

Online conference within the international online business mission to Asia, Africa and the Middle East in the field of information security and software for business

► Fanky Christian



APTIKNAS
Asosiasi Pengusaha **TIK** Nasional
Indonesian **ICT** Business Association



FANKY CHRISTIAN

Director PT DAYA CIPTA MANDIRI SOLUSI

Director PT KOTA CERDAS INDONESIA

APTIKNAS (Indonesia ICT Business Association) Jakarta Regional Chairman

ASISINDO (Indonesia System Integrator and Security Association) Vice Chairman

ACCI (Indonesia Cloud Computing Association) Secretary General

IAIS (Indonesia Artificial Intelligence Society) Industry Relation - Vice Director



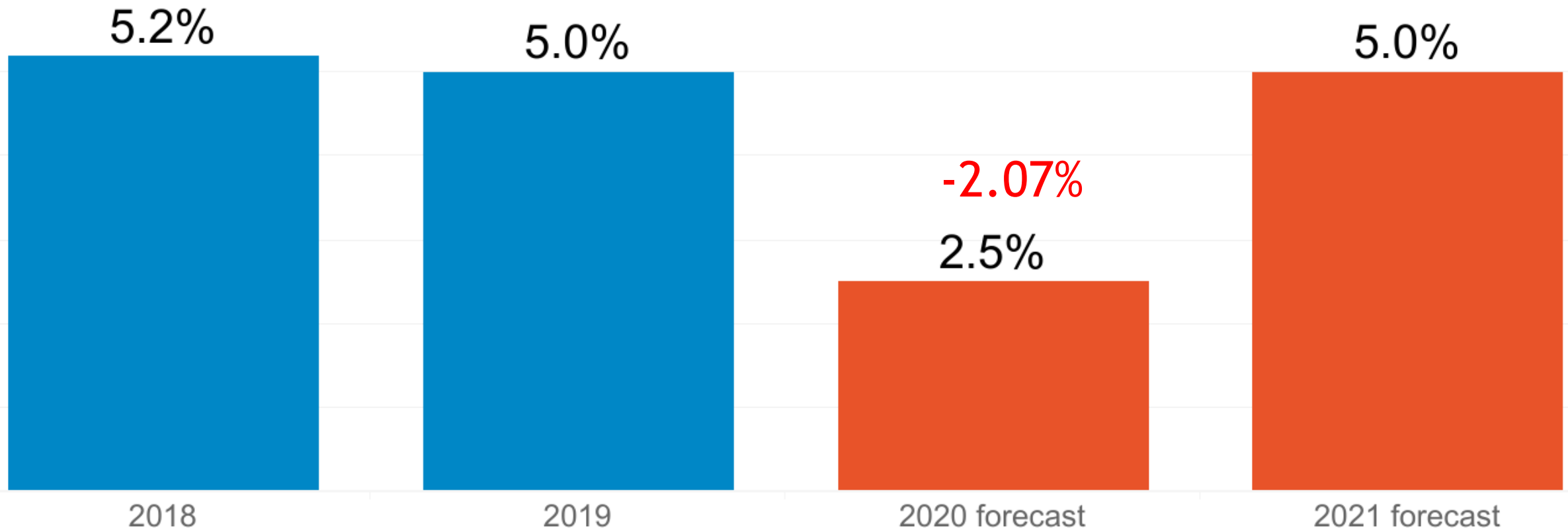
APTIKNAS (Indonesia ICT Business Association)

APTIKNAS (Asosiasi Pengusaha Teknologi Informasi dan Komunikasi Nasional) Indonesian ICT Businessman Association, which has 29 Regional Advisory Council, with a distribution network of 2000 stores throughout Indonesia. APTIKNAS is the transformation of APKOMINDO (the former) and now become as new broadened and wider organisation. APKOMINDO is 28 years old organization with extensive experiences in the field of ICT and very much well known in Indonesia while APTIKNAS has just been declared in Jakarta on February 24th 2017. We optimistic this organization will become much bigger, stronger and able to contribute to economic growth in Indonesia, especially with the trend of smart city, IoT and digital economy. Our members profile from Principal, distributor, dealer, system integrator, software developer, and ICT consultants. We have 3 main focuses in 2021 : (1) Smart City and Industry 4.0 , (2) Marketplace and (3) Digital Talents. See the detail in www.aptiknas.id

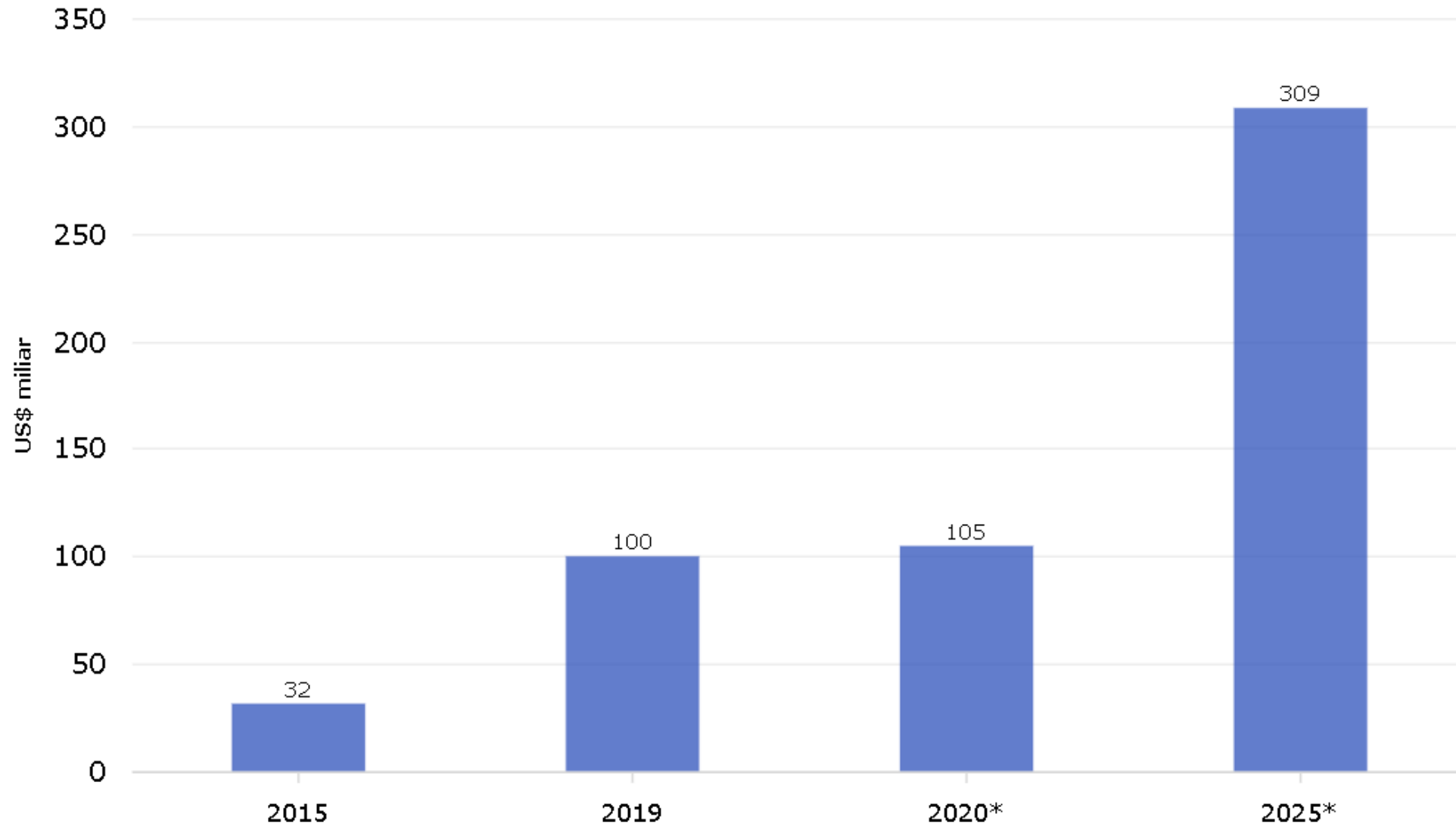


Indonesia

GDP growth forecasts



Internet Economy ASEAN

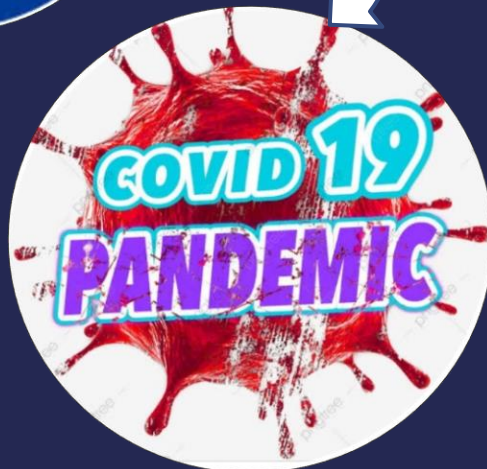


DIGITAL TRANSFORMATION is the key

Technologies
Usages




Revolusi
Industri 4.0



JAN
2021

INDONESIA

ESSENTIAL HEADLINES FOR MOBILE, INTERNET, AND SOCIAL MEDIA USE

 CHANGES TO DATA SOURCES FOR INTERNET USERS AND SOCIAL MEDIA USERS MEAN THAT VALUES ARE **NOT COMPARABLE** WITH PREVIOUS REPORTS



INDONESIA

TOTAL
POPULATION



274.9
MILLION

URBANISATION:
57.0%

MOBILE
CONNECTIONS



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345.3
MILLION

vs. POPULATION:
125.6%

INTERNET
USERS



202.6
MILLION

vs. POPULATION:
73.7%

ACTIVE SOCIAL
MEDIA USERS



170.0
MILLION

vs. POPULATION:
61.8%

SOURCES: THE U.N.; LOCAL GOVERNMENT BODIES; GSMA INTELLIGENCE; ITU; GWI; EUROSTAT; CNNIC; APJIL; OCDH; SOCIAL MEDIA PLATFORMS' SELF-SERVICE ADVERTISING TOOLS; COMPANY EARNINGS REPORTS; MEDIASCOPE; CAFEBAZAAR. **COMPARABILITY ADVISORY:** SOURCE CHANGES. INTERNET USER NUMBERS NO LONGER INCLUDE DATA SOURCED FROM SOCIAL MEDIA PLATFORMS, SO DATA ARE **NOT COMPARABLE** WITH PREVIOUS REPORTS. SOCIAL MEDIA USER NUMBERS MAY NOT REPRESENT UNIQUE INDIVIDUALS, SO **MAY EXCEED INTERNET USER NUMBERS**.

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DEVICE OWNERSHIP

PERCENTAGE OF INTERNET USERS AGED 16 TO 64 THAT OWNS EACH KIND OF DEVICE



MOBILE PHONE
(ANY TYPE)



98.3%



SMART
PHONE



98.2%

GWI.

NON-SMARTPHONE
MOBILE PHONE



16.0%



LAPTOP OR DESKTOP
COMPUTER



74.7%

GWI.

TABLET
DEVICE



18.5%

TV STREAMING
STICK OR DEVICE



6.0%

GWI.

GAMES
CONSOLE



16.2%

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SMART HOME
DEVICE



5.7%

GWI.

SMART WATCH
OR WRISTBAND



13.3%



VIRTUAL
REALITY DEVICE



4.2%

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DAILY TIME SPENT ON MEDIA

THE AVERAGE DAILY TIME* THAT INTERNET USERS AGED 16 TO 64 SPEND ON DIFFERENT KINDS OF MEDIA AND DEVICES



TIME SPENT USING THE
INTERNET (ALL DEVICES)



8H 52M

TIME SPENT WATCHING TELEVISION
(BROADCAST AND STREAMING)



2H 50M

TIME SPENT USING
SOCIAL MEDIA



3H 14M

TIME SPENT READING PRESS MEDIA
(ONLINE AND PHYSICAL PRINT)



1H 38M

TIME SPENT LISTENING TO
MUSIC STREAMING SERVICES



1H 30M

TIME SPENT LISTENING
TO BROADCAST RADIO



0H 33M

TIME SPENT LISTENING
TO PODCASTS



0H 44M

TIME SPENT PLAYING VIDEO
GAMES ON A GAMES CONSOLE



1H 16M

SOURCE: GWI (Q3 2020). FIGURES REPRESENT THE FINDINGS OF A BROAD GLOBAL SURVEY OF INTERNET USERS AGED 16 TO 64. SEE [GLOBALWEBINDEX.COM](https://www.globalwebindex.com) FOR MORE DETAILS.

*NOTES: CONSUMPTION OF DIFFERENT MEDIA MAY OCCUR CONCURRENTLY. TELEVISION INCLUDES BROADCAST (LINEAR) TELEVISION AND CONTENT DELIVERED VIA STREAMING AND VIDEO-ON-DEMAND SERVICES. PRESS INCLUDES ONLINE AS WELL AS PHYSICAL PRINT MEDIA. BROADCAST RADIO DOES NOT INCLUDE INTERNET RADIO.

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MOBILE ACTIONS

PERCENTAGE OF INTERNET USERS AGED 16 TO 64 THAT PERFORMS EACH ACTION USING THEIR MOBILE PHONE EACH MONTH



MAKE VIDEO CALLS
OR USE SERVICES
LIKE FACETIME



56.5%

WATCH CONTENT
ON A TV BY CASTING IT
FROM A MOBILE PHONE*



28.2%

USE OR
SCAN
QR CODES



42.0%

USE A MOBILE PAYMENT
SERVICE (E.G. APPLE
PAY, SAMSUNG PAY)



29.2%

USE A MOBILE
PHONE AS A TICKET
OR BOARDING PASS



18.3%

SOURCE: GWI (Q3 2020). FIGURES REPRESENT THE FINDINGS OF A BROAD SURVEY OF INTERNET USERS AGED 16 TO 64. SEE [GLOBALWEBINDEX.COM](https://www.globalwebindex.com) FOR MORE DETAILS.
*NOTE: "CASTING" INCLUDES SCREEN MIRRORING.

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FINANCIAL INCLUSION FACTORS

PERCENTAGE OF THE POPULATION AGED 15+ THAT REPORTS OWNING OR USING EACH FINANCIAL PRODUCT OR SERVICE



INDONESIA

HAS AN ACCOUNT WITH
A FINANCIAL INSTITUTION



48.9%



HAS A
CREDIT CARD



2.4%



HAS A MOBILE
MONEY ACCOUNT*



3.1%



MAKES ONLINE PURCHASES
AND / OR PAYS BILLS ONLINE



11.2%

PERCENTAGE OF WOMEN
WITH A CREDIT CARD



1.9%



PERCENTAGE OF MEN
WITH A CREDIT CARD



3.1%



PERCENTAGE OF WOMEN
MAKING ONLINE TRANSACTIONS



12.9%



PERCENTAGE OF MEN
MAKING ONLINE TRANSACTIONS



9.4%

SOURCE: WORLD BANK GLOBAL FINANCIAL INCLUSION DATA (LATEST DATA AVAILABLE IN JAN 2021). ***NOTES:** PERCENTAGES ARE OF ADULTS AGED 15 AND ABOVE, NOT OF TOTAL POPULATION. MOBILE MONEY ACCOUNTS ONLY REFER TO SERVICES THAT STORE FUNDS IN AN ELECTRONIC WALLET LINKED DIRECTLY TO A PHONE NUMBER, SUCH AS MPESA, GCASH, AND TIGO PESA. FIGURES FOR MOBILE MONEY ACCOUNTS DO **NOT** INCLUDE PEOPLE WHO USE 'OVER-THE-TOP' MOBILE PAYMENT SERVICES SUCH AS APPLE PAY, GOOGLE PAY, OR SAMSUNG PAY.

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ECOMMERCE ACTIVITY OVERVIEW

PERCENTAGE OF INTERNET USERS AGED 16 TO 64 THAT HAS PERFORMED EACH ACTIVITY IN THE PAST MONTH



SEARCHED ONLINE FOR
A PRODUCT OR SERVICE
TO BUY (ANY DEVICE)



GWI.

93.0%

VISITED AN ONLINE
RETAIL SITE OR STORE
(ANY DEVICE)



87.3%

USED A SHOPPING
APP ON A MOBILE
PHONE OR ON A TABLET



GWI.

78.2%

PURCHASED A
PRODUCT ONLINE
(ANY DEVICE)



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87.1%

PURCHASED A
PRODUCT ONLINE
VIA A MOBILE PHONE



79.1%

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OVERVIEW: DIGITAL PAYMENTS

SIZE AND GROWTH OF THE DIGITAL PAYMENTS MARKET (IN U.S. DOLLARS)



INDONESIA

NUMBER OF PEOPLE
MAKING DIGITALLY ENABLED
PAYMENT TRANSACTIONS*



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129.9
MILLION

TOTAL ANNUAL VALUE
OF DIGITALLY ENABLED
CONSUMER PAYMENTS



statista

\$35.72
BILLION

ANNUAL CHANGE IN THE
VALUE OF DIGITALLY ENABLED
CONSUMER PAYMENTS



+27.6%

DIGITAL PAYMENTS:
AVERAGE VALUE OF ANNUAL
TRANSACTIONS PER USER



\$275

SOURCE: STATISTA DIGITAL MARKET OUTLOOK FOR FINTECH (JAN 2021). FIGURES USE FULL-YEAR VALUES FOR 2020, WITH COMPARISONS TO EQUIVALENT 2019 DATA. SEE [STATISTA.COM/OUTLOOK/DIGITAL-MARKETS](https://www.statista.com/outlook/digital-markets) FOR MORE DETAILS. ***NOTE:** IN THIS CONTEXT, "DIGITALLY ENABLED PAYMENTS" INCLUDE PAYMENTS FOR PRODUCTS AND SERVICES MADE OVER THE INTERNET, AND MOBILE PAYMENTS AT POINT-OF-SALE (POS) VIA SMARTPHONE APPS. **COMPARABILITY ADVISORY:** BASE CHANGES. DATA NOT COMPARABLE WITH PREVIOUS REPORTS.

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NUMBER OF CYBER ATTACKS - INDONESIA

2018

232.447.974

2019

290.381.283

2020

495.337.202

Phising | Hacking
Cryptojacking | Ransomware
Malware | etc.



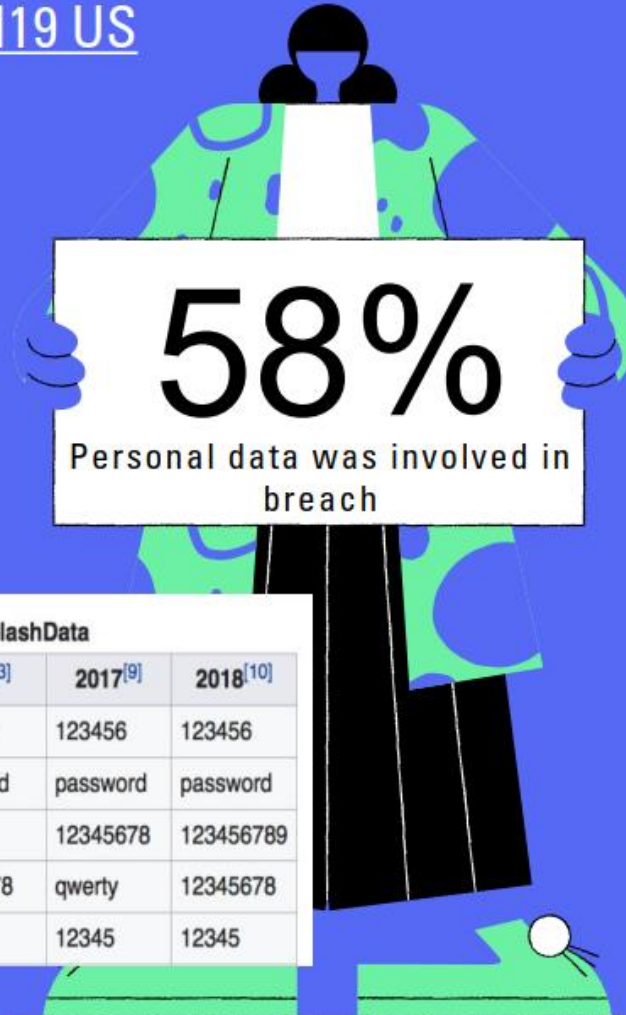
(Economic of cybercrime)

Kasus Scammer Bantuan Covid19 US

20 juta SMS phishing

30.000 respon

875 Milyar kerugian



Top 25 most common passwords by year according to SplashData

| Rank | 2011 ^[4] | 2012 ^[5] | 2013 ^[6] | 2014 ^[7] | 2015 ^[8] | 2016 ^[3] | 2017 ^[9] | 2018 ^[10] |
|------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| 1 | password | password | 123456 | 123456 | 123456 | 123456 | 123456 | 123456 |
| 2 | 123456 | 123456 | password | password | password | password | password | password |
| 3 | 12345678 | 12345678 | 12345678 | 12345 | 12345678 | 12345 | 12345678 | 123456789 |
| 4 | qwerty | abc123 | qwerty | 12345678 | qwerty | 12345678 | qwerty | 12345678 |
| 5 | abc123 | qwerty | abc123 | qwerty | 12345 | football | 12345 | 12345 |

TELEMARKETING

Iklan – sms produk, ads call, ads email, ads platform

PENIPUAN

Pinjaman online, belanja online,

PEMERASAN

Sextortion, health abuse, doxing

PROFILING

Pemilihan umum, credentials exposure

PERETASAN

Pembobolan rekening

Data Breach in Indonesia

01

Tokopedia

91 juta data user (beberapa masih menggunakan md5)

02

Kementrian Kesehatan

230 ribu data rapid test

03

KreditPlus

Platform peer to peer dengan tingkat data yang sangat sensitive

04

Bhinneka

Kebocoran 1,2 juta Data Pengguna

INDONESIA IN GLOBAL CYBERSECURITY INDEX

2016

- 70 -
(164)
0.424

2018

- 41 -
(175)
0.776

2020

- 24 -
(194)
94.88

Legal | Capacity Development
Technical | Cooperation
Organizational





BADAN SIBER DAN
SANDI NEGARA RI

CYBERATTACKS IN INDONESIA

JANUARI - JULI 2021



741.441.648

ANOMALI TRAFIK/SERANGAN SIBER
DI TAHUN 2021 (Januari – Juli)

Kategori Anomali Terbanyak:

1. Malware
2. Denial of Service (Mengganggu ketersediaan layanan)
3. Trojan Activity (Aktivitas Trojan)

Tren Serangan Siber:

1. Serangan Ransomware (Malware yang meminta tebusan)
2. Insiden Data Leaks (kebocoran data)

Sebaran sektor yang terkait dengan kebocoran data akibat malware pencuri informasi:



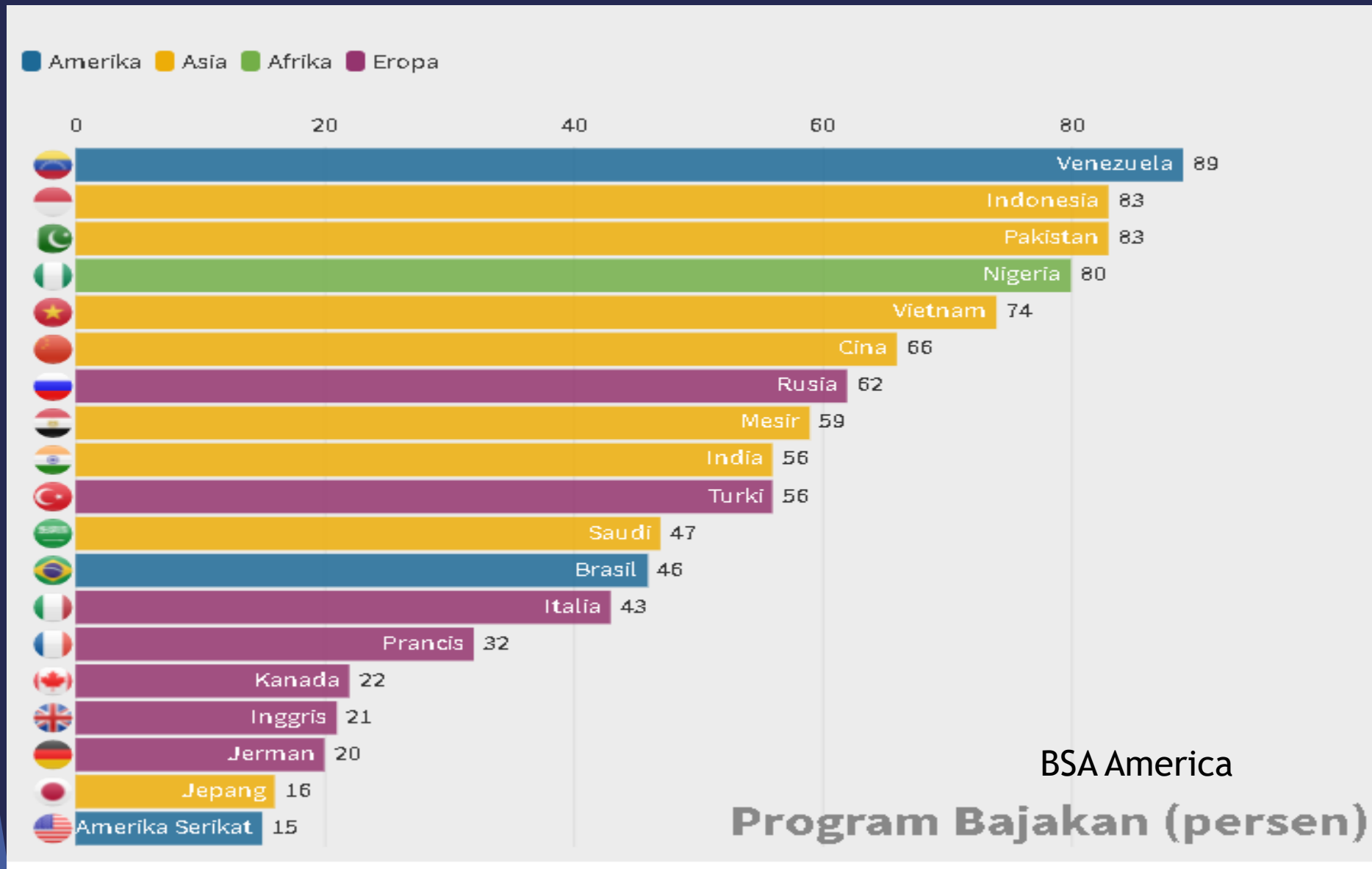
Indonesia is the largest and fastest growing Internet economy in the region at \$40B @ 49% CAGR

SEA Internet economy (GMV, \$B)

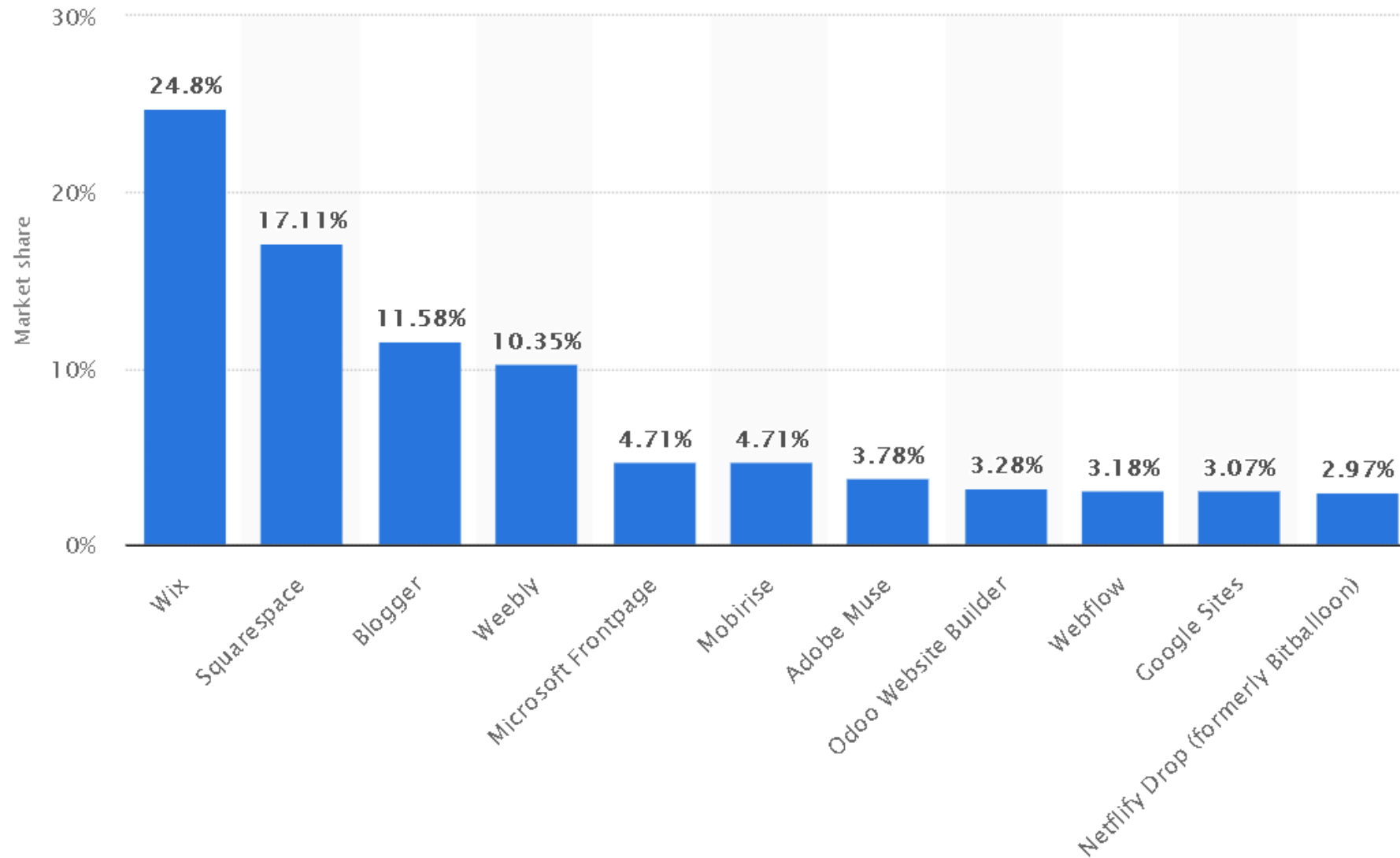


GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

INDONESIA, 83% software is pirated

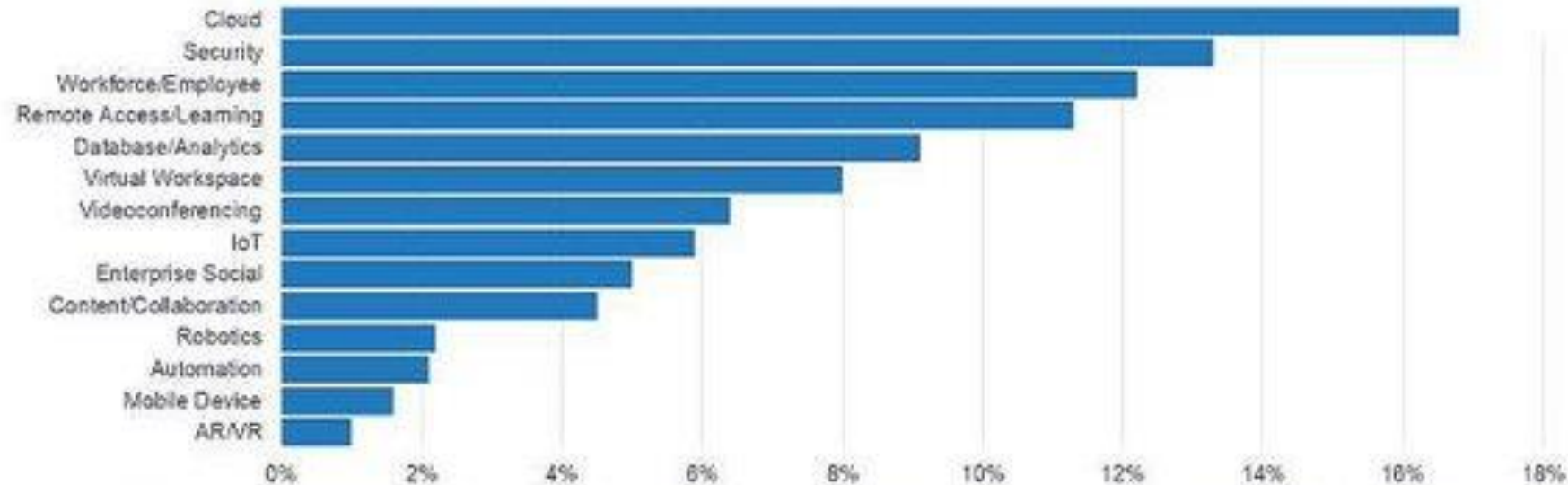


Market share of website builder technologies in Indonesia as of December 2020



Cloud is priority

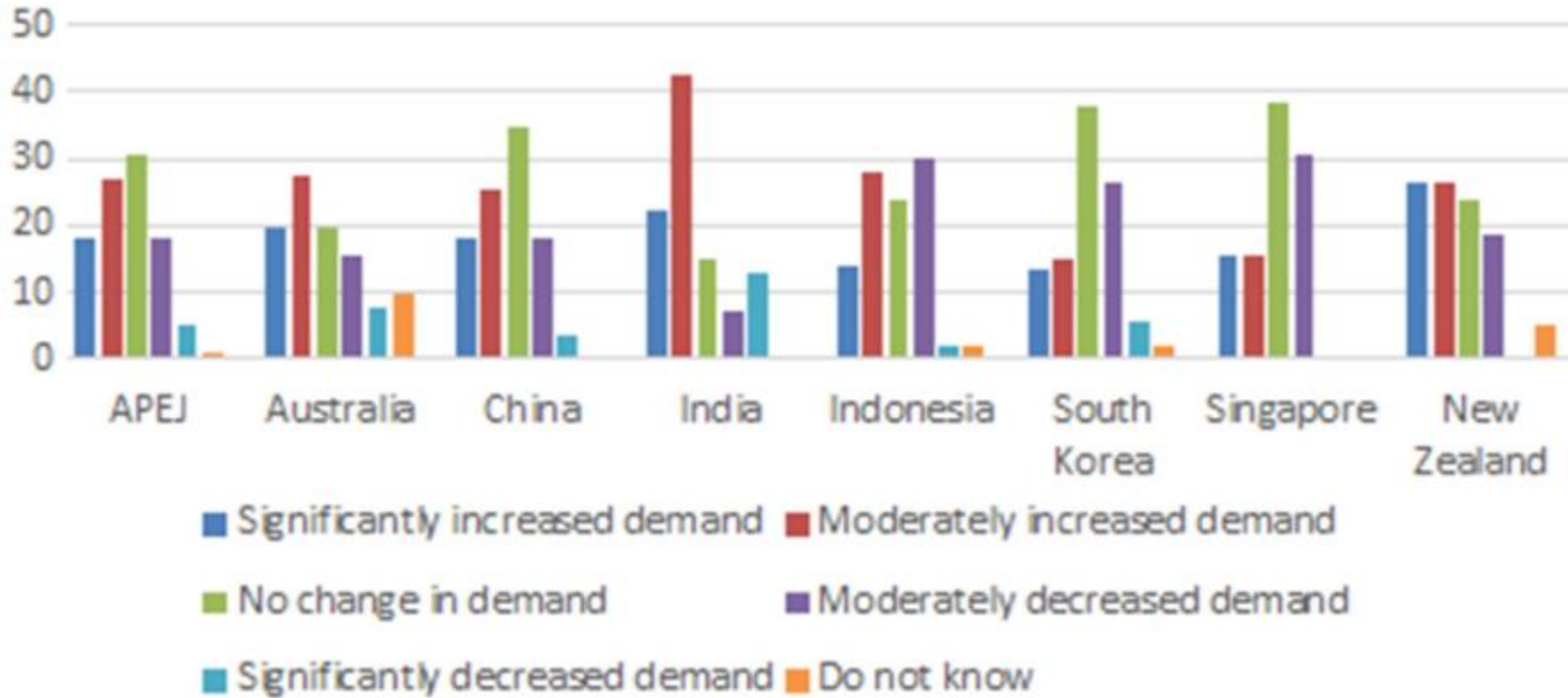
ICT Crisis Response: Cloud tops priority list



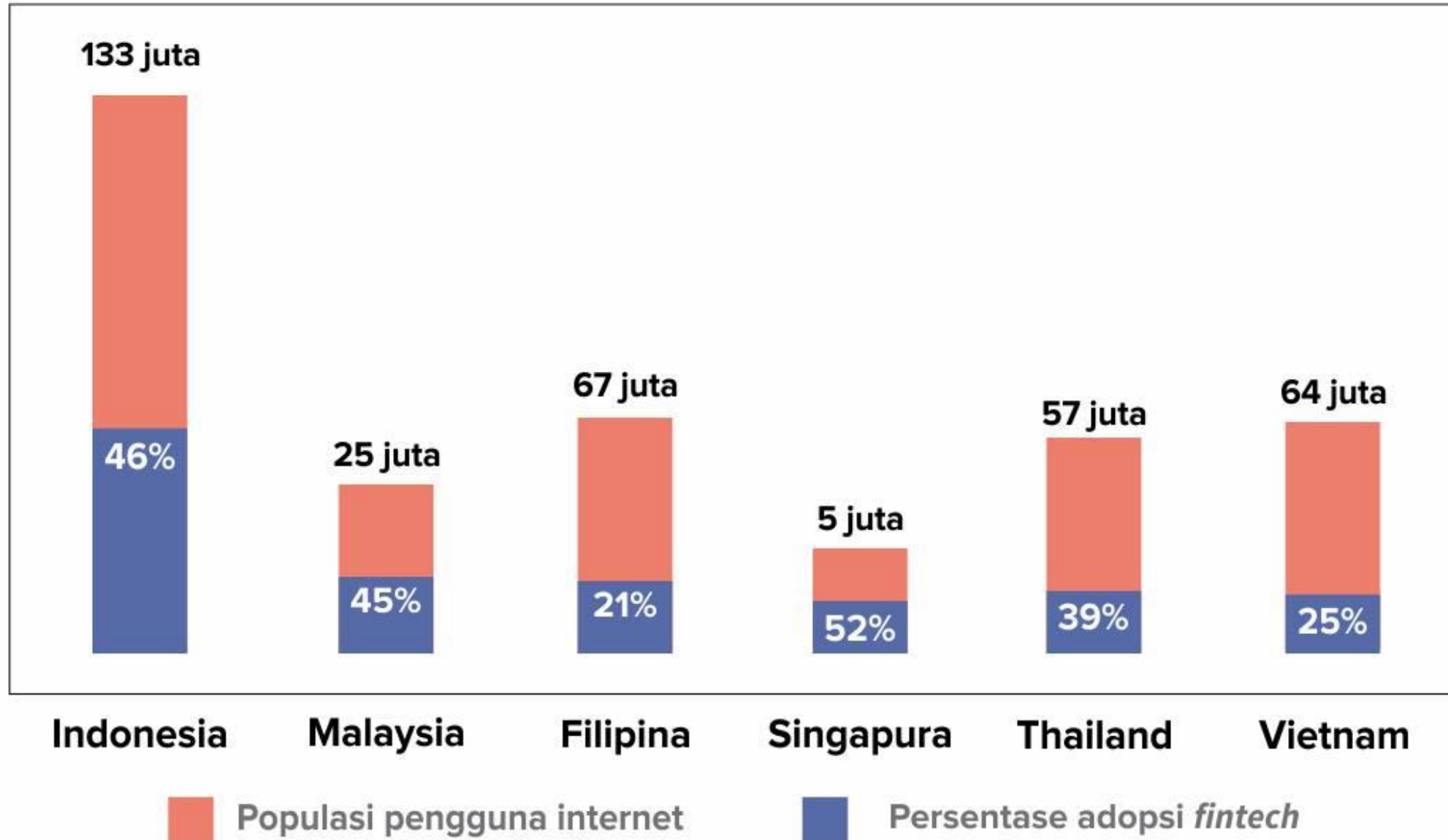
- Cloud and security are key areas for sustained crisis response spending in ASEAN. Business will increasingly move towards hybrid/multi-cloud to cater for their business objective while ensuring security for data, applications and users.
- As workforce could remain distributed for a prolonged period, there are efforts to introduce workforce management tools to support business operations. This includes tools like digital whiteboard, workforce management to manage distributed resources
- Remote access/learning are also key areas for increased investment as business, learning institution such as schools, universities increases mass distance learning

Cloud based Software

Change in Demand for Cloud Software in APEJ



Internet Users vs Fintech Adoption



10 Trends to Watch in Financial

10

**TRENDS
WE ARE WATCHING
IN INDONESIA**

Fintech Integration

Tighter partnerships between fintechs and banks

Mobile Transactions Explosion

Sheer growth of digital transactions – 75% in 2020/2021 but might be even higher in 2021

Mobile Wallets

ASEAN's largest mobile wallet market, but competition from the biggest wallet players

Customer Centricity

The biggest category of IT Spending – as usual – as banks continue to hyper-personalize customer propositions

Lending!

P2P lending and digital lending fintechs see a market growing at CAGR of 55% (2018-2024), Authorities set to provide prescriptive guidance for Lending Excellence

Indonesia-Style Digital Banks

Traditional banks redesigning themselves as digital banks, even rural banks fashioning themselves to be digital banks

Some acquisitions

Indonesia was most M&A-heavy in the region, but ticket sizes are still small

Simplified Core

Large banks continue to simplify core systems, modernizing around the core

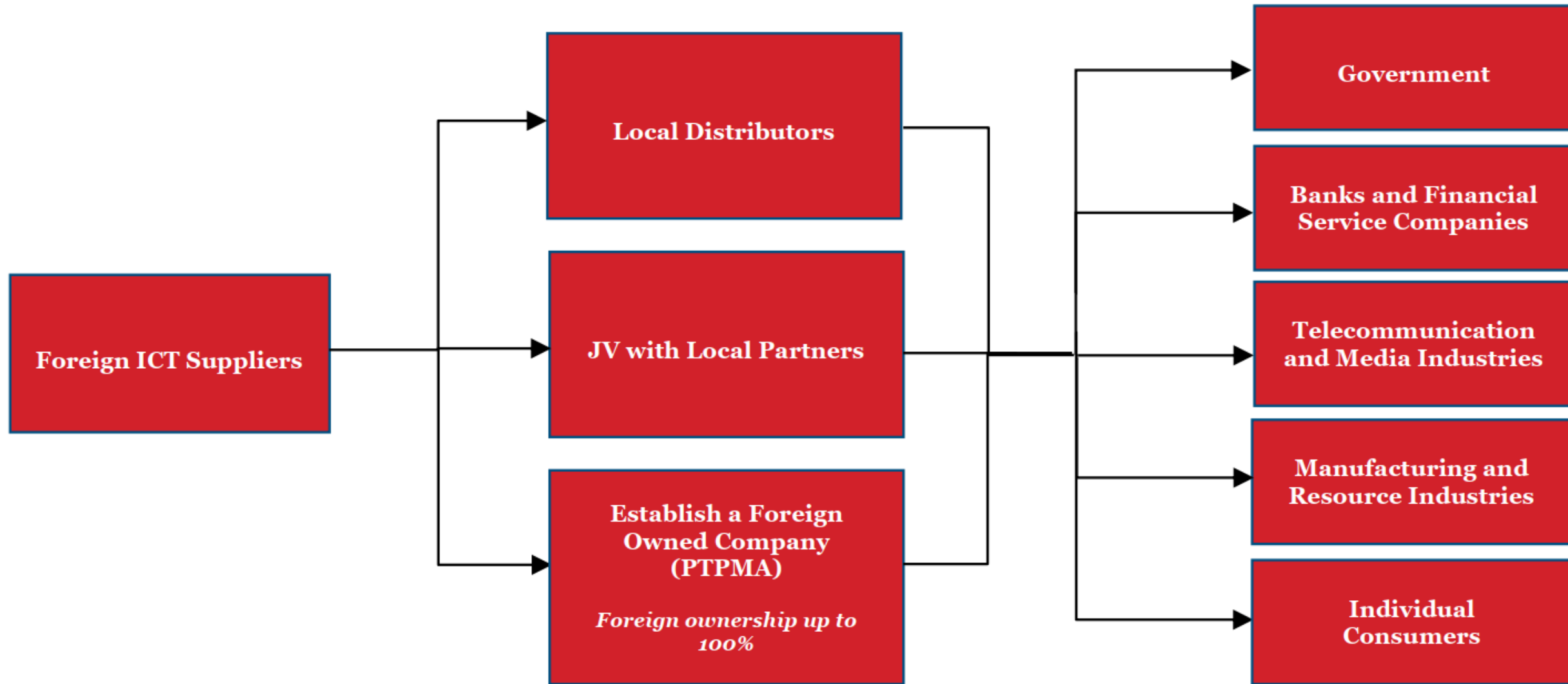
IT Spending remains flat

Low growth in IT spending as organizations focus on iterative transformation

Cloud!

Major cloud services providers have focused on Indonesia, despite challenges to broader cloud adoption in the market

Distributor Channel ICT



THANK YOU / TERIMA KASIH

Fanky Christian - fanky@dayaciptamandiri.com
62-8121057533