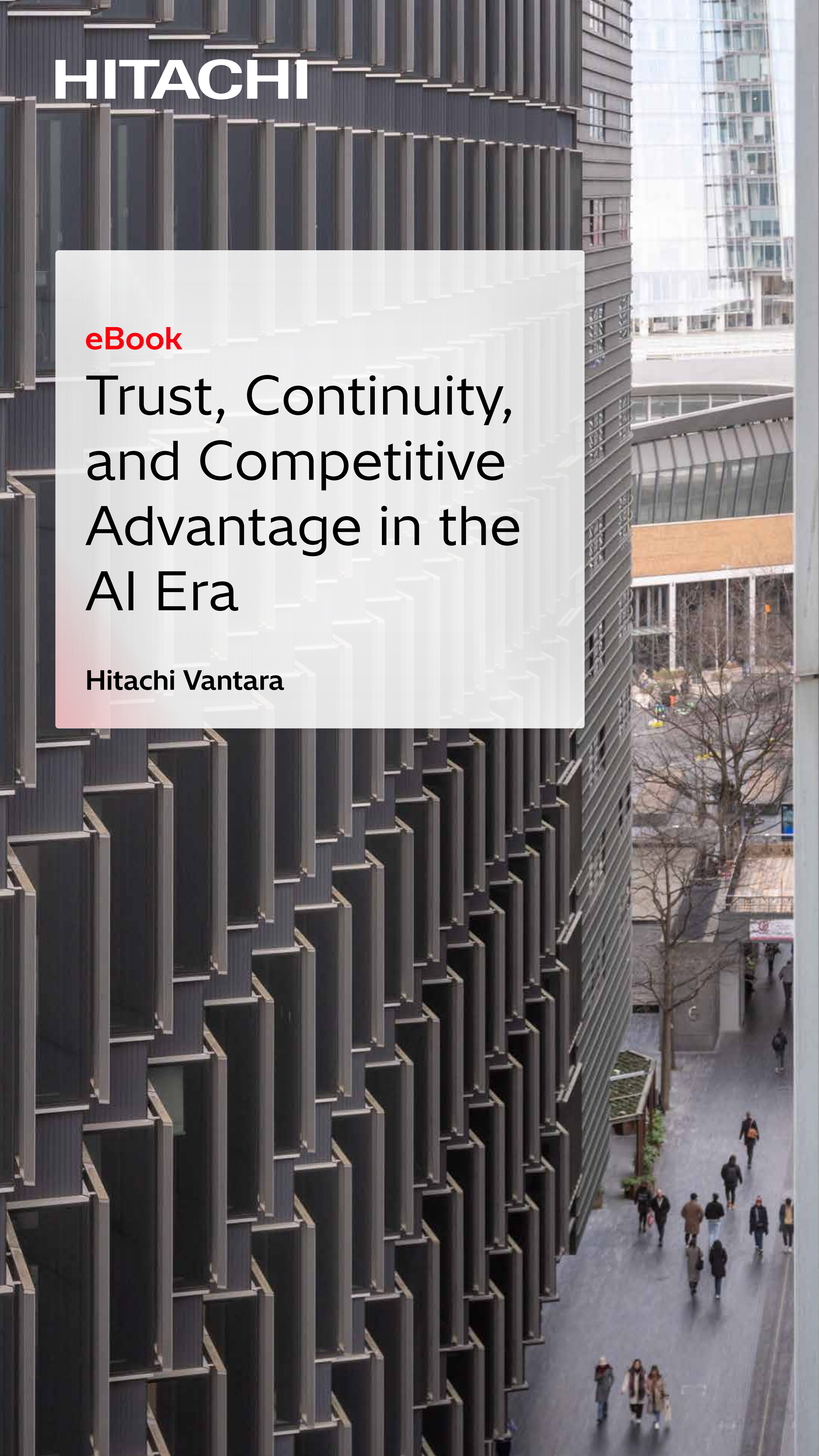


The background of the entire page is a high-angle photograph of a modern city street. On the left, a tall building with a dark, textured facade of vertical slats dominates the frame. To the right, a glass-fronted skyscraper rises into the sky. Below, a wide pedestrian walkway is filled with people walking. Bare trees and a modern building with a curved glass roof are visible in the mid-ground.

HITACHI

eBook

Trust, Continuity, and Competitive Advantage in the AI Era

Hitachi Vantara



Executive Summary

More than any other influence, [artificial intelligence](#) is shaping how businesses make decisions, serve customers, and manage risk. As that reliance deepens, the question for leaders should shift from what AI can do to whether it can be depended on. Trust and continuity are two considerations business leaders must make now when it comes to AI strategies — and to maintain a competitive advantage in the long-term.

When it comes to reliability, AI trust means that organizations have confidence in the fact that data was gathered fairly, that systems behave as intended, and that someone is accountable when systems don't perform as expected. Trust cannot be added after deployment. It must be built in through sound governance, security, transparency, and respect for the people whose information fuels the technology.

AI continuity is the other half of the equation. An AI-enabled business is only as strong as its ability to keep operating when conditions change: from disruption, disaster, or shifts in the market. Organizations whose AI offerings account for [resilience](#) before customers need it offer protection to buyers, their employees, and their reputations.

Together, trust and continuity are becoming the foundation for competitive advantage in the AI era.

While speed and scale can be matched by any rival, a record of reliability and responsible AI stewardship takes years to build and is difficult to copy. The organizations that invest in both will be the ones customers, partners, and regulators choose to rely on as AI matures.

Taken together, the three articles in this eBook point to the same conclusion. Organizations earn trust by handling data responsibly, they earn adoption by designing around real human behavior, and they ensure resilience by preparing before disruption arrives. Whether a vendor or buyer, organizations that treat [these values](#) as an integrated business imperative rather than bolted-on compliance will be the ones still standing in the long-run.



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AI’s Privacy Problem Gets Personal

Companies are turning to sensitive sources as data runs scarce.

By Kathy Chu

On a crisp fall afternoon last year, two Harvard University students strolled across the leafy Cambridge campus, wearing what appeared to be ordinary Ray-Bans. But this was no typical eyewear. AnhPhu Nguyen and Caine Ardayfio had rigged Meta’s AI Glasses with facial recognition technology. As the pair walked among their classmates, the glasses were quietly working: scanning faces, running them through the adapted software, and within seconds, pulling up names, addresses, phone numbers, and even information about their relatives.

The experiment, which the students recorded and posted online, went viral. The [video](#) was designed to highlight privacy vulnerabilities, but it also emphasized another troubling trend: as companies race to develop ever more sophisticated [AI systems](#), some are turning to sensitive, previously untapped sources of data to feed their algorithms.

The easily accessible, high-quality information that once fueled the industry’s rapid growth has largely been exhausted. Much of what’s left is “AI slop,” or lower-quality data, according to Jennifer King, a privacy and data fellow at the Stanford Institute for Human-Centered Artificial Intelligence.

The consequences of this data scarcity extend well beyond engineering problems. As companies reach into increasingly intimate territories — by cataloguing faces in crowds, recording conversations and even mining genetic codes — they are quietly reshaping the boundaries of privacy, often without users realizing what they’ve agreed to.

The Exhaustion of Easy Data

The AI boom was built on a foundation of readily available information: news articles, social media posts, academic papers, and countless other digital artifacts scattered across the open web. But that era of easy pickings is rapidly coming to an end.

“We’re approaching the point very quickly where there just isn’t that much data out there that has not already been used,” said J.B. Branch, a big tech accountability advocate for Public Citizen, a consumer advocacy group.

What more than 1,200 IT leaders reveal about AI readiness.

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Rather than relying solely on static datasets, AI companies are increasingly releasing devices and applications that harvest fresh data streams directly from users’ daily lives, said Branch.

“You’re going to start to see this unleashing of AI-enabled products, where you, the user, are the data they are going to be feeding into their models,” he warned.

It’s unclear whether consumers realize how their data is being collected or used, according to Andrew Crawford, senior counsel at the Center for Democracy & Technology. AI-enabled glasses, for instance — like those worn by Nguyen and Ardayfio in the viral video — can look just like Ray-Bans, making the technology difficult to spot.

This transition from passive collection to [active data generation](#) through consumer products marks a significant escalation in the type of information being gathered. Smart glasses don’t just capture what users choose to share online; they can record what they see, hear and experience in real time. Fitness trackers can monitor biological functions. And smart home devices [can even listen](#) to private conversations.

Joshua Landau, senior counsel for innovation policy at the Computer & Communications Industry Association, which represents major AI developers including Meta, Apple, and Google, acknowledges that the industry’s relationship with data is evolving. The current situation is less of a “race for data, and more like any other business. You want to be the first on the market because there’s a first-mover advantage,” he said.

The Genetic Gambit

The hunt for fresh data has led companies into increasingly personal territory. When Regeneron Pharmaceuticals announced it would acquire bankrupt genetic testing company 23andMe for \$256 million in May, the deal wasn’t really about DNA kits. The pharmaceutical giant wanted access to one of the world’s largest troves of genetic information.

Regeneron [asserted](#) the data would accelerate drug discovery and development efforts, and that the company had already used the de-identified data of nearly 3M people in its research.



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But consumer groups warned the data could be used in ways that 23andMe’s 15M customers had never intended. Unlike other forms of personal data, genetic information doesn’t just reveal details about individuals. It can unlock secrets about their relatives, children and generations yet to come.

Regeneron was ultimately [outbid](#) by TTAM Research Institute, a nonprofit led by 23andMe co-founder Anne Wojcicki. But the use of [genetic data in AI](#) generally raises questions about consent, privacy, and the potential for discrimination. A single DNA sample can reveal someone’s ethnic background, medical history, and even their predisposition to disease.

“It’s not so much a question of, ‘Should there be guardrails?’ It’s a question of what those guardrails should look like,” Landau says. Calli Schroeder, who leads the AI and human rights project at the Electronic Privacy Information Center, said the industry needs clear rules governing what data can be collected, how it is collected, and how it is shared.

“I’m not saying, ‘Kill [the] industry’; I’m trying to force [it] to operate responsibly,” said Schroeder.

The global nature of AI development compounds these challenges. Some regions are implementing comprehensive governance frameworks, while others maintain more permissive approaches, resulting in an inconsistent regulatory landscape. This patchwork means companies operating across multiple jurisdictions face varying standards — and enforcement mechanisms — for the same technologies.

Outpacing Oversight

As companies cast ever wider nets for training material, automated systems are gathering billions of images and text snippets from across the internet. The sheer scale of this collection — often involving terabytes of information, gathered within hours — means that problematic content can slip through before anyone realizes what has been included.

The appetite for data that drives AI development shows no sign of abating. And the regulatory frameworks that will govern this new reality are still being written, often years behind the technology itself. In the meantime, every device purchased, app downloaded, and genetic test conducted adds to datasets that remain largely invisible to users — even as those datasets become better at identifying the users themselves.



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How a Global Supply Chain Challenge Became One Region’s AI Advantage

Uneven digitalization is driving innovation in logistics AI.

By Jennifer Guay

When Paco Chan launched an AI logistics startup in Singapore, he faced a problem familiar to all founders: how do you get people to replace what they’re used to with something brand new?

Chan’s solution was counterintuitive. Instead of building a sleek new platform and trying to convince customers to abandon their old ways, he decided to meet them exactly where they were.

That place, it turned out, was WhatsApp.

“People are so resistant to change and so comfortable with their current behavior,” Chan, the cofounder of food supply chain startup Farmio, said. “Instead of asking them to use a new solution or software, why don’t we embed the solution into that existing behavior?”

Chan’s strategy reflects a broader evolution happening across Southeast Asia’s logistics industry, where traditional technology adoption challenges have paradoxically become the catalyst for innovative AI implementations.

[Research](#) shows that millions of businesses across Southeast Asia have [struggled](#) to digitalize. But as AI changes the global economy, this apparent weakness has become an unexpected edge: there are no legacy systems to

integrate or sunset. While Western logistics companies battle technical debt from decades-old systems, Southeast Asian startups are building on [modern AI infrastructure](#) from day one.



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The Leapfrog Advantage

Chan’s breakthrough came from recognizing fundamental differences in technology adoption patterns in Asia, the US, and Europe. In Chan’s view, Western businesses readily adopt new apps for transactions, while Asian clients tend to resist change. Mark Connell, CEO of logistics technology company Yojee, put it bluntly: “Most freight moves around Asia on WhatsApp, WeChat, paper, and Excel.”

Rather than fighting this tendency, Farmio operates through a familiar platform, processing orders and handling payments via WhatsApp. Thanks to a ChatGPT integration, customers receive real-time delivery updates without changing how they communicate across the supply chain.

The approach works. Within one year, Farmio has onboarded more than 1,700 B2B customers and generated \$6.5 million in revenue, Chan said. When ChatGPT experiences outages, Farmio’s customers immediately notice that their updates are missing and demand an explanation, demonstrating how integral AI has become to their daily operations. The embedding approach contrasts sharply with Western enterprise software, which typically requires training sessions, user manuals, and dedicated IT support.

Nearly half of small and medium enterprises in “emerging and developing Asia” report difficulty obtaining financing as a major barrier to technology adoption, according to International Monetary Fund [research](#). These constraints can compel companies to be more creative and efficient in their AI strategies — perhaps mirroring how mobile payments took off in parts of Africa without established [banking infrastructure](#). Kenya’s M-Pesa

allowed the country to “zoom past other[s] when it comes to financial inclusion” by bypassing traditional banking entirely, according to [Harvard Kennedy School](#) research.

Like Farmio, Yojee is building AI solutions from scratch while working within established communication patterns. Take Yojee’s AI assistant, “Tess,” which embeds within customers’ emails. When messages arrive about delayed shipments, Tess reads them, extracts key details, and immediately suggests actions based on what worked in similar scenarios in the past. The system cleans up messy address data and manages the complex rebooking process that used to require hours of manual work. The idea is that Tess will be able to act as a logistics coordinator for Yojee customers.

Sometimes, however, a different tactic is needed.



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The Sledgehammer Approach

One of Yojee’s customers, Asia Pulp & Paper (APP), is among the world’s largest paper manufacturers. On any given day, more than 1,500 truck drivers navigate the dense jungles of Indonesia to deliver the company’s products, Connell said. Until recently, these drivers operated in what he called a “digital black hole”: no one knew where the trucks were, what they were carrying, or when their deliveries would arrive. Theft was a constant concern.

The transformation began when APP, part of Indonesia’s massive Sinar Mas Group, issued an ultimatum: drivers couldn’t enter any of the company’s six mills without using Yojee’s AI-powered logistics app. Connell calls it the sledgehammer approach: “You’re not picking up any [freight] if you don’t have Yojee.”

That stick-driven compliance has yielded remarkable outcomes. APP now achieves order completion rates as high as 91%, according to data shared with Hitachi Vantara. With real-time order tracking and driver barcodes, disputes over deliveries have dropped significantly.

The Personal Touch

The success of these companies stems from their deep understanding of local business practices.

Yojee discovered that effective technology adoption required more than mandates and well-integrated software — it also needed buy-in from the drivers. The company sends local teams to mills, where they “meet drivers in informal settings like outdoor cafeterias or waiting areas in the jungles of Indonesia. They have relaxed conversations about drivers’ problems and preferences, building the trust necessary for technology adoption,” said Connell.

Farmio, meanwhile, uses AI to build customer credit profiles and partners with banks and insurers to offer its clients loans and warranties. What started as simple logistics transparency has become a foundation for offering tailored financial services, turning behavioral data into new revenue streams.

This kind of customization has been key to Farmio’s localization success. When the company expanded from Singapore to Hong Kong, Chan discovered that digital payment preferences varied dramatically between markets that seemed similar on the surface.

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“In Singapore, people use more digital solutions. They use PayNow and scan a QR code to pay,” Chan explained. “But in Hong Kong, whatever digital solution you provide to them, they will say ‘I’ll just pay in cash’ or ‘I’ll just do a bank transfer.’” (Compared to its neighbors, Hong Kong has been relatively [slow to adopt](#) digital payments.)

Rather than forcing Hong Kong customers to adjust to QR code payments, Farmio’s AI adapts to local preferences, sending bank payment details instead. This flexibility, built into the system’s architecture, allows the same AI agent to serve different behavioral patterns without requiring separate product development for each market.

Racing Against Global Giants

Local logistics firms such as Farmio and Yojee have advantages that are difficult to replicate. Yojee, now nine years old, has offices in Singapore, Sydney, and Ho Chi Minh City, and operates across the globe. In addition to Singapore and Hong Kong, Farmio is expanding its WhatsApp approach to Taiwan and Japan.

Whether those advantages can be sustained as global logistics giants expand remains an open question. But these companies have established that working nimbly within existing cultural frameworks can be more effective than the West’s disrupt-everything approach. They’re writing a new AI adoption playbook — one that prioritizes human behavior over technical complexity.

Southeast Asia’s logistics industry may have been late to digitalize, but it appears to be arriving at the AI revolution right on time.



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The High Cost of Climate Resilience

What it takes to keep businesses running during disasters.

By Anne Stuart

On Nov. 13, 2024, the Hong Kong Observatory (HKO) issued a No. 8 typhoon signal, warning the region's population of an incoming tropical cyclone with gale-force winds. As Typhoon Toraji barreled into the region, Hong Kong ground to a halt. Companies, schools, shops, and government offices closed. Buses, trains, and ferries stopped running. Airlines delayed or canceled flights.

But Hong Kong's stock markets stayed open for business. Toraji marked the first successful test of the Hong Kong Exchanges and Clearing Limited's (HKEX) strategy to maintain trading during severe weather. In fact, the exchange's trading activity for that day was \$22.2B, above the daily average for the prior 10 months. "This is testament to the vision, determination and collaboration of our entire financial services community," HKEX CEO Bonnie Y. Chan said at the time.

The HKEX approach is just one example of how governments and businesses are rethinking their disaster recovery strategies in response to escalating climate threats. The past 10 years were the hottest on record, with 2024 topping the list, according to the United Nations' World Meteorological Organization (WMO). "We are seeing

more frequent and intense heatwaves, more devastating storms and floods, more rapidly intensifying tropical cyclones," WMO Secretary-General Celeste Saulo said in March.

Nowhere is that more the case than in the Asia-Pacific region, which, in recent years, has grappled with more weather-, climate- and water-related disasters than anywhere else in the world. High-profile examples include the 2004 Indian Ocean tsunami, the 2011 earthquake-tsunami in Japan, typhoons in Hong Kong and Japan, flooding in China, India, and Indonesia, and droughts and heat waves across the region.

All of these countries have ongoing procedures for protecting people and property. Now, many are stepping up efforts to maintain normal business operations during severe weather events to minimize damage to their economies.

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Trading in Severe Weather

Traditionally, HKEX delayed or suspended trading whenever the HKO issued a No. 8 signal or a warning of a “black rainstorm”: intense rainfall that could lead to flooding. In recent years, the number of weather-related market shutdowns has steadily increased, occurring at least 11 times between 2018 and late 2023.

After yet another typhoon forced the market to close in June 2024, HKEX scrapped that policy. Both business and government leaders consider keeping stock markets open during extreme weather critical to positioning the region as a leading — and reliable — global financial center.

The new policy doesn’t mean traders and employees have to stagger through flooded streets to work during typhoons and rainstorms. Hong Kong, which switched from physical to electronic trading in 2017, established a precedent that enabled people work from home during the COVID-19 pandemic. Many HKEX employees, partners and “participants,” or exchange members, did so, using digital tools for trading and payments.

Doing the same during typhoons and rainstorms required participants to confirm they could keep operating remotely, even in extreme weather conditions. After conducting practice sessions over the summer of 2024, all of HKEX’s exchange participants were ready to conduct business as usual during adverse weather by September. HKEX’s partner banks also confirmed that key electronic services, such as money transfer channels, would be operational.

Now, during extreme weather, HKEX encourages all stakeholders to work remotely, offers no public services at its physical locations and handles all financial services electronically. To date, the approach has paid off — not only by eliminating weather-related financial losses, but by attracting new business. As of mid-July 2025, the Hong Kong market had added 52 new listings since the severe weather policy came into effect, representing a 30% increase from the previous year.



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The exchange's success depended heavily on Hong Kong's sophisticated weather forecasting infrastructure, the Hong Kong Observatory, which has undergone a dramatic transformation over its lifetime. Founded in 1883 when Hong Kong was still a British colony, the Observatory initially alerted the population to impending storms by shooting loud "typhoon guns" or setting off explosive devices.

Today, the agency uses a comprehensive warning system to alert the region's 7.5M residents not only about typhoons and rainstorms, but also tsunamis, monsoons, floods, fires, landslides, and extreme hot or cold temperatures. Alerts are provided via radio, TV, a dedicated telephone line, its website, social media, and an app that supplies location-specific data from nearby weather stations.

The Data Divide

As of 2024, 108 countries reported having some capacity to warn citizens about climate hazards, up from 52 countries in 2015.

The key to that effort is, of course, weather data. As Saulo of WMO put it: "Every minute of every day, data flows from monitoring stations across the world to weather prediction centers. Millions of individual measurements — from satellites, from stations on the ground, from weather balloons, from ocean buoys and ships, from aircraft and more."

Yet the explosion in weather data has created a new problem: not everyone gets the same information. That gap, researchers say, is becoming a business risk all its own.

"The question is: Who owns that data? How accessible is it?" said Emma Colven, a King's College London lecturer who has extensively studied urban flood risk and management in Jakarta, Indonesia.

Another challenge: making global climate models more relevant to the people affected by extreme weather. "How do you translate predictions to an urban scale and make them useful to people who are not meteorologists or climate scientists?" Colven said. "The challenge is translating that into action and figuring out where to intervene."

Water, Water Everywhere

Beyond Hong Kong's gleaming financial district, the challenge of keeping businesses running during disasters looks different. Across Asia-Pacific, few places have Hong Kong's luxury of sophisticated infrastructure and unified decision-making.

Indonesia, for example, has long struggled to predict and recover from water-related disasters. In Jakarta, a low-lying coastal urban area crisscrossed by 13 rivers, flooding is so routine that residents track water levels the way others check traffic. "Tidal flooding is almost a daily occurrence for a lot of people in Jakarta," Colven said.

She noted that Jakarta's disaster agency has invested significantly in improving prediction capability, communication and disaster-relief coordination. Indonesia has also adopted innovative prevention efforts, such as cloud seeding, to help mitigate heavy rainfall in the capital and other parts of the 17,000-island archipelago.



Cloud seeding forces clouds to rain by flying planes through them and spraying tiny particles that make water droplets stick together and fall. It’s a technique used to wash pollution out of the air or to make storms dump their water before they reach flood-prone cities.

Officials have also been planning for years to build a massive sea wall to better protect the densely populated city, but the project has repeatedly stalled due to a lack of funding, frequent leadership turnover, and overlapping local, regional and international jurisdiction issues, Colven said.

Earlier this year, Indonesian President Prabowo Subianto announced significant budget cuts, including a 50% reduction for the nation’s Meteorology, Climatology, and Geophysics Agency, which monitors weather patterns, air quality, earthquakes and water-related disasters. Agency officials said the cuts would significantly limit their ability to maintain those efforts, and the Jakarta Post opined that the decision “shows how the government undermined disaster preparedness in a country facing numerous and intense natural disasters for which adequate responses are already lacking.”

Jakarta officials do alert residents to flooding via radio, text messages, sirens, and flood-information boards, as well as bicycle messengers using loudspeakers, according to a 2023 UN report. But given Jakarta’s diverse urban geography — its neighborhoods range from upscale and suburban to fishing villages and low-income areas — “risk communication can be quite uneven,” Colven said.

Consequently, residents of poorer neighborhoods prone to flooding often take matters into their own hands.

“People in the community are WhatsApping each other because they know someone who works at one of the floodgates upstream and he might tell them, ‘OK, the flood water is at this level,’ and they know that it will be, say, nine hours until the flood arrives in their neighborhood and they can take action to get ready for it,” Colven said.

The Race Against Rising Waters

As storms grow stronger and floods become more frequent, the Asia-Pacific region faces an uncomfortable truth: economic survival may come down to whether a street vendor in Jakarta gets the same quality weather alerts as a Hong Kong stock trader. Right now, she doesn’t.

Hong Kong proved that keeping markets open during a typhoon is possible. The harder question is whether businesses in the rest of the region can build that same resilience before the next big storm hits. For billions of people across Asia-Pacific, the answer may determine not just their economic future, but their survival.

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