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Unravelling the future of financial services

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- Forward-looking solutions for tomorrow's leading asset management firms
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Deloitte.

In this issue

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Foreword

A combination of trends unique to Southeast Asia – high mobile penetration rates, underserved segments of consumers, and a relatively young population – has been driving the rising demand for FinTech solutions in recent years.

For some time now, banks and financial institutions have been feeling the heat of FinTech disruption. In addition, retail, telecommunications and other sectors are also beginning to witness a cascading wave of change brought about by these new technologies. So what does the future hold for the financial services industry?

In this issue of FSI*Review*, we unravel the future of financial services and explore how financial institutions can stay ahead of the curve by understanding how FinTech can help take them into the future.

We begin with a topic that has been generating a lot of attention in the industry – Artificial Intelligence (AI). As AI significantly changes the traditional operating models of financial institutions, how can financial institutions better embrace AI and prepare themselves for the future? "The New Physics of Financial Services" report by the World Economic Forum and Deloitte studies the implications of AI on the financial services industry, highlighting nine key findings that describe the impact.

Next, we turn our attention to the insurance sector. Advancing technology has collided with longstanding customer issues to create a series of deep, lasting and systemic challenges. In a report that examines the forces disrupting the insurance sector, we discuss how FinTech has sparked a revolution and present four possible scenarios for the future.

Times are changing in areas of asset management, and leading asset management firms must develop and implement innovative and effective solutions now to remain competitive. To help these companies manage arising challenges, we look at six forward-looking solutions that can potentially empower asset managers and provide exceptional value in this shifting landscape.

In our final article, we explore the realm of data collection and analysis, focusing on the drivers and trends that will impact the future of real estate services, and recommend steps that providers can take to stay successful.

We hope that you will find this issue of the FSI*Review* an interesting and insightful read.

Ho Kok Yong
Financial Services Industry Leader
Deloitte Southeast Asia

The new physics of financial services: How AI is transforming the financial ecosystem

Artificial Intelligence (AI) is fundamentally changing the physics of financial services. It is weakening the bonds that have held together the component parts of incumbent financial institutions, opening the door to entirely new operating models and ushering in a new set of competitive dynamics that will reward institutions focused on the scale and sophistication of data much more than the scale or complexity of capital.

A clear vision of the future financial landscape will be critical to good strategic and governance decisions as financial institutions around the world face growing competitive pressure to make major strategic investments in AI and policy makers seek to navigate the challenging regulatory and social uncertainties emerging globally.

The World Economic Forum and Deloitte's latest report studies the strategic, operational, regulatory, and societal implications of AI on the financial services industry to explain previously sensationalised debates and help the industry look forward.

Highlighted in this report are nine key findings:

#1: From cost centre to profit centre

Institutions will turn AI-enabled operations into external services, both accelerating the rate at which these capabilities improve and compelling others to become consumers of those capabilities to avoid falling behind. AI-enabled back-office processes can be improved more rapidly by offering them 'as a service' to competitors.

By shifting to an 'as a service' model, institutions will be able to develop AI-driven centres of excellence around given processes, and offer that process 'as a service'. These processes continuously learn and improve using data from their collective users, improving at a rate faster than could be achieved by any one institution, and creating a defensible advantage in efficiency and a sustained revenue source.

#2: A new battlefield for customer loyalty

As past methods of differentiation erode, AI presents an opportunity for institutions to escape a "race to the bottom" in price competition by introducing new ways to distinguish themselves to customers, driven by access to unique datasets and virtuous cycles of data.

AI frees financial institutions from the need to make trade-offs between better service and cost, giving rise to a new set of competitive factors on which financial institutions can differentiate. These include:

(1) **Customisation:** The ability of institutions to optimise financial outcomes by tailoring, recommending and advising customers better will allow them to compete on value offered.
(2) **Capturing attention:** The ability of financial institutions to engage users and access data through ongoing and integrated interactions beyond financial services (e.g. offering forecasting services to merchants, booking repairs for vehicle damage, etc.) will allow them to better retain customers.
(3) **Developing ecosystems:** Financial institutions' ability to bring together data from multidimensional networks that include their consumers, corporate clients and third parties will allow them to offer differentiated advice and improve performance.

#3: Self-driving finance

Future customer experiences will be centred around AI that can deliver a radically reimagined customer experience by allowing customers' finances to run themselves, and acting as a trusted adviser in moments of need. This is done in three key ways – empowered platforms, mass advice and customisation, and continuous optimisation.

Empowered platforms can dominate the race for customers by providing the best financial outcomes by matching customers with products based on price and fit, through institution- and product-agnostic algorithms. Advice will be increasingly personalised and products bespoke thanks to the use of data. Day-to-day financial management will also be automated as always-on algorithms and advisory platforms emerge. For example, algorithms can optimise cash flows (e.g. savings rates), avoid fees, monitor for better deals and switch providers when necessary. This will result in better customer experiences around price and product.

#4: Collective solutions for shared problems

Collaborative solutions built on shared datasets will radically increase the accuracy, timeliness, and performance of non-competitive functions, creating mutual efficiencies in operations and improving the safety of the financial system.

The research suggests that AI-based collective solutions present a significant opportunity to address core challenges of the financial system, and new frameworks must emerge to enable shared accountability if collective solutions are to succeed.

For instance, due to data asymmetries, processes such as fraud prevention and anti-money-laundering controls are run sub-optimally. If unchecked, there is a threat of a system-wide contagion, and timely response is critical to the resolution of these threats. On a positive note, there is strong potential for cross-institutional collaboration on these issues and with the tremendous value of shared datasets, AI presents a strong mechanism to collaborate.

#5: Bifurcation of market structure

As AI reduces search and comparison costs for customers, firm structures will be pushed to market extremes, amplifying the returns for large-scale players and creating new opportunities for niche and agile innovators. This phenomenon[1] is defined as being the result of the simultaneous creation of long tails in product availability, combined with a winner-takes-all superstar structure. AI accelerates this phenomenon by magnifying the impact of several key drivers:

- **Search and database technology:** AI-based search algorithms can better match users with what they are looking for, making more qualitative aspects of financial services easier to search and compare
- **Personalisation:** By enabling continuous customisation, AI helps products better meet the unique needs of customers who were previously under-served
- **Making niche products cheaper to build:** As AI automates back-office processes, new products and offerings have a low marginal cost, improving the economics of offering niche products
- **Improving returns to scale:** As search costs are minimised, scale players have inherent advantages in offering the cheapest products (e.g. the lowest-rate loans or cheapest insurance premiums)

As institutions get pushed to market extremes, firm structures and core competencies at either end of the spectrum will begin to look radically different.

#6: Uneasy data alliances

In an ecosystem where every institution is vying for diversity of data, managing partnerships with competitors and potential competitors will be critical but fraught with strategic and operational risks. In order to access the full benefits of AI, institutions will be pushed to enter into data partnerships for short-term opportunities, and these alliances will have winners and losers. Alliance "winners" will be those who can successfully turn themselves into ecosystem hubs while alliance "losers" will be those relegated to the periphery of the ecosystem, becoming interchangeable with other data and capital sources.

These partnerships are proliferating across the financial services ecosystem, but only time will tell if these relationships drive sustained value. This results in incumbents being placed in a double bind: they cannot resist entering data partnerships but these partnerships may threaten their competitive positioning.

1. "Long Tails Versus Superstars: The Effect of IT on Product Variety and Sales Concentration Patterns", as of 1 July 2014. SSRN. Retrieved from https://ssrn.com/abstract=1676368

#7: The power of data regulators

Regulations governing the privacy and portability of data (e.g. GDPR) are placing new limitations and requirements on the collection, transmission and storage of personal data. As such, data partnerships become increasingly difficult to manage as parties are held to stricter requirements. Consumers also gain increasing control over their data, including control over who can access that data and "the right to be forgotten".

The ability to use public and private cloud infrastructure, and to use the kinds of data that can be hosted on the cloud, is critical to the development of AI application. This impacts competitive dynamics, for example, regulations on cloud usage by financial institutions vary globally, with stricter restrictions in Europe, while technology players in regions with more relaxed rules have an advantage in developing new capabilities.

The evolution of data regulations will be the critical driver in determining the roles and relative positioning of different players in financial services.

#8: Finding a balanced approach to talent

Talent transformation will be the most challenging speed limit on institutions' implementations of AI, putting at risk the competitive positioning of firms and geographies that fail to effectively transition talent alongside technology. Financial institutions will have to achieve a balance between the rapid deployment of new technologies and the development of a talent ecosystem that is fit for the more transformative changes facing the institution.

AI is giving rise to a new discipline with regard to how financial institutions plan for their future talent and technology needs. Implications of this new discipline include institutions facing a prolonged skills deficit, people management becoming a competitive advantage, investment in talent being a critical enabler of AI, and false starts resulting from resistance to change.

#9: New ethical dilemmas

While the potential benefits of AI will be striking, its potential risks to societal and economic well-being are too great to be left unaddressed.

Mitigating the social and economic risks of AI in financial services will require multi-stakeholder collaboration given that global communities have a joint interest in mitigating the risks and harms of rapid technological development. AI will necessitate a collaborative re-examination of principles and supervisory techniques to address the ethical grey areas and regulatory uncertainties that reduce institutions' willingness to adopt more transformative AI capabilities.

Conclusion

AI presents significant opportunities for financial institutions, but only if internal challenges can be overcome and societal implications effectively managed. The growing role of AI in shaping the future of financial services will require financial institutions to simultaneously be the first and best in the deployment of AI, and collaborate with many stakeholders to maintain a challenging balance between competition and collaboration.

This report is based on research done over one year, including over 200 interviews with subject matter experts and seven global workshops, prepared by the World Economic Forum in collaboration with Deloitte.

A catalyst for change: How FinTech has sparked a revolution in insurance

It's a moment of truth for insurance. Despite a long period of relative stability in the industry and continued overall strengthening of surplus capital, sustainable, profitable growth has been elusive for the majority of carriers. Where we have seen growth, it has come largely as a result of taking market share from competitors or in the more emerging markets. More often than not, this growth has come at a cost.

The challenge—or indeed opportunity—of the coverage gap remains, largely absent of any real improvement. The promise of new business models to attract the under and uninsured remains unfulfilled. Too many customers remain challenging to insure due to prevailing product and cost structures. The need for product simplification is well-acknowledged, as is the need to pivot to insurance based on what customers want (versus what carriers believe they can sell). That said, genuine progress has been anaemic.

Accidental disruption

Incumbent insurers face a high degree of unintentional disruption from other industries. These developments tend to change the nature of risk or introduce new characteristics of risk that might not have existed in the recent past. They also introduce new business models that challenge elements of the insurance value chain while influencing client needs, expectations, and preferences. Examples include:

Industry 4.0. Manufacturer processes and systems are being transformed with the introduction of technologies such as AI and augmented reality. This changes the nature of risk in the manufacturing space, with corresponding implications for the commercial insurance markets.[2]

The future of mobility. This category includes automotive technology, connected cars, and semi- or fully-autonomous vehicles. It also includes go-to-market models such as subscription programs, car sharing, and ride hailing. Whatever the innovation, be it technology or business model, the automotive and transportation industries are pouring billions a year into it. The implications for insurance are profound.[3]

Genomics. In life sciences, genomics—the decoding of a patient's personal biology—is creating more effective ways to identify, predict, treat, and manage diseases. Gene splicing technology such as CRISPR Cas9 creates even more challenge to the future use case for life insurance business lines.[4] All these developments have a significant influence on longevity and ways to underwrite life insurance in the near future.

Wellness. Lifestyle factors help to determine risks covered by life- and disability-related insurances—and play an increasingly significant role in underwriting versus traditional mortality and morbidity tables. The rise of wearable technologies, along with continued growth and development in wellness, is altering consumer understanding and creating new models for lifestyle-related behaviours.

Connected home. Smart devices are becoming more pervasive in the home. Meanwhile, competition is intensifying to own the hub or platform that connects these devices. The future effects on insurance needs, and the related opportunities and threats, are an open question.

2. "Industry 4.0: Are you ready?," Deloitte Global, https://www2.deloitte.com/insights/us/en/deloitte-review/issue-22/industry-4-0- technology-manufacturing-revolution.html.
3. "The Future of Mobility™," Deloitte, https://www2.deloitte.com/us/en/pages/about-deloitte/topics/future-of-mobility.html.
4. "Genetic testing threatens the insurance industry," The Economist, 3 August 2017, https://www.economist.com/finance-andeconomics/2017/08/03/genetic-testing-threatens-the-insurance-industry.

Possible futures

None of this is new, but this time it is different. Advancing technology has collided with longstanding customer issues to create, what we believe to be, a series of deep, lasting, systemic challenges for insurance. These many developments point to a common conclusion: turbulence is upon us. Where will it take the industry? Take a look at four possible scenarios.

 **Changing the channel**	 **Underwriting by machine**	 **Rise of the flexible product**	 **E-Z life insurance**
☑ **General** ☒ **Life**	☑ **General** ☑ **Life**	☑ **General** ☑ **Life**	☒ **General** ☑ **Life**
• Insurers improve their customer-facing digital experiences • Insurance becomes more integrated with products • Consumers benefit from products tailored to their needs • Advertising for mindshare becomes less important	• Underwriting becomes more complicated and dependent on AI • Third-party underwriting (for AI expertise) becomes the industry standard • Insurers create two different paths for customers • Insurers fight to differentiate themselves	• Insurers link business and personal insurance for the sharing economy • Insurers use technology to enable time flexibility • Insurers engage with consumers to monitor coverage • Customers may be surprised by inconsistent coverage	• Insurers develop digital channels for product distribution • Term products become more popular • Life insurers deprioritise agents and investments • Life insurers increasingly resemble general insurance firms

Changing the channel. InsurTechs (with the support of insurers and reinsurers) win more of the insurance market by focusing on benefits to their customers, including superior processes for on-boarding and claims. Incumbent insurers respond with simpler purchase processes and more customisable products. Partnerships with product makers and distributors become more popular as insurance providers seek to capture customers at the point of sale. Many insurances are built into goods and services—or embedded into an overall end-to-end proposition— enabling customers to focus on selecting the products that best fit their work and lifestyle. This prompts insurers to rethink the importance of brand, advertising, and agents (particularly captive agents) in their go-to-market strategies.

Underwriting by machine. Insurance becomes more dependent on sophisticated algorithms, relying on new source forms of data, in order to compete. Risk selection is more individualised, with products becoming available at a wider range of price points thanks to new data and greater pricing sophistication. In a bid to keep up with fast-developing AI innovations, firms outsource their underwriting to specialist technology vendors. And with underwriting no longer a differentiator, some firms focus on customer service and scale while others pursue niches such as affinity products.

Rise of the flexible product. As more customers hire out their personal property and earn wages from multiple sources, insurers must connect their business and personal lines. Meanwhile, insurers get better at measuring and tracking usage of the products that customers want insured. The result? Time-flexible, event-driven coverage that can be turned on or off at will. At the same time, a truly modular and adjustable product evolves to accommodate life stage, lifestyle, and wellness changes among consumers. The result? Frictionless insurance in a land of utility, centred on the customer and their needs at different times in their life rather than on traditional insurance product silos.

E-Z life insurance. Life insurance firms see growth in emerging markets with a younger, lower-income customer base. Leading insurers match the needs of these customers with short-term, flexible term products. Given the shopping patterns in many emerging markets, firms that can master digital distribution without compromising underwriting break away from those that remain dependent on field sales agents. Because of these shifts, life insurers end up looking more like general insurers, fostering industry consolidation.

Conclusion

However the disruptive forces of innovation play out, we can count on a few things:

- New technology is modularising the insurance value chain
- Customers are seeking complex, highly personalised products
- FinTech companies are raising expectations for a frictionless customer experience
- Growing connectivity points to a foundational shift from risk assessment to risk prevention.

The insurers who embrace this disruption and reorient themselves to a newly-assertive customer will be the ones finding routes to long-term profitability and growth.

The article is an excerpt of the report, "A catalyst for change: How FinTech has sparked a revolution in insurance". To receive a copy of the full report, drop us an email at sgindustries@deloitte.com.

Forward-looking solutions for tomorrow's leading asset management firms

Shifting buyer behaviours, disruptive technologies, and fiduciary-driven regulations are changing the asset management industry. In order to manage these challenges, leading asset management firms must develop and implement innovative and effective solutions now to stay ahead of the curve.

In this article, we look at six solutions that can potentially empower asset managers and provide exceptional value in this shifting landscape.

1. Leverage M&A to accelerate transformation

The asset management industry's traditional operating models are under pressure due to escalating costs and accelerating fee pressures. In this environment, buyer preferences are also evolving, with investors seeking to increase their exposure to passive vehicles as a complement to both traditional active management and alternative strategies. Leading asset managers must meet this demand while maintaining profitable growth.

Asset managers are actively seeking new ways to differentiate themselves in an increasingly crowded marketplace. This competitive environment will put a premium on true differentiation, pushing managers to focus their investments into products and markets likely to yield the greatest return at the lowest possible cost. As a result, M&A are expected to accelerate, increasing the pace of transformation and pushing scale to combat rising costs.

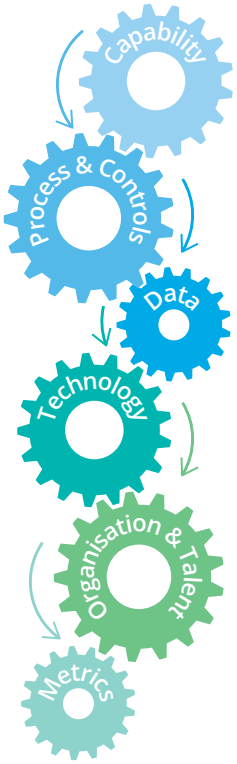
In this climate, strategic buyers are positioned to lead this next round of M&A activity, bolstered by their own transformational imperatives, strong balance sheets, and a likely continuation of private equity exits from portfolio holdings in the financial services industry. Financial buyers are expected to continue pursuing targeted growth stories, particularly in the FinTech space.[5] As strategic buyers pursue inorganic growth opportunities, industry leaders acknowledge the vital role that execution plays in realising value. According to a recent Deloitte M&A survey of corporate executives, 88 percent of respondents cited an insufficient due diligence process as the biggest impediment to achieving a successful acquisition, while 78 percent said it was the failure to effectively integrate the newly acquired entity.[6] While others indicated reasons ranging from improper target identification to the shifting regulatory environment, a unifying theme is a need for a clear plan supported by strong executive leadership.[7]

5. Casey Quirk by Deloitte, "Skill through scale? The role of M&A in a consolidating industry: Investment Management 2017 M&A Outlook," 2017
6. Deloitte, "M&A Trends: Year End Report 2016," 2017
7. Deloitte, "M&A Trends: Year End Report 2016," 2017

2. Elements of an agile operating model

As compressing economics and secular shifts force asset management firms to find new ways to differentiate themselves from the myriad of mature competitors, many firms are evaluating their operating models to identify opportunities to attain reallocation efficiencies, scale, and risk reduction. A target operating model is a high-level representation of how an organisation can be best organised to effectively deliver and execute on its strategy.[8]

Operating model components & objectives



Capability
- The functional capabilities the business needs to provide
- Confirm the scope of services within each function
- Identify the maturity and criticality of services provided
- Determine sourcing strategy (e.g., internal/external)
- Consider location strategy (e.g., single location, follow the sun, etc.)
- Define functional ownership

Process & Controls
- Define the SIPOC (Suppliers, Input, Process, Output and Consumers) supporting the defined capabilities in the target state
- Determine/define process accountability and execution responsibility across internal and external stakeholders

Data
- Determine the data requirements, sourcing, integrations and delivery services to support required financial, regulatory, audit, analytics business needs

Technology
- Defines technology platform strategy, including integration and sourcing of technology talent

Organisation & Talent
- Identify the roles, skills, reporting lines and related gaps to establish the target org model
- Based on this assessment, identify how crew will be impacted around manage the change through the course of the program

Metrics
- Operational, financial and adoption metrics/ KPIs for the program and the business that set a baseline, define the targets and measure the value delivered

Leading asset managers recognise the interdependencies between these elements and the importance of considering them in aggregate when assessing and redesigning their operating models. Shrinking expectations for capital market returns and slowing organic growth have combined to reveal that the industry is not as scalable as many previously believed.[9] With fixed costs now expected to outpace likely future revenue growth in the near term, factors related to cost allocation are increasingly driving decision-making processes. Leading firms are streamlining legacy businesses and harvesting cash flow in order to reinvest in growth product and market segments. When the elements above are used as the cornerstones of an operating model transformation they enable bold strategic changes that can not only reduce costs, but also enable a broader investment toolkit, develop a stronger brand, create a more agile organisation, source better organic data, and deliver an improved customer experience.

8. Deloitte, "Target Operating Model – Elements For Successful Growth," 2017
9. Deloitte, "Operating Model That Navigate Business Volatility," 2017

3. Digital-enabled distribution

As the asset management industry shifts from a product-driven to a client-centric view, asset managers can no longer depend exclusively on product portfolios to effectively compete.[10] Changes such as new technology enablement, a fluid regulatory environment, and the empowerment of retail investors have compelled asset managers to re-think their distribution strategies. Industry players are now using disruptive technologies to reduce distribution costs and create new product/ advice delivery models to support the demand for innovative and personalised investment experiences.[11] This evolving industry landscape, along with continued fee pressures, is placing greater value on players with strong distribution platforms.[12] Additionally, firms have relied on adding to distribution headcount to drive growth, without clear differentiation on their engagement strategy or product portfolio. This has led to a hyper-competitive market, which has resulted in falling sales productivity in both retail and institutional channels.

Digital distribution capabilities will allow firms to be more efficient in how they deploy their sales resources, bring a more refined engagement at the point of sale, and stay top of mind in between in-person interactions. Managers who are able to build a unique toolkit and balance the demands of the field and the gatekeeper are in prime position to develop strategic partnership with intermediaries. Being viewed as a strategic partner will position managers to consolidate share as intermediaries move to reduce their product menus.

Advances in technology can empower firms to focus on enhancing the user experience. In a competitive environment where clients expect immediate, personalised, and impactful reactions, human-driven distribution alone will no longer be a sustainable model. To that end, effective asset managers will seek to use new technologies to enable insight-led distribution, digital marketing, field management, and data management to drive efficiencies and increase the probability of acquiring and maintaining business.[13]

The rise of new client demands, regulatory costs, and increased fee pressures have led to evolving distribution strategies, where industry participants will continue making strategic investments in technology. This approach will also require a commensurate focus on acquiring and training resources with qualified skillsets to drive solutions that enable firms to reach clients throughout the investor life cycle/sales process at high value touch points. Knowing when, how, and what to deliver at these intervals will redefine how asset managers engage with their clients.

10. Deloitte Digital, "Asset Management Distribution Strategy," 2016
11. Casey Quirk by Deloitte, "Survival of the Fittest: Defining Future Leaders in Asset Management," 2016
12. Casey Quirk by Deloitte, "Skill through scale? The role of M&A in a consolidating industry: Investment Management 2017 M&A Outlook," 2017
13. Casey Quirk by Deloitte, "Survival of the Fittest: Defining Future Leaders in Asset Management," 2016

4. Robotic automation and the cognitive enterprise

Humans have long sought ways to expand the capabilities of the human brain. By bringing together a variety of AI, robotics process automation, and emerging capabilities, cognitive automation enables organisations to emulate and enhance the strength of the human mind. Combined with advances in data and analytics, cognitive automation holds the potential to reshape businesses and even entire industries.[14]

The adoption and institutionalisation of robotics and cognitive automation (RCA) may be an accelerator for firms to transform their businesses, allowing them to remain competitive by addressing cost pressures, improving their margins, and exploiting the anticipated exponential growth in the volume of digital data.

RCA will be a key component of the future asset management firm's operating model in the changing industry environment, where a majority of competitors will be leveraging bots to drive efficiency and reduce operational risk. A firm's market position relative to its peers may be dependent on making RCA work in their own, unique operating environments.

The use of robotics to automate standardised, repeatable processes offers a significant opportunity for firms to operate more efficiently while reducing the cost and reputational risk presented by manual, human error. One area ripe for transformation is the asset servicing function, where some firms may have silo-ed business processes being performed across antiquated technologies as the result of prior acquisitions, custom-built systems, and poor integration. Similar opportunities may exist in the client on-boarding and regulatory compliance functions, where bots can be leveraged to execute time-consuming data gathering and report template population processes.[15]

Asset management firms should leverage RCA technologies as differentiators to unlock new insight that was previously challenging to obtain. Firms can accelerate implementations by establishing a centre of excellence, where business units procure automation technologies to gather and pair structured data with unstructured data. Furthermore, firms can leverage cognitive capabilities that augment human intelligence with predictive analytics to identify opportunistic areas for new product development, customer segmentation, and distribution strategies, creating new capabilities that facilitate competitive differentiation.

They will need to plan and execute their robotics and cognitive strategy with diligence to mitigate risks inherent to implementing new automation technologies. Leading asset management firms should act quickly and strategically to remain competitive and draw increased efficiencies out of key business processes by leveraging the advantages of RCA. Achievable business cases should be identified to target cost reductions, increase operating efficiency, and reduce operational risks to help position firms to build a sustainable competitive advantage. Asset management firms will be enabled to then re-purpose their talent, unlocking the ultimate value proposition of the modern asset manager–its people. This key benefit is frequently overlooked.

14. Deloitte, "Streamlining knowledge processes through cognitive automation," 2017
15. Deloitte, "Closer Look 2017 Investment Management Outlook," 2017

5. Technology as a differentiator

Advanced analytics, cloud, and blockchain have the ability to transform significant components of the asset management value chain and serve as differentiators for the firms that invest in them.

Advanced analytics

Advanced analytics applies machine learning, predictive modelling, statistics, and advanced visualisation to (big) data sets with techniques such as predictive modelling, machine learning, and text mining to gain actionable insights.[16]

By leveraging advances in cognitive computing, data mining, machine learning, artificial intelligence, and natural language processing, firms who invest in advanced analytics can establish a competitive advantage by enabling benefits that include the following:

- **Retention and growth of client relationships:** Providing highly personalised offerings, services, and insights based on individual preferences, goals, and history.
- **New market segments:** Generating actionable, highly specific investor insights that may lead to new products and pricing strategies that appeal to non-traditional investors and new markets.
- **Reduced costs:** Identifying patterns and trends that can provide insights into changes in workflows and operations that can decrease costs.
- **Enhanced decision-making:** More easily extract, compile, and view internal and external information to make smarter decisions.
- **Paint a picture:** Desktop and mobile dashboards present data and results visually so they are easier to understand and have more impact.
- **Streamline compliance efforts:** Efficiently and quickly access, compile, and understand information needed to meet regulatory requirements and help mitigate risk.[17]

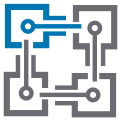
Cloud

Cloud computing is the adoption of a modernised delivery model, providing applications and services over the internet as opposed to on premise. While the speed of innovation varies across asset managers, many firms have begun embracing cloud computing and the benefits it offers, including increased agility for delivery at pace, elasticity to adapt to changing scale, and a means of balancing costs and value.

Cloud computing can help achieve a high degree of processing reliability, while simultaneously promoting enhanced collaboration and flexibility. With a high level of cloud maturity, Asset Managers have the opportunity to deploy scalable, secure architecture with omni-channel capabilities and accelerate innovation with agile solutions. The adoption of cloud technologies also allows Asset Managers to use their resources more efficiently by facilitating improved budget management and allocation. Properly deployed, cloud computing can help organisations obtain flexibility, optimise costs, and build an enabling IT infrastructure.[18]

Cloud computing is not a new form of managed service or a different type of technology platform but rather represents a fundamental shift in how companies attain, use, and manage technology capabilities.

Blockchain



Blockchain, a decentralised, distributed ledger that provides a way for information to be recorded, shared and maintained by a community, is a new technology that demands attention from asset management executives for two primary reasons:

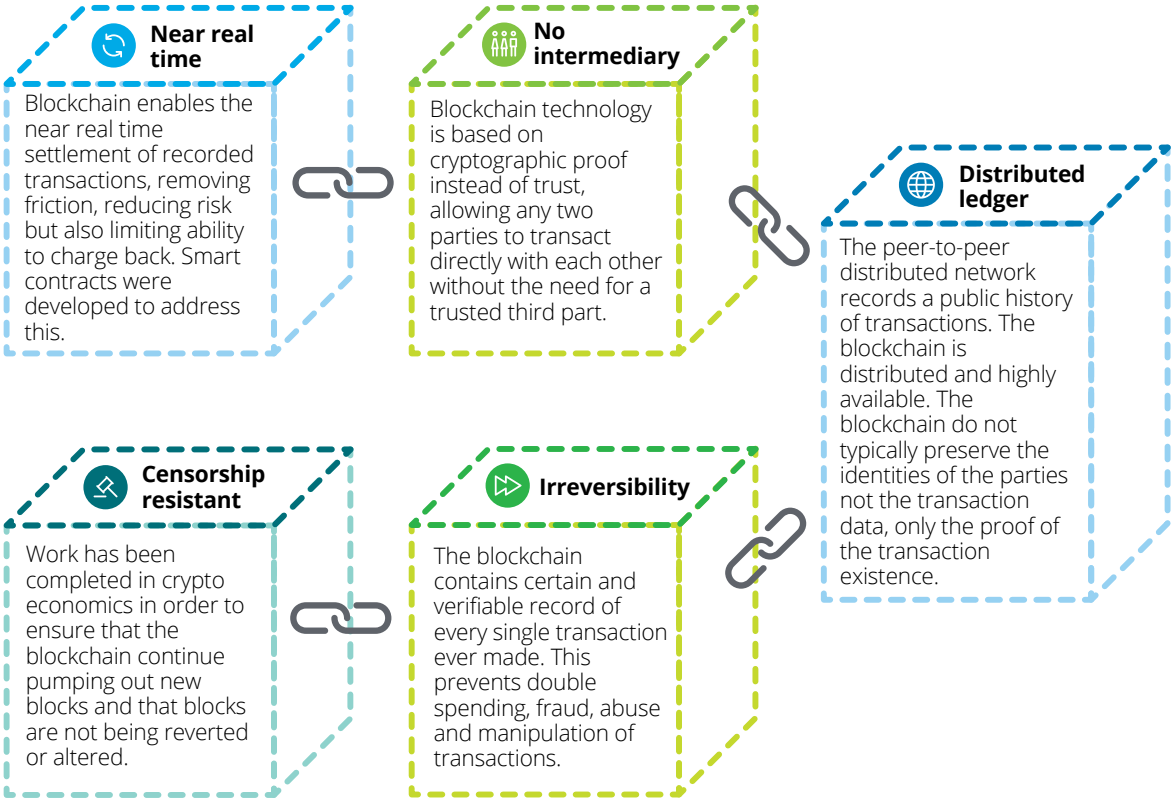
- This technology has the potential to transform and extend the asset management value chain.
- Blockchain is in its early stages of development with many firms actively exploring use-cases, signalling that significant change is on the horizon.

16. Deloitte, "Advanced Analytics- Do You Get The Maximum Out Of Your Data?," 2017
17. Deloitte, "Investment Management Analytics -The Three Minute Guide," 2017
18. Deloitte, "Wealth Management Cloud Computing," 2017

What is blockchain?

Fundamentally, blockchain is a digital ledger system for recording business transactions and events but it is not necessarily designed to store vast amounts of data.

Blockchain "the Internet of Value"



When applied to asset management – asset servicing, in particular – blockchain has the potential to redesign the value chain in an industry which has traditionally lagged adopting new technologies. Asset management is ripe for technology disruption and opportunities have emerged for new technologies to replace back and middle office repetitive, manual and cost-inefficient processes, with improved process automation.

As blockchain matures from novelty to the see increased adoption, several concerns have been raised regarding the ability to scale blockchain along with the anonymity and aggregation of sensitive information stored on the blockchain. However, if managed appropriately, over the next ten year horizon blockchain has the potential to pave the way for increased efficiency and enhanced capability across the asset management value chain.

Conclusion

As the operating environment for asset managers becomes less forgiving, the penalty for poorly planned strategies will become more severe.[19] These six solutions have the potential to serve as catalysts for future growth and success and those firms who boldly invest in them stand to achieve an outsized benefit and a differentiated, sustainable competitive advantage.

The article is an excerpt of the report, "Forward-looking solutions for tomorrow's leading asset management firms". To receive a copy of the full report, drop us an email at sgindustries@deloitte.com.

19. Deloitte, "Operating Model That Navigate Business Volatility," 2017

6. Regulatory readiness and productivity

The wave of regulations that asset managers are subject to is adding a continuous and high level of pressure to the industry's economics, increasing the costs to comply while simultaneously impacting product offerings, asset servicing, and distribution. Global asset management firms are required to navigate cross-jurisdictional regulatory agendas. In Deloitte's recent Global Risk Management Survey of Chief Risk Officers at asset management firms representing more than US$13.6 trillion in aggregated assets, 81 percent of respondents cited regulatory risk as still the greatest challenge they will face over the next 24 months.[20] In order to survive and excel in this fluid regulatory climate, firms will be pushed to consolidate or adopt new solutions, such as Regulatory Technology (RegTech), to manage their risk and compliance efforts.

Common applications of RegTech are as follows:

- **Reporting & monitoring:** RegTech can offer new capabilities aimed at monitoring, producing and reporting regulatory data in a more efficient and cost-effective way. Examples of these RegTech solutions include:
  - KYC as a cloud-based managed service covering the entire KYC value chain
  - Transaction reporting tools
  - Regulatory reporting tools
  - Activity monitoring tools (i.e. governance risk and compliance)
  - Reconciliation tools
  - Regulatory watch solutions anticipating regulatory changes important for the financial organisations
- **Compliance & risk automation:** As RegTech matures it is expected to empower compliance functions to make data-driven risk choices and provide well-positioned asset managers and asset servicers with an additional lever to achieve competitive advantage by automating compliance and risk functions.[21]

20. Deloitte, "Global Risk Management Survey, 10th Edition," 2017
21. Deloitte, "How will innovative thinking in fund distribution create competitive advantage," 2017

Data is the new gold: The future of real estate service providers

Technological change affects everyone. It alters our daily lives at every level: social, economic, and political. Until now, the real estate industry's reaction to these fundamental changes has been muted, even though real estate's vulnerability to digital disruption is as profound as any other industry.[22]

The results of the Deloitte Global study, "Industry 4.0: Are you ready?" show that technological development and mobility will require consumers and employees to adapt the way they live, work, and consume.

Price pressure and fierce competition are a powerful catalyst for introducing technological innovations to building technology. These drivers – combined with the growing importance of data – are poised to upend business models and introduce new players in the market.

For real estate service providers, the imperative is to address two key questions:

- What drivers and trends will decisively impact the future of real estate services?
- How should real estate service providers adapt their business models and services in order to remain successful going forward?

Real estate service providers can stay ahead of the curve by working with clients to develop and implement effective strategies to meet the demands of tomorrow. In this article, we look at some scenarios for how these changes can play out, along with ways that real estate service providers can respond to them.

22. "How big data is disrupting the real estate industry," by Kevin Rands, CIO, 11 August 2017, https://www.cio.com/article/3212453/analytics/how-big-data-is-disrupting-the-real-estate-industry.html and "Data Commercialization – Extracting Value from Smart Buildings," by Antti Säynäjoki et al., MDPI Buildings Journal, 10 August 2017, http://www. mdpi.com/2075-5309/7/4/104.

Digitisation in new construction and existing buildings

Digitally-optimised new construction

Modern building management thrives on new construction – as well as comprehensive renovations and innovative construction techniques. For that reason, internet-connected sensors and devices have quickly become a competitive requirement for commercial real estate owners. By 2020, Gartner estimates, there will be over 20 billion connected IoT devices with roughly 2.5 billion sensors in smart buildings.[23]

Cities where demand for real estate is greatest will be the first to outfit for new technology. Thanks to higher rents, investment costs for new buildings and modernisations might be higher as well. In any case, the result will be an expectation of rapid technologisation, particularly in city centres.

As technological innovations such as robotics and the Internet of Things become more important to building planning and construction, real estate service providers will have a chance to distinguish themselves via digitisation. The best example of this is Building Information Modeling, the digital rendering of a building's physical and functional features, which opens the door for real estate service providers to get involved during the first phase of the property lifecycle and optimise the building in view of later service concepts.

23. "Use the Internet of Things in Smart Buildings to Achieve Work-Life Ambience," by Gavin Tay, Carol Rozwell, and Dean Freeman, Gartner, May 2017.

Digital upgrading of existing buildings

It's hard to forecast the demand for turning existing buildings into smart buildings. But it's easy to see that existing buildings, because there are more of them, offer greater potential for digitisation than new buildings.

And smart building solutions are multiplying. One example is indoor navigation, which uses GPS-like technology to help users find their way around. In another application, a specially-equipped vehicle can drive through a building, record up to 50,000 square feet per hour, and immediately render the information in 3D. Besides navigation, this also helps with measuring the building and processing data from CAD and BIM programs. According to Deloitte Global, by 2022, at least a quarter of all uses of precision digital navigation are predicted to include an indoor leg or an entirely indoor journey.[24]

A second type of solution is climate control. The Semperoper, an opera house in Dresden, Germany, offers an example of this. Severely damaged by flooding in 2002, the Semperoper has since been outfitted with sensors that track changes in the fabric of the building. These include temperature and moisture at certain locations. Sensors transmit data wirelessly because cable installation is disallowed in the historic building.[25]

As the technology for smart building matures, it will likely find applications among regular households and commercial properties as well. For instance, real estate service providers might use sensors in shopping malls to directly connect with owners and offer services to end customers. The result could be stronger tenant engagement and customer relationships.

Ultimately, the cost-benefit ratio will determine how quickly existing building inventory goes digital. Since the investment is more likely to pay off in highly sought-after locations, that's probably where we'll see the first wave of digitisation.

For real estate service providers, another potentially disruptive aspect of digitisation is the flow of data from building users. Could this data become a second source of revenue in the future?

Predictions

1. Relative to newly-constructed buildings, the existing building inventory offers even greater market potential for digitisation. Technologies that are purpose-built for existing buildings are implemented more frequently in the future.
2. Big cities see the greatest digitisation of newly-constructed and existing buildings, thanks to a more favourable cost-benefit ratio.
3. With the arrival of new technologies in building construction and operation, even real estate service providers increasingly have to deal with new, downstream technological developments.

24. "Technology, media and telecom predictions 2018," Delotite Global, 2018. https://www2.deloitte.com/content/dam/Deloitte/global/Images/infographics/technologymediatelecommunications/gx-deloitte-tmt-2018-predictions-fullreport.pdf.
25. "GE, EnOcean partner on wireless building automation," by Andrew Nusca, Zdnet.com, June 7, 2011. https://www.zdnet.com/article/ge-enocean-partner-on-wireless-building-automation/.

Transformation through modified user behaviour

In order to become a value-added integrated service provider, it's important to understand how user requirements might change over time. This way, providers can continue offering services that are in line with the demand. Consider the office sector, where users (employers as well as employees) have ever-increasing requirements around flexibility and space optimisation.

As technology becomes more integrated, mobile devices and modern infrastructure is a requirement and will pave the way to work from nearly anywhere in the future. Pressure from employees for greater freedom and flexibility means that companies will have to address an increased demand for mobile, technological equipment, and modern workplace concepts. Attractive, innovative conditions are an essential element of success for modern companies in the current war for talent.

On-demand spaces offer additional potential for flexibility. If employees cannot or do not want to go into the company's location, they can use an app to book a prepared, equipped workspace for use in a building that's not completely occupied. Locations could also include airports and train stations.

In the future, it will become more and more important to link employees by means of a stable and innovative technical infrastructure and to support collaboration. As a result, it will be essential to monitor and use the volume of data created. This likely will hold true across all types of commercial use. For example, in retail stores, digital transformation will bring new technologies such as smart-tagging/smart-checkout, innovative user-friendly experiential stores, seamless payments, and improved customer experience.[26]

Predictions

1. New technologies significantly change the use of real estate, ushering in space efficiency, flexibility, and qualitative improvements for office users.
2. Declining demand for space (and the associated trend toward a rental market) plus an ongoing war for talent drive the modernisation of existing spaces.
3. Technological outfitting – along with collaborative, digital office concepts – become a significant lever for office space providers, as well as for employers' intent on standing out from the competition.
4. These trends likewise affect all other commercial types of real estate, fundamentally changing usage as a result.
5. Real estate service providers become familiar with new technologies. They highlight their technical prowess in order to maintain market share.

26. "Global Powers of Retailing," Deloitte Global, 2018, https://www2.deloitte.com/global/en/pages/consumer-business/articles/global-powers-of-retailing.html.

The skills of tomorrow's real estate manager

Potentially radical changes in the real estate industry will have specific meaning for talent.

Like the automobile industry, where IT-trained specialists now carry out work that mechanics used to do, the delivery of services in the real estate industry will become increasingly technical. Optimised (automated and digital) processes and sequences will change the provision of work. What they won't do is change the expertise needed to manage non-digitised inventory. The result? A bifurcated labour force, with one part geared toward building services for new, digital buildings and the other focused on more traditional jobs for buildings who have not gone digital.

As robots, drones, and sensors replace operational activities, users will be able to handle portions of those activities either automatically or directly as part of self-maintenance. The latter becomes relevant primarily when it isn't worth using robots or drones. Rent reductions can motivate users to take care of such simple activities themselves. On the balance, this can economically benefit both sides of the transaction.

Tasks that the user doesn't want to handle will likely be made simpler thanks to wearables, data-transferring system technology, and the networking of end devices through digital systems and sensors. These can guide employees through tasks so that they need less technical expertise than today. As a result, technical labour will essentially become interchangeable and service providers could potentially source out this work to the technology companies that enter the market.

At the other end of the continuum, real estate service providers will have to hire well-educated specialists with analytics and IT expertise to fill data analysis, programming, and other positions that deliver strategic added value to customers.[27]

In the future, real estate service providers may need to help customers develop their systems and processes, as well as provide much more expertise to support customised building technology. With the right employees, they can develop a stronger connection with customers.

Predictions

1. Robots, drones, and sensors replace many operational activities.
2. Users assume monitoring and service functions in order to save on rent and ancillary costs.
3. Positions with real estate service providers become much more heterogeneous, particularly based on the degree of digitisation among managed buildings.
4. Real estate service providers evolve from installer to instructor.
5. Increasingly, real estate service providers help to develop customers' systems and assume responsibility for their functionality

27. "The Future of Jobs," Immobilienwirtschaft [The Real Estate Industry], May 2016

Conclusion

In the years ahead, digital innovation will significantly alter not just real estate but also the business models of real estate service providers. These changes may shift responsibility, expertise, and risk in the industry, thereby shifting margins as well.

Despite rapid technological development, change in the real estate industry seems likely to occur in stages. The speed of change largely depends on the pace of new construction and modernisation, as well as on the readiness of owners and investors to invest in real estate inventory. As a result, conventional building technology and infrastructural service will be a declining, but ongoing, part of the business model going forward.

Nevertheless, the long-term prospects for real estate services are positive only if they adapt to altered conditions early and help shape the change. That means preparing for change today. A turning point will be the assumption of operator risks. Without that happening, it's unlikely that users and real estate owners will yield control over real estate and technological systems, and thus the data.

Real estate services of the future must evolve from building and systems management to the integrated management of spaces for users. In this new model, the manager becomes a performance manager with highly productive employees supported by advanced technology and analytic tools. For the most part, real estate service providers already have the data (Who's talking to whom? Where is it taking place? Internal or external? Which spaces will be used by whom, how intensively, and for what reason?).

However, this information is scattered across organisational silos, making it hard to use proactively or treat as an expanded core product of the service portfolio. Changing this is the first step in changing the overall business model and fortifying it for digital's new era.

This report has been translated from Deloitte Germany's "Daten sind das neue Gold: Immobiliendienstleistung 2030" report and the contents have been edited for a global audience. The report was a joint study between Deloitte Germany and STRABAG Property & Facility Services GmbH, one of the largest Property & Facility Service Providers in Germany.

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