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Foreword



Elizabeth Cox, General Manager North East Asia, Austrade

The business and operating environments in Japan are undergoing sweeping changes as the Japanese Government and corporates undergo the digital transformation process. This is disrupting legacy systems and shifting the thinking that IT is a cost to recognising IT investment can spur new growth.

The Japanese Government and corporate Japan increasingly see fintech and associated innovation as a critical element in the revitalisation of the Japanese economy.

While there is exciting progress within Japan itself, Japanese technology organisations are aggressively looking to overseas fintech as a source of competitive advantage.

In recent years, the Japanese Government has introduced a raft of regulatory reforms designed to pave the way for fintech companies to compete with incumbent financial institutions and to encourage partnerships.

Part of these reforms involves a push to attract overseas talent and encourage overseas startups to set up in Japan and contribute to the nation's open innovation agenda. To that end, attractive national and local government subsidies, English-speaking help desks and other support services have been put in place to help overseas tech companies enter the market.

The Fintech Japan Playbook is the starting point for Australian fintech companies considering prospects in Japan. Our team on the ground is here to see you through the rest of the journey.

The playbook has been compiled through extensive market research and interviews with subject matter experts and overseas fintech companies who have achieved success in Japan.

I hope you find it an indispensable reference and guide for charting your entry into the Japan market.



Fintech: Japan

Japan is a pioneer of financial technologies. In 2000, Sumitomo Bank launched the world's first online banking service. NEC also made headlines, becoming the first bank to build a UNIX-based system for online accounts. Soon afterwards, Japan pioneered the world's first contactless electronic payment system with Sony's Mobile FeliCa (or 'wallet phone').

Despite all these early innovations in fintech, Japan has remained a relatively cash-based society lagging well behind neighbouring countries' adoption of cashless payments and this creates opportunities for overseas fintech.³

Recognising its decline in global competitiveness, the Deputy Prime Minister, Taro Aso, has stated that the Ministry of Finance will make concerted efforts to pivot from regulating the industry to "nurturing it".⁴

Fintech has been set two key challenges. First, to increase the cashless payment ratio to 40% by 2025 (from its current 32.5%). Second, to digitise SME's back-office finance and accounting operations.⁵

The Financial Services Agency set up the 'FinTech Proof-of-Concept Hub', to support fintech companies, banks and other organisations to accelerate their fintech-related innovation through the commercialisation of new services.⁶

Under the 'Japan Fintech Vision', Japan is now aiming to become a global fintech hub and transform the economic behaviour of its people and industries by proactively adopting fintech innovations.⁷

To spur a competitive playing field, the government also established the Financial Market Entry Office to be a single point of entry for overseas companies by providing assistance in English by industry experts.⁸

The Tokyo Metropolitan Government (TMG) is providing an additional layer of incentives and support. Through its 'Global Financial City: Tokyo Vision', grants and market entrance support are being provided to promote overseas financial service players to set up Tokyo.⁹

The TMG also set up the 'Business Development Center Tokyo' offering a range of specialised services for overseas companies and entrepreneurs aiming to set up a presence in Tokyo.

From sales channels, funding support, finding investment funding and market research to lifestyle support, the TMG offers a broad range of concierge services (see page 34, 'Tokyo as a launchpad' for more details).¹⁰

Growth of fintech companies 2010-2020: Tokyo playing catch-up¹¹



- 1 Sumitomo Mitsui Trust Group, History The Sumitomo Trust and Banking Co., Ltd
- 2 NEC, デジタル時代に求められる銀行システムの対応
- 3 METI, キャッシュレス決済 実態調査アンケート集計結果; Jiji Press, Cashless Payments Make Up Record 26.8 Pct in Japan
- 4 Financial Times, Japan banks target fintech start-ups after law change
- 5 Mitsubishi UFJ Research Consultancy, キャリア決済を中心としたキャッシュレス決済の動向整理

- $6\,$ $\,$ Financial Services Agency, Financial Services Agency's Efforts to Promote Innovation
- 7 METI, Japan's FinTech Vision
- 8 Financial Services Agency, Japan's Financial Market Entry Office
- 9 Tokyo Metropolitan government, Global Financial City: Tokyo
- 10 Tokyo Metropolitan Government, Support for companies in all sectors
- 11 Crunchbase accessed at Tokyo Metropolitan Government, "Global Financial City: Tokyo" Vision 2.0

Japan snapshot

Population
125.8 million

World's thirdlargest economy GDP: A\$6.9

trillion

GDP (PPP) per capita A\$57,765

Bank account penetration rates 97.6%

Rapidly growing number of high-networth households 1,327,000 in total

assets in 2021 A\$22 trillion – over 50% in cash and deposits

Household financial

Ability to create "markets of tomorrow"

Ranked 3 globally

World's most vibrant science and technology clusters Tokyo-Yokohama Ranked third for quality of innovation

- 12 World Bank, Data
- 13 World Intellectual Property Organization, The Top 100 Science and Technology Clusters
- 14 World Economic Forum, The Global Competitiveness Report: How Countries are Performing on the Road to Recovery
- 15 Nomura Research Institute, Pandemic's impact on Japan's HNW class
- 16 Japanese Bankers Association, 調査結果





A primer on Japan's crypto breakthroughs

Already valued at over \$1.3 trillion, Japan's cryptocurrency market has developed rapidly in just the past several years.¹⁷

In 2017, Japan became the first country to amend relevant laws to allow the use of virtual currencies as a legal form of payment. This paved the way for an initial 11 cryptocurrency exchange operators to be officially approved.¹⁸

In 2022, efforts were made to simplify the process for approving new listings with the Japan Virtual and Crypto Assets Exchange Association no longer requiring new cryptocurrencies to go through screening processes to join their 'green list', which includes bitcoin, Ethereum and XRP.¹⁹

As a result, the number of recognised operators by the Financial Services Agency had grown to 30.20

The simplifying and streamlining of procedures related to cryptocurrency have been countered with efforts to protect investors and consumers. Regulations introduced in 2020 require customer assets to be held in a cold wallet to ensure that funds are readily available if an exchange fails.²¹

In April 2022, the Bank of Japan began the second phase of experiments on its central bank digital currency (CBDC), but consumers will be unlikely to start using CBDC until 2026.²²

Meanwhile, a private sector consortium of 74 companies is also planning to launch a blockchain-based digital currency, DCJPY, that could see "entire supply chains go paperless and cashless".²³ The consortium is leaning towards a stablecoin form of DCJPY tokens backed by consumers bank deposits and interoperability with other digital platforms to leverage opportunities in 'digital payments as a service'.²⁴

Mitsui & Co, one of Japan's largest trading houses, is also planning to launch its own digital currency, ZipangCoin (ZPG), in what is likely to be Japan's first cyrptocurrency pegged to one gram of gold backed by Sumitomo Mitsui Bank.²⁵

Japan's expansionist forays into cryptocurrencies are seen as part of the government's overall push to wean citizens off cash.²⁶

- 17 Bloomberg, Japan's \$1 Trillion Crypto Market May Ease Onerous Listing Rules
- 18 Forbes, Japan: A Forward Thinking Bitcoin Nation; CNBC, As China cracks down, Japan is fast becoming the powerhouse of the bitcoin market
- 19 Nikkei Asia, Japanese crypto exchanges to speed up cryptocurrency listings
- 20 Financial Services Agency, List of Registered Crypto-asset Exchange Service Providers in Japan
- 21 So & Sato Law Offices, Hot wallets, non-custodian exchanges, and smart solutions
- 22 Nippon.com, BOJ's Kuroda says Japan must cooperate with U.S., Europe on cenbank digital currency norms
- 23 Bloomberg, Cash-Loving Japan Could Warm Up to Crypto
- 24 Digital Currency Forum, Digital Currency DCJPY (tentative name)
 Whitepaper
- 25 Nikkei Asia, Mitsui & Co. to issue cryptocurrency linked to gold price
- 26 Reuters, Consortium of Japanese firms to test digital currency in coming months, launch in FY2022

Reformed regulatory landscape

In recent years, the Japanese Government has undertaken a broad range of legislative amendments to enable the adoption of fintech solutions and to improve data utilisation to accelerate economic activity.²⁷

For example, in a bid to shake up Japan's interbank payment systems (known as 'Zengin Net'), it conducted a wide-ranging government review that sought to dismantle impediments. High fees that had prevented fintech companies from competing on an equal footing with incumbent banks were abolished.²⁸

The Payment Services Act was legislated to unbundle payment services from the sole province of banks to encourage fintech services to provide alternative solutions and products.²⁹

The revised Banking Act of 2018 imposed upon banks an obligation to develop application programming interfaces (APIs) to streamline payment processes for their customers.³⁰

The Act also laid the foundations for infrastructure to link services offered by fintech companies with financial institution data.³¹

Regulatory sandboxes were established enabling innovators – particularly in AI, IoT, big data and blockchain³² – to bypass existing regulations and complex consultations to trial new ideas and bring them to life.³³

The revised laws are producing green shoots in fintech services previously unseen in Japan.

From companies paying workers directly to their e-wallets to financial products – such as banking, securities and insurance – being brought under a single brokage licence, Japanese consumers are embracing a growing suite of app-based services on their smart phones.³⁴



Shifting focus to startups

Japanese companies continue to maintain historically higher cash levels than their global peers.³⁵ In 2022, the top ten companies alone amassed over A\$123 billion in their reserves.³⁶

However, Japan's global competitiveness in innovation is lagging. After years of emphasising inputs over outputs,³⁷ the government is urging companies to shift their focus to investing in robotic process automation,³⁸ automating accounting operations and modernising financial infrastructure to realise new business growth.^{39 40}

Amidst a backdrop of declining per-hour and percapita labour productivity and labour shortages,⁴¹ and significant scope to scale up the use of IoT and AI,⁴² established players in the finance industry are turning to startups to spur their digital transformation.⁴³

From cryptocurrency-based businesses, mobile payment services, financial account aggregation services, robo-advisers to retail payments and digital wallets, corporate Japan is awakening to the potential of startups.

Investment in startups overall in Japan reached a record A\$3 billion in the first half of 2021.⁴⁴

- 27 The Law Reviews, The Financial Technology Law Review: Japan
- 28 Nihon Keizai Shimbun, 銀行間送金網、フィンテックに22年度開放 全銀協発表
- 29 Nomura Research Institute, Opening Zengin System to nonbanks would reshape competitive landscape in Japan's payment services market
- 30 Nomura Research Institute, Open APIs are essential to Japanese banking innovation
- 31 Nikkei Keizai Shimbun, 銀行とフィンテック、金融データ連携足踏み
- 32 Global Legal Group, Fintech 2021: A practical cross-border insight into fintech law
- 33 Prime Minister's Office of Japan, START UP NATION: Japan's regulatory sandbox
- 34 Nikkei Asian Review, Japan's digital banks emerge as regulatory easing gains momentum
- 35 J.P. Morgan, Enhancing shareholder value for Japanese corporates

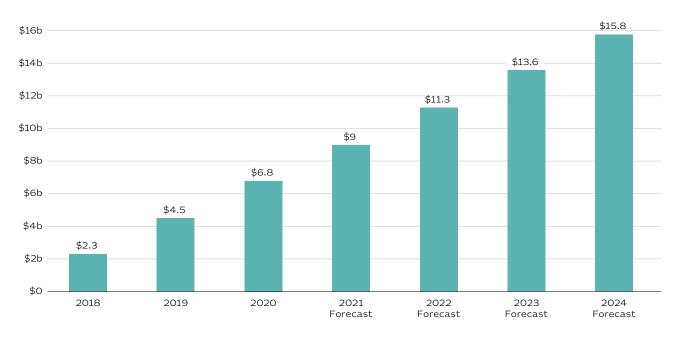
- 36 Toyo Keizai Online, 最新!これが「金持ち企業」トップ500社だ
- 37 World Intellectual Property Organisation, Global Innovation Index 2021: Japan
- 38 Ministry of Internal Affairs and Communications, RPA (働き方改革:業務自動化による生産性向上)
- 39 The Japan Research Institute, Corporate Cash Retention Behaviour in Japan
- 40 McKinsey and Company, Japan Digital Agenda 2030
- 41 Nippon.com, Japan's Labour Productivity Lowest in G7
- 42 Ministry of Economy, Trade and Industry, 「デジタルツールなどの利活用」を通じた生産性向上・人材不足対策の推進
- 43 EU-Japan Centre for Industrial Cooperation, Digital Transformation in Japan
- 44 INITIAL, Japan Startup Funding 2021: Mid-Term Summary

Enterprises and entrepreneurs: Corporate Japan's partnerships with startups

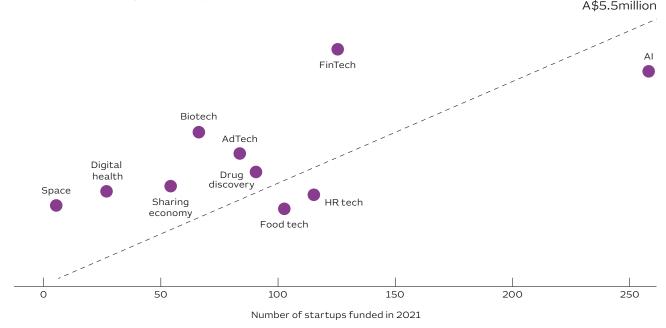
Japanese company	Startup	Partnership
SMBC	TradeIX (UK)	In 2019, SMBC concluded a proof of concept using TradelX's Marco Polo trade finance platform. In 2020, it began providing services to its enterprise clients using TradelX's blockchain technology. ⁴⁵
Mizuho Bank	Tonik Financial (Singapore)	Mizuho Bank acquired a 10% equity stake to tap into the Philippines' growing mobile banking population. ⁴⁶
Mizuho Bank	M-Service (Vietnam)	Mizuho Bank invested A\$246 million in M-Service's payment app, MoMo, which is used by over 20 million people in Vietnam. ⁴⁷
NEC	Avaloq (Switzerland)	NEC acquired Avaloq, a digital finance software, to expand its global ambitions in the fields of digital government and digital finance. ⁴⁸
Mitsui Sumitomo Insurance	Hippo (US)	To diversify away from its core business in casualty insurance business, MSI invested A\$496 million in US startup, Hippo, which uses AI to predict and mitigate disaster damage. ⁴⁹

To further accelerate this activity, the Japanese Government introduced an 'open innovation tax relief program' that allows companies to deduct 25% of their taxable income from the value of their investments in startups. 50

Forecast growth for fintech in Japan (A\$billions)51



- 45 SMBC, Launch of a Digital Trade Platform "Marco Polo" Using Blockchain Technology in Japan
- 46 Mizuho Bank, フィリピンのデジタルバンク「Tonik」への出資について
- 47 Nikkei Asia, Japan's Mizuho to acquire 7.5% of Vietnam's M-Service pay app
- 48 NEC, NEC acquires a leading Swiss financial software company, Avaloq
- 49 Nikkei Asia, Mitsui Sumitomo Insurance to invest \$350m in US startup Hippo
- 50 The Japan Times, Japan to extend startup investment tax break program
- 51 Yano Research Institute, 国内FinTech (フィンテック) 市場に関する調査を実施



The above survey data shows the degree of interest amongst venture capital for fintech startups in Japan. In 2021, Fintech startups accounted for a combined A\$295 million in capital raising.⁵²

MUFG Innovation Partners

As the corporate venture capital arm of the MUFG group, MUFG Innovation Partners was established to accelerate partnerships with, and investments into startups. To date, some 31 investments have been made.⁵³

Overbanked and under-serviced?

In a 2019 nationwide survey of bank usage amongst retail customers and business owners, one in four respondents cited "longer operating hours" and "shorter wait times at counters" as the top two improvements they want banks to make. The same survey also revealed customers were overwhelmingly most satisfied with direct banks. 55

World Bank data shows that the number of physical bank branches in Japan per 100,000 people remained steady in the decade to 2020. In the same period, Japan's global peers saw downward trends as customers turned to digital-based payments.⁵⁶

SMBC: IT Innovation Department

With the goal of advancing open innovation, SMBC launched the IT Innovation Department to cultivate ties with fintech companies and innovation hubs, and to identify strategic investment opportunities.⁵⁴

Demographic realities and consumer preferences for online banking are finally catching up with Japan's banks.

All three of Japan's 'megabanks' have plans to slash bank branches with Mitsubishi UFJ Financial Group planning a 20% reduction by 2023.⁵⁷ Meanwhile, Mitsui Sumitomo Financial Group will use A\$5 billion in savings to improving its IT infrastructure.⁵⁸

Regional banks are making even deeper cuts with up to 30% of branch closures slated to re-direct resources to implementing digitisation agendas.⁵⁹

⁵² Initial, 2021 Japan Startup Finance 国内スタートアップ資金調達動向

⁵³ SMBC, FinTech-Promoting Innovation with IT

⁵⁴ Crunchbase, MUFG Innovation Partners

⁵⁵ Japanese Bankers Association. よりよい銀行づくりのためのアンケート

[.] 56 The World Bank, Financial Access Survey

⁵⁷ Nikkei Asia, Rise of online finance pushes banks to cut branches worldwide

⁵⁸ Nikkei Keizai Shimbun, 三井住友FG、4分の3を軽量店に転換 22年度までに

⁵⁹ Nikkei Keizai Shimbun. 全国の地銀店舗、削減余地が3割

Japan at a glance



STRENGTHS

- Strong innovator in manufacturing
- Strong push and commitment by government to digitise back-office operations and front-line services
- ✓ Major cities in Japan considerably cheaper and safer than global peers
- ✓ Japan genuinely committed to open innovation and sourcing overseas solutions
- Japanese people consider Australia a highly trusted partner
- Wide-spread recognition amongst business leaders digital transformation offers promising potential
- Covid-19 has positively impacted businesses' ability to implement remote work policies and practices



WEAKNESSES

- X Weaker in ability to incubate technology-software as standalone products and services
- X Comfort with legacy systems in SMEs and reluctance to switch to cloud services
- X Comparatively low levels of English ability
- X Low awareness of Australian innovation and startups
- X Japan ranks low in OECD rankings for diversity with a relatively small number of female managers
- X Risk averse attitudes mean digital transformation is seen as a cost rather than an enabler



Japan's digital and tech divide

Beneath the surface of Japan's strong international reputation for technology lies a more nuanced reality.

Compared to its global peers, there are large imbalances in Japan's adoption of new digital and technological innovations. The result is mixed rates of progress in digital transformation.⁶⁰

To a degree, Japan's digital gridlock is selfimposed as it preferences incrementalism and risk aversion ahead of making more "far-reaching commitment to digitisation".61

LEADING





Robot

2ND

distribution



High-tech patent grants

Wireless broadband (technological framework)

LAGGING



Digital

readiness

28TH



big data

63RD



63RD

Agility of companies

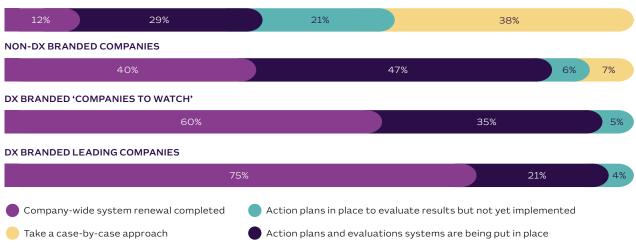
The graph below shows the progress Japanese companies have made in their transition from legacy systems to implementing digital transformation strategies across-the-board. In order to encourage companies to implement these strategies, the Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange are awarding 'digital transformation branding' to companies. Beyond the profile raising, this allows them to access tax credits for digitalrelated investments.62

Covid-19, too, has provided a much-needed catalyst for the Japanese Government and companies to fundamentally re-think the future of industry, work and social interactions in Japan. 63

Investing in 'digitisation' and 'contactless technology' are being held up as serving the dual benefits of readying Japan to deal with future waves of Covid-19 and accelerating economic growth.⁶⁴

Persistence of legacy systems and uneven DX (digital transformation) distribution

OTHER COMPANIES



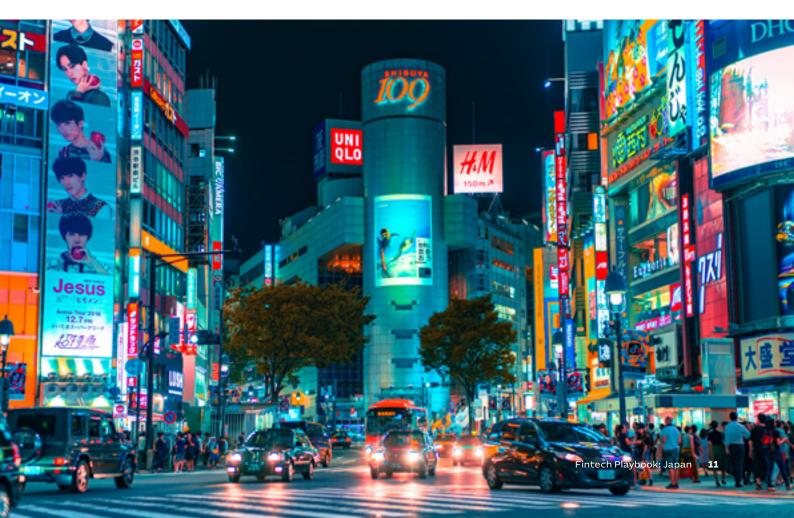
- 60 IMD World Competitiveness Centre, IMD WORLD DIGITAL COMPETITIVENESS RANKING 2021
- McKinsey & Co, How Japan can make digital 'big moves' to drive growth and productivity
- 62 Information-technology Promotion Agency, digital transformation認定制度とは

- 63 METI, Towards Realizing a Digital Society
- 64 Ministry of Internal Affairs and Communication, 「ポストコロナ」時代におけるデジタル活用について
- Japan Industrial Location Center, 2021 年度 新規事業所立地計画に関する動向調査 結果概要

In a survey of over 2,200 manufacturing and logistics companies, over 70% of respondents indicated implementing "more efficient and quicker business processes" and reducing "business costs" as central to their digitisation goals. 65

A snapshot of digitisation in Japan - still a work in progress





Fintech drivers

Japan has a relatively small fintech footprint with only approximately 600 companies.

This compares starkly with countries such as the UK and Germany. These countries have smaller populations and lower GDP, but their economies support 2,100 and 950 fintech companies respectively.66

EY's 2019 'Global FinTech Adoption Index' showed that Japan ranked last amongst 27 countries surveyed. 67

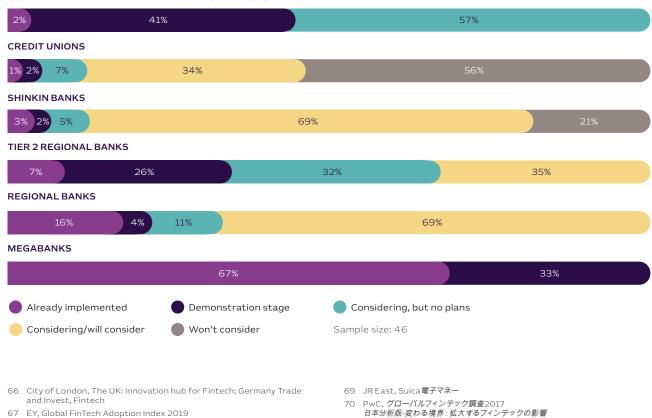
Fintech by another name?

In 2021, there were over 85 million Suica-Pasmo cards with a total of 200,000,000 cards in circulation in Japan. 68 Used by tens of millions of rail and bus commuters daily, these cards doubled as e-money smart cards for small transactions. However, with recent tie-ups thanks to tie-ups with Apple Pay, Rakuten, PayPay and wearable device companies, Suica and Pasmo cards have had their functionality supercharged. Consumers are now able to pay for a broad range of transport and lifestyle purchases and the list of services they can access is only growing.⁶⁹

In 2017, while the world was re-imaging financial services allowing institutions and retail consumers to by-pass regulations and hefty fees, over 90% of Japan's traditional banks viewed fintech as merely an extension of existing services.70

Japan's financial institutions adoption of fintech process and services⁷¹

GOVERNMENT-AFFILIATED FINANCIAL INSTITUTIONS



- 68 JR East, IT & Suica Business

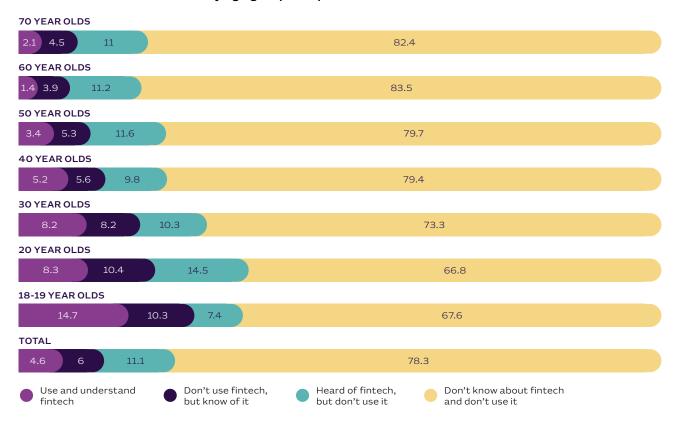
71 METI, 企業の多様な資金調達手法に関する実態調査

However, disruption is coming from all quarters.

Japan's Fair Trade Commission, which is part of the Japanese Government, has warned incumbent banks against attempting to gain undue advantages over fintech companies.⁷²

Also, Japanese people in their 20s and 30s are increasingly opting to conduct banking on their mobile phones as opposed to physically going to a bank or using an ATM.⁷³ The use of fintech services jumped by 85% during the Covid-19 pandemic – second only to South Korea's 90%.⁷⁴

Awareness of fintech services by age group in Japan⁷⁵



Consumers are turning to new entrants in the online banking sector that provide an attractive suite of one-stop shop services. Rakuten Bank and PayPay (a Softbank and Yahoo joint venture), offer ecosystems where a broad range of services are provided to users, such as e-commerce shopping, internet access, smartphone and financial services.⁷⁶

Rakuten's incentives to its online shoppers, who pay off their card balance with a Rakuten bank credit card, 72 has resulted in deposits in Rakuten Bank jumping by A\$10.8 billion in just six months in 2021.78

SBI Sumishin Net Bank has unbundled its own banking functions to offer them as discrete BaaS to non-financial institutions.⁷⁹ In a tie-up with Japan Airlines Corporation (JAL), 'JAL NEOBANK', the airline now offers financial services from multi-currency global wallets to using mileage points for home loans.⁸⁰

A combination of a sizeable portion of Japan's 126 million citizens living in rural areas and highly reliable logistics services is making cashless payments (such as virtual smart cards on mobile phones) a popular choice.

- 72 Japan Fair Trade Commission, Issues concerning Competition Policy for the Improvement of the Financial Service Utilizing Fintech; Nippon.com, Japan FTC Warns Banks Not to Reject Fintech Firms
- 73 Zengin System, 個人での銀行の利用実態と評価
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- 76 MoneyZine, インターネットバンキング利用率は66%、 10代・20代ではスマホでの利用がパソコンを上回る
- 77 S&P Global, Strong interest income tips the scale for digital banks in Europe, Asia
- 78 Nikkei Keizai Shimbun, 楽天に住信SBI、ネット銀行の「上場話」が続く理由
- 79 SBI Holdings, The Next Generation Bank that Uses Cutting-edge Technology to Create the Future of Finance
- 80 SBI Sumishin Net Bank, JAL NEOBANK

Monthly e-money spend by region⁸¹



Okinawa is being used as a rural testbed to not only increase the uptake of e-money, but to build a payment infrastructure based on big data and AI to realise new benefits for residents and tourists.⁸²

A consortium of regional banks are supporting the use of iBank's blockchain-based platform allowing uses to transfer their loyalty and milage points from different platforms under the one Wallet+ app. 83

Another source of potential disruption are companies with large – and sometimes tenuous – customer bases aiming to diversify revenue streams through financial products.

For example, Dai-ichi Life has a customer network of about 10 million people, however, once a policy expires, the link with the customer is severed. By utilising BaaS platforms, the company plans to begin offering a suite of asset management products to defend and grow its customer base.⁸⁴

Finally, disruption in Japan is coming from its most traditional and impactful source: Overseas competitors. The year 2021 saw the first of several major moves by US companies in Japan's financial services market including:

- Google buying up all the shares in pring, a
 Tokyo-based cashless payment and settlement startup, for a reputed A\$360 million.85
- Jack Dorsey's (former Twitter CEO) financial services' group, Block, making its first foray into Asia with a A\$55 million investment in Japanese fintech startup, Kyash.⁸⁶
- PayPal Holdings expanded its reach into Japan by acquiring postpaid startup, Paidy, for A\$3.6 billion.⁸⁷

⁸¹ Portal Site of Official Statistics of Japan, 家計消費状況調査 電子マネーの利用状況

⁸² Deloitte Japan, Deloitte and four Okinawan financial institutions established Okinawa Payment Consortium

⁸³ iBank

⁸⁴ Asahi Shimbun Digital, 第一生命、銀行代理業に参入へ 大手生保で初 22年度から

⁸⁵ Nikkei Asia, Google to roll out fintech services in Japan

⁸⁶ Financial Times, Block makes first steps into Japanese fintech

⁸⁷ PayPal, Expands PayPal's reach in Japan and enhances global portfolio of buy now, pay later solutions

Leading fintech companies in Japan (2021) 88









88 Jiji.com, **国内キャッシュレス (2022年1月版)**



Japan's digital transformation scorecard

There is wide-spread recognition in Japan that the country is lagging behind global peers in digital transformation and is facing an immeasurable opportunity cost.89

The Japanese Government is pinning its hopes on the Digital Transformation Agency to bring Japan up to speed. Even though it will be equipped with 'recommendation rights' - the legal authority to advise other ministries and government agencies - significant challenges lie ahead with a dearth of IT staff and a reliance on paper-based work practices.90

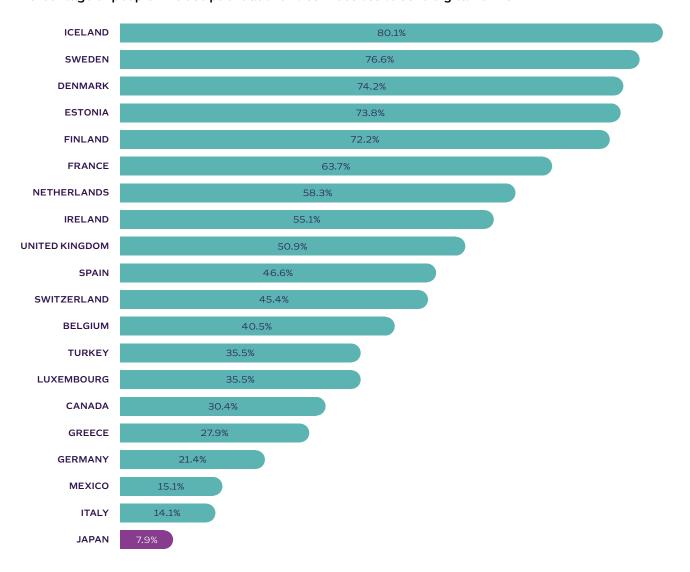
Avoiding the '2025 Digital Cliff'?91

Doing well	Needs work
Japan has top-of-class physical infrastructure and is an important global developer of emerging digital technologies. ⁹²	Lack of investment in ICT technologies to optimise use of new technologies. ⁹³
Accelerated digitisation owing to Covid-19 has begun to propel the importance of CIOs and IT departments within Japanese companies. ⁹⁴	History of low status assigned to IT departments seen as serving back office functionality rather than being engines of business growth. ⁹⁵
Covid-19 fast-tracked digital transformation in the IT, manufacturing and advertising/marketing sectors.	Progress in digital transformation is patchy with healthcare, food and beverage, retail and staffing sectors lagging. ⁹⁶
The Japanese Government will put in place training programs to train and upskill cybersecurity workers in companies. ⁹⁷	An over-reliance on outsourcing or the use of IT vendors and an unwillingness to change suppliers. IT workers are relatively low-paid by international standards.
Establishment of 'Digital Transformation Agency' with a large contingent of private sector employees to catch up to global peers. ⁹⁸	Government use of digital tools – such as functionality to submit online forms – is behind other countries. ⁹⁹
Companies that have undergone digital transformation overwhelmingly report positive results. ¹⁰⁰	Digital transformation is viewed as a cost rather than an enabler. 101

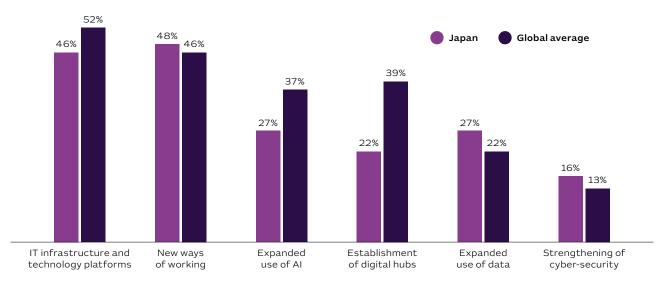
- 89 Japan Business Federation, Digital Transformation (digital transformation)~価値の協創で未来をひらく~
- 91 METI, Report on Digital Transformation (digital transformation): Overcoming of "2025 Digital Cliff" Involving IT Systems and Full-Fledged Development of Efforts for digital transformation
- 92 OECD, OECD Economic Surveys: Japan 2021
- 93 Mitsubishi Research Institute. IMD「世界競争力年鑑2021」からみる日本の競争力 第1回: 結果概観
- 94 Gartner, 日本企業のデジタル化は加速しているが、 世界のトレンド・ラインより約2年の後れを取っている、との見解を発表
- 95 Nihon Keizai Shimbun, 日本企業のdigital transformation はなぜ遅れているのか?その要因と今後必要となる処方箋を探る

- 96 Accenture, 業種別・企業規模別のdigital transformation の状況と課題が明らかに ~digital transformation サーベイの調査・分析結果から見る日本企業の現状
- 97 METI, サイバーセキュリティ体制構築・人材確保の手引き
- 98 Nikkei Asia, Japan launches agency to undo 'digital defeat': 5 things to know
- 99 OECD, OECD Economic Surveys: Japan 2021
- 100 PwC, 日本企業のdigital transformation推進実態調査2022
- 101 Teikoku Data Bank, digital transformation 推進に関する愛知県企業の意識調査

Percentage of people who use public authorities' websites to send digital forms¹⁰²



Focus of investment for digital transformation: Japan vis-a-vis the world¹⁰³



¹⁰² OECD, Share of individuals using the Internet to interact with public authorities

103 Boston Consulting Group, デジタルトランスフォーメーションに関するグローバル調査

Opportunities

At a glance:

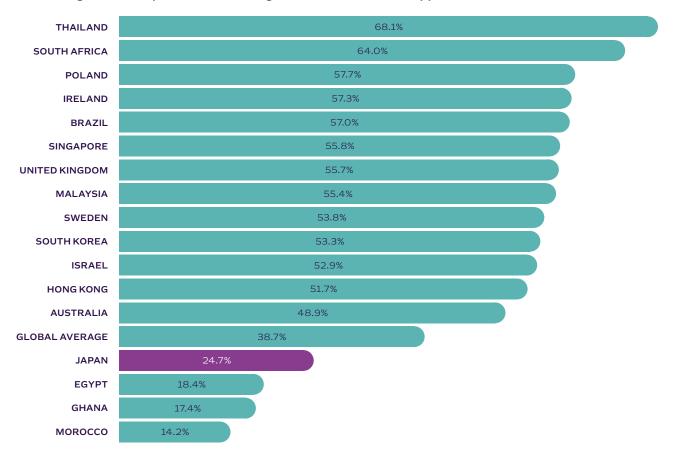
- The Japanese Government strongly supports the fintech sector and views its expansion as a catalyst for its digital transformation agenda.
- Many Japanese banks directly invest in fintech startups and are scouting globally for overseas fintech solutions to bring into Japan.
- Fintech companies are reliant on Japanese banks for access to underlying banking and payments infrastructure.
- New products that allow micro-investments using consumer points are increasingly popular among young people in Japan.
- Key fintech sub-sectors in Japan are payments, crypto-assets and blockchain, and distributed ledger technology.

 Concierge services and subsidies from the Japan Government and Tokyo Metropolitan Government for overseas companies make entering the Japan market attractive.

Japan's traditional route to technological progress – through incremental improvements¹⁰⁴ – is increasingly giving way to fast-tracking innovation through external partnerships.¹⁰⁵

While Japan ranks highly for the number of leading global companies¹⁰⁶, it has a relatively small footprint in terms of startups. In 2021, the number of funded startups in Tokyo stood at 1,232, which is significantly below regional competitors such as Singapore (8,196) and Beijing (3,522).¹⁰⁷

Room for growth in Japan: Use of banking and financial services apps108



¹⁰⁴ Research Institute of Economy, Trade and Industry, How Institutional Arrangements in the National Innovation System Affect Industrial Competitiveness: A study of Japan and the United States with multiagent simulation

¹⁰⁵ Bank of Japan, Digital Transformation of Japanese Banks; JETRO, The current situation of open innovation in Japan: The points that overseas companies should bear in mind

¹⁰⁶ Forbes, The Global 200

 $^{107\ \} World\ Bank\text{-}Cabinet\ Office, Boosting\ Japan's\ Start\text{-}up\ Ecosystem}$

However, the revised Acts of the Provision of Financial Services and Financial Service Intermediary Business have opened up the market for banking, securities, insurance and money lending business to operate under an single licence. These moves will allow for companies that offer new diversified financial products to compete against long-standing incumbents in the market. 109

Blockchain

Japan was the first country in the world to establish a regulatory framework for crypto-assets. The Japanese Government views it as a 'general purpose technology' with a broad range of applications.¹⁰⁰

From allowing individuals and business to trade 'environmental value' derived from reducing their CO2 to developing smart cities¹¹¹, Japan is trying to take a global lead in blockchain. It launched the 'Blockchain Governance Initiative Network' – a global body – that will examine existing and potential business models of a decentralised financial system.¹¹²

The Japanese Government has identified the following five areas that blockchain will disrupt business-as-usual in Japan's financial circles¹¹³:

The potential for blockchain in Japan

1. Distribution of loyalty points

Loyalty points systems are popular amongst SMEs and large corporations alike in Japan. Blockchain technologies could help unlock the value in these points systems by enabling consumers to link disparate programs together via smartphones. Consumers might also be able to redeem points for bank savings and use them with local government authorities.

2. De-centralising processes for legal documents

Blockchain technologies could help government agencies to streamline services. For example blockchain technology can help make transactions traceable and resistant to tampering. This could enable medical services to share patient medical records more easily. In some ways the tamperproof aspects of blockchain should appeal to Japanese culture. It could help digitise proof of identity processes when signing contracts and making financial transactions.

3. Improving efficiency of day-to-day service

Blockchain technologies should improve direct access to multiple services such as transactions related to accommodation, car rentals, gyms, power and multiple other day-to-day consumer services. Blockchain technologies have the

potential to improve customer trust by keeping transactions confidential and also by removing the need to send personal information via unsecured networks.

4. Transparency and reliability in supply chains

Blockchain can aid product traceability. This is important to Japanese consumers who increasing demand visibility on seeds, fertilisers, processing methods and additives used in food products. Blockchain technologies can also reduce fraud in transactions for high-value goods such as precious metals, jewellery and artwork. Car owners can also benefit from blockchain technologies that enable vehicle parts to be ordered automatically, without the need for prior car inspections.

5. Automated financial transactions

Blockchain can enable 'smart contracts' that automatically detect when legally relevant actions have been undertaken. This is because they speed up turnaround times. Smart contracts will be especially beneficial where multiple signatories are involved. Smart contracts could also expedite probate, so that beneficiaries automatically receive legacies after deaths are registered. Other applications include IoT-connected devices that transact payments automatically.

¹⁰⁸ We Are Social, DIGITAL 2021: THE LATEST INSIGHTS INTO THE 'STATE OF DIGITAL'

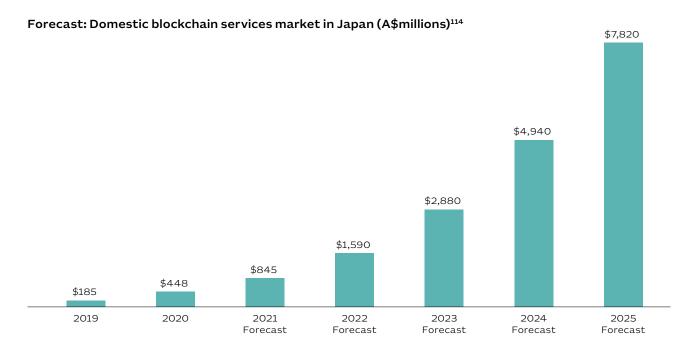
¹⁰⁹ KPMG, License of Financial Service Intermediary Business of Japan

⁻⁻⁻⁻⁻110 SBBIT, MIT, ヤフー、MS、経産省らが語る、ブロックチェーンはなぜ67兆円市 場になるのか

 $^{111 \}quad METI, Green \, Growth \, Strategy \, Through \, Achieving \, Carbon \, Neutrality \, in \, 2050$

¹¹² FSA, Launch of a new global network for blockchain "Blockchain Governance Initiative Network"

¹¹³ METI, 平成27年度 我が国経済社会の情報化・サービス化に係る基盤整備 (プロックチェーン技術を利□したサービスに関する国内外動向調査)



114 Yano Research Institute, ブロックチェーン活用サービス市場に関する調査を実施 (2021年)

SPOTLIGHT

Powerledger and KEPCO

Using blockchain to build and scale energy projects, Australian technology company, Powerledger, is attracting interest from Japan's biggest utility companies. In 2019, Powerledger entered into a partnership with Kansai Electric Power (KEPCO) to trial the company's blockchain-enabled platform to create, track, trade and provide for the settlement of renewable energy credits generated by rooftop solar systems. The result of the trial showed that peer-to-peer (P2P) transactions of surplus solar energy were autonomously and automatically achieved, and that settlements were successfully transacted.

"Although there are still many challenges like amendments of relevant laws for commercialisation, Powerledger's product presents significant opportunities for prosumers to sell their excessive energy at more advantageous prices and for consumers to buy it at more affordable prices."

Fumiaki Ishida, General Manager, KEPCO



Collaborations with regional banks

As a collective, regional banks have over a 40% share of core banking services in Japan; combined with credit unions, the share jumps to close to 65%. ¹¹⁵

A 2021 Bank of Japan whitepaper on digital transformation in Japan's regional banks found a lack of progress in adopting fintech solutions, open banking, AI-based lending and other services for corporate customers.¹¹⁶

The whitepaper urged that regional banks need to consider partnerships with fintech companies to catch-up on digitisation efforts and differentiate in a market with larger banks.

Only two of the 77 regional banks analysed have introduced AI-based lending as a service.

Foreign tech companies...are finding Japanese regional banks good clients because they have a good credit risk, a stable business base and a welleducated workforce.¹¹⁷ The Financial Services Agency is attempting to bring regional banks up to speed by sending officials to branches to support digital innovation and restore their profitability.¹¹⁸

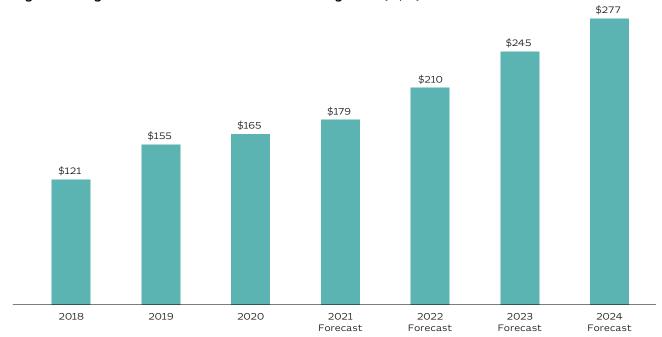
Analysis and forecasts by the Yano Research Institute show the growth potential for online AI lending, score lending, credit analyses and credit scoring platforms for small and medium-sized businesses.¹¹⁹

Industry players in Japan's fintech sector interviewed for this report indicated that, despite the growth potential, there are still relatively few companies in this space. The companies making headway are Freee Finance Lab, Altoa and Lendy.

A report by the Regional Banks Association of Japan warns regional banks have little option other than to embrace data and digital technology to transform their products, services and business models to better serve their customers. 120

The banking community has set an ultimate goal of reducing the number of promissory notes exchanged at national clearing houses to zero by the end of 2026. In particular, regional banks are beginning to initiate work to achieve this goal by promoting the use of electronic payment methods.





¹¹⁵ Teikoku Data Bank, 特別企画:全国企業「メインバンク」動向調査 (2021年)

¹¹⁶ Bank of Japan, わが国の銀行におけるデジタル・トランスフォーメーション

¹¹⁷ Nikkei Asia, Japan's regional banks turn to tech under pressure to evolve

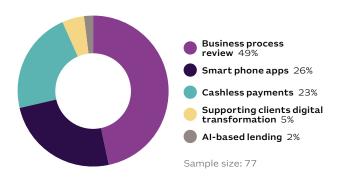
¹¹⁸ Financial Services Agency, 2021事務年度 金融行政方針

¹¹⁹ Yano Research Institute, Fintech 市場の実態と展望 2021: レンディングサービス編

¹²⁰ Regional Banks' Association of Japan, 手形・小切手の全面的な電子化 に向けて~取引先企業のDX支援の観点から地方銀行も積極的に取り組み

¹²¹ Yano Research Institute, レンディングサービス市場規模推移・予測

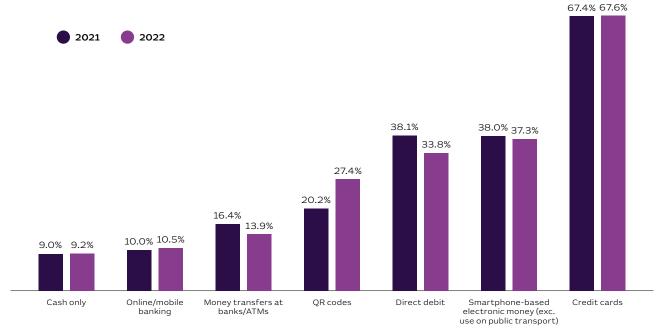
Where digital transformation in regional banks is happening¹²²



Digital payments

Japan lags significantly behind most of the OECD world in the use of cashless payments. The Japanese Government has an initial goal of raising its cashless payment rates to 40% by 2025 over the current rate of 32.5%. In future, it aims to lead the world with an 80% rate. 123

Payment method trends in Japan: Turning to digital124



The pressure to go cashless is coming from different directions:

- A strong preference for digital payment over cash across a broad range of demographics in Japan. 125
- Japanese SMEs that have adopted digital payments systems over cash-based systems have higher profitability and efficiencies. 126
- Overseas fintech companies have begun entering the Japanese market, providing end-to-end B2B solutions that manage the entire payment flow.¹²⁷
- A relaxation of regulations allowing non-banking financial institutions to offer remittance services up to one million yen (\$10,490) is seeing fintech companies speed up international money transfers at lower costs than banks. 128

¹²² Nikkei Keizai Shimbun, 地銀DX 法人向け遅れ、AI融資など差別化余

¹²³ METI, 2021年のキャッシュレス決済比率を算出しました

¹²⁴ Bank of Japan, Results of the 89th Opinion Survey on the General Public's Views and Behavior

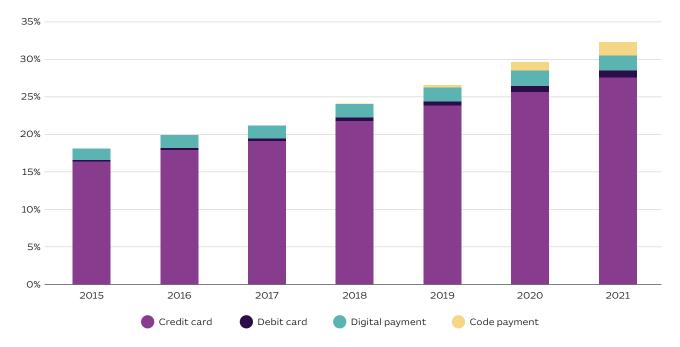
¹²⁵ World Economic Forum, This chart shows how preferred methods of payment differ around the world

¹²⁶ METI、キャッシュレス決済の中小店舗への更なる普及促進に向けた環境整備検討会

¹²⁷ Ayden, Adyen expands acquiring capabilities to Japan

¹²⁸ Business Lawyers, 改正資金決済法で新設された第一種資金移動業とは? -認可申請等の実務に必要な知識を解説

Breakdown of cashless payments in Japan



Japan is a highly sought-after international tourism destination ¹²⁹ with more than 31.8 million visitors in 2019 – up from 13.4 million visitors in 2014. ¹³⁰ By 2030, the Japanese Government forecasts that inbound numbers will grow to 60 million visitors. ¹³¹

In recent years, global luxury hotel brands have announced the construction of a raft of new hotels across Japan aimed at accommodating high-spending clientele; a trend industry experts say will continue for years to come. ¹³²

Australian tourists to Japan are the highest spenders of any source country and, on average, they stay longer than other visitors. 133

To meet the demands of this growth, QR-code payment terminals are being installed in tourist destinations to allow overseas tourists to make purchases with digital payment options they are familiar with.¹³⁴

Regional cities in Japan are attempting to entice overseas tourists by offering them discounts on purchases if they download PayPay or Rakuten apps to make purchases.¹³⁵

However, there are still few options for travellers in Japan to:

- access buy-now pay-later services
- make frictionless payments
- use novel solutions to freeze the price of a flight or hotel
- allow travellers to use loyalty points across a range of services and products.

In 2021, the Rakuten Group began the first use of crypto assets as a source of e-money payments that do not require any handling fees. In addition to online purchases, customers can use crypto assets to make purchases at supermarkets, convenience stores and other commercial premises. In the same year, Rakuten allocated some A\$35billion in loyalty points allowing its customers to invest in stocks and cryptocurrencies.¹³⁶

¹²⁹ Nikkei Asia, Japan tops global tourism index for 1st time, despite tight borders

¹³⁰ Japan Tourism Statistics, Trends in Visitor Arrivals to Japan

¹³¹ Japan Tourism Agency, 訪日外国人旅行者の受入環境整備

¹³² Nomura Real Estate, 外資系高級ホテルの開業ラッシュは続きビジネスホテル 戦争はさらに激化する

¹³³ Japan Tourism Statistics, Travel Expenditure Per Capita

¹³⁴ Nippon.com, The State of Cashless Payments in Japan

¹³⁵ Town News, 応援キャッシュレス10月にスタート; Nikkei Business Publications, 市民向けにプレミアム付きデジタル地域通貨を販売、長井市

¹³⁶ Rakuten, Rakuten Points: Much more than just a loyalty program



Inside views from Japan's megabanks

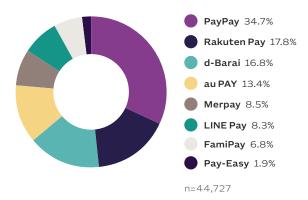
"We are aware that many Japanese financial institutions – especially regional banks – are looking for fintech and other startups in the context of digital transformation, but successfully integrating them is challenging due to the language barrier. Nevertheless, we are actively looking for interesting fintech companies, which our office in Singapore is charged with doing. We would be interested to learn more about what Australia has to offer.

"We are actively looking into various fields of business that utilise AI and cashless businesses – such as providing the system infrastructure for client companies to provide payment services via their own apps. We are also keenly considering new fields in addition to payments, such as NFT and the central bank digital currency.

"Digitalisation is needed to speed up processes, and we are currently strengthening our digital response to meet the needs of our customers.

"In this age of sustainability transformation and digital transformation, the challenge we face in creating new value is to put the customer at the centre of company-wide efforts to expand our business domains."

Most popular QR code payment services137



137 Marketing Mobile Data Labo, 2022年1月スマートフォン決済 (QRコード) 利用動向調査



Cybersecurity

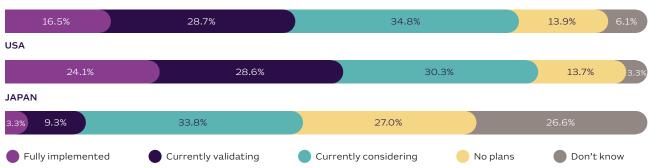
In May 2022, Japan enacted an economic security law, part of which is aimed at addressing cybersecurity threats, strengthening supply chains and ensuring the protection of public services against cyber attacks.138

The law will require companies that are considered part of Japan's critical infrastructure to have the capability to deal with cyber threats and create organisational structures for handling emergencies. This includes approximately 1,700 financial institutions, 1,300 telecommunications operators, 22 railways and 29 utilities, in addition to airlines, airport operators, gas providers, government services, medical institutions, waterworks, logistics, chemicals and oil. 139

Japanese companies lag behind their peers in Australia and USA in the implementation of cybersecurity measures. 140

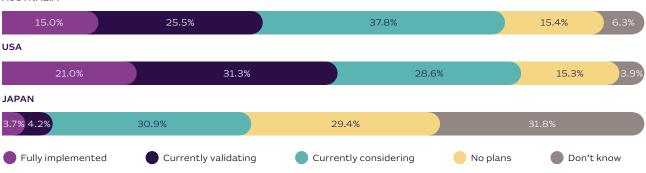
Implementation of Cloud Access Security Broker

AUSTRALIA



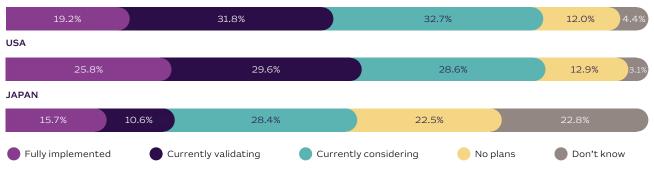
Implementation of Security Orchestration, Automation and Response

AUSTRALIA



Implementation of Endpoint Detection Response

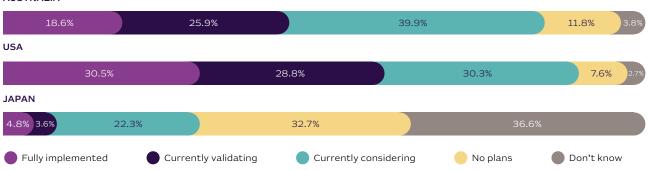
AUSTRALIA



138 Kyodo News, Japan Diet passes economic security bil 139 Nikkei Asia, Japan to require cyber defenses at infrastructure companies 140 NRI Secure, NRI Secure Insight 2021: 企業における情報セキュリティ実態調査

Implementation of user and entity behaviour analytics

AUSTRALIA



Zero trust security models are starting to take off in Japan¹⁴¹, with a growing number of Japanese companies and employees preferencing remote work options¹⁴² and a commitment to across-theboard digital transformation.¹⁴³

METI has estimated that unless Japan overcomes the two key challenges below, it faces economic losses of \$132 billion annually:144

- 1. Breaking the silo model of department-based and customised IT systems resulting in overly complex and closed systems.
- 2. Implementing company-wide data utilisation strategies and approaches.

METI has identified five solutions to effect acrossthe-board digital transformation:

1. Establish metrics to make digital transformation efforts visible and objectively analyse schemes to encourage business owners to ascertain the status quo of their IT system. Such an undertaking will inform companies of their information assets such as levels of technical debt and data userfriendliness, and the scale needed to renovate their existing systems.

- 2. Formulate guidelines for renovating existing systems and identify the processes for implementing new digital technologies. This would also ensure that business owners, boards of directors and shareholders would have oversight of changes being made.
- 3. Establish measures for reducing costs and derisking the implementation of new IT systems including leveraging Japanese Government tax benefits for undertaking digital transformation. 145
- 4. Unlock the constraints of 'vendor reliance' in which external system integrators are used for in-house IT engineering or even completely outsourced to vendors with no involvement of internal resources. Most companies in Japan lack in-house engineers with 69% relying on external systems integrators. 146
- 5. Develop and secure talent trained in digital transformation and decouple them from roles relegated to maintenance. 'Digital academies' are being seen as an option for developing in-house capabilities and implementing crossfunctional agile teams.147

¹⁴¹ NTT Data, NTT DATA Begins Providing "Zero Trust Security Service" Globally

¹⁴² Ministry of Land, Infrastructure, Transport and Tourism, 「テレワーク」実施者の割合が昨年度よりさらに増加!

¹⁴³ Financial Times, Corporate Japan is sleepwalking towards a digital cliff

¹⁴⁴ METI, Overcoming of "2025 Digital Cliff" Involving IT Systems and Full-Fledged Development of Efforts for digital transformation

¹⁴⁵ JETRO, Improving the Business Environment in Japan

¹⁴⁶ McKinsey & Company, Using digital transformation to thrive in Japan's new normal: An urgent imperative

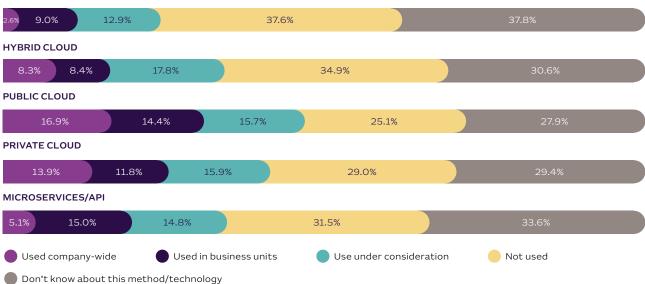
¹⁴⁷ Dell Technologies, 「第2回 デジタルトランスフォーメーション digital transformation) 動向調査」 accessed here





Utilisation of cloud computing by Japanese companies

CONTAINER ORCHESTRATION



Insurtech

Japan has the third-largest insurance market in the world, valued at \$666 billion (as measured by income derived from life insurance and non-life insurance premiums), behind the USA and China. 149

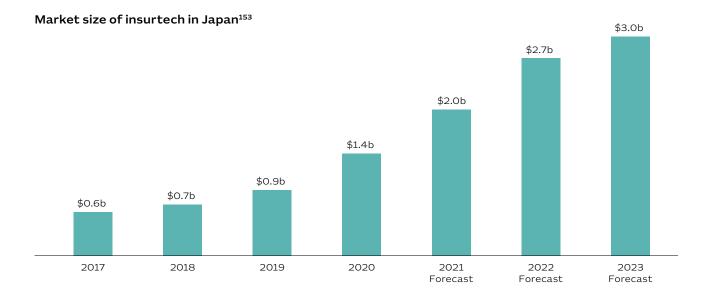
A 2022 survey revealed that, while the majority of Japan's insurance companies have digitised operations, they were unable to measure operational efficiencies or see any costeffectiveness benefits of going digital.¹⁵⁰

A possible explanation is the lack of progress in evolving product portfolios to capture new revenue, 151 but positive signs of the growth potential in the Japanese insurtech market are beginning to emerge.

In interviews with various industry experts for this Playbook, the following observations were made as to where Japan's insurance market has under-developed segments:

• 'Health promotion' insurance in which premiums are calculated based on annual health checkups and lifelog data is a nascent industry that is growing in popularity. (In Japan, employers are obligated under law to provide annual health check-ups for their employees.) This type of

- insurance is gaining popularity with consumers realising the combined benefits of better health and lower insurance premiums. 152
- Health promotion is also a growing area of interest for employers looking to augment healthcare benefits to employees and use cloud-based systems to monitor data on employees' health. Employers also benefit by using the data to streamline their annual legal compliance checks required under the Health Promotion Act and to lower their insurance premiums.
- In the non-life insurance sector, the development of telematics insurance, which acquires automobile driving data and uses it for automobile insurance products, is increasingly being used to calculate insurance premiums. SmartDrive, for instance, developed a mobility data platform that uses data acquired from automotive IoT devices and smartphones to analyse drivers' use of sudden braking, idling and other data points. This is converted into safety points, which are provided to insurance companies.



¹⁴⁹ Sompo Institute Plus Inc., 世界の保険市場

¹⁵⁰ The Life Insurance Association of Japan. 生命保険業界における顧客本位の業務運営に向けたデジタル化の推進状況につい

¹⁵¹ PwC, Japan's Insurance Sector post-Covid: Where to From Here?

¹⁵² The Mainichi, Carrot-and-stick 'health promotion' insurance spreads in Japan

¹⁵³ Yano Research Institute, 生命保険領域における国内InsurTech市場に関する調査を実施 (2021年)

Spotlight: simplesurance

Based in Germany, simplesurance is active across the EU and established a subsidiary in Japan in 2018. The company's technology enhances convenience for end users by integrating insurance sales tools into the websites and apps of e-commerce and retail businesses. This technology eliminates the hassle of re-entering personal information when purchasing insurance.

Spotlight: wefox

wefox is a B2B-B2C German insurtech company that entered the Japan market in 2019 with a JV with SBI Holdings to provide financial services. wefox's platform provides a centralised app for consumers to diagnose coverage, manage insurance, contact brokers and file claims, amongst other services. The company also helps brokers streamline their customer management systems to offer products to meet their customers' needs.

SPOTLIGHT

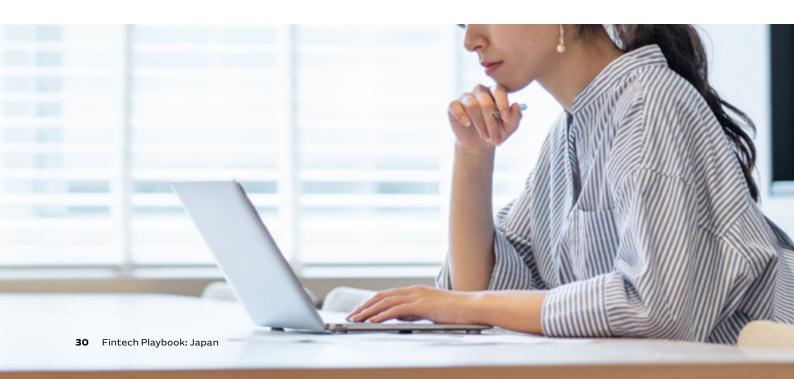
Moneytree

"Starting a business in Japan by setting up a legal entity is not so difficult. It took us a while to find a good accountant when we set up our company in 2012, but there is public support now [for introductions to] professional services.

"Even though you can start a business in Japan without Japanese language ability, you will need a Japanese-speaking person in your team to grow in Japan. There is more government support now available, including government grants to find the right people.

"For those who are interested in entering the Japanese market from Australia, you need to think of Japan as a long-term investment. It takes some time to penetrate with a different language and culture. But as Japan is the third-largest market in the world, you can expect big business opportunities."

Paul Chapman, Chief Executive and Founder, Moneytree KK



SPOTLIGHT

RedCompass Labs

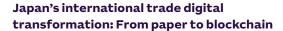
"We had great support from JETRO and TMG to set up our legal entity in Japan. We received subsidies from TMG to cover part of our initial costs for setting up a corporation and also for the initial rent of our office at FINOLAB.

"I started our preparation to set up a Japanese legal entity in London, but I found there were many procedures which I was better off doing after arriving in Japan. Although we can get public and professional support for many areas, we still have some areas that each company needs to decide according to their own actual business plans for Japan.

"Therefore, my advice for companies coming to Japan would be to start preparing well in advance in your home country, including to hire reliable manager-level Japanese-capable local staff, and to allow a few months in Japan to set up your legal entity before starting business activities."

Kiyohisa Umemura, RedCompass Labs Japan

(Kiyohisa Umemura was a partner of London-based Red Compass Labs and their Japan operations)



Australia and Japan began exploring opportunities to collaborate with blockchain in 2017. This was when the first end-to-end transaction of trade processes were conducted resulting in shorter delivery times for trade documents and costs savings.¹⁵⁴

TradeWaltz and Sojitz are set to build on this initiative by conducting proof of concepts in Australia with TradeWindow.¹⁵⁵

TradeWaltz is a data-sharing platform that allows for information on trade transactions to be shared using blockchain technology. It aims to achieve seamless interoperability between leading global platforms and avoid any splintering of standards into digital islands. 156

Founded by NTT Data and run by TradeWaltz Inc, a consortium of over 100 major Japanese companies, the TradeWaltz platform promises to improve operational efficiency by up to 60% on the traditional paper-based system.¹⁵⁷

World Bank data reports that processing times for trade documentation in Japan are currently up to 36 times longer than in other countries. This results in tens of billions of dollars of additional costs.¹⁵⁸

TradeWaltz has completed proof of concepts for trading houses operating in Singapore, Thailand and Japan.

¹⁵⁴ Sompo Japan, Conclusion of trade transaction using blockchain and distributed ledger technology

¹⁵⁵ TradeWaltz,経産省「インド太平洋地域サプライチェーン強靭化事業」採択決定。 海外貿易プラットフォームと連携し、貿易手続きの円滑化へ ~日本、タイ、 シンガボール、オーストラリア、ニュージーランド5ヵ国連携へ

¹⁵⁶ Newsfile, MineHub and TradeWaltz Announce Collaboration After Successful Proof of Concept with Sumitomo Corporation

¹⁵⁷ Ledge Insights, Japan's trade blockchain Trade Waltz goes into production this week

¹⁵⁸ Nikkei Asia, Blockchain greases trade wheels between 7 Asian-Pacific economies



Fintech's inroads in quantum computing

From pinpointing how derivatives should be priced to quantifying risk to realising new cryptographic technology¹⁵⁹, heavy weight financial players in Japan are turning their investments to the promise of quantum computing.

Anecdotal evidence obtained by Austrade from Japanese companies at the forefront of quantum computing suggest the touted benefits of this technology will be realised by as early as 2026.

More broadly, the Japanese Government announced it wants to see 10 million quantum computer users by 2030 in what the Prime Minister is calling 'new capitalism' to reinvigorate private sector economic growth. 160

Major financial players backing quantum computing

- MUFG Bank and Keio University: Risk management and efficient financial calculations¹⁶¹
- Mizuho Bank and Keio University: asset pricing, risk management, portfolio management¹⁶²
- SMBC and The University of Tokyo: Improving machine learning and risk analysis using quantum annealing¹⁶³
- Nomura Holdings and the Quantum Key
 Distribution network (that includes NEC,
 Toshiba, NTT-NICT and Gakushuin University):
 Quantum cryptography in cybersecurity¹⁶⁴

¹⁵⁹ Mitsui Knowledge Industry, 量子コンピュータは金融をどう変えるのか

¹⁶⁰ Nippon.com, A Critique of Kishida's "New Capitalism"

¹⁶¹ Nikkei Asia, The subatomic age: Asia's quantum computing arms rac

¹⁶² Mizuho Bank, *量子コンピュータの金融分野への適用の*見通し

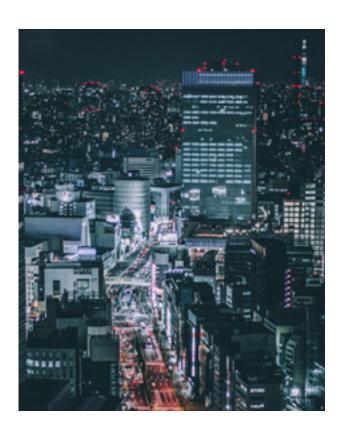
¹⁶³ SMBC, 量子アニーリングの業務活用に向けた共同研究 ~機械学習 の精度向上とストレステスト業務の効率化

¹⁶⁴ Nomura Holdings, 金融分野のサイバーセキュリティ強化に向けた 量子暗号技術活用の共同検証を開始

Go-to-market strategies

The barriers to market entry in Japan are not as high as they first appear. There are tried and tested approaches. JETRO surveys of overseas companies that do business in Japan provide quantitative insights to enable new entrants a clear line of sight (EM DASH) including what to do and what to avoid. 165

Be patient	Multi-layered, cautious decision-making is to be expected. These processes are seldom fast-tracked or side-stepped in Japanese companies.
Local partners	In addition to regular visits to the market, a locally-based representative or partner is needed to signal a long-term commitment to the market.
Leverage government support	JETRO, the Tokyo Metropolitan Government and Austrade are all sources of market intelligence. They can also help you gain access to networks and onthe-ground assistance to minimise the challenges.
Standards of quality are high	Japanese B2B and B2C customers are discerning and slow to forgive companies that attempt to bring beta products-services to market. Provide evidence on how your product-service compares to best-in-class competitors.
Market entry model	Most overseas companies in Japan opt to enter into partnerships with local companies to conduct joint marketing and sales channel development. This may involve joint development of new products and services, and joint R&D.
Localisation is key	Low levels of English language ability, cultural differences such as risk aversion and lack of brand recognition necessitate a Japan-specific marketing strategy that speaks directly to Japanese customers.
Talent acquisition	Job-hopping mid-career managers, engineering talent from China and India, 166 and a preference for overseas companies amongst female managers 167 means there are a wealth of options for industry-ready talent.
Know the regulatory landscape	Assuming flexibility or a loose interpretation of regulations by authorities could lead to costly and time-consuming mistakes. See 'Laws and regulations' in the Addendum for resources to understand the regulatory landscape in Japan.
Navigating the regulatory landscape	The Financial Services Agency's 'FinTech Support Desk' and the Tokyo Metropolitan Government's 'Business Development Center TOKYO' have English-speaking staff that can provide guidance on what regulations need to be considered to operate in the Japan market.
Proof of concept vs demonstration	Ministry of Finance surveys report that Japanese banks are experiencing 'PoC fatigue'. Demonstrations are seen as a preferred model for reducing the risk of failure in establishing partnerships with overseas fintech companies and successfully introducing their services into the market. ¹⁶⁸



Tokyo as a launchpad

Tokyo offers considerable appeal as a base for establishing a presence in Japan. The Tokyo Metropolitan Government (TMG) is aiming to use the city's reputation as one of the most liveable cities in the world169 and sheer economic size170 to transform it into a global financial hub.

Tokyo is attempting to differentiate itself from other financial hubs in Asia by focusing on transitioning Japanese corporates and their supply chains to low carbon emissions. 171

To this end, it is providing a swathe of incentives and support systems to attract overseas asset managers, fintech companies and transition finance to set up a base there. 172

Up to half of actual expenses totalling JPY7.5million (A\$81,000) covered by the TMG to set up an office in Tokyo



Incentives

Provision of subsidies to all international asset managers and fintech companies to cover:

- costs to set up, move into an office in Tokyo and related recruitment costs.
- costs involved in growing the business in the second and third years.
- · outsourcing middle- and back-office operations (applicable to asset managers).
- expenses for preliminary research to support international financial companies in support of entry into the Tokyo market.
- fees paid to experts (lawyers, administrative scriveners, tax accountants, licensed social insurance consultants, etc.) for services such as registration and acquisition of licenses.



Support services

The TMG's Business Development Center Tokyo provides a broad range of support services in English including:

- identifying domestic sales channels and business partners.
- individual matching with trading companies, technology partners and specialists.
- · assessment of business feasibility and capitalisation strategies.
- advice on branding and marketing strategies.
- guidance on administrative procedures for doing business in Tokyo and Japan, including applying for grants.

166 Nikkei Asia, Japan woos 50,000 skilled Asian professionals in talent war 167 en world, 女性管理職登用についての意識調査 168 Ministry of Finance. 日本のフィンテック最新事情

169 Economist Intelligence, The Global Liveability Index 2021

170 Bloomberg, The Economic Power of Cities Compared to Nations

171 Nikkei Asia, Tokyo intends to be financial hub for companies going green

172 Tokyo Metropolitan Government, Overseas Financial Corporation Business Establishment Subsidy Program; Business Development Center TOKYO Services



"Because of the prompt, pinpoint, and free-of-charge business advice and support delivered by Tokyo Metropolitan Government, I was able to successfully and rapidly establish the company in Tokyo. Now, we have concluded an agency contract with a Japanese company, and are making great progress with our own sales promotion activities."

An Australian database development company on TMG's services¹⁷³

Focus on green financing

In order to meet its carbon neutrality goals by 2050, the Japanese Government is considering allocating A\$221 billion in financial aid to promote investment into the green energy sector. 174

For its part, the Tokyo Metropolitan Government is separately allocating A\$125 million as part of its decarbonisation efforts and to attract green finance. Some A\$88 million will be allocated to attracting startups working in decarbonisation. 175

Three pillars of the 'Global Financial City: Tokyo Vision'

Promotion of green finance	Digitalising the finance sector	Attracting overseas talent
TMG to issue green bonds by covering some of the associated costs and reduce the burden of external reviews	Digitalising 'funds intermediaries' between investors and investees to smooth the flow of funds	Incentivising overseas asset managers and fintechs to set up in Tokyo by creating a favourable taxation and regulatory environment

Green Finance Subsidy program for Tokyo market entry

Up to JPY50 million yen (approximately A\$550,000)176

¹⁷³ Tokyo Metropolitan Government, Case Studies

¹⁷⁴ Kyodo News, Japan looks to 20 tril. yen in aid to spur green investment: PM Kishida

¹⁷⁵ Nikkei Asia, Tokyo adds green new deal to push for global financial hub

¹⁷⁶ Tokyo Metropolitan Government, Subsidy to Support Overseas Financial Corporations in Priority Fields (Green Finance Subsidy Program for Tokyo Market Entry)

SPOTLIGHT

Cogo's carbon tracking solutions for Japanese banks¹⁷⁷

New Zealand-based Cogo was able to enter the Japan market through the Tokyo Metropolitan Government's Green Finance Subsidy program.

In partnership with Japanese banks and payment platforms, Cogo will equip customers with carbon tracking solutions to visualise carbon dioxide emissions, calculate carbon footprints and advise on steps to reduce impact.

"Japan has a significant population and a large economy creating an ideal country for climate action solutions like Cogo's. This subsidy provides Cogo with a significant opportunity to bring our solutions to Tokyo sooner than planned. The whole TMG team has been an amazing support to Cogo throughout the whole process, including introducing us to the right people to assist with setting up a subsidiary, an office and a lawyer for employee contracts."

Ben Gleisner, Global CEO & Founder, Cogo



Growth of green bonds in Japan

2016: A\$108 million -> 2020: A\$8.3 billion178



Market entry accelerator programs

Tapping into Japan's accelerator programs offers a route to market by connecting with industry players on the ground that can provide advice on potential next steps and approaches to take in the Japan market. Below are the main accelerator programs that focus on, or work with fintech companies.

FINTECH ASSOCIATION OF JAPAN	Promotes open innovation in the Japanese fintech industry through networking opportunities, researching emerging market trends, and engaging organisations globally.
FINOLAB	Supports startups' development and growth. FINOLAB also provides solutions for major companies to promote innovation and solve business issues.
PLUGANDPLAY	Plug and Play Japan connects startups to corporates, VC and investors, and also provides mentor programs.
Tokyo FinTech	Offers startups opportunities to present Tokyo Fintech's community in Tokyo, Seoul and Berlin. Presentations are for education purposes only.
hoops link tokyo	Organises pitch events, meet-ups, seminars, hackathons, accelerator and programs and events to create new business opportunities.
InsurTechJapan	InsurTech Japan provides news and analysis in addition to holding insurtech-related events in Japan.
JI∱M	The Japan Asset Management Industry promotes fintech solutions to domestic and overseas fintech communities. They feature fintech companies on their website and deliver workshops.
FinCity.Tokyo	FinCity.Tokyo aims to attract overseas financial organisations and fintech companies to establish a presence in Tokyo. They provide practical information on registering for financial licences and regulations, and direct investors to relevant government assistance and programs.
FIN SUM FINTECH SUMMIT 2022	FIN/SUM is the largest annual fintech event in Japan. Cohosted by the Financial Services Agency Tokyo and Nikkei Inc, it brings together industry and regulators over four days for networking, updates, presentations and pitches.

Addendum

Laws and regulations

- Financial Services Agency: Regulatory authority for financial institutions based on the finance related regulations including the Bank Act. Fintech companies entering the Japan market need to assess which regulatory area would apply to its business. The FSA has a Fintech Support Desk where enquiries can be made and also the Financial Market Entry Office. See also the FSA's FAQ on Financial Instruments and Exchange Act and Laws and Regulations.
- Bank of Japan: While not a regulatory authority under the Banking Act, it conducts on-site assessments to maintain a sound financial system. These assessments are conducted under bilateral agreements between the BoJ and financial institutions that have current accounts with it under the Bank of Japan Act. In practice,

- this includes all city banks, regional banks, trust banks, overseas banks in Japan, shinkin banks, securities firms and money market dealers. The BoJ also conducts examinations of banks' overseas branches.
- Japan Bankers' Association: Provides detailed information on the Payment Systems in Japan.
- Cost of setting up a business in Japan: Refer to JETRO's Cost Estimation for a complete breakdown of all costs involved.
- Information on taxes: General information on taxes in Japan is available from the National Tax Agency. See also information about corporate taxes and consumption taxes.
- Information on laws and regulations related to blockchain and cryptocurrency: Independent overviews can be found here, here and here.

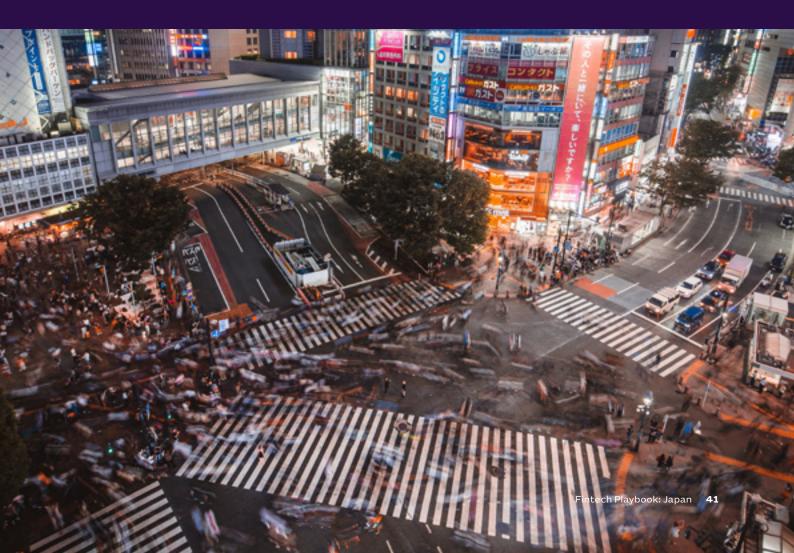
Major international players in Japan's fintech landscape

Company	Country	Line of Business
Amber Group	Hong Kong/Singapore	Crypto financial services (Market making, asset management)
Ant Financial	China	Payment services (QR code payment and payment processing)
Backbase	Germany	Banking platform
Coinbase	USA	Crypto asset trading platform
RedCompass Labs	UK	Payment service (Platform and crime alert solutions)
Revolut	UK	Challenger bank
SoCash	Singapore	Payment service (Cash network)
Square	USA	Payment service (Mobile POS and EC support)
Stripe	USA	Payment services (API gateway)
Wise	UK/Estonia	Payment services (cross-border remittance)

Snapshot of venture capital in Japan

- Newton Biocapital: Life sciences sector
- 15th Rock Ventures: Human augmentation and IT
- First Track Initiative: Healthcare
- ANRI: Deep tech and life sciences
- **JAFCO**: IT services, medical and biotechnology services and electronics
- **Beyond Next Ventures**: Medical and healthcare, agri-food, electronics and AI
- **DG Daiwa Ventures**: Blockchain, XR, AI, security and bioHealth
- Minerva Growth Partners: Software and services including health tech and fintech
- Energy Environment Investment: Environmental and energy sectors
- **MPower Partners**: Japan's first ESG-focused global venture capital fund
- Hack Ventures, Digital Base Capital: IoT and IoE
- Mobile Internet Capital: IT and technology
- One Capital: Software as a Service

- **Softbank Vision Fund**: Sector leading growth companies in technology
- W Ventures: Early stage startups
- Archetype Ventures: No specific sector focus
- Global Brain: No specific sector focus
- **Bonds Investment Group**: No specific sector focus
- **Strive**: B-series startups
- Delight Ventures: Early stage startups mainly in the seed phase
- Angel Bridge: Early stage startups
- Quantum Leaps Ventures: Early stage internet and technology startups
- **Globis Capital Partners**: No specific sector focus
- **Universal Material Incubator**: Materials and chemical sectors
- Finesse Ventures: Machine learning and blockchain backed solutions
- Yazawa Ventures: Transformation of 'work'



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