolution in this area. As Alexandre Kech, Head of Digital Securities, SDX explains, 'While the trading industry has always received the necessary funding to improve speed and efficiency, post-trade has always been lagging behind'.[9]

THE WAR FOR TALENT

Understandably, the role of 'human API' — dual-keying data, extracting it from e-mails, managing shared inboxes and the like — is not an attractive prospect for today's talent. Charles Juneau, AVP, Operations at Manulife Investment Management, notes:

> no one wants to come to work and do the same thing day in and day out and then go home at night and feel like 'What I did today, I'm not even sure if it's adding value'. I think everyone wants to come in and feel that they're making a difference.[10]

Banks therefore need to revamp the employee experience and offer candidates an alternative to a life of repetitive and low-value tasks. They need to offer career prospects that appeal to the digitally native Gen Z, who will make up 27 per cent of the workforce by 2025.[11] Stefanie Coleman, Principal, People Advisory Services at Ernst & Young, LLP, US, says:

> you can't put tomorrow's talent in yesterday's jobs. The next generation of workers expect to be digitally enabled in their roles and to do work that they find rewarding; creative, strategic and interesting.[12]

But the current operating model that exists in most companies simply does not allow for this. It relies on those workers, doing those repetitive manual jobs, in order to function. Without them, everything stops.

THE DATA PROBLEM

Data, or more accurately poor data, is one common thread that links these other major challenges. A large part of the cost base in capital markets companies comes from the complexity of their technology landscape,[13] where multiple on-premise point solutions add cost through licences, upgrade fees, testing, hardware, maintenance and developer resources while creating the need for thousands of 'human APIs'.[14] These take up a sizeable chunk of the operations budget even when situated in low-cost centres, all compensating for the hidden costs that come from a lack of trust in data.

Regulators are placing increasing emphasis on data quality, not just by being more prescriptive in terms of what companies report, but in terms of the controls that they have internally to ensure the accuracy of their reporting data. And, regardless of for what cause or purpose, cleaning up the mess left by bad data is not an enticing career prospect.

The idea that data is the new oil is already a cliché. The analogy focuses on data's value as a commodity — a thing that can be mined and utilised to derive value. But an alternative, but equally important, analogy

that capital markets are beginning to awaken to is the idea that data is like *engine* oil. It lubricates the entire organisation, keeping it functioning. Additionally, as with engines, poor quality 'oil' makes performance sub-standard and hard to maintain.

Events like the move to T+1 settlement in North America provide examples of the impact of poor data flows. When trade matching fails because the standard settlement instructions (SSIs) are outdated, or because a corporate action has not been posted to the correct reference data system in time, or because there is no business logic to allow for tolerances of a single US cent in pricing fields, these all stem from a lack of data automation.

Duco founder Dr Christian Nentwich explored the five main data challenges in capital markets in his article for this publication.[15] Briefly, they are the sheer variety of data financial companies have to deal with, the unrelenting pace of change, the scale of the data they are dealing with, the difficulty in tracking data across its life cycle, and the need to balance control with agility.

These challenges stymie legacy technology, which is not adaptable enough to respond. Capital markets organisations, however, typically organise and resource their operations around the idea that the data will be poor, this will break processes, and someone is going to have to clean up as a result. This creates an operating model which is reactive rather than one which understands the data and the role it plays in straight-through processing (STP).

Promisingly, however, there is an increasing realisation among companies that data challenges need to be diagnosed and addressed with automation. Companies have discovered the downside of adding more people or maintaining a fragmented operating model; it is unsustainable, expensive, too inflexible to change and unappealing to the people who have to work with it.

THE TRIALS OF TRANSFORMATION: WHY OPERATING MODEL CHANGE OFTEN FAILS

Transformation in any industry is difficult. Seventy per cent of transformation projects fail, ie fall short of their objectives.[16] In capital markets, EY reports that '38% of leaders say transformations underperform against key performance indicators (KPIs). In parallel, two-thirds (67%) experienced at least one underperforming transformation in the past five years.'[17]

But why is operating model transformation so tricky, especially when the pitfalls and the risks seem so well-known? There are several key recurring themes in underperforming transformation projects that many in the industry will find familiar and that are supported by research. As stated, at the core of so many of them lie people: their beliefs, behaviours and attitudes.

Failure to define the goal

Considering how often operating model transformation is discussed in the industry, one of the biggest challenges in effecting change is in defining and understanding exactly what a 'next-generation' operating model is. A large part of this is down to the complexity of capital markets companies and just how esoteric the operations of any particular company can be.

Let us look at another industry for comparison. The automotive industry has already embraced widespread automation of its production lines (which in our industry could be equated to STP) and therefore reducing cost (the thousands of workers carrying out manual tasks). Automation in the automotive industry takes a preconfigured set of precision machined parts and assembles them into a well-defined output. By contrast, while STP may be the same goal, the current operating model in capital markets is largely built around knowing that the components (the data) needed will *not* be fit for purpose and accommodating for that shortfall with

a complex set of technology and a vast workforce.

This all adds up to a landscape that is so nuanced that there will never be a one-size-fits-all approach to operating models. The capital markets industry has traditionally tried to address this issue by deploying many systems, each designed to solve one particular problem. It is therefore not enough for companies to simply say that they are aiming for 'a next-generation operating model'. There are too many variables and too much nuance for this to adequately convey the desired end state.

Lack of understanding

Confusion around the need for transformation is a common pitfall. Sometimes this is because the 'why' is not fully understood by the stakeholders who initiated the project; perhaps the desire is there, but it does not translate into a tangible, actionable plan. Other times, those executives have a clear vision but fail to transmit that to the wider organisation. Without stakeholder engagement and clarity of mission, individuals across the company cannot see where they fit into the journey, or even its destination.

Research by EY and the University of Oxford shows that transformation is around twice as likely to succeed if the drivers behind a change are clearly explained.[18]

Siloed approach to transformation

Capital markets companies are very siloed in nature. Nadine Chakar, Managing Director, Global Head of the Depository Trust and Clearing Corporation (DTCC) Digital Assets, explained:

> when we grew up in the industry we used to do everything from beginning to end, so you got a chance to understand how the lifecycle works. And as the industry grew, our idea of scaling was to functionalise quite a bit. So today people understand a very small part of the process; it's hard for them to stitch it.[19]

Transformation, then, often takes a similarly siloed approach, with initiatives being much smaller in scope and aimed at solving a problem for a particular business unit, rather than unlocking holistic gains for the whole company. But, as McKinsey's Jon Garcia explains, this does not lend itself to delivering the best outcomes:

> One of the things we've learned over the past decade or so is that trying to transform part of a company or an isolated corporate function is a pretty fraught and difficult exercise. You'll get better results when you approach a transformation comprehensively, meaning you tackle all parts of the puzzle, including performance and organizational effectiveness and health.[20]

This siloed nature of working also extends to the way banks allocate funding. It is usually done on a function-by-function basis, which supports those narrower, departmental changes focused on a particular business problem, but clearly becomes unstuck when working with something cross-functional like operating model change. All too often one team needs engagement outside of their jurisdiction in order to progress, which they cannot get if the other team has an alternative agenda or conflicting set of priorities.

This particular point is critical to understand; by not creating alignment with common goals, functional agendas will naturally dominate and create conflict with potentially more valuable outcomes. The role of leadership — be it C-suite or boards — is to create alignment of goals and recognise the potential disruption functional agendas can present for the mission.

Lack of engagement

Transformation projects often fail if people feel as if the transformation is being done 'to' them, rather than 'with' or 'for' them. This is often the case when transformation is

an IT-driven exercise, led by the technology organisation and with little engagement from the wider business. Davesh Patel, Asia Pacific Technology Industry Principal at Google, studied projects at 16 organisations spanning the US, Australia, UK, Germany and the Netherlands and found that all the low-performing transformations (those that failed to deliver value within 24 months) were IT-driven and lacked strong business engagement, defined as 'sponsorship from a P/L owner who stands to directly benefit from use case outcomes' (see Figure 3).

In many capital markets organisations, it is technology that owns the budget and resources for transformation, as typically it is assumed that the outcomes are technology-driven, eg cost, modernisation, upgrading. In reality, the operating model transformation has to be driven by the owners of the model (not the enablers of it) to ensure there is accountability for the end state and clarity of the transformation purpose.

According to Franzuha Byrd, Chief Information Officer at MorganFranklin Consulting, technology-driven transformation often fails because

> technology leaders are great at implementing technology but ask them to articulate the value of a digital transformation project in financial terms, and most fall short. I often encounter unrealistic expectations. Expecting a technology leader to achieve a high degree of alignment with desired business outcomes if they don't have a strong business background is impractical.[22]

To create a parallel example, would a company make the Head of Compliance responsible for cloud migration of core banking infrastructure?

Fear of change

Fearing change is a natural human response. It is a very real blocker that many companies fail to overcome, especially when transformation brings with it technology perceived (rightly or wrongly) as threatening jobs. This is often exacerbated by a lack of engagement or a poorly communicated vision. As Shore explains:

> People are people … we resist change. It's important to recognize that managing change is about upsetting people only at a rate that they can tolerate. It's all about physics. For change there must be movement. With movement there is friction.[23]

Also, fear of change comes in part from fear of failure, which, as shown, is quite justified

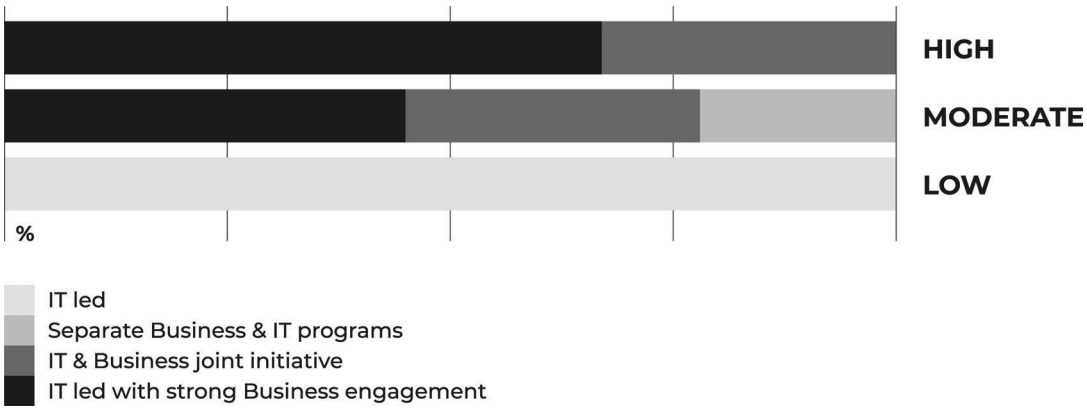

Figure 3 The relationship between business engagement and transformation success[21]

in capital markets, given the rates at which transformation projects underperform. A lack of psychological safety makes people reluctant to take onboard risk. As Chakar notes,

> we all talk a big game, you know: 'Oh, we learn from failure and failure is good.' When was the last time any of us got compensated for screwing up? Probably not ever![24]

Additionally, there has been an increase in the personal accountability of executives in recent years, as illustrated by the UK's Senior Managers and Certification Regime (SM&CR). The risk of personal sanctions such as dismissal or remuneration clawback has contributed to strengthening risk aversion among leadership.

A REALISTIC, PEOPLE-CENTRIC APPROACH TO DELIVERING OPERATING MODEL TRANSFORMATION

The pressing need for an operating model evolution is well established, as are the common transformation pitfalls companies often encounter when they try to effect change. Knowing those pitfalls is not sufficient to make change. Companies instead need to be very deliberate in their strategy. Research into transformation shows the importance of several key pillars companies need to be aware of when delivering a next-generation operating model.

A strong vision

It has already been observed that lack of communication around vision is a common pitfall of transformation. But before the vision can be communicated, it has to be developed. Changing the operating model because other companies are doing it, or to harness the latest technology (when the budget is there, there is a desire to spend it), is a weak driver of change. As Jennifer Peve, Managing Director, Head of Strategy & Business Development at DTCC explains, 'I think it's easy to get swept up in hype and throw a lot of money at something in the very early stages because of the fear of missing out'.[25]

Research by EY similarly highlights the importance of having the right vision:

> According to the transformation leaders we spoke with, the most frequently cited cause of unsuccessful transformation is an unclear vision. In addition, less than half (41%) of employee respondents say they understood and believed in their organization's transformation vision and strategy.[26]

The vision for transformation should be aligned to the wider strategic goals within the business, which may tie into addressing one of the main challenges outlined earlier, such as cutting cost, improving regulatory compliance or attracting the workforce of the future. Only when the vision is fully formed, defensible, and has a clearly defined end goal can it be communicated.

Understand the current state

It is not enough to simply know that the current operating model is unfit for purpose. Companies must understand the current state of their operating model in detail if they hope to successfully change it.

In reality, organisational knowledge of what the thousands of people in operations are actually doing is limited. Very few organisations ever attain a credible view around their operations teams, in part due to sheer complexity, but also due to the enormous cost associated with doing this properly. This lack of coherency around the baseline for transformation (versus perhaps a chief finance officer [CFO] allocated view of cost) often leads to failure before any future state is designed.

Transformation projects often extend beyond their deadlines and go over budget.[27] One reason for this is because the process tends to uncover blockers that had not been factored into the original scope of the project. This stems from a lack of understanding.

It is important, therefore, to fully map out the current state of operations. Once companies understand the end-to-end process journey and the data required to achieve STP, they have a holistic picture of not only what needs to change, but also what will be affected by the change. Doing this in isolation (by process or function) is often necessary due to the fragmented nature of the operating model (for example, vendors, offshored locations and so on), but this makes bringing this journey together challenging. At best, they marginally improve the individual functional experience and at worst, they fundamentally miss something that has to be fixed in the latter stages of the project. Or as often happens, they compensate for the transformation failure with more people — and so the cycle begins again …

Taking a data-centric approach to understanding these processes (focusing on the data and not the systems) or taking a customer journey lens (for example, a margin call or a trade settlement) takes some upfront effort but adds material benefit overall.

Connect the now to the next

It is vital to create a roadmap of specific, measurable steps that can be taken as an organisation to move from the current state to the desired end state. This helps to circumvent many of the transformation blockers already explored.

For instance, it allows companies to anticipate and avoid funding blockers. Given the context of a historically high failure rate for transformation, companies are understandably reticent to allocate large budgets for transformation initiatives. Adopting a phased approach to operating model change gives companies a chance to prove value as they go along the journey, making the next tranche of funding much easier to justify. As Mizuho Global Head of Operations Ken Utsonomiya explains,

> Even if I explain that new systems or processes bring efficiency gains, people can't imagine it. So, my strategy is to start small, deliver quickly and show a result. And people will often say 'We should do more of this'.[28]

This road map also helps to keep the entire organisation engaged in the journey.

Address the data problem

The difficulty around moving to T+1 settlement in North America lay mostly in the reactive operating model outlined earlier that most companies were running. These companies needed two days for settlement because their legacy data technology had to batch process their data overnight (see Figure 4). It was not until the start of the day after trade date that companies were aware of the issues with their data. Clearly, this was far too late for T+1 settlement — but companies could not simply compensate for trade processing windows halving by doubling their workforces.

Next-generation operating models must work differently, recognising the role of data as a process enabler (the engine oil mentioned earlier), rather than being architected around the exceptions that block mission-critical processes. The desired operating model is data-centric, that is, it is built upon proactive data quality controls in order to prevent these downstream issues that require such a vast human workforce in the first place. In the case of T+1, a data-centric approach would be to identify all the data requirements for STP and then put controls in place to ensure the accuracy of that data at source. Put simply, optimisation

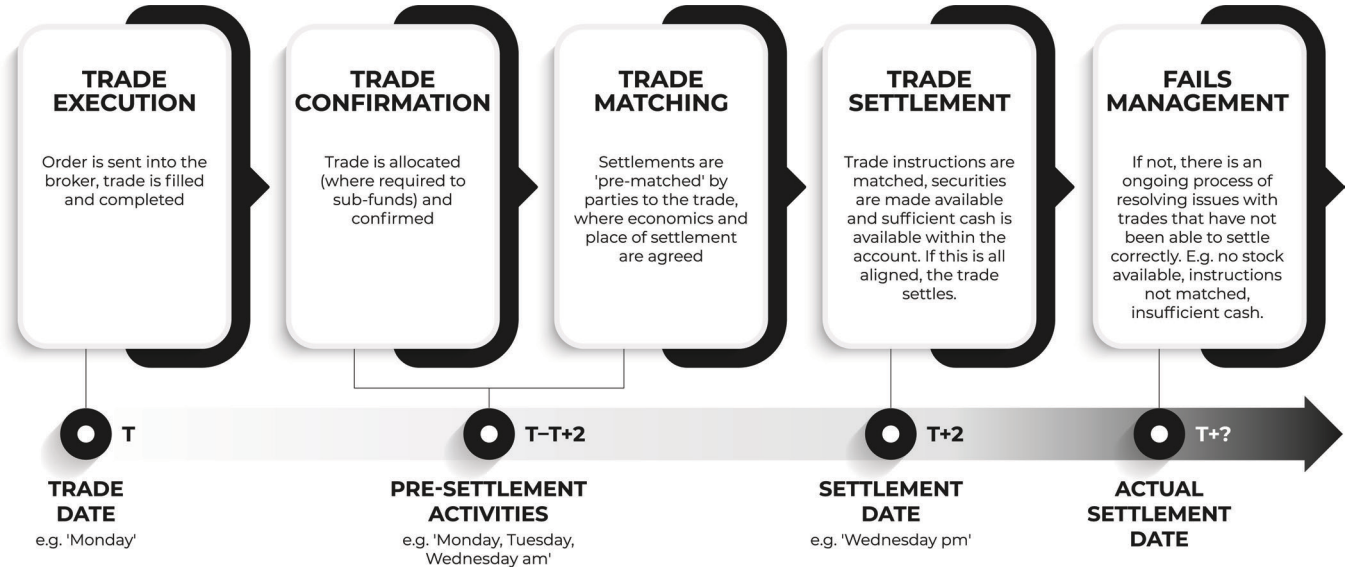

Figure 4 Trade settlement in a pre-T+1 world

here is trying to understand how to push processes 'pre-trade' rather than relying on a set of system processes to generate exceptions post-trade.

TIME TO CONSIDER TECHNOLOGY

Then, with these other elements in place, it is time to ensure you are providing technology that fully enables everyone involved to deliver the goals of the transformation.

Technology innovation promises lots of exciting, transformational opportunities for capital markets companies. But it is only when the people-centric aspects explored so far are taken care of that their potential can be realised. Technology must be combined with a well-developed, articulated and communicated vision, a thorough understanding of the current and end states, and a detailed map of the journey from the former to the latter.

How technology enables the end state and the role of people within the operating model is as critical as the automation benefits it brings. It is not all about automation, but the role of the people within it.

The tools of transformation

Even when talking about technology, it is people that are the subject. They will implement the technology. Adoption depends upon them. They will use it; they may be threatened by it.

A lot of the conversation around the impact of artificial intelligence, particularly generative AI (GenAI), sets up technology and people as opposites: two sides of a war for jobs. But AI and the other technologies outlined below play a key role in empowering people.

No-code applications

No-code applications enable users to create software or processes without needing to understand computer programming languages. They often use drag-and-drop interfaces, allowing users to select from preset but configurable components. They can be used to create dashboards, forms or surveys, entire websites, databases or even mobile applications. In the world of data automation, it is the subset of no-code applications that harness natural language rules that is particularly relevant. These tools

allow users to build controls, such as data transformation rules, by selecting from a list of commands written in plain English.

No-code applications are truly supportive of a next-generation operating model because they rewrite the rules on how change is managed and actioned. In a world where talent shortages are seen as the biggest blocker to adoption of new technologies,[29] no-code applications provide a refreshing solution: empower the talent companies already have.

As explored earlier, having technology teams solely responsible for transformation is a precursor to failing to deliver on the goals of the project. But this presents capital markets companies with an acute problem, given the historic way that they have owned technology, managed change and ensured governance (or more accurately, as will be seen shortly, *attempted to* ensure governance).

Most data management systems used in operations are so technical that only developers can build and deploy data controls. Operations must first brief technology teams, usually with lengthy business requirements documents. Their request enters the development pipeline and is eventually tested and implemented. Errors in the finished process are usually due to missed specifications in the original briefing. If found, the whole process must start over. The result is a backlog of development requests, and a time-to-market measured in months.

Another example is document processing. Legacy applications in this space need extra rules hard-coded into them in order to adapt to new document types, or to introduce new business logic. Given that companies could be dealing with dozens, if not hundreds, of documents, spanning hundreds or thousands of different fields, this places a lot of demand on a company's limited technology resources.

In theory, however, this process ensured strong governance. All changes were thoroughly documented and vetted by IT. But those 'human APIs' mentioned earlier, using spreadsheets and other opaque forms of end-user developed applications, are testament to the fact that the control simply is not there.

No-code applications solve these problems. They replace the need for coding with other ways of creating applications and processes, such as selecting from plain English commands to create business rules. This enables the operations users — who are, after all, the subject matter experts when it comes to the data and the business need — to create the processes themselves. Governance is stronger because no-code applications remove the need to choose between meeting the immediate needs of the business or following the necessary protocols.

Considering that the research presented earlier clearly shows that a key driver of success is when people across the organisation are empowered to effect change and feel involved and have a stake in the transformation, the potential for no-code solutions to help companies change their operating models is clear.

AI

AI is not as new as people often think. Peve says, 'we (the industry) have been using a form of artificial intelligence for decades'.[30] Advances in AI, however, particularly the innovation of GenAI, have broadened the scope of what can now be automated.

AI is essential for delivering true data automation for capital markets, because it is inherently adaptable and can respond to change. This has always been the Achilles' heel of previous automation tools. Legacy data management systems were built to handle data from a particular source and in a particular format; as soon as a new type of data arrived, they were unable to read or process it.

Meanwhile, attempts to automate document processing with optical character recognition (OCR) tools run into similar

problems. These tools need to be 'pointed' at the relevant data in a document. If a new document arrives where the signature box, for example, is just a couple of centimetres to the left, the tool will not see it.

AI, in particular GenAI, can solve these problems. They are not programmed with a very narrow and prescriptive business logic, as with legacy systems. Instead, they are trained to recognise the relevant data in documents, or to identify and emulate human behaviours when it comes to extracting, validating, reconciling and publishing data and perform these actions automatically. Combined with the no-code functionality described above, such AI tools enable business users to create automations and even train machine learning models based on the needs of the business.

This, clearly, is a radically different way of operating, one where 'human APIs' are no longer needed and operations has far more autonomy. 'What is exciting about the recent evolution of the technology is that it can replace time-consuming activities and free up teams to focus on more value-add tasks which can in turn drive greater value for clients and the organisation', says Peve.[31]

Cloud computing

The advent of the cloud changed the way companies access and utilise computing power and software. Many companies in the capital markets space still rely heavily on on-premise legacy technology, hosted on their own private data centres and managed by their IT teams.

The costs associated with these systems are significant, with companies often requiring licences for multiple teams and the systems requiring expensive, and often mandatory, on-site upgrades. These then incur additional costs due to the regression testing companies must run afterwards.

And then there is the issue of scalability. On-premise systems are restrained by the capacity of the data centre in which they operate. Adding additional compute power requires adding and maintaining more hardware. This is neither cheap nor rapid.

Embracing the cloud is another way companies can create an operating model that looks vastly different to the norm. Cloud computing enables the Software-as-a-Service (SaaS) model. This removes the costs associated with owning and maintaining hardware. For example, technology vendor Murex reports that a large bank running its MX.3 platform will pay US$2.8m over three years versus US$4.2m over the same period for an on-premise solution — a saving of 34 per cent.[32] On top of cost savings, the SaaS model also removes the siloed nature of technology and heralds standardisation, because teams from across the organisation — and across the globe — can access and utilise the same system.

Data automation

Data automation is a strategy that combines the tools listed above to overcome the challenges faced by companies using legacy technology. No-code functionality means the technology is operated by business users, not IT, although they still retain control of the governance aspects of the platform. The ability for operations teams to rapidly build the controls they need brings much greater responsiveness to the business.

AI capabilities enables data automation platforms to respond to all kinds of data and business change and automate repetitive manual tasks. Enhanced STP frees up people resources, which innovative companies already adopting data automation often put towards higher-value work. Running on the cloud means these platforms remove a lot of the cost associated with on-premise technology while delivering quick and regular updates and accessibility across the business.

All this enables companies to automate the front-to-back processing of data across their enterprise, giving them the agility and

transparency necessary to build a data-centric next-generation operating model.

CONCLUSION

There is a strong case in favour of radically overhauling the operating model in capital markets companies. While a next-generation operating model will look different from company to company, it is partly characterised by its ability to help companies navigate the biggest challenges that lie in front of them and partly by the way in which it views and utilises data.

Delivering a next-generation operating model is as fraught with risk as any transformation project; however, the pitfalls of transformation are well known, both anecdotally and supported by research. Companies have the opportunity to rise to the current market challenges by re-architecting their businesses not just to alleviate short-term pressures, but to unlock efficiency and agility that will serve them well for decades. By focusing on data — not just the legacy applications that make up the technology stack — they will be able to embrace much of the cloud-powered innovation available to drive material change within their operating models.

But most importantly, innovation will only enhance the value chain of operations if the equivalent investment is made in people. Only in the hands of people with a clear understanding of the vision and an accurate, realistic roadmap for change can groundbreaking technology ever make the kind of impact that it promises and that companies need.

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