



From Ignored to Unstoppable

New Markets, New Models, and New Mindsets
in Digital Banking

ADRIAN D. SAVILLE



**“First they ignore you,
then they laugh at you,
then they fight you,
then you win.”**

David Vélez, Co-Founder and CEO, Nubank (2021)¹

¹ Doug Leone, 'Nubank IPO: Only the Beginning' (Sequoia Capital, 2021) www.sequoiacap.com/article/nubank-ipo-only-the-beginning/

What is money? We thought we knew until cryptocurrency collided with our established rules. How many cars should a transport business own? Lots. Or so we assumed. Then ride-sharing apps came along. Our “truths” are being upended to the extent that dynamism is the new status quo. In this environment, there are no sacred cows. To thrive at the tumultuous coal face of this rapidly changing world, businesses need the courage and creativity to question everything. Banking – by which we mean retail banking – is no exception. What is a bank? Perhaps as recently as a decade ago, the answer was straightforward. Additionally, we had a strong understanding of the drivers that propelled traditional banks to dominance, including geography and economic footprint; industrialisation and urbanisation; and an extensive (and generally expensive) network of branches, amongst other things.

Today a new trio is driving retail banking, reshaping how banks operate, and redefining who leads the pack. These three forces include the boundless power of globalisation; the rise of readily scalable business models; and an unprecedented speed in consumer adoption of digital solutions. The convergence of these forces suggests that in the next ten years, the world’s biggest retail banks, measured by number of customers and market cap, will be digital banks that displace the traditional, branch-based model that has characterised banking since inception.

Here, China’s WeBank has already stolen a march on this prediction. Already the world’s largest digital bank – and the largest bank overall – by customer count, WeBank serves over 320 million individuals and 2.7 million micro-, small-, and medium-sized enterprises (MSMEs). Founded in 2014, WeBank leverages advanced blockchain technology to handle high transaction volumes with remarkable efficiency. Averaging 2.8 million new customers each month, it far outpaces competitors in customer acquisition and operational scale. WeBank’s customer count is twice the size of the world’s next-biggest bank by customer count, Banco Santander, which has about 165 million customers and was founded in 1857.

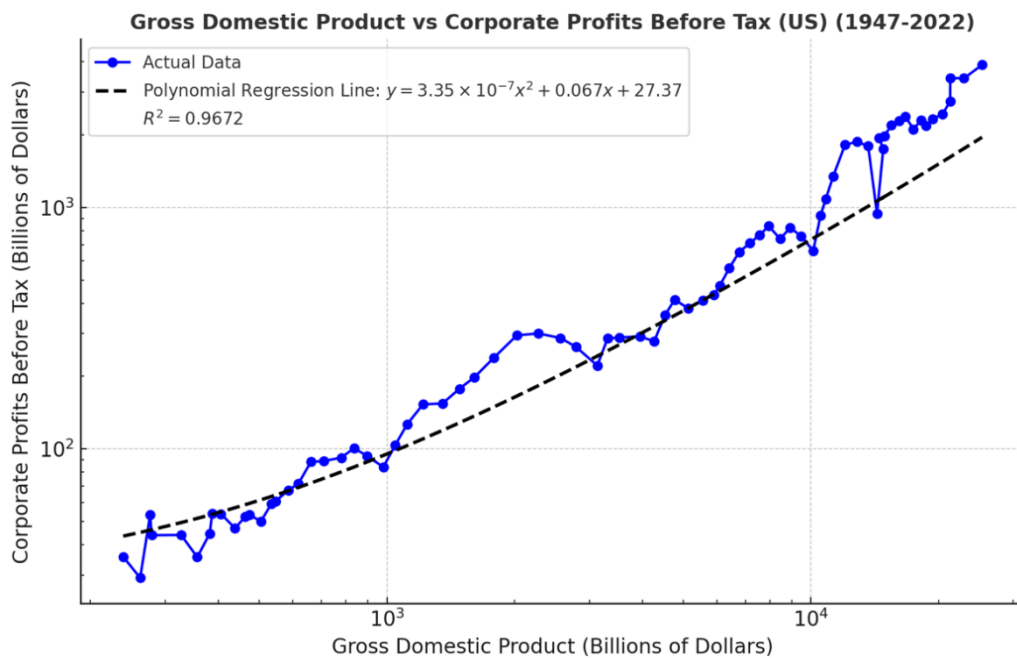
Perhaps, then, Ernest Hemingway’s truism might apply to an entire industry, rather than just a business, with bankruptcy happening “gradually, then suddenly.” This arguably captures the extraordinary pace of growth of digital banks and the slow, somewhat unnoticed build-up of industrial strain experienced by old banking models which eventually might cascade into rapid collapse and replacement.

Consider another compelling case that helps make this point. Until recently, measured by number of customers, Brazil’s Itaú Unibanco was the largest retail bank in Latin America. At almost 100 years old, the bank serves approximately 70 million clients globally. By comparison, Nubank, a digital bank founded in Brazil in 2013, had a customer count of 75 million by 2022; 85 million customers by 2023; and recently announced that its customer base hit 105 million.ⁱ Nubank doesn’t have a single branch in its three countries of operation, Brazil, Colombia, and Mexico. And Itaú Unibanco has 4,335 branches in Brazil alone. Make no mistake, the incumbent is still in fine form, but it is no longer the biggest retail bank in Latin America – its decades of dominance have been displaced. And quickly.

With 1.7 billion people globally unbanked, digital banking's expansion is timely.ⁱⁱ Digital banks excel in accessibility, speed, and efficiency, revolutionising retail banking. On closer consideration, the experience in Brazil seems to signal a broader trend rather than an outlier, suggesting that within the next decade, digital banks are likely to dominate the top ranks in global retail banking. There are several factors driving this dramatic change – and it is important to understand the historical drivers of banks to understand the displacement that is underway.

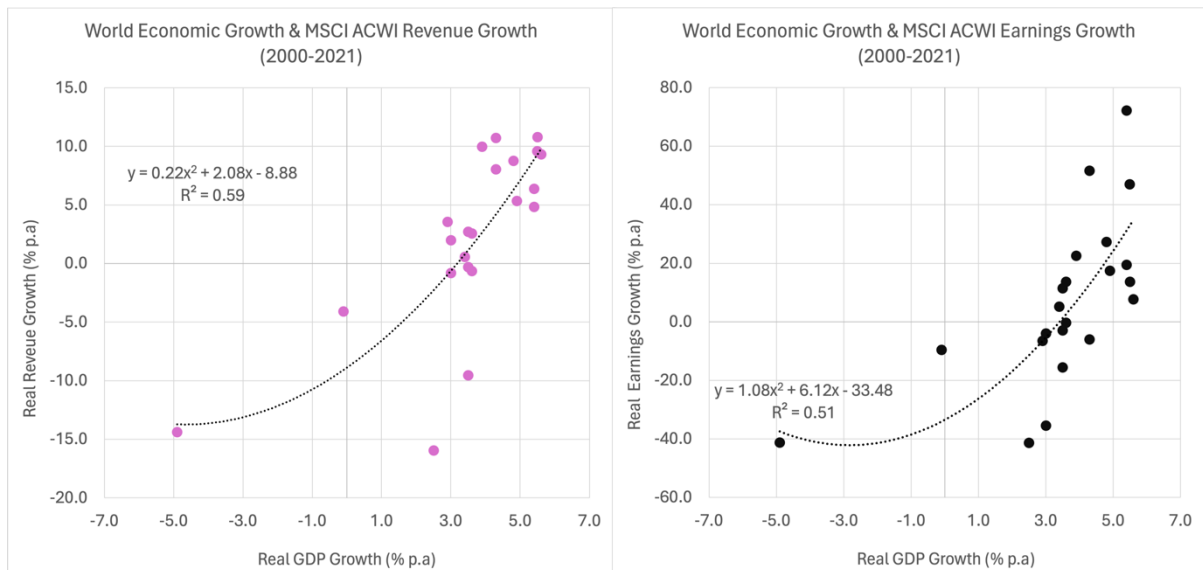
Riding the Economic Wave

Across markets, industries, and time, the economy has long been the greatest driver of top-line and bottom-line performance for firms. In the United States (US), eighty years of data points to a direct, almost linear relationship between the size of the economy, private sector profits, and by inference the size of the firm.ⁱⁱⁱ



Source: St. Louis Fed (FRED)

Evidence from some of the world’s largest firms further supports this relationship. Data spanning nearly a quarter of a century (2000 to 2022), reinforces the power of economic growth, measured by gross domestic product (GDP), in driving firm performance and size. Specifically, economic growth is the single biggest driver of growth in revenue and earnings for the more than 2,900 firms that make up the MSCI All Country World Index.^{iv}



Source: Boundless World (2024)

Importantly, correlation is not causation, and Granger causality tests demonstrate that economic growth is the single most powerful driver of company performance at an aggregate level.^v Factors varied as leadership, brand strength, human capital, economies of scale, industry, and market position contribute significantly to the success of individual companies. But, for companies collectively, the economy explains more than half ($R^2=0.59$) of year-on-year growth in revenue and about half ($R^2=0.51$) of year-on-year growth in earnings. This doesn't diminish the role of company-specific attributes. Rather, it highlights the historically deep interconnection between companies and the economy, with macroeconomic health playing a primary role in shaping business success. As political consultant James Carville famously put it, "It's the economy, stupid."

We can add a test of eyeballs and intuition to girder this close link between GDP and firm performance in the banking sector. Scanning the rankings of the world's ten largest banks measured by Tier 1 capital for the half century to 2020,^{vi} the rankings move in sympathy with national and regional economic fortunes. In terms of global bank rankings, the ascent of China and Chinese banks is most striking.

World's 10 Biggest Banks: 1970-2020

Rank	1970	1980	1990	2000	2010	2020
1st	Bank of America (USA)	Credit Agricole (France)	Sumitomo Bank (Japan)	Citigroup (USA)	Bank of America (USA)	Industrial and Commercial Bank of China (China)
2nd	First National City (USA)	Bank of America (USA)	Dai-Ichi Kangyo Bank (Japan)	Bank of America (USA)	JPMorgan Chase (USA)	China Construction Bank (China)
3rd	Chase Manhattan (USA)	Citicorp (USA)	Fuji Bank (Japan)	HSBC (UK)	Citigroup (USA)	Agricultural Bank of China (China)
4th	Barclays Bank (UK)	Banque Nationale de Paris (France)	Credit Agricole (France)	Bank of Tokyo – Mitsubishi (Japan)	Royal Bank of Scotland (UK)	Bank of China (China)
5th	Manufacturers Hanover (USA)	Deutsche Bank (Germany)	Sanwa Bank (Japan)	Chase Manhattan (USA)	HSBC (UK)	JPMorgan Chase (USA)
6th	JPMorgan (USA)	Credit Lyonnais (France)	Mitsubishi Bank (Japan)	Dai-Ichi Kangyo Bank (Japan)	Wells Fargo (USA)	Bank of America (USA)
7th	National Westminster Bank (UK)	Société Générale (France)	Barclays Bank (UK)	Credit Agricole (France)	Industrial and Commercial Bank of China (China)	Wells Fargo (USA)
8th	Western Bancorp (USA)	Dresdner Bank (Germany)	National Westminster Bank (UK)	Sakura Bank (Japan)	BNP Paribas (France)	Citigroup (USA)
9th	Banca Nazionale del Lavoro (Italy)	Barclays Bank (UK)	Deutsche Bank (Germany)	Fuji Bank (Japan)	Santander (Spain)	HSBC (UK)
10th	Chemical New York (USA)	Dai-Ichi Kangyo Bank (Japan)	Industrial Bank of Japan (Japan)	Industrial and Commercial Bank of China (China)	Barclays Bank (UK)	Mitsubishi UFJ (Japan)

Source: TheBanker (2024)

Change is Afoot: Three New Drivers

However, the individual and interacting forces of three phenomena suggest that the historically close partnership between economic growth and firm performance is not as unstoppable as it once was. These three forces certainly don't guarantee freedom for companies to rise above the "natural" course charted by GDP. But they make it possible for the best firms – with banking being a notable case in point – to achieve escape velocity from the historically close link between country and company.

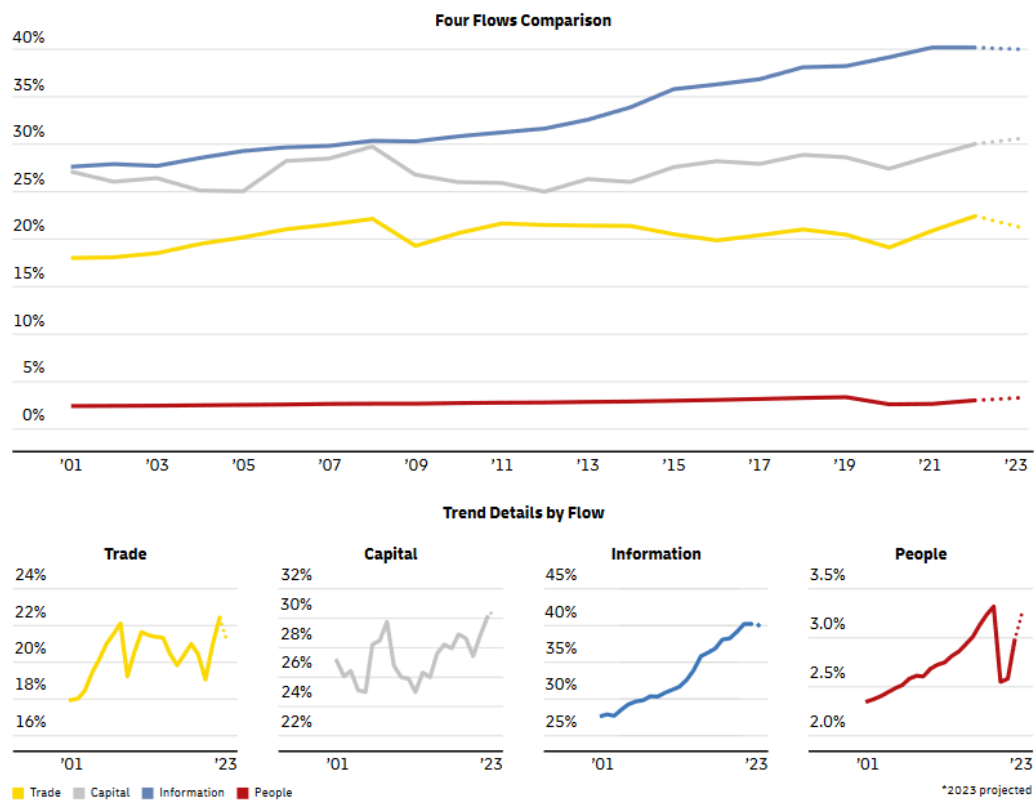
i. Globalisation: Leaving Boundaries Behind

The first force, globalisation, is well established and widely documented. Steven Altman and Caroline Bastian highlight this in the *DHL Global Connectedness*

Report 2024. Using Pankaj Ghemawat’s four pillars of trade, capital, information, and people (TCIP) to measure global connectedness,^{vii} the authors show that globalisation reached a record high in 2022 and remained close to that level in 2023.^{viii} So, “established” should not suggest it has run its course.

This ascent in globalisation overcomes shocks and setbacks – like the 2007-2008 financial crisis and the recent COVID pandemic. Notably, while the most recent setback of global lockdown collapsed the movement of people, and meaningfully constrained flows of trade and capital, information dynamics were free to keep growing. If anything, the shock strengthened information flows by spurring greater investment in information technology and enduringly altering our habits. The shift to online meetings is a good example of the latter.

FIGURE 2.2: DHL GLOBAL CONNECTEDNESS INDEX PILLAR DEPTH TRENDS, 2001 – 2023*



As seen in the top graph, information flows have reached the highest level of globalization compared to the other three flow types. Capital flows are second, followed by trade flows. People flows lag far behind, at much lower levels of globalization.

Source: Steven A. Altman and Caroline R. Bastian (2024, 15)

In turn, this dynamic suggests a degree of antifragility to businesses built on digital models. As Nassim Nicholas Taleb has argued, antifragile entities gain strength when faced with shocks and stresses – digital banks being our case in point. Conversely, the COVID experience showed many bricks-and-mortar businesses to be fragile. Movie theatre attendance still sits 30% below pre-COVID levels, and it is unlikely to ever recover that peak.^{ix}

ii. The Power of Platforms

The second force at play is platform business models that create value by facilitating exchanges or interactions between two or more interdependent groups, typically producers and consumers.^x The superpower of platform businesses is scalability: they leverage network effects, where increased participation enhances the value of the platform, leading to exponential growth potential with relatively low marginal costs as user numbers grow. This model allows businesses to scale rapidly compared to traditional businesses, often disrupting entire industries by connecting and coordinating large groups efficiently.

Although we treat platform businesses as synonymous with digital varieties, in the context of this note on digital banks, it is worth remembering that platforms can be physical. Hard infrastructure businesses like railways are one of the original platform models. Indeed, physical platforms remain a perfectly good way to achieve scale.

IKEA is a furniture industry conglomerate established in 1943 and today designs and sells ready-to-assemble furniture in 63 countries through 473 stores offering approximately 12,000 products. Another iconic example of a physical business that has scaled impressively is 60-year-old Walmart that has 10,586 locations, selling over 75 million items in 19 different countries. While Walmart's and IKEA's scale is impressive, their models, based on physical presence, are inherently constrained. Both businesses – and many other firms facing similar constraints – have pivoted in recent years to embrace digital models building so-called “phygital” businesses. This business model iteration blends physical and digital options, allowing customers to choose their preferred interaction method while receiving consistent service across all channels.

Notwithstanding their business model iterations, neither IKEA nor Walmart, nor any other traditional business, has come close to achieving the scale, speed of growth and reach that the likes of Uber, Airbnb, and LinkedIn can boast with purely digital platforms. Consider Alibaba's story. Since its inception in 2003, Alibaba's online marketplace, Taobao, has grown to host over one billion product listings across 220 countries.^{xi} Digital models scale much quicker and with far greater reach than physical models.^{xii}

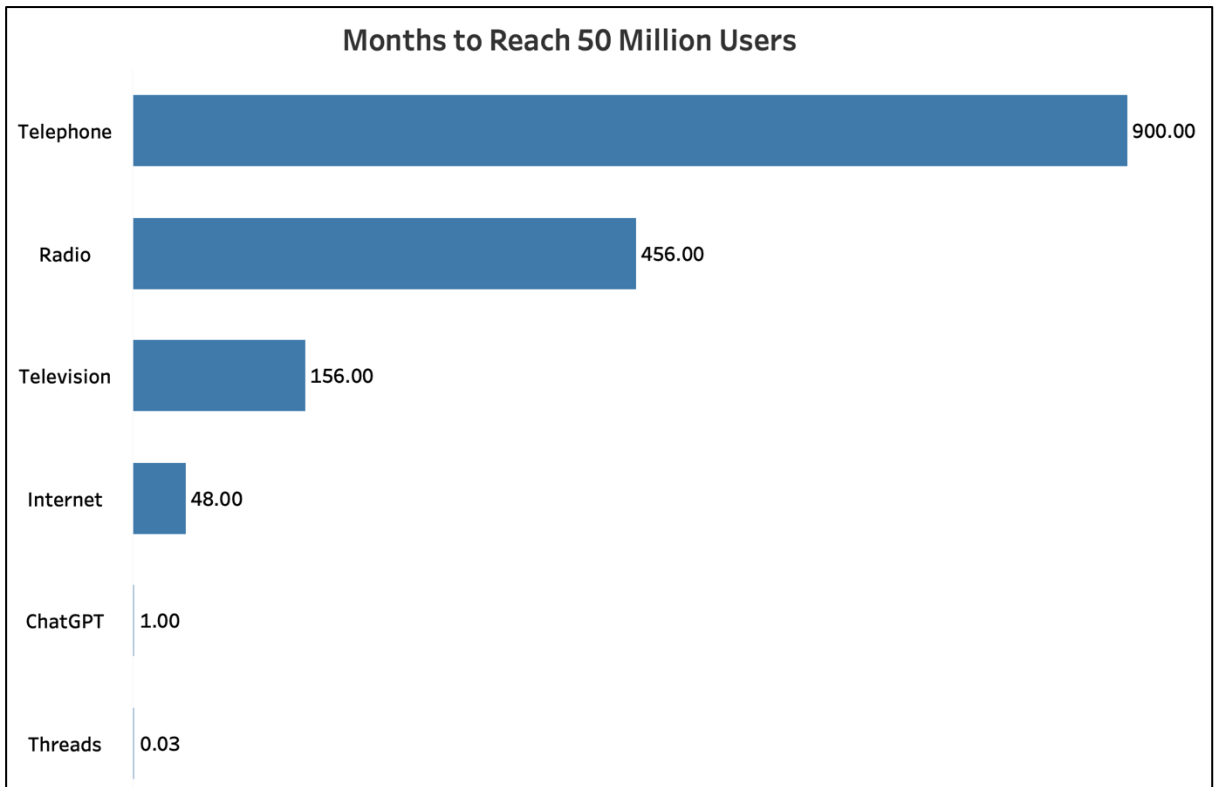
Digital platforms also enable a blank-sheet approach. Airbnb affords a good example. Prior to its arrival, we all assumed that growth for an accommodation business meant building more rooms and filling them more frequently. Airbnb showed that a tourist accommodation business doesn't need to own a single room. With an app and an intangible presence in the zeitgeist, Airbnb tipped the tourist accommodation business model on its head. If an industry so “obviously” reliant on owning physical locations can be disrupted this way, we will do well to assume that any business model can be shocked the same way.

With the joint accelerants of globalisation and digital platforms, firms are also moving quicker. That is, they are growing customer bases, expanding geographic reach and innovating business models at speeds hard to imagine even a decade ago.

iii. Consumer Adoption: Ready, Steady, Go

An insatiable consumer readiness to adopt new business models completes a powerful trifecta of industrial disruption. Using historical adoption curves, Citi Digital Strategy shows that the telephone, radio, and television took 75 years, 38 years, and 13 years, respectively, to reach 50 million users. In contrast, more recent innovations achieved this milestone at a much faster pace. The internet reached 50 million users in four years, ChatGPT in one month, and Meta's Threads in just one day.

The smartphone is an illuminating example of rapid adoption that translates into industrial disruption. Marty Cooper, widely credited as the inventor of the mobile phone, predicted in 1981 that "mobile phones will absolutely never replace the wired telephone." A few years later, AT&T asked McKinsey to estimate the total number of mobile phones that would be in use by the end of the 20th century. McKinsey's prediction of 900,000 devices initially caused AT&T to pull out of the market. By 1999, the actual number of mobile phone subscribers was 109 million, or more than 100 times higher than the prediction. And then the mobile phones became smart, not only offering a suite of new capabilities and services but also bringing about the death of well-established telco incumbents. Of the ten largest telcos in the world today, perhaps only three – AT&T, Comcast, and SoftBank – can be regarded as "old", most of the top ten are birthed almost entirely by new technologies.



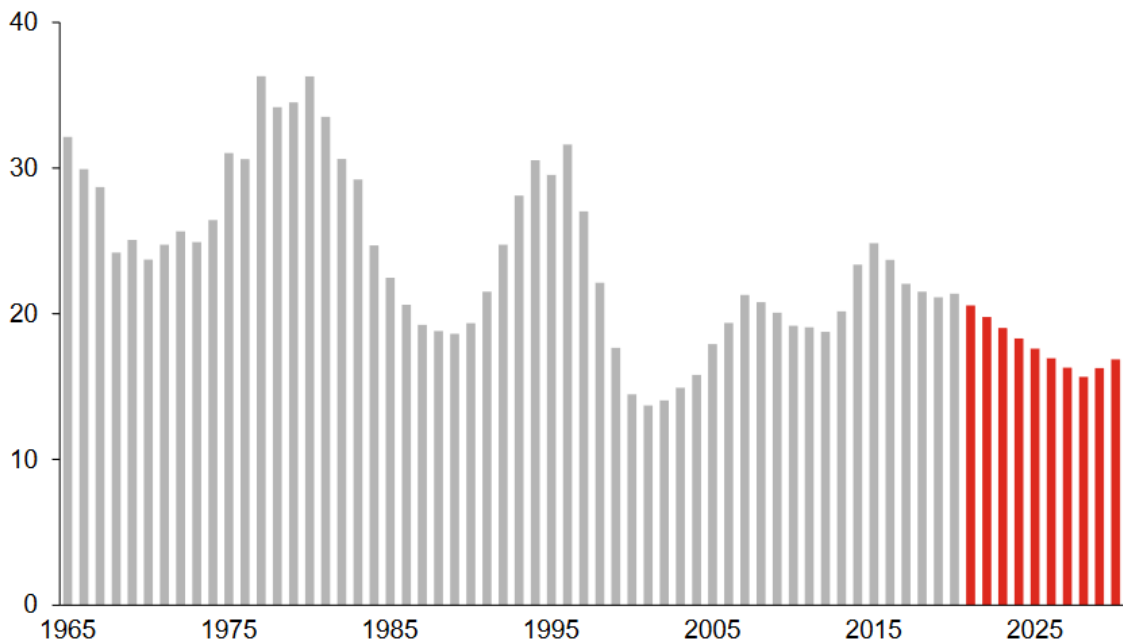
Source: Citi Digital Strategy, Medium, and ToolTester (2024)

The upshot is that consumers are ready and willing to move from concrete to cloud if it means meeting a need better. And globalisation and technological innovation have condensed the timeframes for mass adoption across different industries.^{xiii} Put together, these three phenomena point to a business and industrial landscapes that are in a state of rapid change, influenced by powerful – even permanent – drivers.

To the Young Go the Spoils

Although people now live longer than we used to, the same cannot be said of big businesses. In this fleet-footed world, evidence suggests that younger, more recently established firms enjoy an advantage in scaling. Newer businesses at an earlier phase of development and without the hangover of decades worth of accumulated information systems and physical assets – including movie theatres, hotel rooms, and bank branches – are better positioned to innovate and scale.^{xiv} This is borne out on Wall Street, where creative destruction continues apace. Patrick Viguier, Ned Calder, and Brian Hindo’s tracking of corporate longevity of S&P 500 firms “shows a steady churn rate of companies dropping off the index as new entrants join the list, and corporate lifespans continue their downward trajectory.” In 1965, companies spent an average 33 years as a member of the S&P 500 index. This has fallen steadily to 21 years today, and the figure may drop further to 12 years by 2027.^{xv}

Chart 1: Average company lifespan on S&P 500 Index in years (rolling 7-year average)

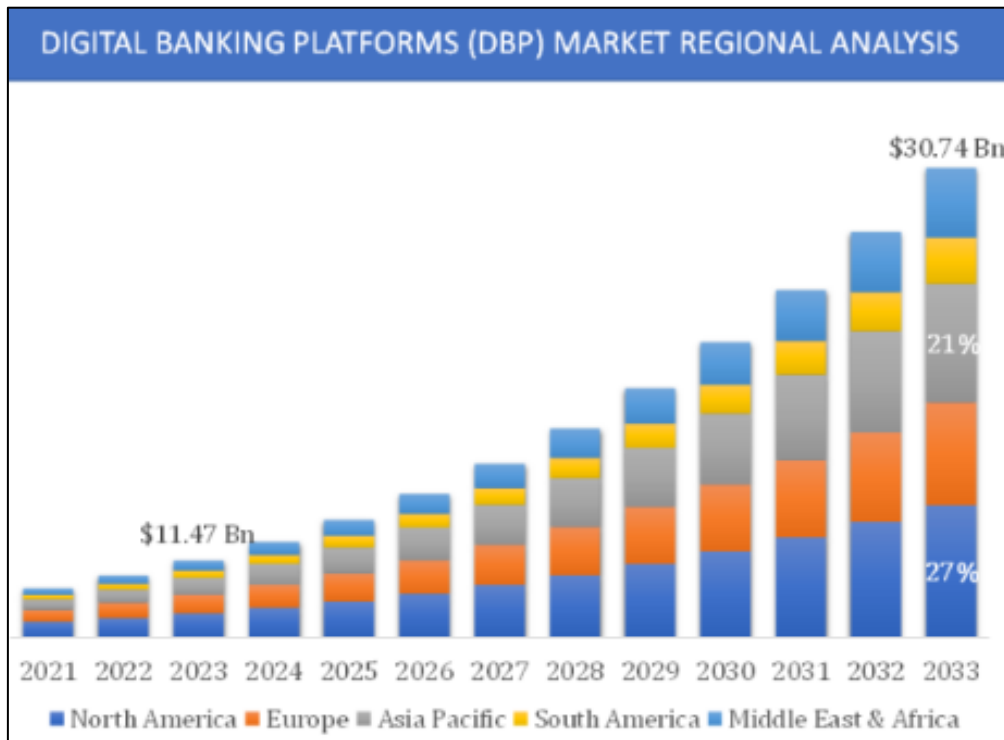


Source: S. Patrick Viguerie, Ned Calder, and Brian Hindo (2021)

Notably, digital business models are a common feature among thriving and enduring firms. In 1969, more than 160 industrial companies made up the S&P 500. Half a century later, only 68 of the 500 firms are industrial. Conversely, information technology companies have surged more than four-fold, now sharing the top spot in terms of company headcount with the healthcare sector (68 companies apiece). Some of the change is natural attrition. On closer reading, though, digitisation is an accelerant and youth an advantage.

Digital Models: Platforms for Prosperity

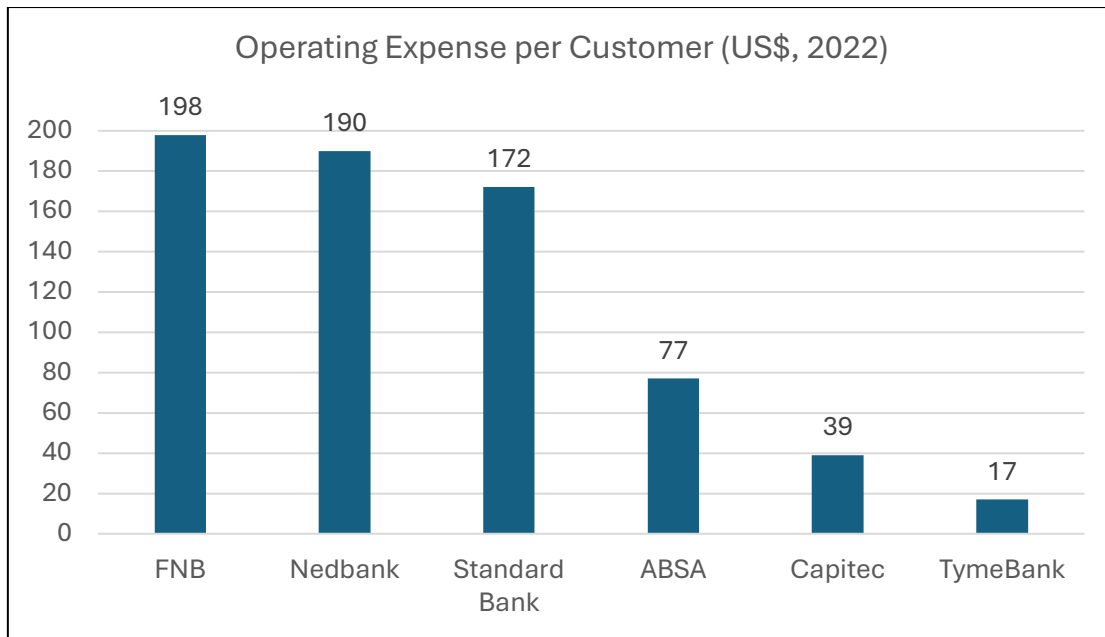
The term “exponential growth” loses its impact when too readily applied. Business models built on digital assets are rare instances deserving of this title. Digital-first companies are unmatched for their ability to wholly avoid unnecessary costs and not only meet customer needs but to do it better than historically possible through traditional models.



Source: Evolve Business Intelligence (2024)

At just nine-years old, the UK’s Revolut serves 45 million customers – about the same number as the bricks-and-mortar Barclay’s Bank, founded in 1690.^{xvi} Both banks operate in about 40 countries. By operating entirely online and untethered to decades and layers of old technology, digital banks eliminate the significant overhead costs associated with maintaining physical branches. Brazil’s Nubank operates with 5,000 employees and no physical branches. By comparison, retail giants like HSBC and JP Morgan Chase, which serve around 100 million customers between them – and slightly less than Nubank’s 105 million – employ a combined 477,000 individuals across 5,700 branches.^{xvii}

Digital banks’ streamlined structure supports leaner operations, leading to lower fees and higher deposit rates for consumers. Tyme Group, a Singapore-based digital banking group, operates in South Africa through its bank, TymeBank. The bank has an operating expenditure of US\$17 per customer. By comparison, the 160-year-old Standard Bank operates at US\$172 per customer. Even the relatively young – but physical – challenger bank Capitec has an operating expense of US\$39 per customer.



Source: TymeBank (2023)

This has implications for other markets. TymeBank’s experience in South Africa offers valuable insights for other markets. Through a joint venture with the Gokongwei Group, a Philippine conglomerate, Tyme launched GoTyme in October 2022. Since then, it has become the fastest-growing bank in the country, onboarding around 300,000 customers monthly and reaching 5 million customers in record time. In turn, the cost advantages that flow from scaling at speed translate into customer benefits.

To this end, Nubank has become a case study in financial inclusion by offering no-fee accounts, fee-free credit cards, and transparent pricing to millions of customers who had previously been unbanked or underserved. Further, Nubank’s NuConta provides up to 100% of Brazil's benchmark interest rate on savings accounts, a stark contrast to the low returns offered by many traditional banks. This higher interest on savings gives greater financial security for its users and has encouraged savings behaviour among Brazilians who had limited access to formal banking.

US-based digital bank, Chime, offers no-fee checking accounts and boasts fee-free overdrafts for eligible customers – benefits rarely matched by traditional banks. In 2021, Revolut partnered with Centrale Rischi d’Informazione Finanziaria (CRIF), a global business specialising in credit bureau reporting and business information systems, to integrate AI-driven technologies into its credit scoring system, automating loan assessments and enabling instant approvals for personal loans. In August of 2024, US-based SoFi offered an annual percentage yield of 4.5% on its savings accounts, whereas its traditional banking counterparts – Bank of America and Chase – offered a mere 0.04% and 0.02%.

The Power of Precision: Why Contextual Finance is Leaving Embedded Models Behind

Here, it is worth pausing for a moment to examine the divide between embedded and contextual finance. Both concepts trace their roots to platform economics and digital ecosystems. Annabelle Gawer and Michael Cusumano's *Platform Leadership* (2002) laid the groundwork, illustrating how platforms could weave diverse services together, hinting at the potential for financial inclusion.^{xviii} In 2015, Bill Maurer added to this thinking with *How Would You Like to Pay?*, investigating how financial services might seamlessly embed into everyday life.^{xix} By 2020, Marco Iansiti and Karim Lakhani, in *Competing in the Age of AI*, took these ideas further, showing how digital infrastructure can drive hyper-personalised financial solutions.^{xx} Their work charts a clear shift: embedded finance revolves around the product; contextual finance puts the customer squarely at its core.

Traditional banks rely on embedded finance models that create a series of new products within existing platforms. In a contextual approach, products are only added where they are needed, and only where they add value without adding friction. While embedded finance is stuck in the generic, contextual finance uses data, technology, automation, and analytics to provide personalised services. The banks offering these types of services today are digital – and they comprise a small, though rapidly growing, minority.

Tyme Group co-founder and executive chair, Coenraad Jonker believes that contextual banking is the future; so much so that customer satisfaction is TymeBank's most important metric. He gives two examples of how this looks in practice.

The first example is TymeBank's product called merchant cash advance, which offers working-capital finance for small businesses. He explains: "If your business has a point-of-sale device, we analyse your payment data and offer you a loan based on that data. There are no forms to fill out, no bank managers you need to impress. And there are no monthly repayments – instead we take a percentage of turnover to repay the loan. You never have to hand over money you don't have. If you have a bad month, you pay less. This is a model that just works – for us, and for our users. Our Net Promoter Score (NPS) on merchant cash advance is over 80% – if you're familiar with the NPS metric you'll know that's stratospheric."

The second example is opening a bank account. Traditionally, to open an account with a new bank, customers would go to a branch, stand in a queue, hand over the requisite documents, wait while data is captured, and maybe 45 minutes later (not considering travel time) they would have a new account. In comparison, TymeBank can open a fully compliant account in less than five minutes. And customers can do it from their living room.

This is simply a better way of banking, and we are seeing its worldwide proliferation as a result. There is good reason to believe that digital-first banks offering contextual models of financial services will follow a similar growth trajectory in every market around the world. And they don't require underserved banking markets to succeed. They are

attractive whether a client is new to banking or solidly “middle class”. Because digital banks manage to deliver better services through more intelligent backend infrastructure.

The technological infrastructure of digital banks is a critical strength that enables real-time data processing and the integration of advanced analytics tools like artificial intelligence (AI) and machine learning (ML). These technologies allow digital banks to offer hyper-personalised financial services. For instance, N26, a Berlin-based digital bank, provides real-time notifications and spending categorisation to help users manage their finances more effectively. Similarly, AI-driven credit scoring models enable digital banks to assess loan applications more quickly and efficiently, offering instant approvals and competitive lending rates.^{xxi}

Models like these enhance the customer experience and drive profitability through precise risk management. Upstart, an AI-driven lending platform, has been able to cut default rates by 75% while approving 173% more loans. This in turn has led to increased profitability within the firm’s lending segment.

For the digital bank, business footprints that once took decades to build can be accumulated in years. And physical assets, like a network of branches, are more likely to represent dead weight than net benefit. Coenraad Jonker argues that, from this, it will be easy to see in retrospect why digital banks toppled the incumbents and their traditional approach to banking.

In this way, digital banking offers transformative social and economic benefits by advancing financial inclusion and bridging gaps in access to financial services. According to the Consultative Group to Assist the Poor (CGAP), digital banking’s innovative business models are proving effective at extending financial services to previously underserved populations.^{xxii} For example, Nubank’s mobile-first approach reaches urban and rural customers, fostering community trust and loyalty.^{xxiii} TymeBank in South Africa leveraged digital onboarding and biometric verification to onboard over 10 million customers in five years. Previously, many of the customers were excluded from formal banking. This superior financial access helps address socioeconomic inequality and promotes equitable participation in the economy. While we are still early in the transformation, it is worth recalling the high social returns recorded on infrastructure investments. Economic historian Robert Fogel calculated that the social rate of return on the Union Pacific Railroad was around 30% per year.

Through their inclusive models, digital banks have the capacity to build powerful social infrastructure; and digital banks’ ability to financially include people has not come a moment too soon. The World Bank estimates that 1.7 billion people remain underbanked or unbanked globally,^{xxiv} particularly across developing regions, where financial exclusion rates are substantial. Over 60% of the populations in Morocco, Vietnam, Egypt, the Philippines, and Mexico are unbanked. In Africa and the Middle East, approximately 50% of the population is financially excluded, as are 38% in South and Central America and 33% in Eastern Europe.^{xxv} The promise of new digital banking models is to transform the financial landscape for billions, doing for them what traditional models have done for hundreds of millions. This shift, as C.K. Prahalad highlighted in his work, could empower

those at the base of the economic pyramid, offering access, opportunity, and growth in ways previously unimaginable.

Technology, Trust, and Regulatory Roadblocks

The gains on offer from digital banks are not costless. As American economist and author Thomas Sowell says, “there are no solutions, only trade-offs”. Foregoing physical branches is a good trade, but a trade, nonetheless. Digital banks face several significant challenges despite their benefits. Bypassing physical branches, while cost-effective, limits their ability to meet customers' preference for face-to-face service. Nearly half of clients prefer in-person support for complex issues like fraud, according to McKinsey.

Reliability is another concern, as digital-only infrastructure can leave clients without options during system failures, and 35.2% of US customers report trust concerns regarding digital banks' dependability. Additionally, limited options for cash deposits can deter potential users, especially those reliant on cash transactions. Cybersecurity risks are heightened due to online-only operations, requiring substantial investments to protect against threats that could erode trust. As Nguyen and Dang highlight, digital banks face greater risks from data breaches and phishing attacks due to their online-only operations.^{xxvi}

Regulatory barriers also present complexities, especially as digital banks expand across borders, demanding robust compliance to maintain customer trust and operate smoothly within various jurisdictions. Zetsche et al. (2018) and Vives (2020) emphasising the costly and complex compliance across jurisdictions.^{xxvii} Digital banks that excel in compliance and government engagement, however, can turn these challenges into a competitive advantage.

Another concern in any industrial disruption is to achieve a fair and just transition. This demands that policy makers and regulators address the implication for lost jobs and stranded property. The rise of digital-first banks will be a direct cause of large numbers of job redundancies and, by attracting customers away from traditional banks, result in vast tracts of vacant banking real estate. These are real difficulties with serious impacts on individuals and markets.

Beyond this, and to support digital banking's growth, policymakers and regulators must strike a careful balance between fostering innovation and preventing monopolies. Digital models feed a winner-takes all (or at least most) outcome. Witness Google which has held more than 80% share of the global search market for the past 15 years.^{xxviii} Policymakers also should strengthen intellectual property frameworks to protect proprietary technology while keeping competition open and avoiding monopolistic dominance. Collaboration across sectors, especially telecoms and urban infrastructure, is essential to expand digital banking's reach, particularly in underserved areas. Financing intangibles like data and patents requires updated models; regulators can support this by creating funding mechanisms and incentives tailored to intangible assets. Finally, policies promoting fairness are crucial to ensure smaller institutions and

developing regions can compete, preventing the rise of inequality in the financial landscape.

Scaling Success: The Digital Advantage

Drawing on the evidence and experiences above, it is arguable that, measured by market cap and number of customers, digital banks will become the industry's biggest retail banks in the next ten years. This growth will be driven by their ability to leverage platform models to scale rapidly and operate across industry and country borders like never before.

The banks that succeed in this environment are likely to be significantly more profitable than today's giants. For instance, established cost-to-income ratios of 50%-60% could drop to 25%-30% through leaps in efficiency, economies of scale, and economies of scope.^{xxix} Over the past twenty years, global retail banks have achieved an average return on assets (ROA) of around 1.0%, which has translated into an average return on equity (ROE) of 12.1%.^{xxx} The digital shift would put a ROA of 3.0% within reach, translating into ROEs of 35% and even higher – figures far beyond the reach of even the most successful niche banks built on physical models. At the time of writing, Nu Holdings, the parent company of NuBank, has a market cap of US\$66.2 billion, making it the world's 301st most valuable company by market capitalisation.^{xxxi} This gives Nubank about the same market value as Brazil's biggest bank by assets, Itaú Unibanco.

Death on the Dancefloor

But new models that shape the way firms do business, should not be confused with strategy, which shapes the way firms compete.^{xxxii} Whilst platform models can be impressive, along the way, many will die – including established giants and Young Turks. In a recent study, strategy consultancy Simon-Kucher reported that nearly 400 digital banks globally serve almost one billion client accounts. However, only 5% of these digital banks have achieved breakeven, and only a handful have achieved sustained profitability.^{xxxiii} Just like any other revolution, this industry disruption will be turbid, and for many banking incumbents and challengers, progress will follow a jagged line. The emergence of new industries – or new industry models – often sees first movers quickly become first losers. Just like in every other gold rush, we have already seen failures – including Volt and Xinja in Australia, Bó in Scotland, and Simple in the US, to mention a few. Many more will follow.

An under-reported but important reminder comes from the motor industry. In *Business Adventures*, John Brooks mentions a striking statistic in the chapter titled "The Last Great Corner." He notes that between 1900 and 1930, about 2,000 companies entered the American automobile industry. However, by the time Brooks was writing (mid-20th century), only four major companies had survived: General Motors, Ford, Chrysler, and American Motors Corporation (AMC).^{xxxiv} This statistic highlights the intense competition and high failure rate in the early years of the motor industry, underscoring the challenges new entrants faced in surviving long term. And recall the early stars of internet search, including WebCrawler, which became the first search engine to index all text on pages

visited, followed quickly by the launch of Lycos, Yahoo!, AltaVista, Ask Jeeves, HotBot, Excite, Infoseek, and others. Their quirky names stay with us, but the firms are gone. As Mark Twain is reputed to have remarked, "History doesn't repeat itself, but it often rhymes."

From the Dancefloor to the Balcony

The imperative of achieving profitability has led Christoph Stegmeier to urge digital banks to transition from "get reach" to "get rich" by their sixth or seventh year of operation or otherwise face a sharp increase in failure risk.^{xxxv} We get clues on digital banks' key success factors from some of the early winners, including China's WeBank and South Korea's KakaoBank. WeBank's 320 million customers make it the biggest bank in the world by this measure, and KakaoBank 26 million customers make it one of the most successful digital banks in Asia. The two have scaled rapidly and effectively with the common ingredient being the ability to tap into the power of their parent company affiliations, leveraging existing ecosystems to reach extensive user bases.

KakaoBank, affiliated with Kakao Corporation, seamlessly integrated its services into KakaoTalk, South Korea's dominant messaging app with millions of active users; and WeBank, backed by Tencent, scaled by embedding its services within WeChat, China's largest messaging platform. This affiliation with Tencent allowed WeBank to introduce its banking products to over a billion WeChat users, creating a bridge between social media and financial services. In both cases, the affiliation with established tech giants provided a foundational user base, a familiar platform interface, and a trusted brand, accelerating growth and fostering user adoption.

There are also clues from other early winners that the ability to scale is contingent on the ability to establish banks in multiple countries. The size of China's population might make WeBank an exception to the rule. Other early winners have pursued multinational strategies to achieve scale. Nubank has operations in Brazil, Mexico, and Colombia, and founder David Vélez has said that the bank is "reassessing prospects for Argentina."^{xxxvi}

Similarly, Singapore-based Tyme Group is pursuing a multinational strategy, with TymeBank in South Africa and GoTyme, its joint venture with the Gokongwei Group in the Philippine. Leveraged insights from TymeBank's experience has helped GoTyme achieve rapid growth – onboarding five million customers in the Philippines in the space of just two years. More than rapid growth, GoTyme is ranked first in customer experience amongst banks in the Philippines, with the highest Net Promoter Score in independent studies. GoTyme's approach has attracted robust low-cost deposits exceeding US\$370 million while scaling its lending portfolio with products like salary loans and merchant cash advances. It is anticipated that the bank will achieve breakeven in less than four years – testament to the value of experience and learning in other markets, and the power of digital scaling. Tyme Group has also recently reported that it will have its first product lines in Vietnam and Indonesia by the end of 2024, and that it aims to open banks in both countries to build scale and expand reach.

This shift prioritises refining strategies to balance growth with diversified revenue, localised approaches, innovative offerings, cutting-edge technology, and sound monetisation models. Success hinges on moving beyond customer acquisition to create financial sustainability, positioning digital banks to thrive in a hyper-competitive landscape. As is often the case in strategy, timing will be key in the reach-rich balancing act.

Perfect hindsight aside, nobody chooses to be a first mover or a later arrival. Neither position determines fate. That is in the hands of business leaders. Here, we can borrow from Nike's founder Phil Knight in *Shoe Dog*: "... the cowards never started and the weak died along the way – that leaves us, ladies and gentlemen. Us."^{xxxvii}

The Future of Banking: A New World Order

So, what is a bank? We're getting closer to an answer. The digital-first revolution has certainly shown what a bank need *not* be. Just like hotel chains no longer need rooms, banks certainly don't need branches. Traditional banks, once dominant by virtue of geography, limited competition and high barriers to entry created by branch networks, are highly vulnerable to digital challengers whose models thrive on agility, efficiency, and customer-centric innovation, and whose reach is fed by globalisation that is digitally led.

In a world where platforms proliferate and consumers readily adopt new technologies, where the benefits of banking are transformative for individual clients and broader communities, digital banks, unshackled by legacy systems and unnecessary overheads, have the brightest, most highly scalable futures. For incumbents, the challenge is clear: adapt or face obsolescence. Many incumbent banks have risen to this challenge by embracing 'phygital' models, blending the convenience of digital banking with the reassurance of physical branches. Spanish bank BBVA, for example, reports that over 70% of its customers now bank primarily through digital channels, while still maintaining strategic branch services to enhance accessibility, and JPMorgan Chase has similarly optimised its offerings to serve 60 million digitally active customers, balancing digital-first experiences with branch-based support to retain customer loyalty. Their work is cut out for them. Digital banks, unbound by legacy constraints, face vast opportunities – yet also significant risks. Only those balancing scale, innovation, and trust will thrive in this new era.

-
- ⁱ Damien Chmiel (2024) Nubank's Q2 Earnings Surge 65% as Customer Base Hits 104.5 Million accessed 29 October 2024 via <https://bit.ly/3t3ZQ1G> accessed via www.financemagnates.com/fintech/payments/nubanks-q2-earnings-surge-65-as-customer-base-hits-1045-million/.
- ⁱⁱ World Bank (2021) The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19 via www.worldbank.org/en/publication/globalfindex.
- ⁱⁱⁱ St. Louis Fed, *FRED Database*, <https://fred.stlouisfed.org>.
- ^{iv} The results are based on a study (Saville, 2023) that draws on data for the period 2000-2022. The MSCI All Country World Index (ACWI) is made up of more than 2,900 firms from 47 countries, including 23 developed markets and 24 emerging markets, representing all major sectors from information technology, financials, and consumer discretionary, to healthcare, and utilities.
- ^v Developed by Clive Granger (1969), the test assesses whether past values of a variable X (in this case, economic growth) provide statistically significant information about future values of another variable Y (in this case, company performance), beyond what is already provided by past values of Y alone.
- ^{vi} The ranking of the largest banks in the world is measured by Tier 1 capital which serves as a proxy for the bank's overall size and financial stability. The rankings for 1970 and 1980 were an exception, wherein total assets served as a proxy.
- ^{vii} Pankaj Ghemawat, *World 3.0: Global Prosperity and How to Achieve It* (Harvard Business Review Press, 2011).
- ^{viii} Steven A. Altman and Caroline R. Bastian, 'DHL Global Connectedness Report 2024' (DHL Group, Bonn) DOI: 10.58153/7jt4h-p0738.
- ^{ix} Dixon, C. (2024, March 18). *2023 movie theater attendance improves; may never reach pre-COVID levels*. nScreenMedia. <https://nscreenmedia.com/2023-movie-theater-attendance-improves/>.
- ^x Parker, G., Van Alstyne, M., & Choudary, S. P. (2016). *Platform Revolution: How Networked Markets Are Transforming the Economy--and How to Make Them Work for You*. W. W. Norton & Company; Cusumano, M. A., Gawer, A., & Yoffie, D. B. (2019). *The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power*. Harper Business; Tiwana, A. (2014). *Platform Ecosystems: Aligning Architecture, Governance, and Strategy*. Morgan Kaufmann; Rochet, J.-C., & Tirole, J. (2003). *Platform Competition in Two-Sided Markets*. *Journal of the European Economic Association*, 1(4), 990-1029; Hagi, A., & Wright, J. (2015). *Multi-sided Platforms*. *International Journal of Industrial Organization*, 43, 162-174.
- ^{xi} Simeon Jankov and Federica Saliola, 'The Changing Nature of Work' (World Economic Forum, 2018) www.weforum.org/agenda/2018/11/thechanging-nature-of-work.
- ^{xii} Notably, while models that ramp up in this fashion often lead to the celebration of founders and firms, it is the foundation of technology that scales and connects that is the real celebration: John Kay's flying shuttle (1733); James Watt's significant improvements to the steam engine (1769); Samuel Morse's telegraph (1837); Ada Lovelace's computer algorithm (1840s); Alexander Graham Bell's telephone (1876); Hedy Lamarr's frequency-hopping spread spectrum (1940s); or Tim Berners-Lee's World Wide Web. Never diminishing the contributions of the brilliant minds who commercialise these innovations, it is the technology that provides the platform and foundation for scaling. To drive true transformation, labs and corporations need accelerants, and the most powerful accelerant is globalisation. There were twenty thousand miles of railways in the world when the American Civil War ended in 1865. There were three hundred thousand miles in 1914. There are a million miles of rail worldwide today. Bradford DeLong, *Slouching Towards Utopia: An Economic History of the Twentieth Century* (Basic Books, New York, 2022) p. 50.
- ^{xiii} Horace Dediu, 'Seeing What's Next' (Asymco, 2013) accessed via www.asymco.com/2013/11/18/seeing-whats-next-2/; and Horace Dediu, 'A Study of Technology Adoption by Consumers' (Asymco, 2024) accessed via <https://www.asymco.com/category/research/>.
- ^{xiv} Drawing from resource-based theory, Jay Barney suggests that younger firms often gain a competitive edge by leveraging unique, non-replicable resources like innovative processes and emerging technologies. Dynamic capabilities theory provides further reason to believe in the benefits of youth. This framework examines the ways firms operating amid rapid technological change create wealth. It provides compelling evidence that younger businesses are more adept at reconfiguring their internal and external competencies in tumultuous environments, allowing them to seize opportunities more effectively than older, more bureaucratic, lethargic organisations. Jay Barney, 'Firm Resources and Sustained Competitive Advantage' (1991) 17(1) *Journal of Management* 99-120. David J. Teece, Gary Pisano, and Amy Shuen, 'Dynamic Capabilities and Strategic Management' (1997) 18(7) *Strategic Management Journal* 509-533.
- ^{xv} S. Patrick Viguerie, Ned Calder, and Brian Hindo, 'Corporate Longevity Forecast 2021' (Innosight) accessed via www.innosight.com/wp-content/uploads/2021/05/Innosight_2021-Corporate-Longevity-Forecast.pdf.
- ^{xvi} Finder, 'Banking Statistics' (2023) www.finder.com/uk/banking/banking-statistics. Financial Times, 'How Revolut Took Its Digital Banking Model Global' (2023) www.ft.com.
- ^{xvii} Zia Khan, Harry Terris, Ben Meggeson, and Mohammad Taqi, 'The World's 100 Largest Banks' (S&P Global Market Intelligence, 2023).
- ^{xviii} Gawer, A., & Cusumano, M. A. (2002). *Platform leadership: How Intel, Microsoft, and Cisco drive industry innovation*. Harvard Business School Press.
- ^{xix} Maurer, B. (2015). *How would you like to pay? How technology is changing the future of money*. Duke University Press.

-
- ^{xx} Iansiti, M., & Lakhani, K. R. (2020). *Competing in the age of AI: Strategy and leadership when algorithms and networks run the world*. Harvard Business Review Press.
- ^{xxi} Andreas Fuster, Paul Goldsmith-Pinkham, Tarun Ramadorai, and Ansgar Walther, 'Predictably Unequal? The Effects of Machine Learning on Credit Markets' (2020) 75(6) *The Journal of Finance* 2655-2698 <https://doi.org/10.1111/jofi.12946>.
- ^{xxii} Jie Zhao, Chen Wang, Hosny Ibrahim, and Yu Chen, 'The Impact of Digital Financial Inclusion on Bank Performance: An Exploration of Mechanisms of Action and Heterogeneity' (2024) 19(8) *PLoS ONE* e0309099. Patrick K. Ozili, 'Digital Financial Inclusion' (2020). Consultative Group to Assist the Poor (CGAP), 'Digital Banks: How Can They Deepen Financial Inclusion?' (2020). EFINA, 'EFInA 2020 Report' (2020).
- ^{xxiii} Rafael Gomes, Florian Scholten, and Pedro de Almeida, Nubank: Redefining Banking in Brazil (INSEAD, 2021).
- ^{xxiv} World Bank (2021) The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19 via www.worldbank.org/en/publication/globalfindex.
- ^{xxv} Luca Ventura (2021) World's Most Unbanked Countries, Global Finance. Available via <https://gfmag.com/data/worlds-most-unbanked-countries/> accessed <https://gfmag.com/data/worlds-most-unbanked-countries/>.
- ^{xxvi} Quoc T. Nguyen and Linh T. Dang, 'The Role of Cybersecurity in the Development of FinTech' (2020).
- ^{xxvii} Dirk A. Zetsche, Ross P. Buckley, Douglas W. Arner, and Janos Nathan Barberis, 'The FinTech Regulatory Sandbox: Concept, Law and Regulation' (2018) 19(3) *Journal of Banking Regulation* 16-28. Xavier Vives, 'The Impact of Fintech on Banking' (2020) 2020(2) *European Economy - Banks, Regulation, and the Real Sector* 97-110 <https://doi.org/10.2139/ssrn.3473248>.
- ^{xxviii} www.statista.com/statistics/1381664/worldwide-all-devices-market-share-of-search-engines/.
- ^{xxix} McKinsey & Company, 'Global Banking Annual Review 2023' (McKinsey) <https://bit.ly/3SzoTmZ>.
- ^{xxx} McKinsey & Company, 'Global Banking Annual Review 2023' (McKinsey) <https://bit.ly/3SzoTmZ>.
- ^{xxxi} Bloomberg, www.bloomberg.com/quote/NU.
- ^{xxxii} Joan Magretta, 'Why Business Models Matter' (2002) *Harvard Business Review*.
- ^{xxxiii} Simon-Kucher & Partners, 'Most Digital Banks Are Not Profitable, Simon-Kucher Study Shows' (2023) *TechNode Global* bit.ly/3tZk1Jd.
- ^{xxxiv} John Brooks, *Business Adventures* (New York: Open Road Media, 2014), Chapter 6, "The Last Great Corner."
- ^{xxxv} Simon-Kucher & Partners, 'The Future of Neobanking: Profits at the End of the Tunnel' (2023) bit.ly/3PsFbEd.
- ^{xxxvi} Saturnino, F. (2024, October 23). *Nubank taking new look at Argentina under Milei, CEO Véléz says*. Bloomberg. <https://www.bloomberg.com/news/articles/2024-10-23/nubank-taking-new-look-at-argentina-under-milei-ceo-velez-says>
- ^{xxxvii} Phil Knight, *Shoe Dog: A Memoir by the Creator of Nike* (Scribner, 2016) p. 268.