



The Digital Economy and Business Transformation

– Government, Business, Consumer, Financing, Business Model Perspectives



Victor Tay

CEO

Global Catalyst Advisory

Managing Director

Stout Investment Banking

Governing Council

China-ASEAN Business Alliance

Singapore Digital Chamber of Commerce

<https://www.linkedin.com/in/victortay>

victortay@globalcatalystadvisory.com

Analysing Singapore's Business Digitalization Issues

- Government, Technology Financing, Market, Consumer

We will attempt to analyse the issues of Singapore Digitalization process from these perspectives:

1. Government

- policies, incentives, enabling frameworks

2. Market

- acceptance and expectations

3. Consumer

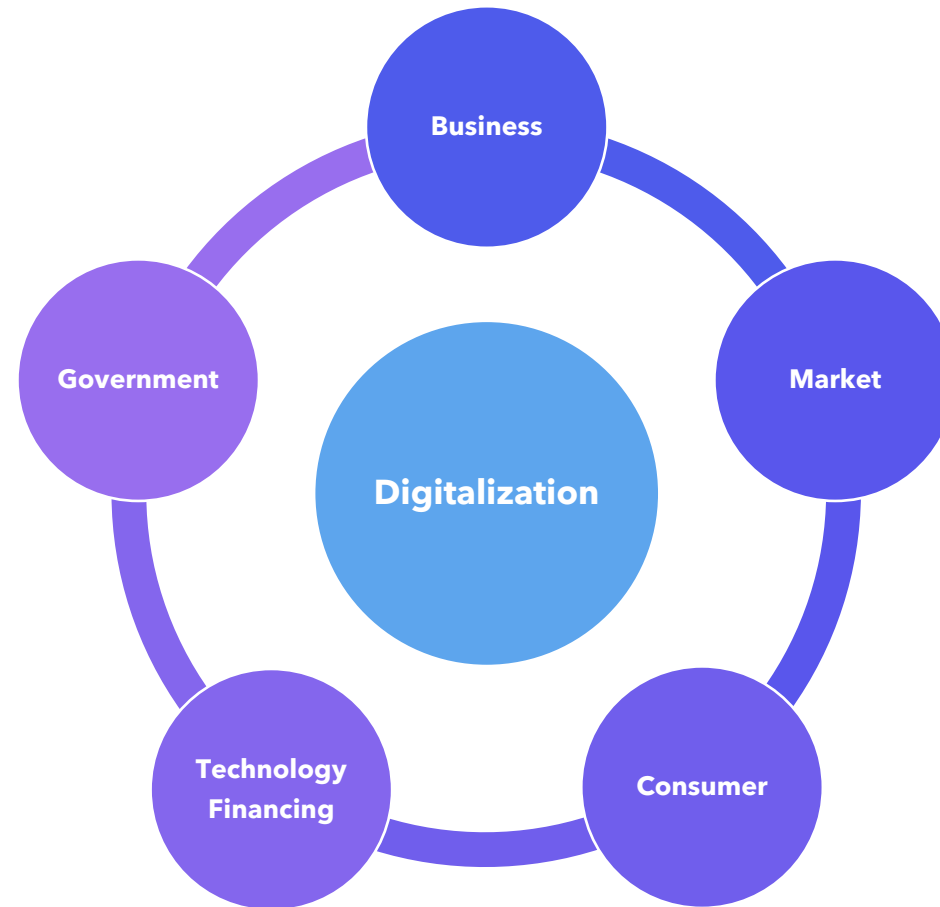
- Technology savviness
- Data privacy
- Acceptance

4. Technology

- Financing and Economics

5. Businesses

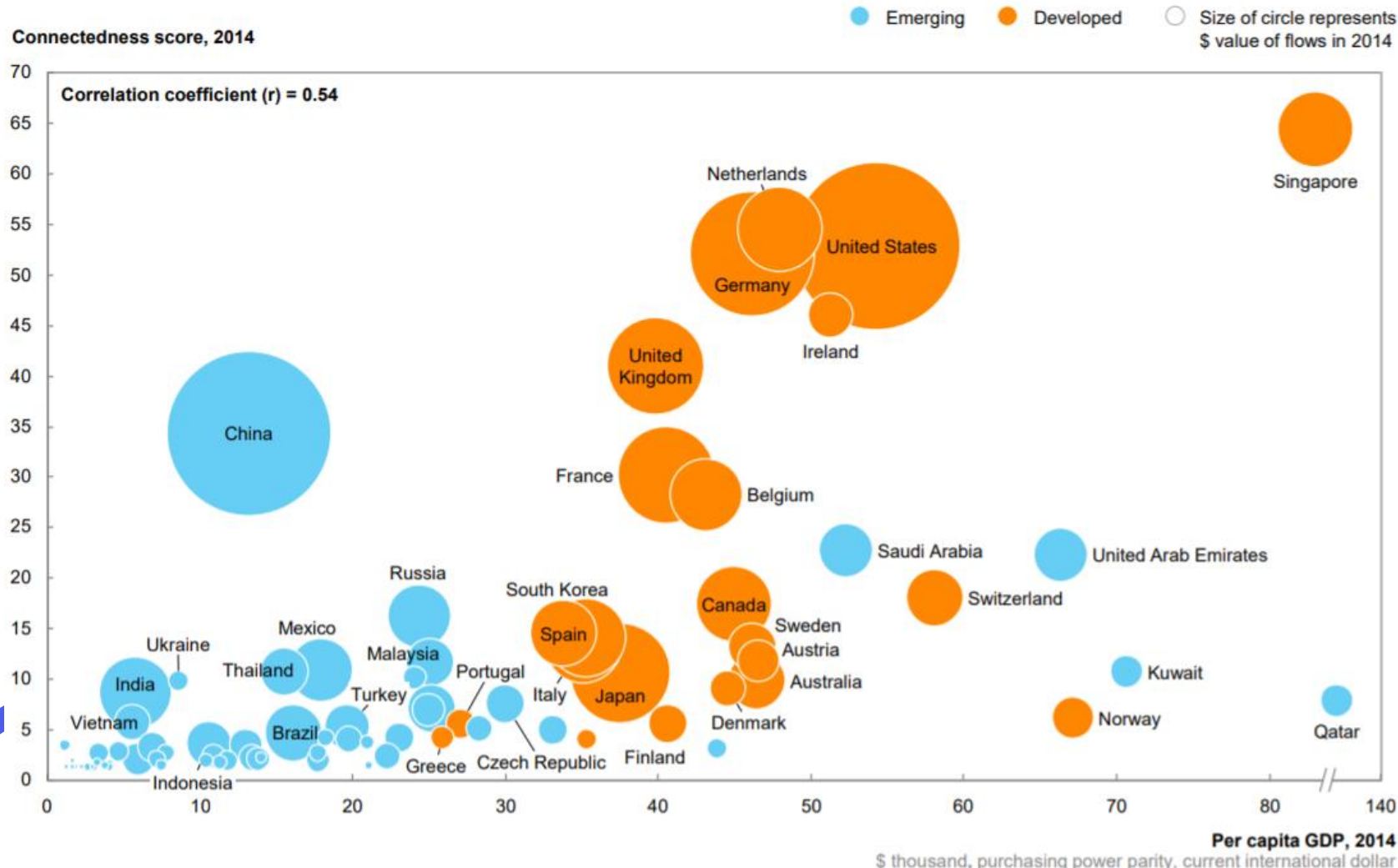
- Adopting for Productivity vs Business model



Singapore remains the Most connected Country in the world

- Goods, Finance, Services, Trade on per capital basis

A small group of leading countries are much more connected than the rest of the world



Country Connectedness Index

- Singapore ranks top for Goods, 2nd for Finance and Services, 6th for data and 12th for people data

Country connectedness index and overall flows data, 2014

Rank of participation by flow as measured by flow intensity and share of world total

Economy		Connectivity index rank					Flow intensity ¹		
■ Developed	■ Emerging	■ 1-10	■ 11-25	■ 26-50	■ >50	■ 100+	■ 70-99	■ <70	
Rank	Change in rank from 2012	Country	Score	Connectivity index rank					Flow intensity % of GDP
				Goods	Services	Finance	People	Data	
1	+3	Singapore	64.2	1	2	2	12	6	452
2	+4	Netherlands	54.3	3	3	6	21	1	211
3	0	United States	52.7	7	7	3	1	7	39
4	-3	Germany	51.9	2	4	8	3	2	99
5	+9	Ireland	45.9	32	1	1	28	9	227
6	-1	United Kingdom	40.8	13	5	5	6	3	79
7	+18	China	34.2	4	16	4	82	38	63
8	-1	France	30.1	11	8	9	7	4	80
9	+2	Belgium	28.0	5	6	33	33	8	246
10	+6	Saudi Arabia	22.6	20	28	27	2	53	106
11	n/a	United Arab Emirates	22.2	6	23	17	4	46	196
12	+1	Switzerland	18.0	12	11	10	17	13	115
13	-5	Canada	17.3	16	22	11	11	18	79
14	-5	Russia	16.1	21	25	18	5	25	57
15	-4	Spain	14.4	25	13	19	14	16	79
16	+4	South Korea	14.0	8	12	28	50	44	107
17	-8	Italy	13.4	17	18	24	16	19	74
18	-3	Sweden	13.0	29	14	22	31	5	100
19	+2	Austria	11.7	26	17	31	20	12	108
20	-2	Malaysia	11.6	9	19	25	26	43	187
21	+6	Mexico	10.7	14	63	34	18	41	80
22	+14	Thailand	10.7	10	15	36	44	64	162
23	n/a	Kuwait	10.6	37	46	13	13	75	153

Singapore's State of Digital Economy

- Competitiveness, SMEs, Trades

SINGAPORE'S DIGITAL COMPETITIVENESS SCORE

98.05%

SHARE OF ENTERPRISES THAT ENGAGED IN DIGITAL INVESTMENT IN SINGAPORE

39%

SHARE OF ENTERPRISES IN WHOLESALE AND RETAIL TRADE SECTOR THAT ENGAGED IN E-COMMERCE ACTIVITIES IN SINGAPORE

26%

DIGITAL SERVICES

Forecasted annual gross merchandise volume (GMV) of e-commerce market in Singapore

8bn USD

Share of internet users who used mobile shopping apps in Singapore

81.5%

Share of people using mobile devices for purchasing or ordering goods and services or making transactions in Singapore

66%

Most popular domestic e-commerce site in Singapore

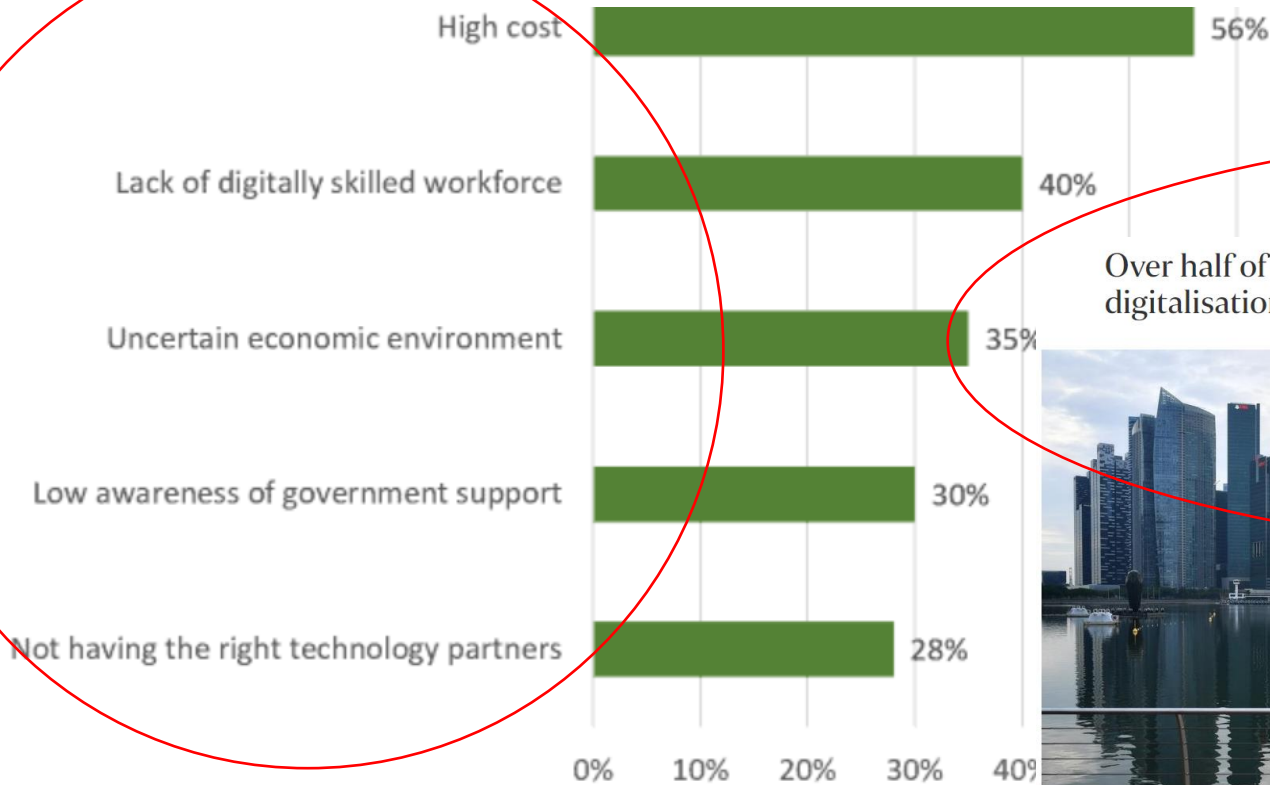
Shopee

NEW Try our new improved search

COMMENTARY

The new challenge facing SMEs is how to be deeply digital

As pandemic pushed many to go digital, firms now have opportunity to mine the possibilities of the new currency of digitalisation - data



Over half of SMEs in Singapore blame digitalisation delay on coronavirus



A similar survey was carried out in 2018.

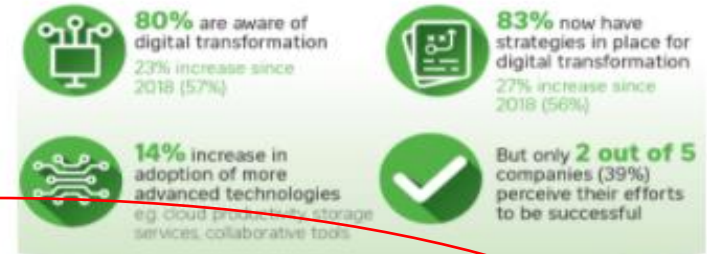
Digital transformation in SMEs

While some small and medium-sized enterprises (SMEs) have fast-tracked digital transformation to stay resilient, a new survey has found that others have struggled to digitalise as they face various challenges, including those caused by Covid-19.



Current and future states of digitalisation among SMEs

Awareness and adoption of digital transformation have increased significantly among SMEs



however, Covid-19 has slowed SMEs' digital transformation and growth



Top barriers to digital transformation



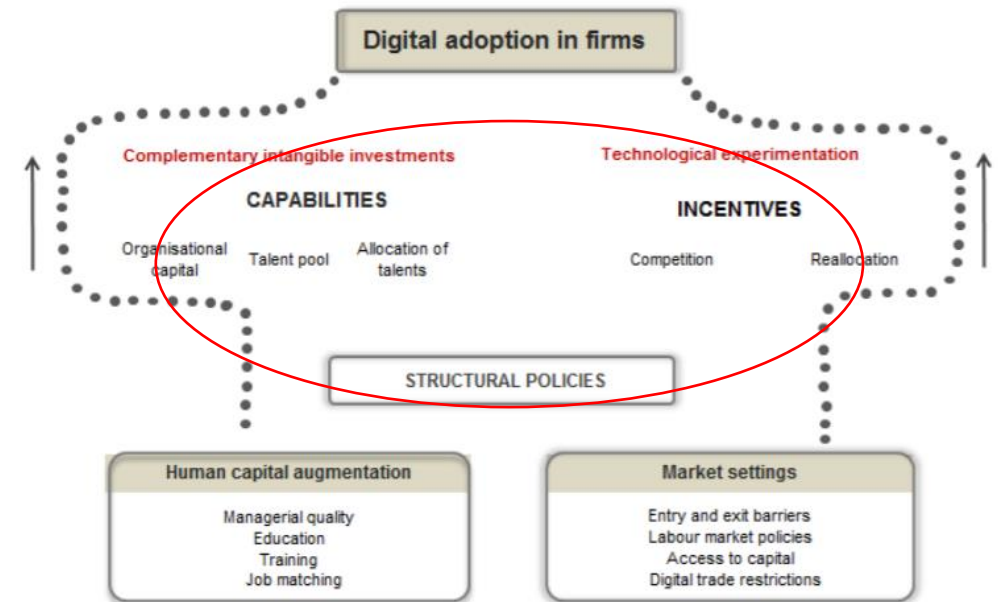
Is Government Policy the Problem?

OECD Analysis – Structural Policies, Capabilities and Incentives

Table 1. Summary statistics of policy and structural factors

		Obs	Mean	Std. Dev.	Min	Max
Capabilities						
I. Organisational capital	Quality of Management school	626	4.883414	0.716024	3.687408	6.099314
	High performance work practices	500	26.05715	9.044642	10.17509	41.6223
II. Skilled labour	Percentage of adults with no ICT skills	425	20.15593	11.16819	7.243739	43.25481
	Lifelong learning	425	50.72941	12.42818	24.3	66.8
	Percentage of low skilled in training	450	35.06356	11.61629	15.84475	51.69505
	Percentage of high skilled in training	450	63.76499	13.37589	31.32726	80.72747
III. Allocation of talent	E-Government	551	55.817.1	17.1	24.1	85
	Skill mismatch	525	25.57619	5.604652	18.1	38.3
Incentives						
I. Entry and competition	Administrative barriers to start-ups	630	2.00624	0.479206	1.121914	3.080247
	Barriers in services sectors	630	3.480308	0.67593	1.365741	4.615741
	Digital trade restrictions	626	0.2152077	0.0634429	0.11	0.38
II. Exit and reallocation	EPL	625	2.529961	0.343966	1.721089	3.204082
	Venture Capital	401	0.0311	0.020665	0.002556	0.075
	Tax incentives	551	0.7306	0.07	0	0.26
	Insolvency regimes	550	0.486888	0.118902	0.130769	0.7

Figure 2. Structural channels influencing digital adoption



Government Launching a Series of Smart National Projects as Enablers

- Are Singaporeans, Consumers and Markets Not Ready?



Source: Smart Nations Coordinating Secretariat

Is Singapore Market or Consumers not Ready?

- Over 70% concern of selling data to 3rd parties and data handling issues

Consumers' data privacy concerns

Singaporean consumers' key considerations when sharing personal data

The majority (74%) of consumers worry that their personal data may end up with third parties. 70% of consumers are also concerned about the storage and management of their personal information.



Singaporean consumers' sentiments towards digital payment usage

Security concerns play such a big role in consumers' minds that it is one of the main deterrents for adoption of digital payment methods. This holds especially true for more mature consumers.

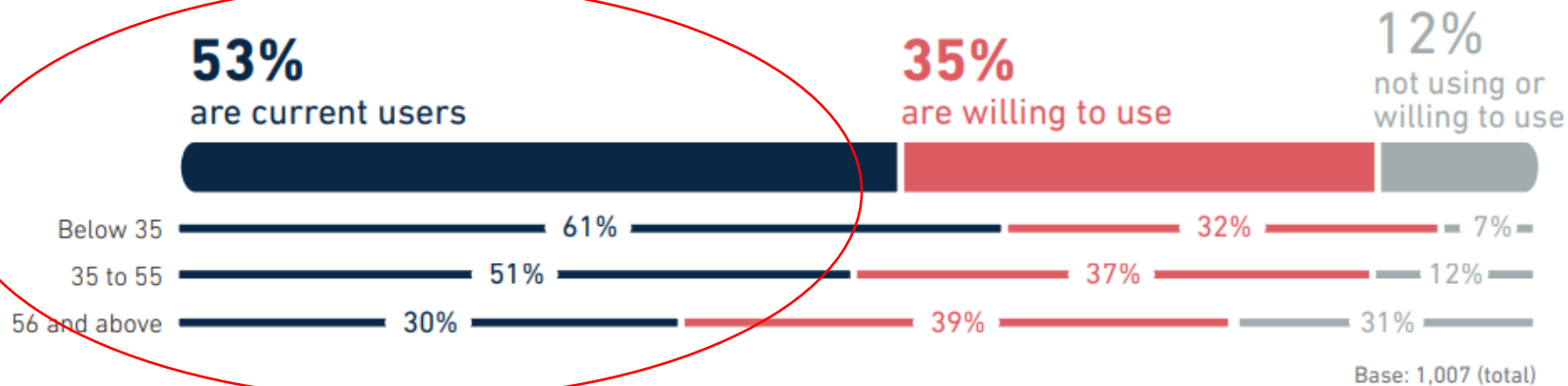
Singaporeans' readiness to use Super-apps

- 47% of non-users has trust problems with payment and data

Market potential for super apps

Singaporeans' current usage of or willingness to use super apps

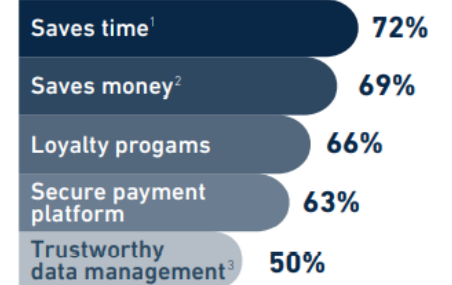
More than half of Singaporeans (53%) are currently using super apps, with a third (35%) keen on trying them in the next year.



As **digital natives**, younger Singaporeans are the driving force behind the popularity of super apps in Singapore; 61% of those aged 35 and below are current users. Interestingly, a higher proportion of those aged 35 and above are keen to use these apps in the next year.

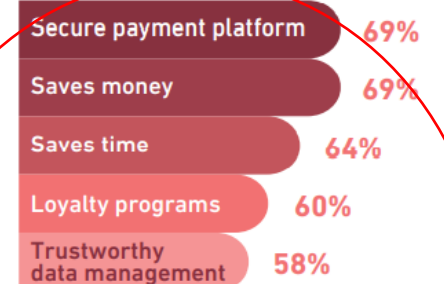
Reasons

Current users



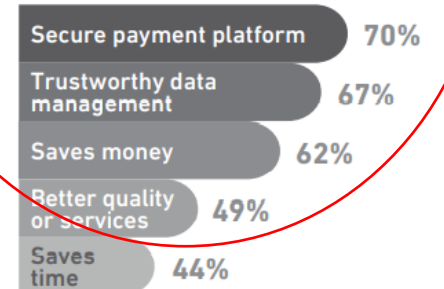
Base: 537

Potential users



Base: 349

Unwilling to use



Base: 121

Singaporeans' sentiments towards personal data sharing

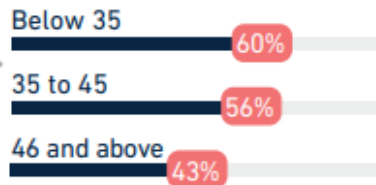
- Businesses can incentivize further 52% of users to trade for personalized services

Singaporeans' sentiments towards sharing personal data

More than half of Singaporean consumers are willing to share their personal data in return for a degree of personalization. The discussion over personalization vs. privacy is likely to continue as millennials opt for better experiences and services despite privacy concerns.

52%
would trade
personal data for
personalized
experiences

Likelihood to trade personal data by age:



Base: 1,007 (total)

Top five expectations for sharing personal data

What do Singaporeans expect in return for sharing personal data?

Nearly half (45%) of Singaporean consumers are willing to share their personal data in exchange for cost savings. Consumers are also open to giving access to businesses to track their behavior (39%) through applications or devices such as activity trackers in return for rewards.



Base: 1,007 (total)



Source: wirecard

Technology Provider Business Model requires reinvention

- High Technology cost, there is a need to Innovate new Financial Economics model

3. Change the economics

Although business model innovation might seem complex, understanding the different ways to “make money” helps simplify the concept. Here’s a short list:

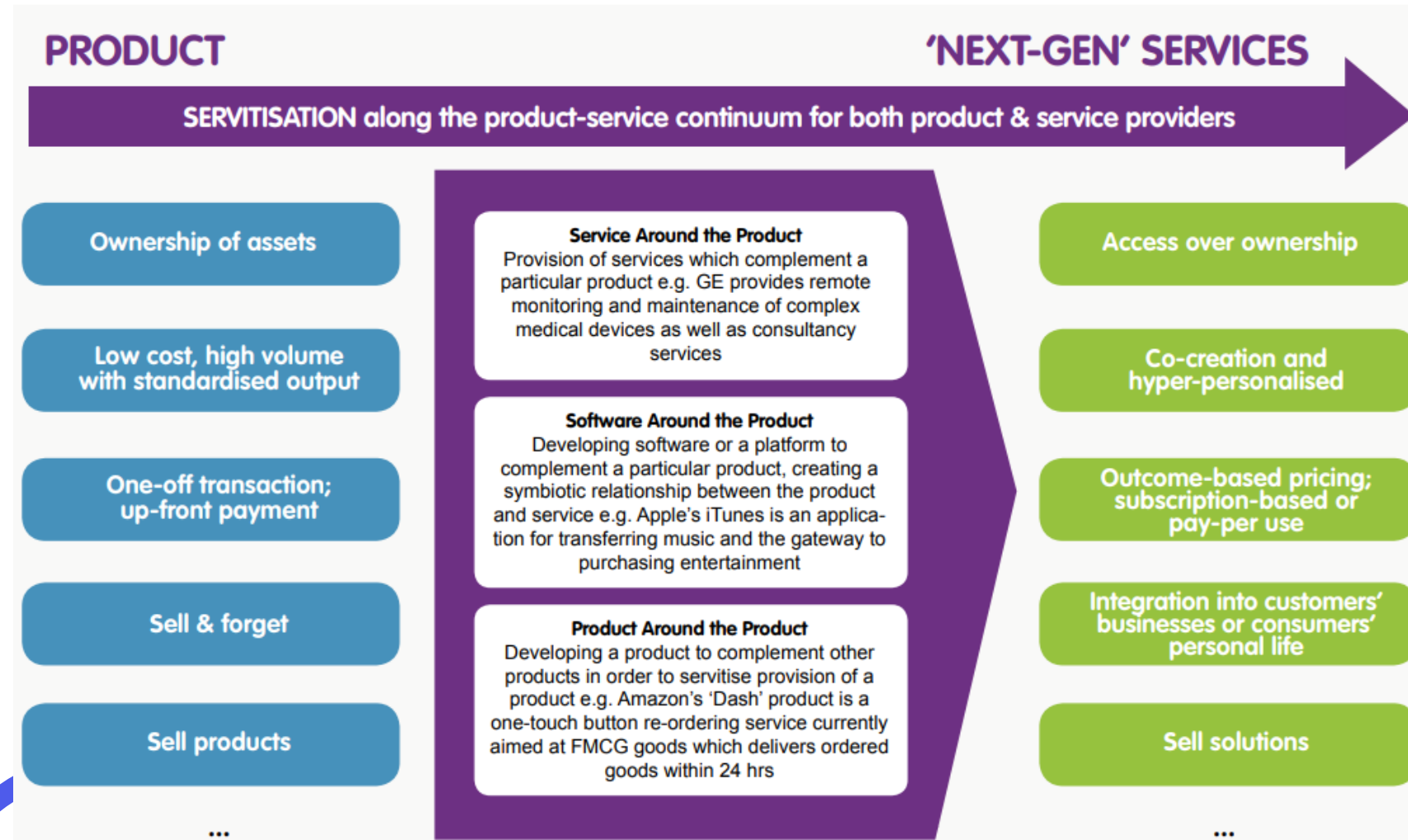
- *Per item pricing* (selling products as individual units)
- *Product bundles* (selling products together like grooming kits or PCs & printers)
- *Service solutions* (from support and training to products bundled with services)
- *Time* (Charge by minute, hour, day or month)
- *Access* (Full or partial access to an event, information, etc.)
- *Subscriptions* (clubs, licenses, etc., for a specific period of time)
- *Memberships* (single or group membership with or without tiers of value)
- *License* (for a given time, or with escalating sets of features)
- *Platform* (membership fees with or without transaction-based revenue sharing)



Materials, Products, or Services	Product Bundles	Product / Service Solutions	Service Delivery Time	Access	Membership / Subscription	License	Platform
Price per unit, weight, or amount	Price per set of complementary products	Price for product and a supporting service	Price per specific time period of value delivery	Price based on access to event, venue, data, or other resources	Price based on ongoing or longer-term access	Use of data, intellectual property, or technology	Content-Driven Platform or Marketplace with networks of buyers & sellers
<ul style="list-style-type: none"> • Liter of gas • Toothbrush • Iron Ore 	<ul style="list-style-type: none"> • Grooming travel kits • Tool kits • Printers with ink & paper 	<ul style="list-style-type: none"> • Support • Training • Consulting (Network server coupled with LAN set-up) 	<ul style="list-style-type: none"> • Per minute (mobile phone) • Per six minute increments (attorneys) • Per hour (consultants) • Per day (rental cars, hotels) • Per month (apartments) • Per year (insurance) 	<ul style="list-style-type: none"> • Per incident (IT services) • Per admission (movie, concert, ball game, theme park) • Season pass (theme park) 	<ul style="list-style-type: none"> • Time period (monthly, yearly, lifetime) • Number of units • For unlimited features • For limited features • Tiered levels 	<ul style="list-style-type: none"> • For a given time period • Unlimited amount of time • For unlimited features • For limited features • Tiered levels 	<ul style="list-style-type: none"> • Flat fees • Percentage fees • Revenue sharing • Advertising models – views, clicks, etc. • Mixed fee models

Is Technology financing the problem?

- Technology providers should innovate utility pricing model



Changing Perspectives from Productivity (Cost) to Disruptive Business Model (Revenue)

- Innovating new Business Model enables Scalability and Ventures financing

7

Disruptive
Business Model

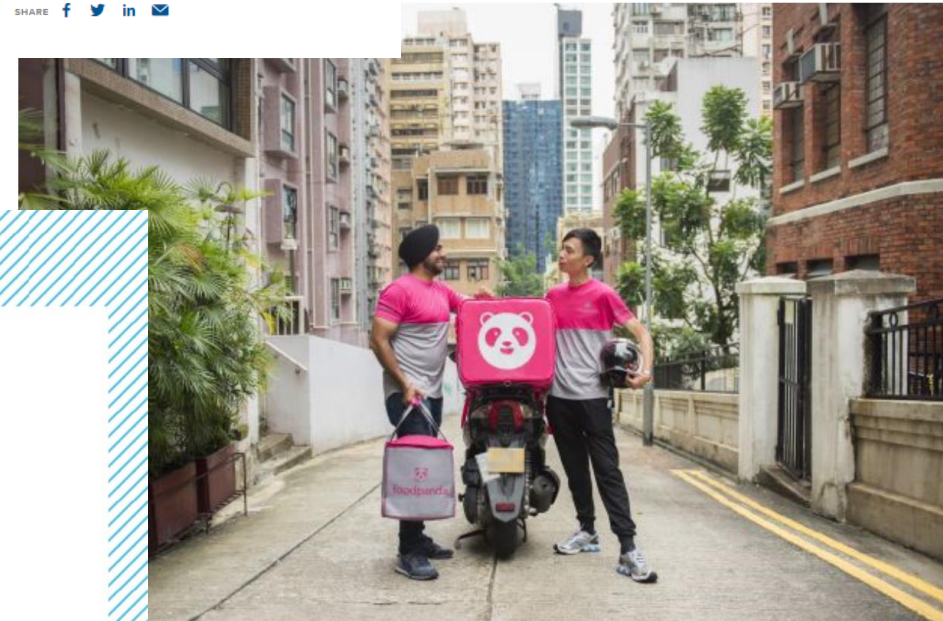
START-UPS

Grab and GoTo IPOs could spawn more Southeast Asian startups, says venture capital firm

PUBLISHED WED, JUN 9 2021-10:33 PM EDT | UPDATED WED, JUN 16 2021-2:34 AM EDT

Karen Gilchrist

SHARE f t in e



HILTON GROUP

- 95 years
- 685,000 rooms
- 92 countries
- \$ 24 billion



AIRBNB

- 6 years
- 1 000 000 accomodations
- 190 countries
- \$ 13 billion



100 YEARS OF AMERICA'S TOP 10 COMPANIES

Perhaps Digitalization is the not the Issue but Business Model Darwinism

Industry

- Tech
- Conglomerate
- Medical
- Oil & Gas
- Financial Services
- Film
- Rubber
- Retail
- Autos
- Telecom
- Steel
- Foods
- Chemicals
- Heavy Equipment

1917



Assets (\$ bn) Inflation adjusted
September 2017

1967



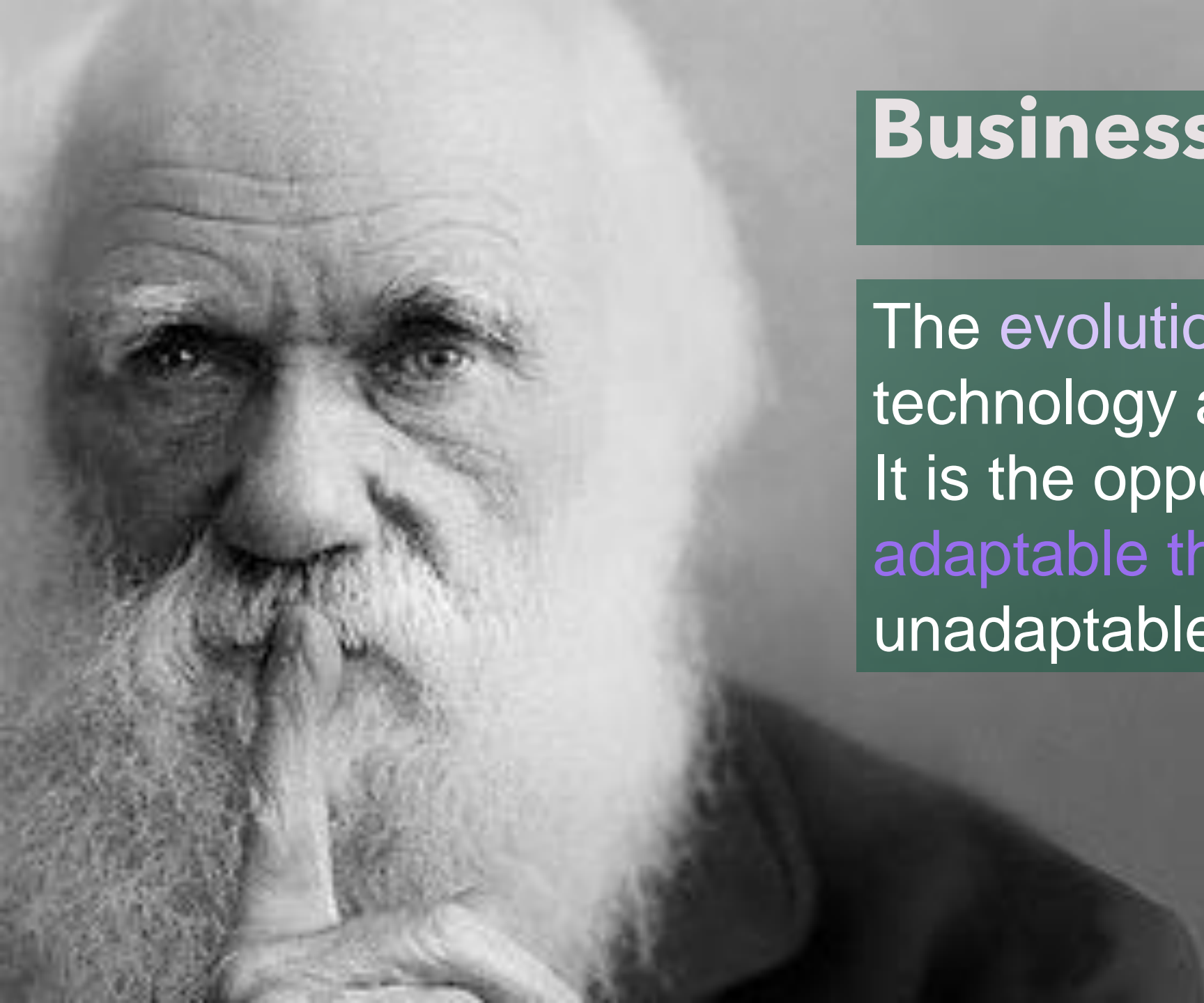
Mkt. Val. (\$ bn) Inflation adjusted
September 2017

2017



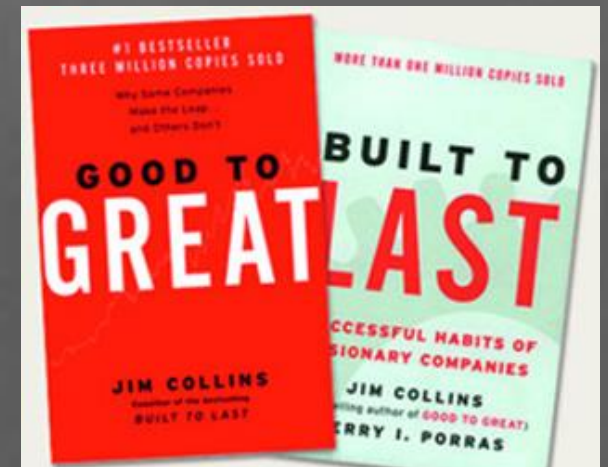
Mkt. Val. (\$ bn) as of November 10th, 2017

Source and Article:
<https://howmuch.net/articles/100-years-of-america-top-10-companies>
<https://forbes.com>



Business Darwinism

The evolution of society, technology and digitalization. It is the opportunities when the **adaptable thrives** and the **unadaptable ceases to exist**.





The Digital Economy and Business Transformation

– Government, Business, Consumer, Financing, Business Model Perspectives



Victor Tay

CEO

Global Catalyst Advisory

Managing Director

Stout Investment Banking

Governing Council

China-ASEAN Business Alliance

Singapore Digital Chamber of Commerce

<https://www.linkedin.com/in/victortay>

victortay@globalcatalystadvisory.com