

JUNE 2022

THE PULSE

Monthly Insights 



Source: Michael Matti/Flickr

Drone shot of the craftsmen's village of Tegallalang, which is one of the Ubud region's 3 villages famous for their terraced landscapes. In addition to its scenic paddy fields, the villages are also known for their innovative irrigation system.

INSIDE



**It's Personal:
Cyber Frauds on
the Rise**

🕒 10-minute read



**AgriTech to Bring
the Digital Edge to
Farming**

🕒 5-minute read



**ABP Market Research:
Local presence and
Strategy for ASEAN**

🕒 2-minute read



**Drones to Aid ASEAN's
Flight Into Uncharted
Territories**

🕒 3-minute read

IT'S PERSONAL: CYBER FRAUDS ON THE RISE

Newer tech, more people transacting online are giving cybercriminals newer avenues to launch personalised and innovative attacks.



In March this year, the world woke up to a crypto heist, a coordinated cyberattack on the popular play-to-earn non-fungible token (NFT)-based game Axie Infinity, where attackers pocketed over \$600 million from the game.

The reason? Human error. The perpetrator? North Korea. The lesson: even the complicated, relatively “safer” realm of blockchains, sidechains, and cryptocurrencies are vulnerable to cybercrime. And as they become more and more mainstream, we will hear of more such heists and frauds.

There already is a growing trend. According to an IBM report, ransomware was a top threat in 2021, and 26% of global attacks targeted Asia, the most attacked geography of 2021. In 2020, malware and ransomware use shot up by 358% and 435%, respectively, compared to the previous year, as per a study by Deep Instinct. The data is sufficiently alarming, and it is crucial to understand the reasons behind these trends.

MORE INTERNET USERS INCREASED THE THREAT SURFACE

The Covid-19 pandemic, apart from being one of the most socio-economically challenging events globally, has also been the reason for many countries and businesses to go digital or adopt some form of online transactions. That has meant more of people’s everyday lives moving online, and as a result, increased the possibility of cyberattacks.

Around 4.9 billion people, or 63% of the world's population, were online in 2021, according to data from the International Telecommunication Union. Of these, 440 million were in ASEAN countries.

Country	Percentage of population online
Brunei	95%
Singapore	88%
Malaysia	83%
Thailand	75%
Vietnam	70%
The Philippines	67%
Indonesia	64%
Laos	43%
Myanmar	41%

Source: [Global Digital Overview 2020](#)

One of the beneficiaries of this rising internet penetration has been the rise of e-commerce. The value of ASEAN's e-commerce rose nearly six times, from \$9.5 billion in 2016 to \$54.2 billion in 2020. Helped by the increase in the online population, the e-commerce sector is set to grow at an annualised rate of 22% and reach \$146 billion by 2025.

Indonesia, the Philippines, and Malaysia are the countries that have seen the maximum expansion of e-commerce during and post the pandemic.

When people go online to buy things, they inevitably leave personal information with the online business, whether it is their personal details, address, phone numbers, credit card information, and even health-related information.

All these are of great value to cybercriminals who can either sell the datasets for money or use individual financial details to steal money through cyber fraud.

In May 2020, three Indonesian e-commerce platforms reportedly suffered data breaches that exposed the details of their customers, which were then sold on the dark web. One of these was the breach at Indonesia's largest e-commerce platform Tokopedia, which affected 91 million users. The Philippines accounted for 2.49% of global suspected fraudulent e-commerce transactions. Malaysia also reported a significant rise in reported e-commerce fraud cases last year, amounting to a loss of over RM 57 million (around \$13 million).

Add to this mix these newer technologies built on blockchains, from cryptocurrencies to NFTs, decentralised finance to real estate sales. Even though a relatively small number of people use these technologies, many high-value transactions and investments are being put into these systems, making them fertile ground for heists like what happened at Axie Infinity.

Cybercrime related to cryptocurrencies is also on the rise. A lot of activity and understanding of the crypto ecosystem occurs on social media platforms. NFTs are one of the hottest adoption trends across industries, and the scams are already beginning to make headlines.

EVOLVING CYBER CRIMES AND FRAUDS

Interpol's ASEAN Cyberthreat Assessment Report 2021 notes how different kinds of cyber crimes have evolved since the pandemic began in 2020.

Common cyber-crimes by country

Country	Common cyber crimes/frauds in 2020
Thailand	Recruitment scams through social media platforms
The Philippines	Online scams, identity theft
Indonesia	Online fraud
Malaysia	Online fraud (Macau Scam)
Singapore	Online scam
Vietnam	Phishing

Source: [Interpol ASEAN Cyber Threat Assessment Report 2021](#)

Though research after research points to the fact that the Asia Pacific region is experiencing increasing cyber attacks, there is little to no uniform data available exclusively for the ASEAN region.

A common thread among all cybercrimes, though, is the human element. Cybercriminals realise that internet users are now more aware and careful about giving out their personal information or trusting sources. So they have figured out complex social engineering methods to make people believe they are receiving information from trusted sources.

Simply put, cybercriminals manipulate people into divulging their personal information. The methods used are so believable they've made large corporations like Toyota lose millions of dollars.

And personalisation in cybercrime is growing, making online scams targeted at individuals extremely common.

Group-IB estimates that online scams have become the main type of online crime, accounting for as much as 74.5% of all cybercrime in the first half of 2021. More than half (57%) of all cybercrimes in H1 2021 were scams (a type of fraud in which victims voluntarily make payments or disclose their data), while phishing (theft of bank card data) accounted for just 17.5%.

Social engineering is the most common method used for business email compromise (BEC), identified by Interpol as the most prevalent type of cybercrime in ASEAN.

BEC leads to "businesses suffering major losses, as it is a high-return investment at a low cost and risk...cybercriminals behind BEC are becoming more sophisticated, technically proficient, and able to leverage different types of tools to achieve their aims," Interpol notes in the report.

Another category of social engineering attacks is Covid-19-related phishing attacks. Phishing is, simply put, the fraudulent practice of sending emails pretending to be from reputable companies or trusted sources in order to make people believe enough to reveal personal information, such as passwords and credit card numbers.

Covid-19 related phishing attacks rose 220% in 2020, according to F5 Labs Phishing and Fraud Report. It identified three primary objectives for such phishing — fraudulent donations to fake charities, credential harvesting, and malware delivery.

These attacks still continue to happen globally, and across ASEAN member nations.

Ransomware continues to be a big issue that has been causing corporations and countries to lose money. According to the Interpol report and data from Kaspersky, the ASEAN region saw about 2.7 million ransomware detections in the first three quarters of 2020. Indonesia suffered the most with 1.3 million ransomware detections, accounting for almost half of the entire detections in the region.

Within ransomware, IBM notes a “concerning new trend” called triple extortion. Cybercriminals encrypt and steal data and also threaten to engage in a distributed denial of service (DDoS) attack against the affected organisation.

Ransomware gangs are also looking at their primary victim’s extended business partners to pressure them into paying a ransom, by threatening to expose their data or cause disruptions to their businesses, IBM further added.

With everything commoditised, the world of cybercrime is also catching on to the trend of providing crimeware-as-a-service (CaaS).

This report puts it succinctly: “CaaS has decreased the barrier of entry for new, less savvy threat actors, and now represents an optimum choice for advanced attackers that want to conduct hit-and-run operations. The Crimeware-as-a-Service model makes it difficult to attribute the crime to a particular individual because the means and the infrastructure are shared among multiple bad actors”.

CaaS providers often work in the underground market and provide everything from spyware, phishing kits, browser hijackers, keyloggers, and more.

Cryptojacking is a cybercrime that involves the unauthorised use of people’s devices (computers, smartphones, tablets, or even servers) by cybercriminals to mine for cryptocurrency, explains Kaspersky.

Even though cryptocurrencies are volatile, their high valuations are a draw for cybercriminals, and crypto-jacking is another kind of cyber fraud that is on the rise. Google’s 2021 Threat Horizon Report found that 86% of the compromised Google Cloud instances were used to perform cryptocurrency mining.



Another area of concern for cyber fraud, flagged by Interpol in its report is e-commerce data interception. Cybercriminals install different kinds of malware, or malicious software, to collect customers' personal and financial information with ease, and the fast-evolving functionalities on e-commerce platforms make it more challenging to detect and investigate.

ASIA AMONG THE MOST IMPACTED

As our lives continue to move and remain online, it is going to be increasingly difficult to avoid cybercrime. The CyberEdge Group 2021 Cyberthreat Defense Report found that 86.2% of surveyed organisations were affected by a successful cyberattack.

In Asia, given the relatively new switch to online transactions and interactions, the two most common cyberattack tactics are virus or malware outbreaks and employee errors.

According to Group-IB's Hi-tech Crime Trends Report (requires download), the regions most often targeted by scams are Europe (36.2%), Africa (24.2%), and Asia (23.1%). Among countries, India (42%), Thailand (7%), and Indonesia (4%) top the list.

Group-IB, which helped block over 14,000 phishing resources between H1 2020 and H1 2021, ran into a unique problem that prevented some of these phishing attacks from getting fixed.

"There is a language barrier when dealing with countries where English is not widely spoken, as is often the case with registrars and hosting providers in Asia and Africa. The fact that they do not speak English often means that a complaint is not handled at all. For example, an operator can simply hang up the phone if they don't speak English," the report said.

Going forward, it is going to be critical for countries to educate the masses about the risks of being online. Cybercriminals and frauds are only going to increase, but that should not stop people from accessing the vast resource that is the internet.

While large technology firms often bring out these explainers on good cyber hygiene, and governments are making their own efforts, individual awareness and understanding will go a long way in ensuring you stay safe and not fall prey to malicious actors online.

AGRITECH TO BRING THE DIGITAL EDGE TO FARMING

Technological innovation in agriculture could help attract younger talent and make farming more efficient.



Fewer youngsters are pursuing farming as a profession compared to previous generations across the world. In Indonesia, only 23% of the country's 14.2 million people, aged between 15 and 24 years, worked in the agriculture sector in 2019.

At the same time, we must not forget that, the global demand for food will double in the next 50 years. By 2050 alone, there will be 10 billion people on Earth, requiring 56% more food. The only way to plug the loopholes in agriculture is to bring technology to the table.

From drone-based agricultural land monitoring, remote pesticide spraying, and direct-to-customer sales, AgriTech platforms are helping farmers rediscover the love for farming by making it sustainable and efficient.

The smart agriculture market is expected to grow from \$12.9 billion in 2021 to \$ 20.8 billion by 2026, at a CAGR of 10.1%. Here, Asian markets are expected to lead the growth with the technological prowess being adopted to maximise agricultural produce.

Impact statistics for deploying technology	
\$62 – 76 billion	Value creation via mandi automation, B2B portals, online retail, farmer aggregation and hyperlocal connect
\$34 – 42 billion	Direct benefits to farmers from use of technology
75 – 91 million	Farmers will benefit from using the technology solutions
70% – 80%	Farmer income increase in crop cultivation
50-60%	Farm produce that will be sold online in 20 years.

Source: [TechnoServe](#)

REGIONAL COLLABORATION THROUGH AGRI-TECH

Now is the time for sharing these innovations with the world. India's agri-tech startup CropIn has partnered with True Digital Solutions to build an ecosystem of digital solutions for farmers in Southeast Asia.

As part of the agreement, CropIn will help digitise farmers' data for better transparency, financial self-sufficiency, and efficient cultivation management. In addition, the companies will provide insights on weather, disease prediction and advisory, crop health, and streamline the supply chain. True Digital Solutions aims to impact 9,880 acres and six million farmers in Thailand through this partnership.

Thailand, in particular, has already taken a series of initiatives on the agri-tech front. Startups such as KoMoMi, Algaeba, ChikChic, Talad, and Ricult are helping farmers become more self-sufficient by weather monitoring, better irrigation systems, and pest disease management.

In fact, the country's Thailand 4.0 initiative involves setting up 'innovation districts' to support the development of the country's technological capabilities. AgriTech is included in this system as an important path to economic recovery.

In the Southeast Asian region, agriculture and allied activities are still the key economic activity, especially in markets such as India, Indonesia, Vietnam, Thailand, and the Philippines.

SE Asian counterparts such as Indonesia and the Philippines have also taken steps to build the agri-tech ecosystem.

Learning from India's Ninjacart, Indonesia's TaniHub helps farmers earn more for their crops by streamlining distribution channels so there are fewer middlemen between farmers and the end customers. It now has more than 45,000 farmers and 350,000 buyers in its network. It also raised \$65.5 million in Series B funding to fuel its expansion drive.

Indonesian entrepreneurs are also riding the blockchain wave to make farming easier. For example, blockchain-based data exchange platform Hara helps implement precision farming through remote sensing.

Technologies used in SE Asia's AgriTech Economy

- IoT Sensors and Crop Photography
- Drones to monitor crops, send alerts and spray pesticides
- Satellite-based sensors to predict weather changes
- Automated irrigation systems with adjustable settings based on crop
- Light and heat control for organic crops, horticulture, and poultry farming
- Artificial intelligence to detect pests and predict crop diseases
- Farm-to-table software for price discovery and direct sales

Government bodies have also played their part in the region to bridge the information gap. In the Philippines, the Department of Agriculture is strengthening connectivity with farmers through the Fisheries and Agriculture Response Management (FARM) Citizens Application.

Apart from startups such as CloudFarm Innovations (IoT-led heat control), Agridom (drone-based fertiliser) and pesticide spraying and Krops (B2B app connecting farmers and buyers), the Philippines also has a venture to crowdfund agriculture through a platform called Cropital.

Neighbour Vietnam is a recent agri-tech convert and is using artificial intelligence and the internet of things (IoT) to drive viable farming practices. Here, startups such as MimosaTEK, Sero, and Hachi are bringing change to the region by learning from other Asian successes.

Closer the connections, better will be the farmer-focussed inventions. To deepen the impact of the initiatives, cross-country mobilisation of resources has already begun.

For instance, Indonesian agri-tech startup Semaai has raised \$1.25 million in pre-seed funding to grow its engineering and product teams in India. Semaai is building a full-stack agri-tech solution for Indonesia's rural agriculture communities.

Asian startups have already begun shaking the agriculture industry with their fresh ideas. Expanding to markets like Europe, Africa, and the Americas will be the next logical expansion.

Building a sustainable agricultural model for the world through a collaborative effort is what could enable a better future. The foundation and the building blocks have already been laid. Building replicable technology-led agriculture products that can be deployed across the globe will help create sustainable farming communities for centuries to come.

ABP MARKET RESEARCH: LOCAL PRESENCE AND STRATEGY FOR ASEAN



Have a great product or a service offering, that's perhaps universal enough to fit in markets which are oceans apart from you? You might be right, but first things first, familiarize and study the local market needs and its dynamic trends. Let's not forget detail or derail is a fact of any business.

Running a business is all about calculated moves and very rarely about luck. Not their fault or ignorance - however mired with calculations and numbers, entrepreneurs often miss the right window of opportunity to introduce their products or overlook one aspect.

Whether planning to expand within Southeast Asia or want to enter the region, ASEAN Business Partners (ABP) is ready to be your manfriday - to be that extra pair of eyes (and hands too!) to spot the gaps and steer companies the optimal product and marketing strategies in the 10 countries that form ASEAN - Association of Southeast Asian Nations.

Diversity is the beauty of the region and as a market entry and growth firm ABP has embraced this diversity and is sensitive to these unique idiosyncrasies that every market in SEA poses. Not always a solution meant for a market solve the same issue in another. This is where local knowledge and networks are necessary and it is ABP's strengths.



ABP's Market bouquet of offering includes market sizing and assessment, demographics segmentation, need assessment, market stability, competition analysis, positioning studies, due diligence and overall market understanding. Understanding local political atmosphere, local geography, various demographic segments, local culture & society, and overall legal & regulatory governance among other aspects is important for holistic understanding and projections.

With experienced market professionals based in Singapore, Malaysia, Philippines, Vietnam and Indonesia, ASEAN Business Partners (ABP) can provide companies with insights on consumer interests, cultural nuances, social behaviours / habits and product acceptability. Collectively, professionals at ABP have about 200 years of experiences in finance, marketing and sales segments across Southeast Asia. ABP services committed to making the entrepreneurs comfortable with taking the leap.

DRONES TO AID ASEAN'S FLIGHT INTO UNCHARTED TERRITORIES

From food delivery, medicine carriage, and pest control, drone usage could help open business opportunities.



Indonesians discovered the real benefit of operating drones during the pandemic. A group of drone enthusiasts used these unmanned aerial vehicles to deliver contactless medicines and food to patients isolated at home.

In the Philippines, farmers now are using drones to weed out pests that destroy crops. Singapore is using them to test deliveries of food and Covid kits to ships. While Malaysian police forces have used drones to identify people with high temperatures moving in public places amidst Covid.

A \$52 billion global drone market is waiting to be explored. The drone market in Southeast Asia is expected to reach \$1,500 million in 2022 alone. With the rise in penetration of drones, individuals and corporations are realising the hidden potential of this device's usage.

Be it for personal deliveries, agriculture, military monitoring, development projects, or even emergency rescue deliveries, having effective drones makes a world of difference. Having a uniform regulatory regime will help advance the development of the region's drone industry.

THE THRIVING COMMERCIAL DRONE MARKET IN SE ASIA

Year	Market (in million US\$)
2021	1003.91
2022	1499.05
2023	2154.02
2024	2900.87
2025	3667.69

Source: [Statista](#)**HOW WILL DRONES BENEFIT THE REGION?**

Contrary to popular perception, drones are not just meant for amateur aviation enthusiasts. Yes, that opportunity exists, but the importance of drones extends far beyond entertainment.

Across sectors such as healthcare, e-commerce, defence, agriculture, and power projects, deploying drones could prove advantageous.

Take power projects, for example. Drones could be used as a tool for surveys and mapping for projects. Currently, the traditional way of data collection is time-consuming because of geographical restrictions. Data is collected manually and surveying mountainous regions is challenging. Here, unmanned aerial vehicles can bridge the gap, considering the fact that dangerous terrain does not hinder drones.

Some initial successes have been seen. In the Philippines, for example, drones were used in the government's Kalsada program, which provides financing for provincial road projects.

Similar use-cases can be seen in the power and energy sectors, too. The energy sector can use UAVs to inspect renewable energy sources. These could be done via drones equipped with thermal cameras, which can take pictures and videos without being affected by weather-related vagaries.

Once a project is up and running, drones can help monitor the location for adverse risks. For example, a 2019 oil palm fire in Genting, Malaysia, could be contained on time only because drones deployed in the area spotted the fire, captured images, and alerted officials thousands of miles away in Jakarta.

Within ASEAN, Malaysia is vying to become the leading country for the drone industry. Malaysia, in particular, has deployed drones for maritime security. In September 2021, the Malaysian government launched Area 57, which will be an exclusive drone development zone in Bukit Jalil, Kuala Lumpur.

This zone is equipped with not just a runway and drone testing mock-up site, but it also has a laboratory, manufacturing equipment, training facilities, and prototype testing areas. Servicing and maintenance facilities are also provided.

Considering the rising demand, local players such as Meraque have announced plans to skill the Malaysian youth to join the burgeoning drone industry. Here, the country's varied terrain and diverse geography are also conducive to drone deployment.

So it is no surprise that Malaysian drone startups such as Aerodyne have been able to expand their presence into regions such as Thailand successfully. In addition, mainstream companies such as poultry producer CAB Cakaran are now diversifying into drone services to expand their revenue stream.

Investors are taking notice as well. In September 2021, Malaysian drone startup Poladrone raised the country's largest-ever seed capital of \$4.3 million in a funding round led by Wavemaker Partners.

For commuters too, research and development on drone-based taxis are underway. Among ASEAN countries, Indonesia has begun testing its taxi drones. These will be unmanned aerial vehicles that can fly up to 35 kilometers.

Since drone usage is getting mainstream in ASEAN, there are opportunities for both the public and private sector players to grow.

Within the region, while regulatory curbs exist defining the dos and don'ts of drone operators, large startups such as Aerodyne and Fling have made waves globally. In fact, Fling CEO Michael Currie had in 2019 envisaged a future where food deliveries in SE Asia will be made through drones.

Four years later, several experimental deliveries in Vietnam, Singapore, Indonesia, Thailand, and the Philippines have been made. However, regulatory restrictions have meant that it hasn't been adopted on a large scale.

In the near future, experts have noted that drones and autonomous machines will pave the way for more efficient construction and enable better management of energy resources. Enabling regulations will help attract new investments into the drone sector.

ABOUT US



ASEAN Business Partners is an independent, market entry and market growth specialists that helps internationally oriented companies manage and grow their operations in ASEAN sustainably and profitably. We are well-networked, independent of governments, and dedicated purely to serving our clients. Our management and country experts are unrivaled in their ASEAN network, experience, and expertise, with proven credentials.

We are a team of top-class professionals with expertise in different industries. Our executives have worked as CEOs, CFOs and in other senior positions in top multi-national companies and represent the best talent available globally. Our founder, Sumit Dutta, is an ex-HSBC CEO who has worked in Indonesia, Vietnam, Hong Kong, India, and the US. A majority of our team and country experts are former senior-level executives from multinational corporations.

We are passionate about the ASEAN region, one of the highest growth markets in the world, and believe it will be the market of choice for all forward-looking international companies. We seek to create value for our clients and their customers in ASEAN, and so contribute to the prosperity of ASEAN nations and their people.

Please take a moment to review our website. If there is any way we can assist you, please reach out to us.

Newsletter Editors: Sarayu Srinivasan, Vibhusha Sharma



Sumit Dutta

Founder and Chief Executive Officer



Raj Ghosh

Head of Client Relations for USA and Canada



Tony Turner

Head of Client Relations for UK and EU



Kavita Panda

Head of Partnerships and Country Manager India

 contact@bizasean.com

 www.bizasean.com

 [@Aseanbusinesspartners](https://www.linkedin.com/company/aseanbusinesspartners)

 (+65) 9176-4136

DISCLAIMER

The report is prepared using information of a general nature and is not intended to address the circumstances of any particular individual or entity. The report has been prepared from various public sources and the information received from these sources is believed to be reliable. The information available in the report is selective and subject to updation, revision and amendment. While the information provided therein is believed to be accurate and reliable, ASEAN Business Partners does not make any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and data available in the public domain. While due care has been taken while preparing the newsletter, ASEAN Business Partners does not accept any liability whatsoever, for any direct or consequential loss.