



THE ROLE OF TECHNOLOGY IN SHIFTING THE INSTITUTIONAL STRUCTURE OF MARKETS

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INDONESIA

THE NEXT
BIG THING
IN DIGITAL MEDIA

HERE'S
WHY!

2ND LARGEST ON



35,482,400
USERS,

MORE THAN
THE POPULATION
OF **CANADA**



4TH LARGEST ON



4,883,228
USERS,

EQUIVALENT TO THE
POPULATION OF
SINGAPORE



INTERNET
CAFES



SMART
PHONES



HOME



HOW INDONESIANS ACCESS
THE INTERNET

- 1 MOBILE IS **BIGGER** THAN EVER
- 2 AND MOBILE MARKETING IS **GROWING**

3 MORE DOLLARS FOR **E-COMMERCE**

4 ON THE RISE:
TECH START-UPS

5 FROM BROADCASTING
TO **CONNECTING**

TOP 5
TRENDS

INDONESIA DIGITAL PROFILE



88.1 million internet user
(34% population)



2 hours 52 minutes/day,
average of social media
usage



63.4 million smartphone user
(24,7% population)



74 million social media user
(29% population)



308.2 million mobile phone
user (121% population)



69 million facebook user



3 hrs/day, average of
internet access via mobile
device



50 million twitter user



3 million fixed broadband
user (1,5% population)

Member States vary in their technology “readiness” and “usage”

Selected indicators from the Networked Readiness Index 2016¹

Ranking ■ 1–10 ■ 11–25 ■ 26–50 ■ 51+

Overall rank	Country	Readiness ²		Usage ³			
		Infra-structure	Affordability	Skills	Individual	Business ⁵	Government
1	Singapore	15	72	1	12	14	1
31	Malaysia	71	91	46	47	26	6
45	Brunei Darussalam ⁴	37	129	30	50	56	30
62	Thailand	67	64	73	64	51	69
73	Indonesia	105	38	65	92	34	65
77	Philippines	87	107	54	79	36	63
79	Viet Nam	121	3	82	85	81	61
104	Lao PDR	108	82	106	124	89	110
109	Cambodia	98	43	120	101	104	116
133	Myanmar	115	122	113	131	138	137

1 The Networked Readiness Index includes four sub-indices: Environment, Readiness, Usage, and Impact.

2 The Readiness sub-index measures the degree to which a society is prepared to make good use of an affordable ICT infrastructure and digital content.

3 The Usage sub-index assesses the individual efforts of the main social agents to increase their capacity to use ICT as well as their actual use in day-to-day activities.

4 Data as of 2014; Brunei Darussalam did not participate in 2015 and 2016 survey.

5 Includes 1) Firm-level technology absorption; 2) Capacity for innovation; 3) PCT patent applications per million population; 4) Business-to-business internet use; 5) Business-to-consumer internet use; 6) Extent of staff training. Data is from the World Economic Forum's Executive Opinion Survey (~14,000 executives from over 140 countries).

ASEAN Connectivity 2025

Vision: "To achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of Community."



STRATEGIC OBJECTIVES

INITIATIVES



Sustainable infrastructure

- Increase public and private infrastructure investment in each ASEAN Member State, as needed
- Significantly enhance the evaluation and sharing of best practices on infrastructure productivity in ASEAN
- Increase the deployment of smart urbanisation models across ASEAN

- 1 Establish a rolling priority pipeline list of potential ASEAN infrastructure projects and sources of funds
- 2 Establish an ASEAN platform to measure and improve infrastructure productivity
- 3 Develop sustainable urbanisation strategies in ASEAN cities



Digital innovation

- Support the adoption of technology by micro, small and medium enterprises (MSMEs)
- Support financial access through digital technologies
- Improve open data use in ASEAN Member States
- Support enhanced data management in ASEAN Member States

- 1 Enhance the MSME technology platform
- 2 Develop the ASEAN digital financial inclusion framework
- 3 Establish an ASEAN open data network
- 4 Establish an ASEAN digital data governance framework



Seamless logistics

- Lower supply chain costs in each ASEAN Member State
- Improve speed and reliability of supply chains in each ASEAN Member State

- 1 Strengthen ASEAN competitiveness through enhanced trade routes and logistics
- 2 Enhance supply chain efficiency through addressing key chokepoints



Regulatory excellence

- Harmonise or mutually recognise standards, conformance, and technical regulations for products in key sectors
- Reduce number of trade-distorting non-tariff measures across ASEAN Member States

- 1 Complete harmonisation of standards, mutual recognition, and technical regulations in three prioritised product groupings
- 2 Increase transparency and strengthen evaluation to reduce trade distorting non-tariff measures



People mobility

- Support ease of travel throughout ASEAN
- Reduce the gaps between vocational skills demand and supply across ASEAN
- Increase the number of intra-ASEAN international students

- 1 Enhance ASEAN travel by making finding information easier
- 2 Ease ASEAN travel by facilitating visa processes
- 3 Establish new vocational training programmes and common qualifications across ASEAN Member States, in accordance with national circumstances of each ASEAN Member State
- 4 Support higher education exchange across ASEAN Member States



BRUNEI DARUSSALAM



CAMBODIA



INDONESIA



LAO PDR



MALAYSIA



MYANMAR



PHILIPPINES



SINGAPORE



THAILAND



VIET NAM



Digital innovation

What are the strategic objectives?

- 1 Support the adoption of technology by micro, small and medium enterprises (MSMEs)
- 2 Support financial access through digital technologies
- 3 Improve open data use in ASEAN Member States
- 4 Support enhanced data management in ASEAN Member States



What are the key initiatives?

- 1 Enhance the MSME technology platform
- 2 Develop the ASEAN digital financial inclusion framework
- 3 Establish an ASEAN open data network
- 4 Establish an ASEAN digital data governance framework

Banking and the 4th Industrial Revolution

Complexity ↑



The First Industrial Revolution introduced steam and water powered mechanical manufacturing facilities

1784



The Second Industrial Revolution introduced electrically powered mass production based on labor division

1820



The Third Industrial Revolution introduced a higher utilization of IT and electronics to a further automation of manufacturing

1970



The Fourth Industrial Revolution introduces CPS (Cyber Physical Systems) and the convergence of physical and virtual ecosystems

Today

First time ever that an Industrial Revolution is changing the Banking business model

Time →

FACTS

- **The financial services industry has seen drastic technology led changes over the past few years. Many executives look to their IT departments to improve efficiency and facilitating changing innovation.**
- **Customers have had their expectations set by other industries, they are now demanding better services, seamless experiences regardless of channel, and more value for their money.**
- **Regulators demand more from the industry too and have started to adopt new technologies that will revolutionize their ability to collect and analyze information.**



EXECUTIVES CONCERN

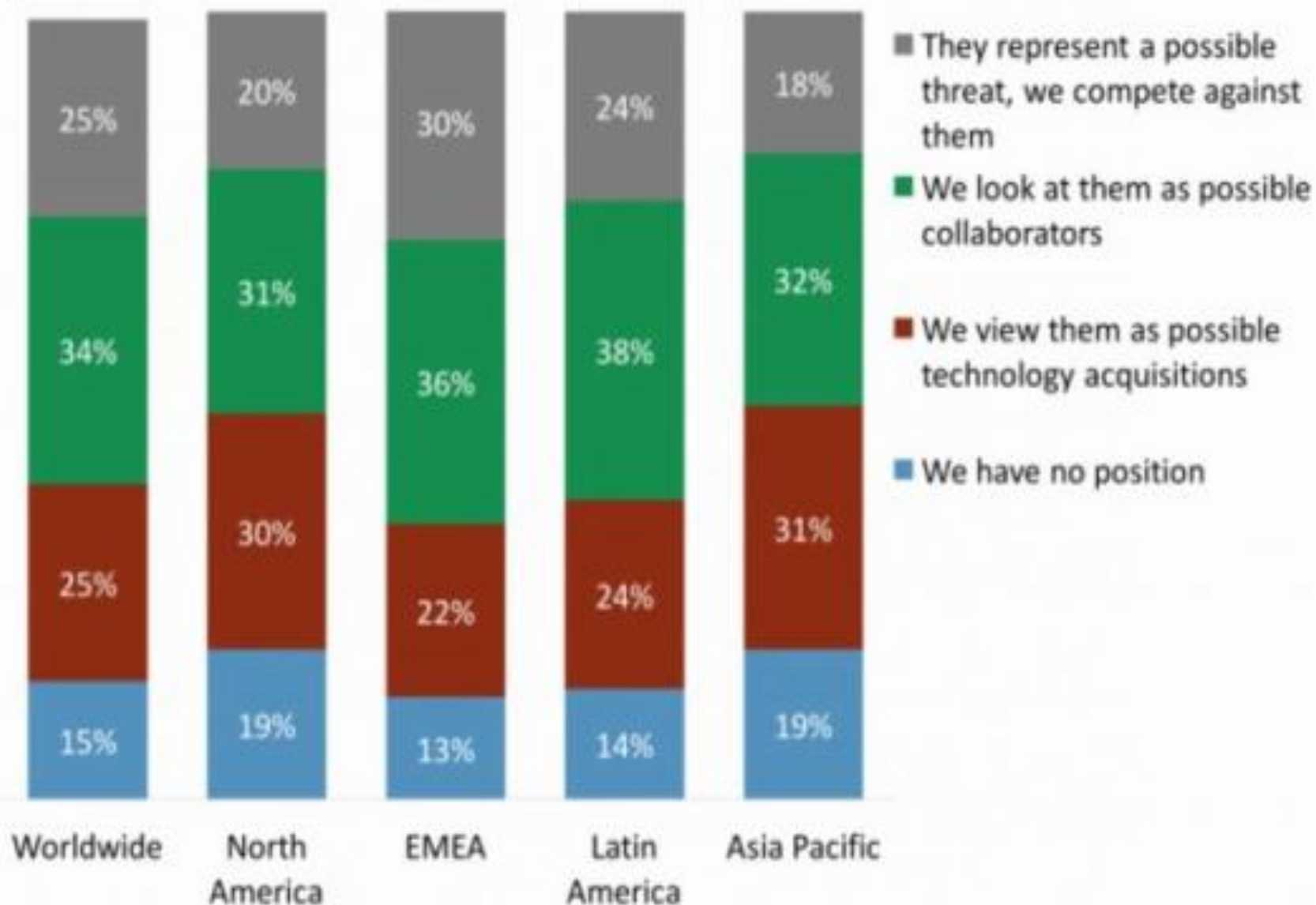


81%

of banking CEOs are concerned about the speed of technological change, more than any other industry sector.¹⁰

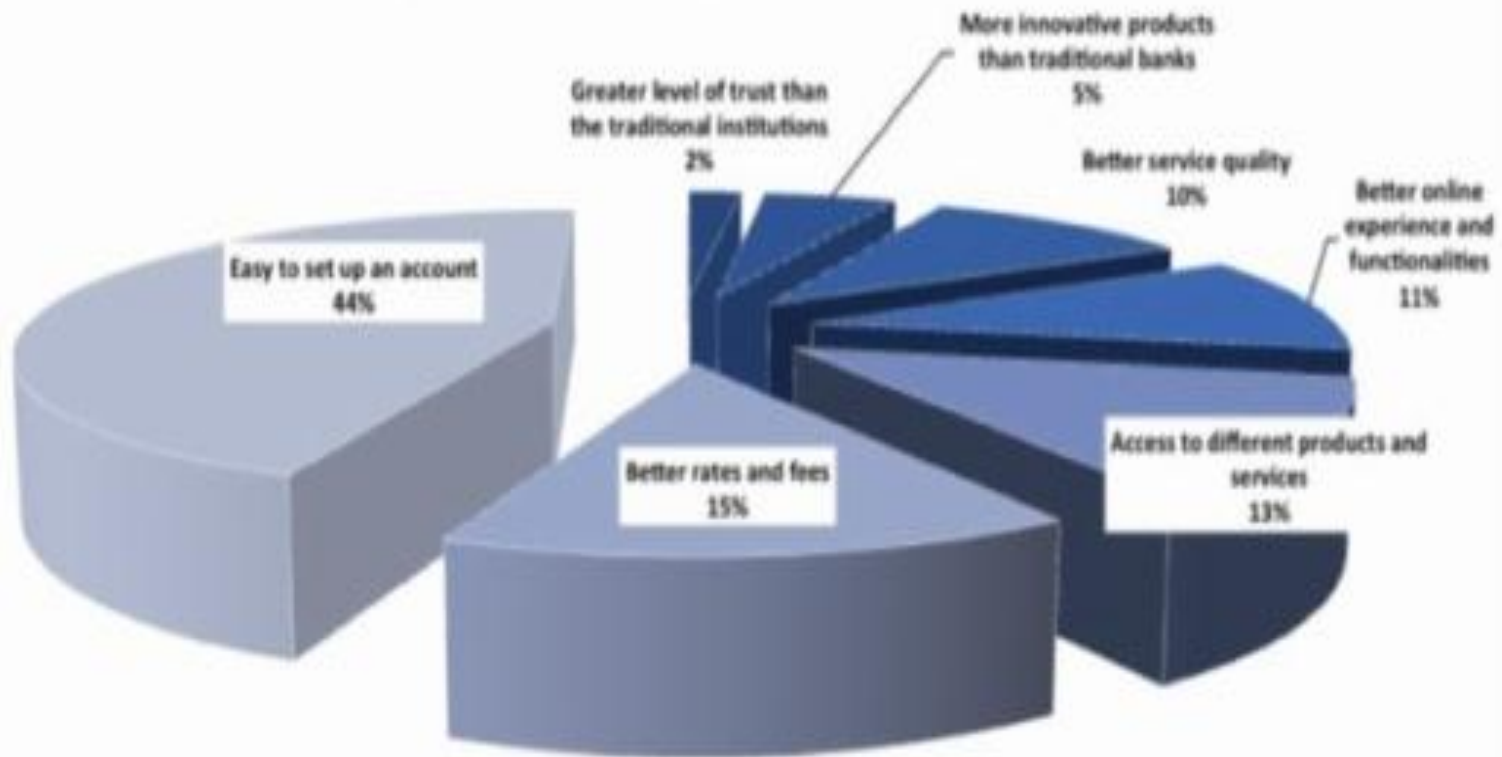
How Global Banks View Fintechs

2016



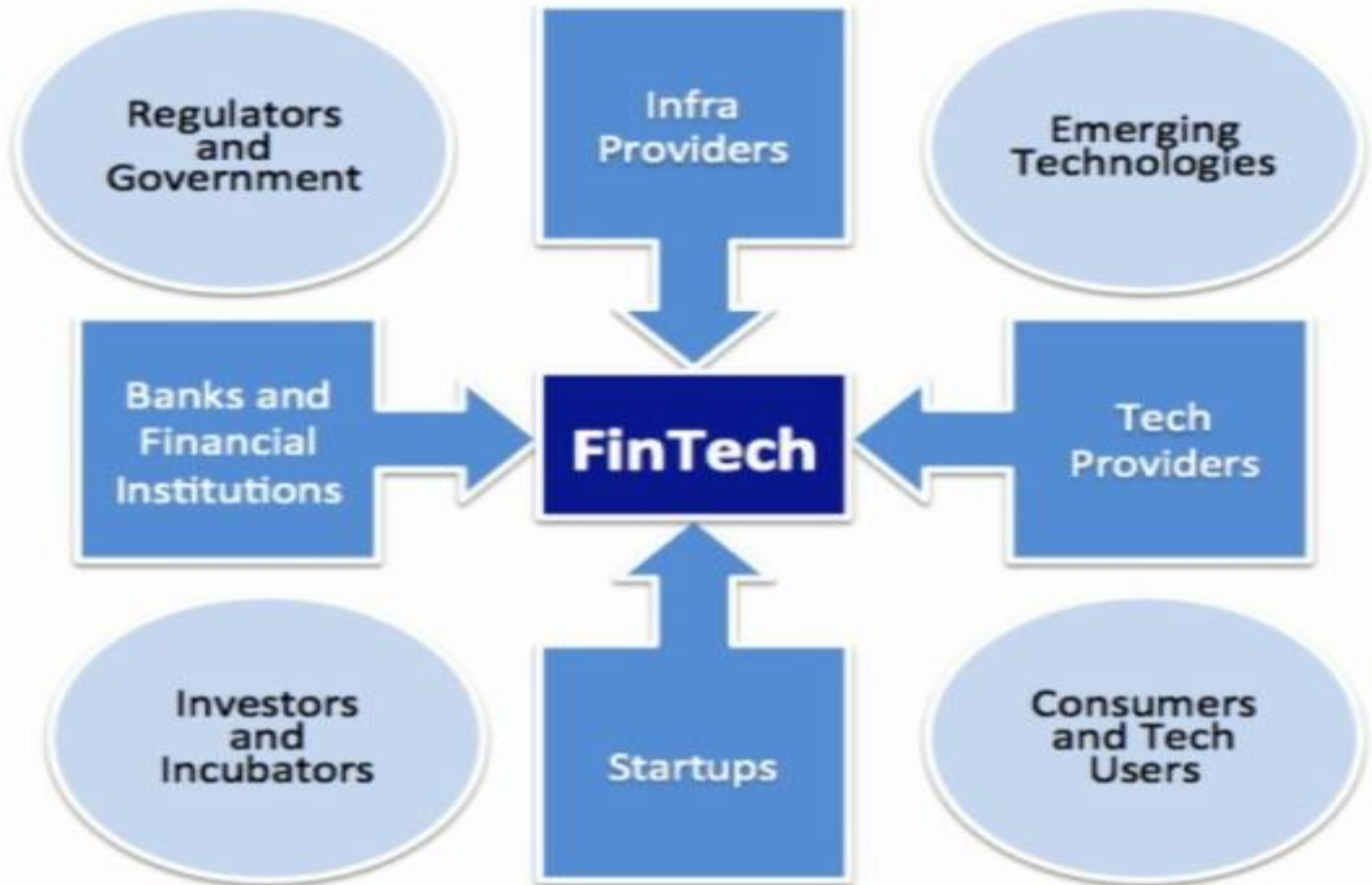
Source: IDC

Why Consumers Adopt FinTech Solutions



(Source: 2016 dealumny.com Survey)

FinTech Ecosystem



CHALLENGES

- **FinTech start ups are encroaching upon established markets, leading with customer friendly solutions developed from the ground up and unencumbered by legacy systems.**
- **Disruptors are fast moving companies focused on a particular innovative technology or process in everything from mobile payment to insurance.**
- **They have been attacking some of the most profitable elements of the financial service value chain.**
- **This has been damaging to the incumbents who have historically subsidized important but less profitable services offerings.**



CLOSING

- **The sharing economy have started with cars, taxi and hotel rooms, and financial services is following.**
- **By 2020, consumers will need banking services , but they may not turn to a bank to get them or at least may be not what we think of as a bank today.**
- **The sharing economy refers to decentralized asset ownership and using information technology to find efficient matches between providers and users of capital rather than turning to a bank as an intermediary.**
- **Financial institution should seriously consider sharing economy opportunities such as partnership with digital intermediaries toward how they might deliver services at much lower costs.**

CHARACTERISTIC INDONESIAN CONSUMERS

- Very **Creative** (is not in making something sophisticated BUT make more Useful)
- Very **Consumptive**, generous spending
- Very **Communal** (like to communicate , heartwarming, smile, doing something together)
- Status** Oriented

CONCERNS

- Availability
- Affordability
- Quality
- Useful





THANK YOU.....