Beyond Doing Digital, Being Digital – the Key to a Successful Digital Transformation

以數碼化思維 超越行動層面— 數碼轉型的成功關鍵

Digital transformation is at the forefront of the banking industry's collective mind. As evidenced by the many big household names that have fallen from grace since the start of the digital age, to stay ahead, banks must learn to make innovation a core part of their DNA or risk losing market dominance.

銀行業著遍都已將數碼化轉型視為其首要任務。自數碼時代開始以來,不少家喻戶曉的知名企業紛紛被市場淘汰,足以說明要保持領先地位,銀行必須將創新作為其DNA 的核心,否則就有失去市場主導地位之虞。

Today, digital disruption happens at a pace few previously imagined, with generative AI, Web3, and the Metaverse likely to revolutionise how we view and interact with the world around us. However, to avoid reducing the application of these innovations to just a gimmick and be truly transformative, organisations need to redefine what it means to be digital.

Beyond the technology aspects, banks and financial institutions aiming to "be" digital need to embrace mind-set and culture changes, proactively expand into new business and operating models while tapping into existing strengths, and rethink their role in the financial services landscape to be key drivers within ecosystems, platforms and networks. This will have growing importance for all financial services players, especially as Hong Kong establishes itself as an international digital assets hub.

Being digital versus doing digital

This will be particularly challenging for traditional financial institutions trying to move beyond just "doing" to truly "being" digital. Virtually all organisations, banks and financial institutions included, now have online channels, with most having multiple apps, but is that all it means to be digital?

數碼顛覆正以前所未有的速度發展,生成式人工智能、Web3和元宇宙可能會徹底改變我們看待周圍世界和與之互動的方式。然而,為免讓這些創新應用淪為一種噱頭,實現真正的數碼化變革,企業須對數碼化的真正意義重新定義。

除了技術方面,有志於「成為」具備數碼化思維的銀行和金融機構,需要接受思維方式和文化變革,在利用現有優勢的同時,積極拓展新的業務和運營模式,並重新思考在金融服務領域的角色,才能成為生態系統、平台和網絡的關鍵推動者。這對所有金融服務業者會變得越來越重要,尤其當香港正致力於成為國際虛擬資產中心。

「成為」具備數碼化思維的機構,不止於「行動」

金融機構在數碼化轉型的過程中,要想超越「行動」層正,並真正地「成為」具備數碼化思維的機構,對傳統金融機構尤其不易。幾乎所有組織、銀行和金融機構現在都會建立網上渠道,也大都擁有各式各樣的應用程式,但這可就是數碼化的全部內容?

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> *The notion that digital transformation is just tapping into a new channel – an app or online marketing tool – is outdated.* 99

> 66
> 認為數碼轉型只是套用新渠道（應用程式或網上營銷工具）的觀念已經過時。 99

A true digital transformation journey must take place across the full spectrum of the business's operating model– how businesses organise, operate and behave all play a critical part in the final result. To bring together channels and touchpoints, data insights, personalisation, ecosystem partners, new financial products and services, and more, into entirely new customer propositions, banks and financial institutions need to draw inspiration from outside their industry, embrace experimentation with a "fail fast, learn faster" mindset, while leveraging technology as a strategic enabler, not just as a cost factor.

Deloitte research and experience reveals that typical organisation and mind-set changes that can help increase digital maturity include breaking down organisational silos, enabling team autonomy and empowerment, taking a more practical and balanced approach to risk and security, and embracing dynamic skillsets and fluidity in roles. Innovation often requires a multi-disciplined and human-centric approach to problem solving, which collectively can help to create a more agile organisation that is better positioned to deliver breakthrough solutions.

Driving these changes typically involve new team and performance management models to incentivise change, but can often be supported and facilitated by more agile processes, new tools and better use of data.

真正的數碼化轉型過程必須貫穿整個業務營運模型，企業的組織、營運方式和行徑，對最終結果都起關鍵作用。為了將渠道和接觸點、數據洞察力、個性化、生態夥伴、新的金融新產品和服務等，整合成為全新的客戶價值主張，銀行和金融機構需要從業外汲取靈感，接受「失敗得快，學習得更快」的實驗心態，同時利用技術作為戰略動力，而不止是成本考慮因素。

德勤的研究和經驗，有助於完善數碼化的典型組織和思維變革，包括打破組織孤島、實現團隊自主和賦權、採取更實用和平衡的風險和保安措施，以及採用動態技能組合和靈活調動職責。創新通常需要採用多元知識和以人為本的方法來解決問題，綜合多種方法，才有助建立一個更敏捷的組織架構，從而締造突破性的解決方案。

推動這些變革通常以新的團隊和績效管理模式作為動力，但也可以通過更靈敏的流程、新工具和更佳數據運用予以支持和推動。

Unlocking agility in the core

As demand for new classes of products and services emerge, new business and operating models will be required. While it may be simpler and faster to launch a "greenfield" new spin-off without all the baggage of legacy systems and organisation, it can be even more powerful and effective to leverage core brand strengths and capabilities to extend into adjacent and even whole new business areas.

Imagine opening up a retail branch network to provide omni-channel financial services offered by Fintech start-ups, monetising data buried in core systems for anonymised programmatic targeting, or integrating in-house loan and risk calculation engines with retail or telco data. To successfully implement such initiatives would require deep integration with legacy systems and existing capabilities that would need to be modernised.

Many banks today still run on legacy mainframe applications and ageing platforms that are a challenge to modify, with outright replacements risky and difficult to justify financially. Now that most banks have launched digital offerings, the realisation has been that this only scratches the surface. To bring innovations to the market they are encountering a substantial need to modernise their core platforms, transform their infrastructure and open up those capabilities to new customers and ecosystem partners.

釋放核心的靈活性

隨著出現對新產品類別和服務的需求，就要有新的業務和營運模式。雖然直截了當設立「綠地」新分支，可避免背上固有系統和組織的包袱，但利用核心品牌優勢和能力擴展到相鄰甚至全新的業務範疇，或許能更加強勁有效。

試想像通過開設零售分支網絡，以提供類似金融科技初創企業的全渠道金融服務，將隱藏在核心系統中的數據貨幣化，以進行匿名程序化目標搜尋，或者將內部貸款和風險計算引擎結合零售或電貿數據。要成功實施這類先導計劃，需要將有待現代化的固有系統和現有功能進行深度融合。

如今，許多銀行仍在沿用固有主機應用程式和舊有平台，要更改這些系統並不容易，全盤替換不但存在風險，也未必能符合經濟效益的考量。現在大多數銀行都推出數碼服務，但往往只停留在表面，想給市場帶來創新，逼切需要將核心平台現代化、改造基礎架構，並將相關功能開放給新客戶和生態合作夥伴。

通過微服務來改造核心平台是可行的解決方案，可以逐步增加或重構與固有核心系統相關的功能，按部就班讓變革與新業務個案接軌，從而盡量降低營運風險，並使業務個案的技術

Transforming core platforms by adopting micro-services is a viable solution to incrementally add or refactor functionality related to core legacy systems, tying incremental changes to new business use cases, which minimises operational risk and makes the business case for technology transformation clearer and more justifiable. This has the added benefit of better aligning with and enabling agile delivery processes, DevOps automation (the use of methods and tools to automate software delivery processes such as testing and deployment so that features and updates can be delivered more quickly and frequently), and more modern teaming structures such as end-to-end "product" teams, allowing innovations to extend beyond the customer experience layer.

Become a platform player

With the demand and opportunities to transform the customer journey inside and out, and with the constant advent of new innovative technologies such as generative AI, Web3 and the Metaverse, banks can truly tap into the end-to-end customer experience beyond the scope of their typical business interactions. The Metaverse, for example, is a new paradigm for how banks can engage customers through virtual economies and mixed reality, with decentralised open platforms and persistent worlds, enabling immersive experiences and seamless ecosystem partnerships, new social and business interactions, and ultra-personalised and unique marketing activities.

Although the definitions of the Metaverse and Web3 are still evolving, their foundations are well proven, with many core aspects of the technology already being leveraged for

轉型更清晰和易於判斷優劣。這做法的另一個好處是使服務交付更易於配合和更敏捷。開發與維運自動化（加入科技以執行任務並減少人手協助，以便迭代更新可以更快融入生產中的應用程式）和更現代的團隊結構，如端對端「產品」團隊，應可允許創新擴展到客戶體驗層面之外。

成為平台參與者

隨著由內至外改變客戶體驗的需求和機會湧現，以及生成式人工智能、Web3和元宇宙等創新技術層出不窮，銀行可以超越固有的業務互動模式，真正發掘端對端的客戶體驗。例如元宇宙是銀行通過虛擬經濟和混合現實吸引客戶的新範式，具有去中心化的開放平台和持久的世界、實現身臨其境的體驗和無縫的生態夥伴關係、新的社交和業務互動，以及超個性化和獨特的營銷活動。

儘管元宇宙和Web3的定義仍在不斷發展，但它們的基礎已得到充分證明，相關技術

transformational customer experiences. Generative AI, along with its many other uses, could potentially be a breakthrough means of helping users (both consumers and creators) navigate this currently unfamiliar and complex space to find "reach" and be immersed in new models of content and interactions.

In this highly decentralised landscape, relevant, targetable, impactful moments and interactions can be spread out over different touchpoints and parties, necessitating relinquishment of some aspects of the experience to partners and to AI. Proactively leaning into this kind of distributed customer servicing model, while leveraging core brand strengths and capabilities to become a key hub or platform, will be essential to becoming a leading player in the emerging Web3 era.

Nobody knows what "killer app" will emerge in the Metaverse, and as with most innovations, the best way to be successful is to be agile, to test, learn and pivot with a minimum viable product in the market and seek out complementary ecosystem partnerships to fill in gaps in the customer journey.

的許多核心功能已用於改變客戶體驗上。生成式人工智能提供的許多用途，有潛力成為突破性手段，幫助用戶（包括消費者和創造者）在這個目前陌生且複雜的空間中巡航，尋找「接觸點」，並融入新的內容和互動模式中。

在這高度分散的環境中，相關的、有針對性的、有影響力的時段和互動，可以分佈在不同的接觸點和參與各方，並有必要將某些經驗讓給合作夥伴和人工智能。積極採用這種分配客戶服務模式，同時利用核心品牌優勢和能力成為關鍵樞紐或平台，與能否成為新興Web3時代的領先者息息相關。

雖然，大家目前都不知道元宇宙中會出現甚麼「必殺應用程式」，與大多數創新一樣，成功的最佳方式是保持敏捷性、不斷測試與學習，以市場上最少的可用產品為樞紐，尋求與互補性的生態夥伴合作，以填補客戶體驗歷程中的空白。

Case study – Core system and private cloud platform modernisation at a large state-owned bank

A large state-owned bank was committed to transform their IT foundations, in alignment with the development and adoption of their Fintech roadmap in the coming five years, through transforming into a cloud-native, micro services-based, agile IT organisation.

The Bank was helped through designing, implementing, and driving adoption of modern technology platforms, architecture, and delivery models, including:

- Legacy application modernisation to a micro services/API-led architecture for flexibility and faster time to market.

- Transitioned some open banking API and mobile banking backends to microservices, allowing for true real-time transactions to the core.

- Leveraging container and software defined technologies for scalability and operational efficiency.

- DevSecOps with continuous integration and continuous deployment (CI/CD) pipeline automation to accelerate service deployment.

- Adoption of an agile operating model, with new software development lifecycle (SDLC), governance, and team structures, to deliver end-to-end from ideation to operation and enable improved business-technology partnership.

What was the outcome?
- Shortened lead time from idea generation to product service deployment by 50% through removing the potential friction between Dev and Ops team.

- Minimised mainframe investment for future systems enhancement through a "strangler" pattern migration approach.

- Improved customer experience by accelerating the time to market from months to weeks.

- Established technology building blocks to cater to new business requirements for innovation and expansion.

- Fostered the regular communication and close collaboration between business stakeholders and IT team through the agile development process with the joint success creation culture.

- Enhanced operating model suitable for the further expansion of cloud adoption to other core legacy systems and eventually to public cloud.

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個案研究 — 某大國有銀行核心系統及私有雲平台的現代化改造

某大型國有銀行致力改革其資訊科技基礎，通過轉型為雲端原生、以微服務為本和建構敏捷的資訊科技體系，以配合銀行未來五年金融科技路線圖的發展和推行。

該銀行從設計、實施，並致力採用現代科技平台、架構和交付模式，得到了全面支持，包括：

- 將固有應用程序實施現代化，轉型為微服務／應用程式介面主導的架構，提高靈活性，並加速推出市場。

- 將部分開放銀行應用程式介面 (Open banking API) 和流動銀行後端運作轉換為微服務，容許真正的實時交易進入核心系統。

- 按容器和軟件界定技術，實現可擴展性和高效營運。

- 開發與保安整合營運模式 (DevSecOps) 加上持續整合和持續運用 (CI/CD) 管道自動化，以加速開展服務。

- 採用敏捷營運模式，以新軟件開發生命週期 (SDLC)、管治和團隊結構，實現從構思到營運的端對端交付，並改善業務技術夥伴合作關係。

結果如何？

- 開發和營運團隊之間的潛在摩擦得以消除，將從產生創意到交付產品服務的週期縮短了50%。

- 通過「扼殺器」模式遷移方法，最大程度減少將來增強主機系統時的投資。

- 將上市時間從幾個月縮短到幾星期以改善客戶體驗。

- 建立技術構建模塊，以應付創新和擴展新業務的需求。

- 通過靈敏的開發流程和共同創造成功的文化，促進業務利益相關者和資訊科技團隊之間的定期溝通和緊密協作。

- 強加適用於未來將雲端應用進一步擴展到其他核心固有系統，並最終擴展到公共雲的營運模式。

Conclusion

In addition to the exciting outlook for Hong Kong as a future digital assets hub, many financial institutions are eyeing the huge opportunities and market potential available in the Greater Bay Area (GBA). Navigating this region, which encompasses three different jurisdictions and complex requirements, presents a range of challenges. To realise their regional ambitions, ultimately, the winners across the region in the digital age are going to be financial institutions that embrace the human (not just customer) experience, ecosystem collaborations and business and technology innovations.

To future-proof their development in Hong Kong and into the GBA, as well as to meet strategic policy directions, banks should move fast and embrace innovation as part of their organisational DNA. The notion that digital transformation is just tapping into a new channel – an app or online marketing tool – is outdated. For every organisation, it is imperative to adopt a "be digital" strategy to up their game and setup a foundation to not just be ready for, but to lead future disruptions. **BT**

結論

香港成為未來虛擬資產中心的前景固然令人憧憬，許多金融機構也關注大灣區的巨大機遇和市場潛力。大灣區覆蓋三個司法管轄區和複雜的需求，形成各式各樣的挑戰。在數碼時代，為了實現在灣區發展的雄心，那些擁抱人性化體驗 (不僅僅是客戶為本)、生態協作、以及業務和技術創新的金融機構，將成為區內的最終贏家。

為確保在香港和大灣區的發展在未來不受影響，並遵循戰略政策方向，銀行應迅速行動並將創新作為機構DNA 的一部分。認為數碼轉型只是套用新渠道 (應用程式或網上營銷工具) 的觀念已經過時，對每個機構來說，都無可避免要採納「數碼思維」戰略來提升他們的地位，並確立基礎，不僅要做好準備，還要超越未來面對的干擾。**BT**

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