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The graphic features a large yellow sun partially obscured by the 'e' in 'e-Conomy'. The sun has a reflection on the water. In the background, there are green mountains. In the foreground, two white sailboats are on the water. The text 'e-Conomy' is in a large, white, sans-serif font, and 'SEA 2022' is in a smaller, white, sans-serif font to its right.

e-Conomy SEA 2022

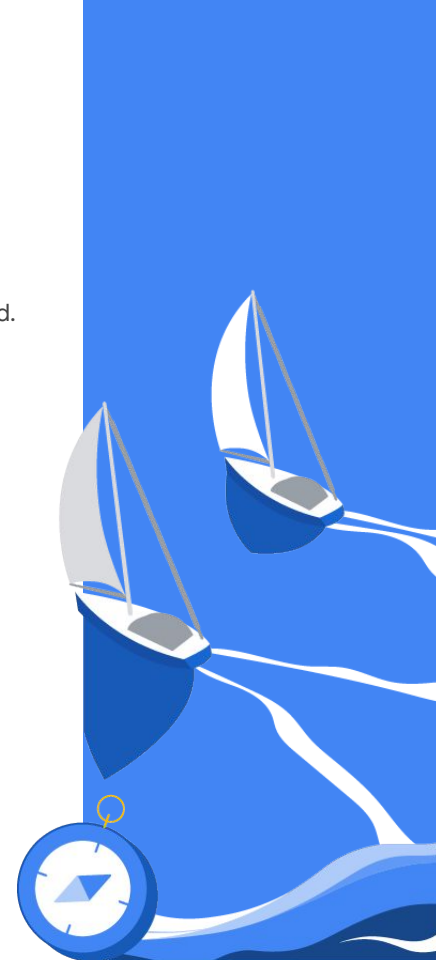
Through the waves, towards a sea of opportunity

Reference

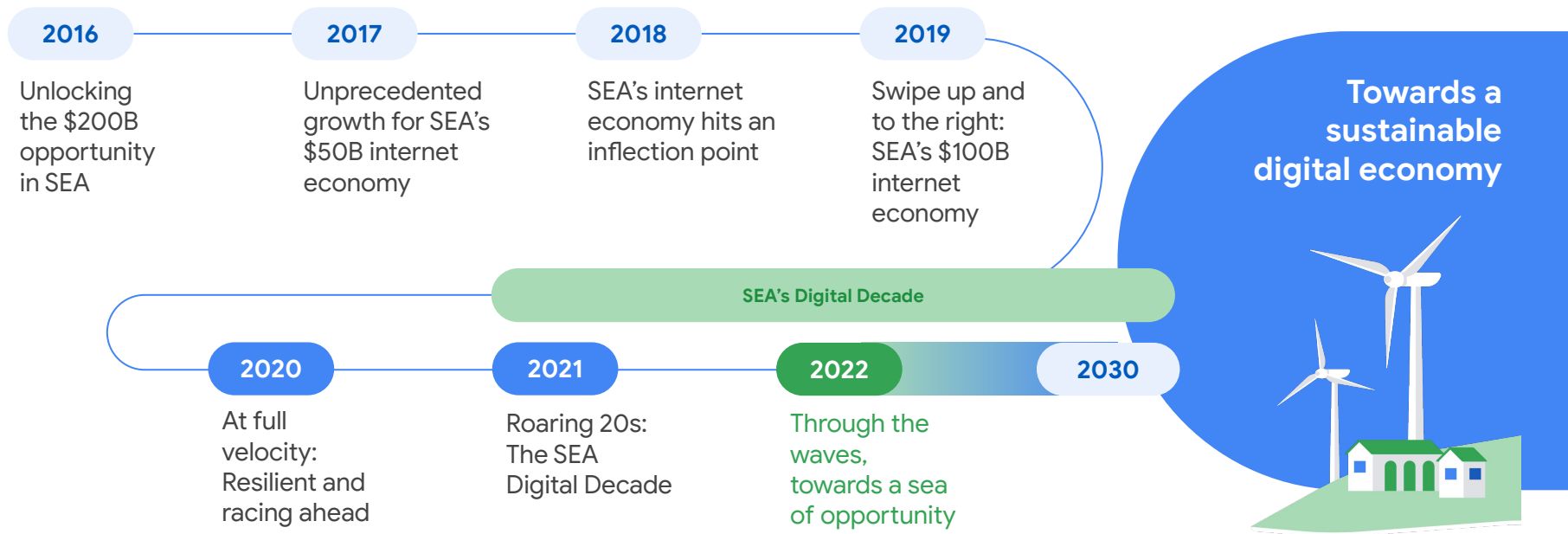
e-Conomy SEA is a multi-year research programme launched by Google and Temasek in 2016. Bain & Company joined the programme as lead research partner in 2019. The research leverages Temasek insights, Bain analysis, Google Trends, primary research, expert interviews, and industry sources to shed light on the digital economy in Southeast Asia. The information included in this report is sourced as 'Google, Temasek and Bain, e-Conomy SEA 2022', unless otherwise specified.

Disclaimer

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7th edition of e-Economy SEA by Google, Temasek, Bain: Southeast Asia's digital economy research programme



e-Economy SEA research methodology



Temasek insights



Bain analysis



Google Trends



Primary research*



Expert interviews & industry sources

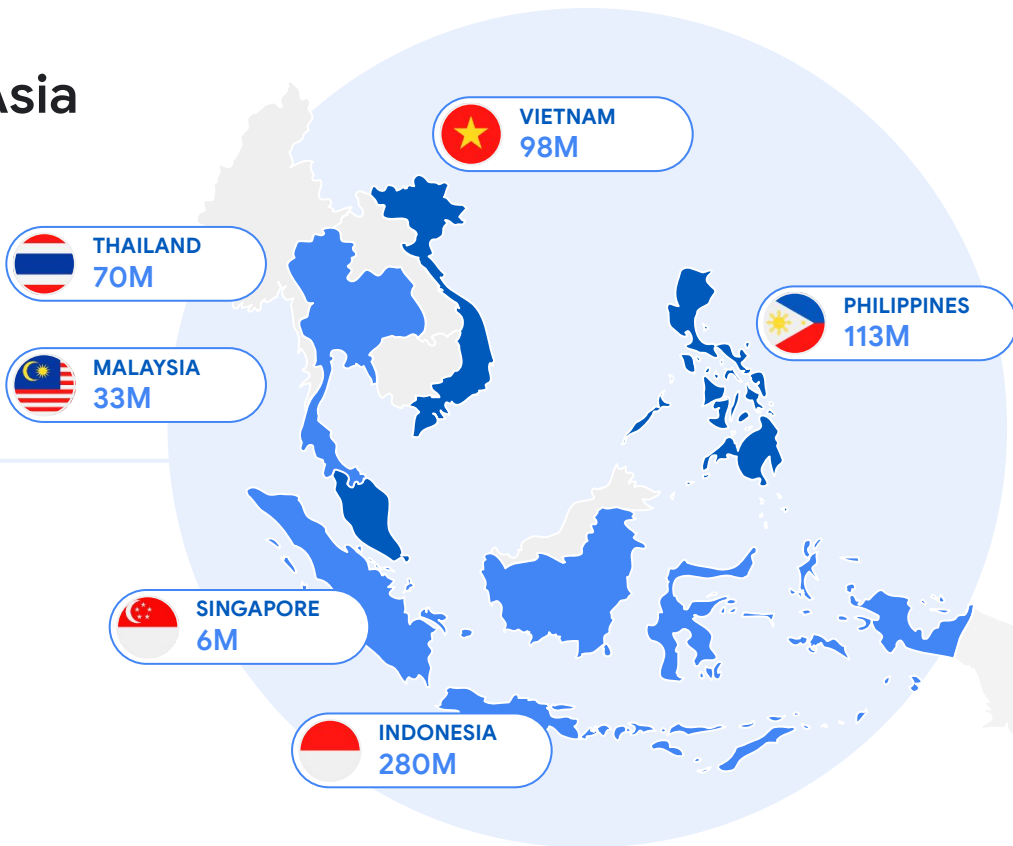
With contributions from



Notes: All dollar amounts are in USD. Bain conducted interviews and a quantitative survey of SEA-focused venture capital investors in Q3 2022, n=30. All quotes in the report attributed to "VC" are from interviews conducted with SEA-focused venture capitalists in June-August 2022, and have been redacted for brevity and editorial clarity.

*Google commissioned Ipsos to run the e-Economy SEA consumer survey. The research was conducted in Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. Fieldwork in urban cities ran online from 18/07/2022 - 06/08/2022 via a 25-minute Computer Assisted Web Interview survey, with a total of 4,995 respondents interviewed. Fieldwork in suburban cities ran from 29/07/2022 - 24/08/2022 via offline-recruit-to-online surveys with connected consumers, along with offline recruitment via a randomised door-to-door approach, with quota controls on demographics on a total of 2,059 respondents across Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. Analysis was conducted with data weighted based on age, gender, region, monthly household income, and internet usage frequency for a more accurate and fairer representation of the markets, and the region as a whole.

e-Conomy SEA covers 6 countries in Southeast Asia



Market coverage: 5 leading and 4 nascent sectors in the digital economy

Nascent sectors



Healthtech



SaaS



Web3



Edtech

Leading sectors



E-commerce

Marketplaces
Direct-to-consumer
Groceries



Transport & food

Transport
Food delivery



Online travel

Flights
Hotels
Vacation rentals



Online media

Advertising
Gaming
Video-on-demand
Music-on-demand

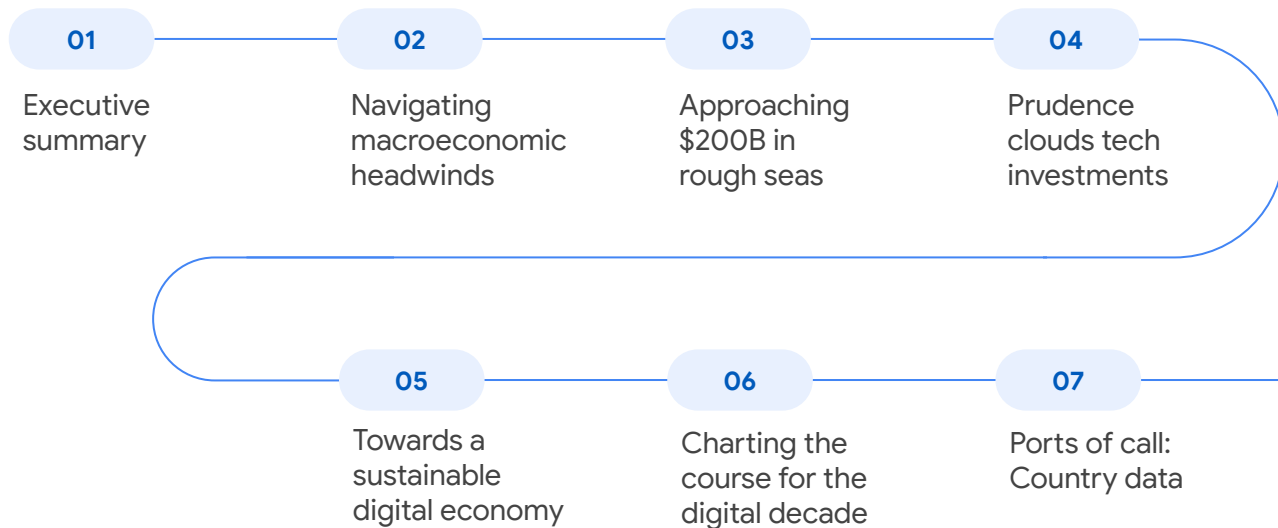


Financial services

Payments
Remittances
Lending
Insurance
Investments

Notes: E-commerce does not include informal commerce due to lack of reliable data. Financial services is excluded from market sizing estimates due to differences in units of measurement compared to other leading sectors.

Contents



Executive summary



Navigating macroeconomic headwinds

Just as countries in SEA embarked on a return to pre-pandemic normality, global headwinds started to blow, threatening to derail a full economic recovery. Rising interest rates and high inflationary pressure have also been impacting consumer demand, particularly the discretionary sectors that sit at the core of the digital economy.



Approaching \$200B in rough seas

Despite these macroeconomic headwinds, SEA's digital economy remains on course to reach ~\$200B in gross merchandise value (GMV) in 2022. In fact, it is reaching this threshold three years earlier than we had expected in our e-Economy SEA 2016 report. Digital adoption continues to rise even today, albeit at a slower pace than the steep acceleration seen at the height of the pandemic.



Urban consumers still drive the economy

Across urban areas, affluent consumers and their young digital native counterparts continue to represent the largest portion of the digital economy. For these two segments, the opportunity for growth lies in deeper engagement, including more frequent and valuable orders, subscriptions, or cross-selling services such as consumer lending. Meanwhile, adoption and spend by urban consumers 'on a budget' and suburban consumers remain lower, leaving digital players to figure out more economically sustainable ways to serve them.



Sectors encounter different growth trends

SEA's digital economy sectors are following three distinct trendlines. E-commerce follows an S-shaped growth curve, in which it continues on its growth trajectory, but from a higher starting point after the steep acceleration during the pandemic. Others, such as food delivery and online media, are returning to their trendlines after a two-year spike. And lastly, travel and transport are moving along a U-shaped recovery, with pre-pandemic levels still some miles away.



Favourable conditions uplift financial services

The adoption and usage of digital financial services (DFS) have flourished across the board, propelled by a shift from offline to online and the positive financial market conditions of the last few years. With rising interest rates and a riskier lending environment, however, fintech players, platforms, and newly launched digibanks will see their business models stress-tested. Meanwhile, banks and insurance companies are rapidly digitalising their services and maintaining a stronghold on affluent consumers.

Executive summary



Prudence clouds tech investments

Tech investments in SEA remain robust this year. However, the funding landscape tells a tale of two ends: early-stage deals are continuing with strong momentum, while late-stage deals are seeing more pronounced dips and a pause in IPOs. Meanwhile, DFS has overtaken e-commerce in investment volume. Investors will be cautious in the short-term as most do not expect a return to 2021 deal activity and valuation peaks in the next couple of years. Nonetheless, most investors remain bullish in SEA's medium- to long-term potential, and have \$15B dry powder on hand. We note increasing interest in emerging markets, like the Philippines and Vietnam, and in nascent sectors, like SaaS and Web3.



Towards a sustainable digital economy

The SEA digital economy is expected to produce 20MT of emissions by 2030—significant, albeit an order of magnitude lower than other environmental impact-intensive sectors. Digital players have been rolling out reducing and recycling initiatives, but more can be done to further lower impact by up to 30-40% over time. In the meantime, platforms can play a positive role in raising awareness among SEA consumers, and move towards closing the prevailing 'say-do' gap.



Economic contribution meets social concerns

On the social front, the digital economy has created 160K high-skilled jobs and indirectly supports nearly 30M jobs, while platforms have enabled over 20M merchants and 6M restaurants to grow their businesses online. Concerns exist, nonetheless, around the welfare of worker-partners, necessitating dialogue between institutions and platforms.



Charting the course for the digital decade

SEA's 'digital decade' has just begun. The course to exceed \$300B by 2025 depends on the shape of recovery amid today's uncertainties, while the path to a \$600B-1T digital economy in 2030 remains geared on SEA's economic fundamentals. A growing emphasis on sustainable growth means profits may become as relevant as GMV when it comes to measuring progress.

Existing enablers like payments and logistics have come into place, but the talent challenge is now shifting from quantity to quality. New enablers, like digital inclusion of consumers 'on a budget' and suburbanites, are key to unlocking SEA's full potential. Progress has been limited, however, with institutional support potentially the missing link to bridging the divide.

All in all, SEA's digital economy is grounded on strong social and economic fundamentals, and offline to online trends, which provides much to be optimistic about especially as the region settles into its 'digital decade'.

The background is a stylized illustration of a seascape. The sky is a deep blue with horizontal wavy bands of lighter blue. On the left, a small yellow sun is partially obscured by a dark blue landmass. In the lower-left foreground, two white sailboats with grey hulls are sailing on white-capped waves. On the right, a small green island features a white lighthouse with a yellow top. A beam of light from the lighthouse shines across the water towards the center. The text 'Navigating macroeconomic headwinds' is centered in the middle of the image in a white, sans-serif font.

Navigating macroeconomic headwinds

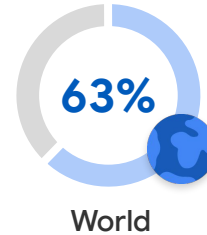
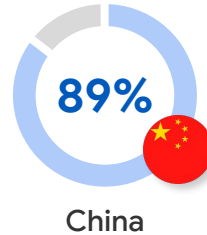
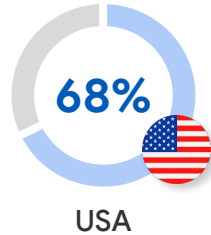
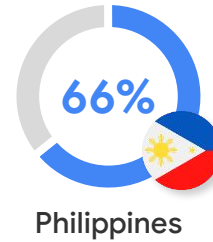
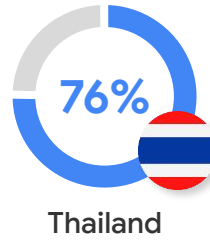
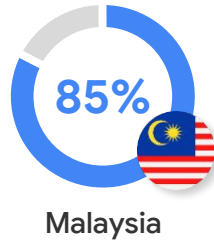
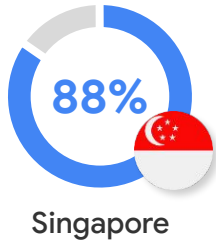
Just as SEA economies reopened from pandemic lockdowns, **macroeconomic headwinds started to blow.**

SEA consumers and the digital economy are **increasingly feeling the impact.**



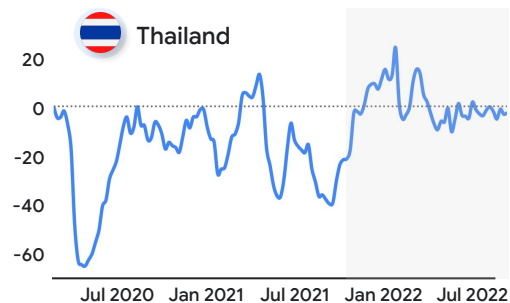
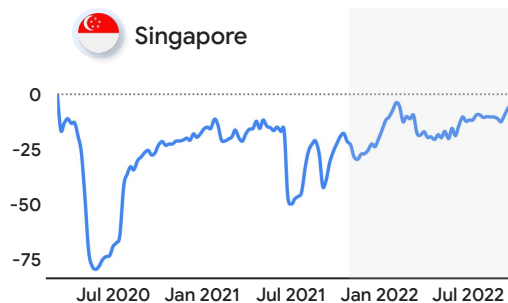
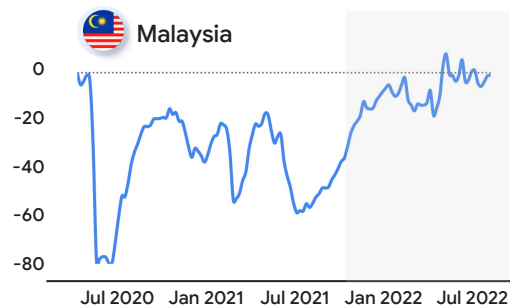
SEA COVID-19 vaccination rates have exceeded global standards

COVID-19 vaccination rates, by country



With COVID restrictions lifted, people are now heading out more than before the pandemic

Google Retail Mobility Data, by country and indexed to pre-pandemic baselines



Notes: Retail Mobility Trends tracks data related to places such as shopping centres, restaurants, cafes, theme parks, museums, libraries, and movie theatres. The pre-pandemic baselines are the median value for the respective corresponding day of the week, during the 5-week period of January 3 - February 6, 2020.
Source: Google Retail Mobility Data

However, global headwinds threaten to derail the path to recovery



Supply chain disruptions

Logistics providers' capacity issues, climate change, and freight costs are restricting global trade routes.



Mobility restrictions

Zero-COVID mandates and continued lockdowns have resulted in disrupted exports and imports with China, as well as outbound travel and tourism by Chinese nationals.



Geopolitical tensions

Various conflicts around the world are putting critical infrastructure, manufacturing capacity, and trade agreements at risk.

Macro headwinds have cascading implications on SEA consumers



Reduced disposable income

With the economic slowdown and a softer labour market, consumers' discretionary spending will diminish.



Increasing prices

Inflation in fuel and food prices, and the depreciation of SEA currencies are driving price hikes in travel, transport, and food delivery.

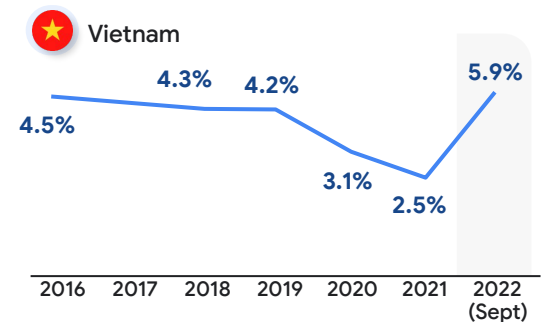
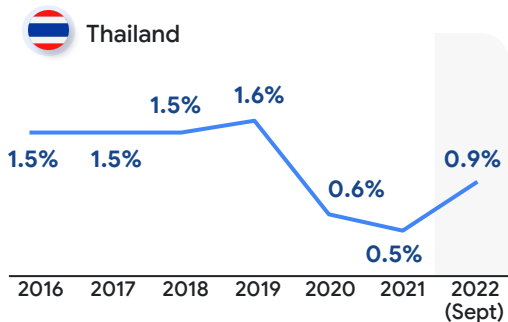
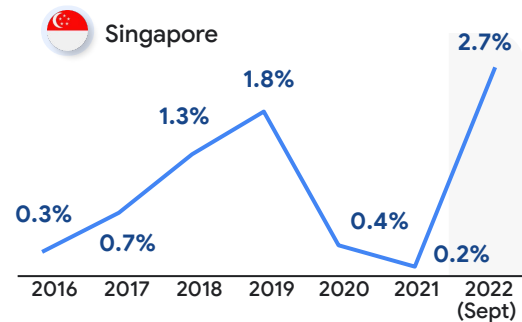
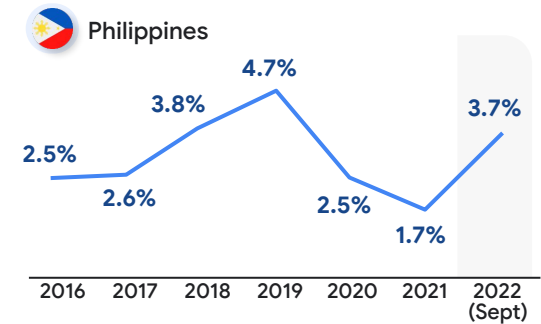
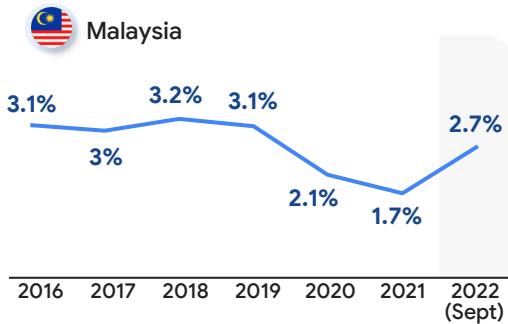


Less product availability

Ongoing pandemic policies in China and production backlogs are hindering logistical flows, reducing consumer access to goods.

Interest rates have been raised to combat inflationary pressure

1-month interbank rates

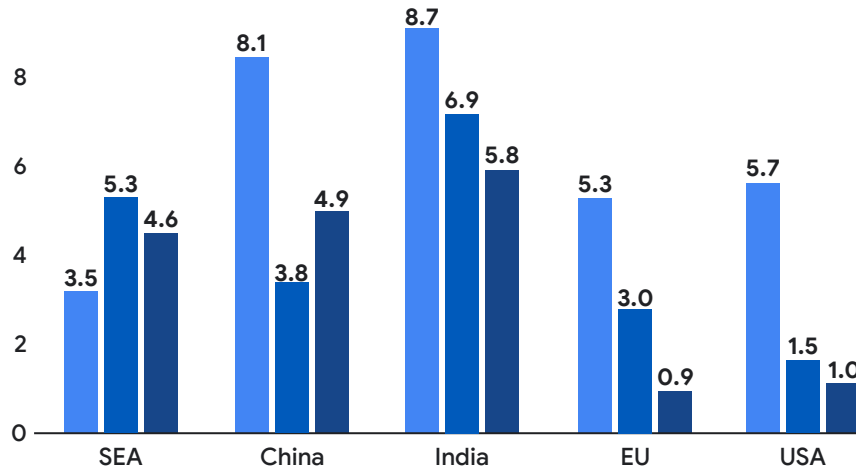


SEA is relatively less impacted than other regions

Real GDP growth maintains its pace...

GDP growth rate (% YOY)

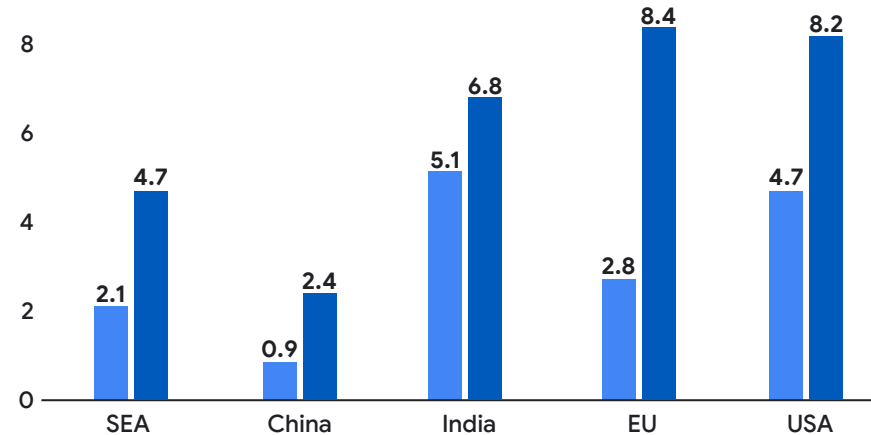
● 2020-2021 ● 2021-2022 ● 2022-2023



... while inflation remains relatively moderate

Inflation rate (% YOY)

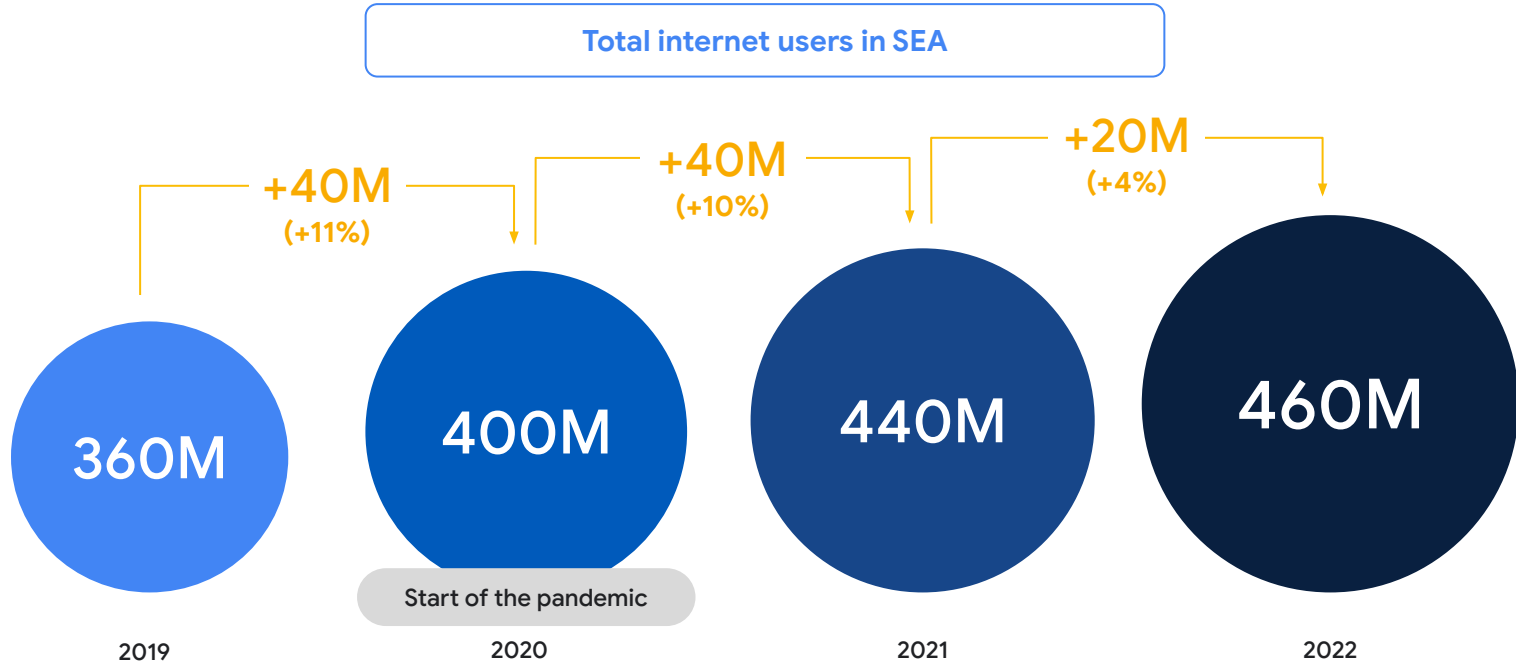
● 2020-2021 ● 2021-2022



The background is a stylized illustration of a seascape. The sky is a deep blue with horizontal wavy bands of lighter blue. A thin, horizontal band of light orange and pink stretches across the middle of the sky. On the left, a bright yellow sun is partially submerged in the horizon, with a few white waves below it. In the bottom left, two white sailboats with black masts are sailing on white-capped waves. On the right, a small, rocky island with green patches is topped with a white lighthouse with a yellow band. A beam of light from the lighthouse extends horizontally across the sky. The overall style is flat and graphic.

Approaching \$200B
in rough seas

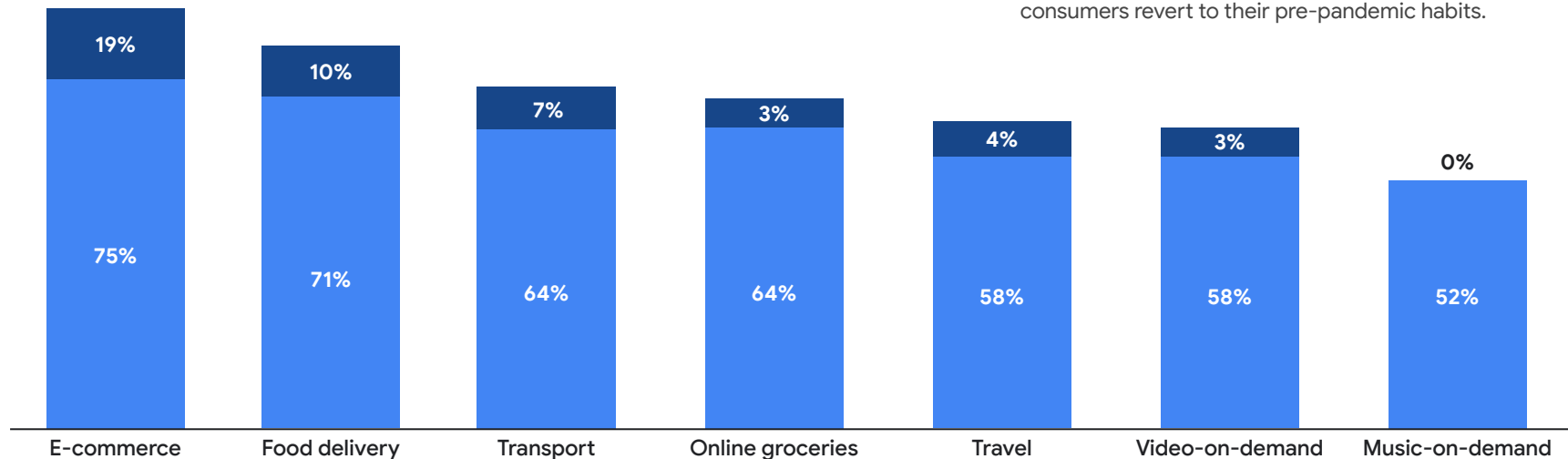
100M additional internet users have come online in the last three years



After years of acceleration, digital adoption growth is normalising

Digital adoption among urban SEA users (%)

● Incremental adoption in H1 2022 ● Adoption as of 2021



E-commerce is nearing full adoption among digital users in urban SEA.

New adoption of groceries, video-on-demand, and music-on-demand is minimal as consumers revert to their pre-pandemic habits.

Note: 'Digital adoption' accounts for both active users (last used in the past 3 months) and lapsed users (last used more than 3 months ago).

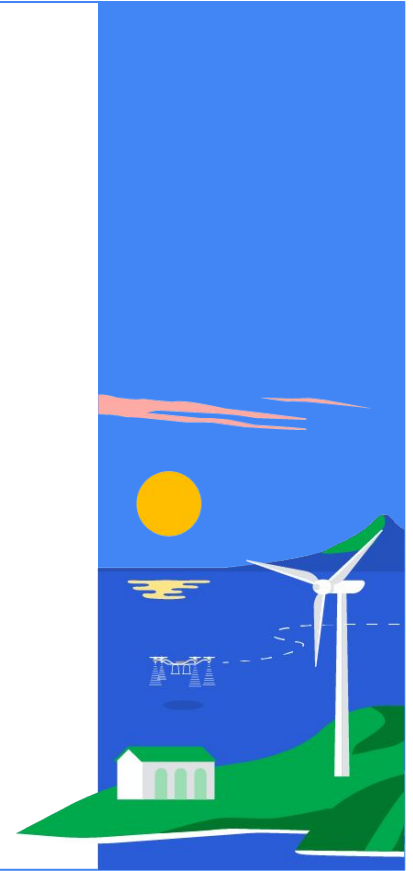
Question: S8. Which of these activities have you done before?

Weighted base: Digital users in urban SEA internet population, n=4,498 per vertical

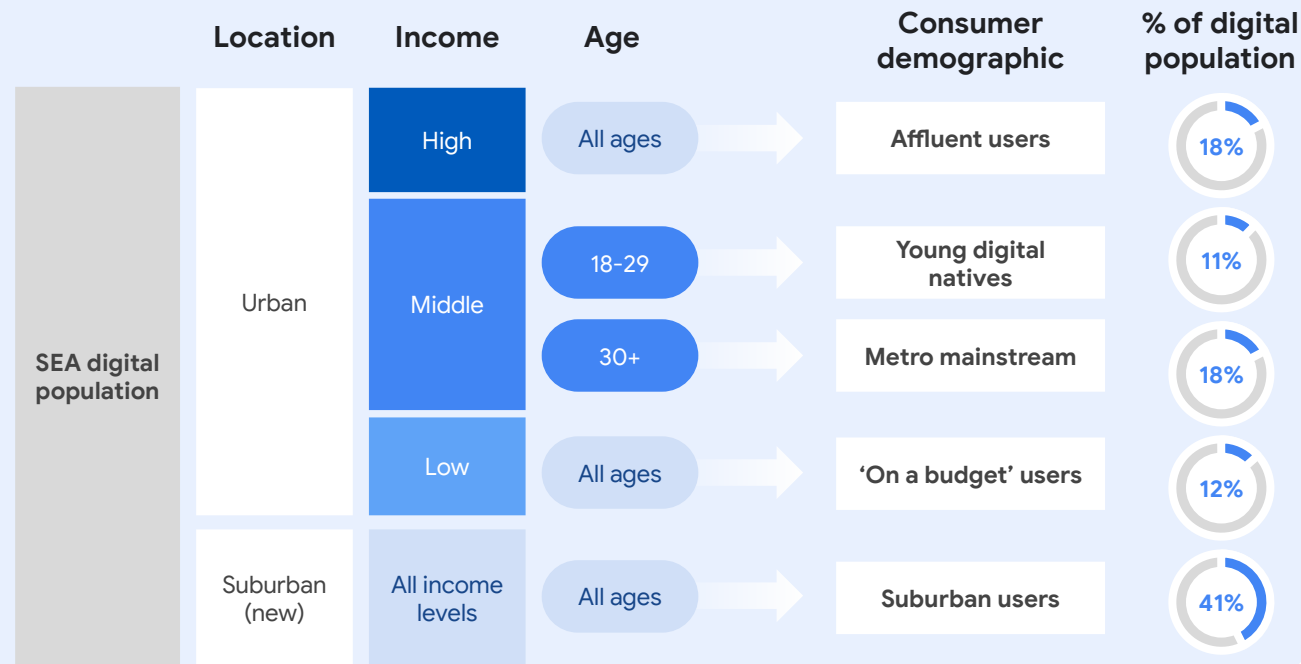
Source: Google-commissioned Ipsos e-Conomy SEA Research 2022

With digital adoption maturing, understanding usage behaviour across consumer segments is **necessary to unlock incremental headroom** for growth.

The majority of digital players are shifting priorities **from new customer acquisition to deeper engagement** with existing customers.



There are five consumer demographics, each at different stages of adoption and usage



What's new this year?

In previous reports, we covered Tier 1 (metro) and Tier 2 (non-metro) cities in SEA. This year, we **combined Tier 1 and Tier 2 cities into 'urban' cities**, and dove one layer deeper by conducting surveys in **Tier 3 cities** or **'suburban' cities**.

Who are suburban users?

Consumers in suburban cities who participate in the digital economy by having **made a purchase in at least one digital vertical**. All suburban cities in the survey have **populations between 50,000 and 200,000 residents**. All respondents are digital consumers who **access the internet at least once every two weeks**.

Note: '% of digital population' is based on weighted survey results (age, gender, household income, location). There will be marginal differences between suburban users when segmented by income and age.
Weighted base: SEA internet population, n=7,054 per vertical
Source: Google-commissioned Ipsos e-Conomy SEA Research 2022

Urban affluent users and young digital natives are the heaviest adopters of digital services

Adoption across digital services (%)

	E-commerce	Groceries	Food delivery	Transport	Travel	Music-on-demand	Video-on-demand	Gaming
Affluent users	98%	72%	86%	81%	84%	57%	71%	58%
Young digital natives	92%	61%	79%	74%	71%	62%	66%	62%
Metro mainstream	92%	64%	74%	64%	64%	44%	57%	45%
'On a budget' users	94%	55%	63%	47%	56%	45%	50%	46%
Suburban users	74%	9%	34%	23%	9%	9%	19%	15%

Affluent users consider the services an **integral part of their modern lifestyle** while young digital natives are naturally inclined to embrace the **convenience and easy access**.

E-commerce adoption has spread to suburban consumers while remaining sectors continue to be mainly urban practices.

E-commerce adoption is **high across urban and suburban** consumers.

Note: 'Digital adoption' accounts for both active users (last used in the past 3 months) and lapsed users (last used more than 3 months ago).

Question: S8. Which of these activities have you done in the past? (last 3 months + more than 3 months)

Weighted base: SEA internet population weighted base includes survey respondents of (n=7,647 across 6 SEA markets) along with top-up samples (n=497) used for deeper consumer vertical representation. SEA internet population in the vertical for e-commerce n=5,563, groceries n=4,388, transport n=4,570, food delivery n=4,452, gaming n=2,263, video streaming n=2,759, music streaming n=2,231, travel n=3,768.

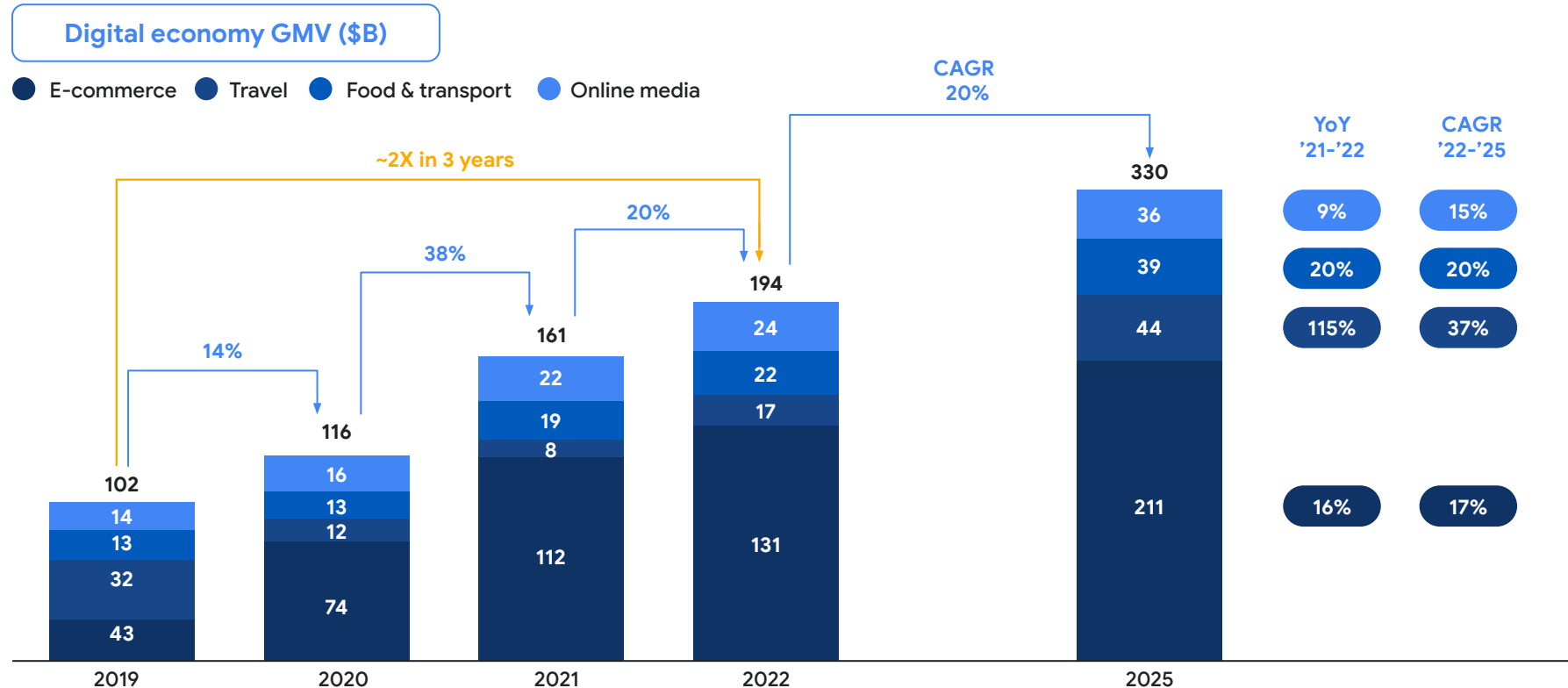
Source: Google-commissioned Ipsos e-Economy SEA Research 2022

**Southeast Asia's digital economy approaches
\$200B GMV in 2022—three years earlier than
expected.**

**Our inaugural e-Conomy SEA 2016 report,
'Unlocking the \$200B opportunity in SEA',
projected this to happen in 2025.**



SEA's digital economy is closing in on \$200B, growing 20% YoY



Notes: Excludes digital financial services and nascent sectors; CAGR = Compounded Annual Growth Rate; GMV = Gross Merchandise Value.
Source: Bain analysis

As SEA's digital sectors leave the pandemic behind, they are following one of three growth trajectories



2019

2020-
2022

2023-
2025

S-shaped

Sustained growth momentum towards 2025 despite routines reverting to normal—driven by continued demand for services like online shopping.



2019

2020-
2022

2023-
2025

Return to trendline

Growth towards 2025 returns to pre-pandemic levels due to resumption of in-person activities such as dining out and entertainment.



2019

2020-
2022

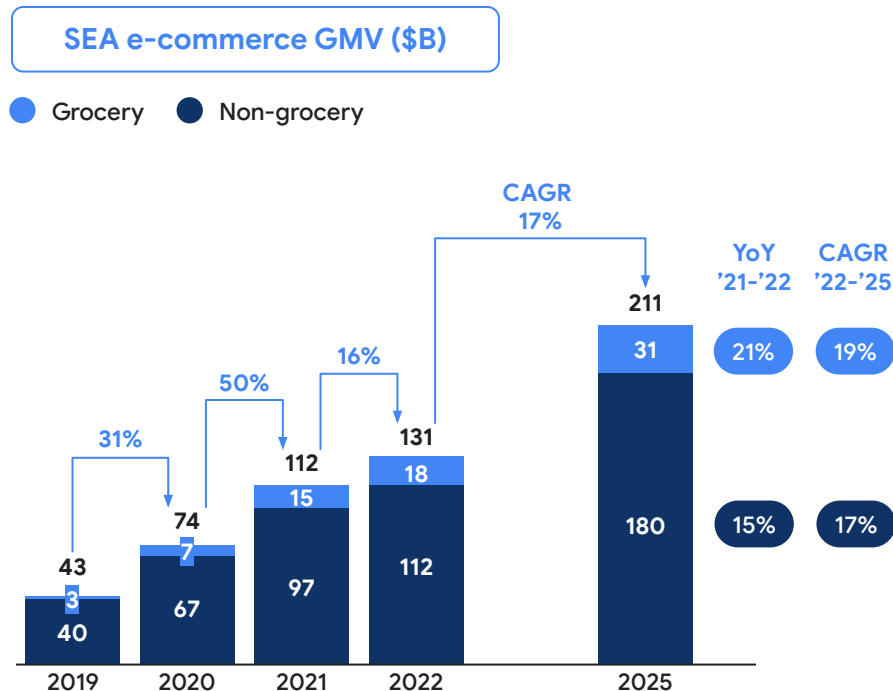
2023-
2025

U-shaped

Growth towards 2025 will be U-shaped given recovery from pandemic lows as local mobility habits and tourism trends gradually return to normal.

Expected growth trajectory

E-commerce: Persistent growth despite resumption of offline shopping and greater focus on profitability



Note: Non-grocery includes marketplaces and direct-to-consumer platforms.
Source: Bain analysis

Tapering but still growing from pandemic peaks

Online retail channels are still gaining ground even as spend moves partially back offline with a return to in-store shopping.

Optimising operations to improve profitability

E-commerce players are reducing promotions and discounts while improving margins by monetising value-add services.

Shifting from acquisition to engagement

Now with high user adoption, e-commerce players are instead focusing on boosting frequency, value, and loyalty of existing users, especially as average orders remain small (\$10-15 each).

Online groceries needs better consumer value

To acquire new customers, grocery players must overcome freshness, delivery time, and pricing concerns, particularly among 'on a budget' and suburban users.

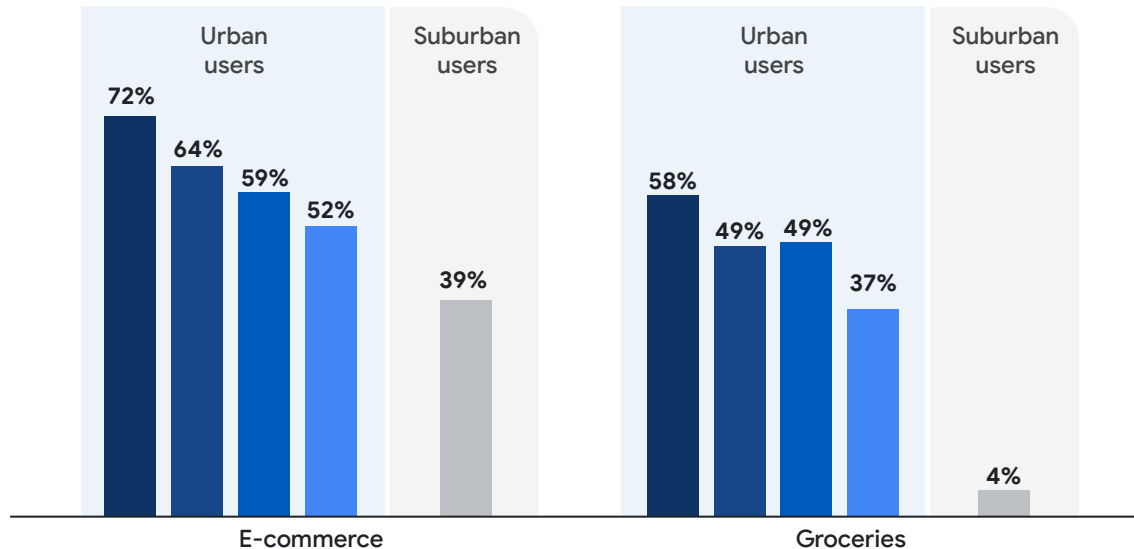
Environmentally-friendly practices on the rise

More online retailers are starting to take steps in the right direction, including optimising emissions, swapping to recycled packaging, and raising awareness for their sustainable offerings.

E-commerce: Despite widespread adoption, there remains an urban/suburban usage gap, especially in online groceries

Monthly active users (%)

● Affluent users ● Young digital natives ● Metro mainstream ● 'On a budget' users ● Suburban users



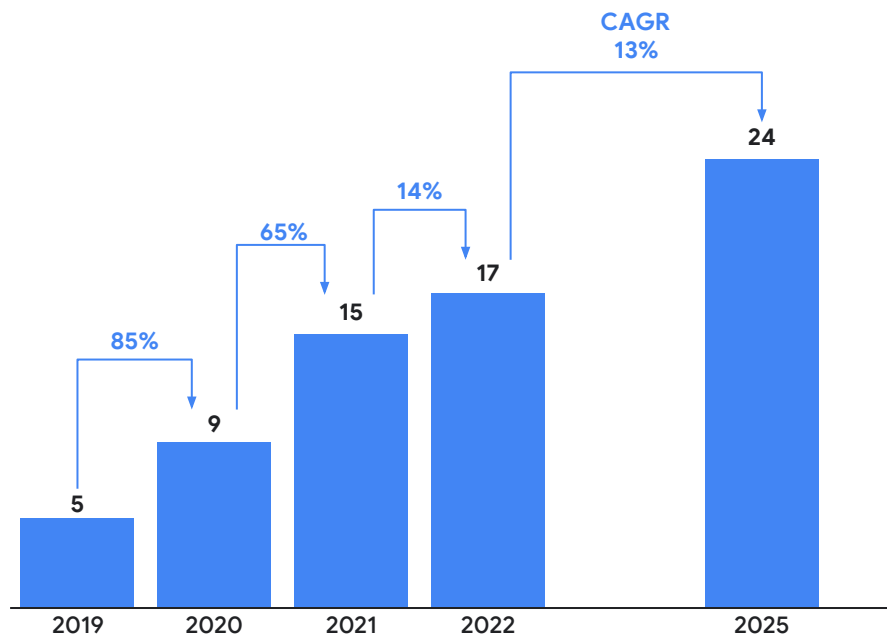
- While all segments have adopted e-commerce, **usage frequency is much higher among affluent users** than 'on a budget' and suburban users.
- Young digital natives are spending the most on groceries**—75% more than the median—indicating significant headroom for growth even as the sector matures.
- Less than 5% of suburban users buy groceries online** as barriers like limited product variety and delivery options still need to be addressed.

Note: 'Monthly active usage' is derived from % adoption x % monthly usage frequency (among paying users, over the past 3 months).
Question: A2. In the last 3 months, how often did you purchase [physical items/online groceries]?
Weighted base: Active users by verticals in Southeast Asia, e-commerce n=3,801, groceries n=996.
Source: Google-commissioned Ipsos e-Conomy SEA Research 2022

Food delivery: Demand returns to trendline growth after tripling during the pandemic



SEA food delivery GMV (\$B)



Consumers gradually resuming pre-pandemic habits

Demand growth is normalising as people return to offices and eating out. Food delivery continues to be popular among urban consumers, but recent prices are driving them to order less.

Companies prioritising profitability over growth

There is greater urgency around improving unit economics, meaning fewer discounts, higher delivery fees, and increased take rates from restaurants are likely to reduce order growth.

Underpenetrated SEA market offers sizable headroom

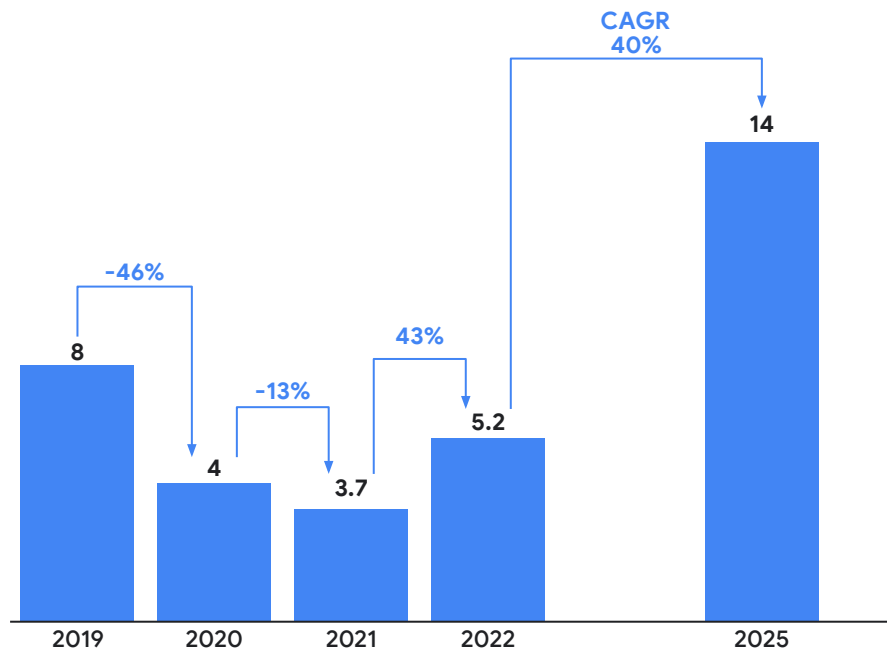
Food delivery in SEA accounts for 2-4% of total spend on ready-to-eat meals, trailing behind markets such as the US and China which are at 6-8%. Unlocking this opportunity will require pushing beyond urban areas.

Balancing interests to drive sustainable growth

Food delivery services kept the F&B industry afloat during the pandemic, but platforms' take rates remain a concern for restaurant owners as they resume normal operations.

Transport: Strong recovery expected as opportunities unlock but hurdles aplenty

SEA transport GMV (\$B)



Source: Bain analysis

Transport rising as mobility exceeds pre-pandemic levels

The gradual return to office, increase in brick-and-mortar shopping, and resurgence of tourism are driving a U-shaped recovery from lockdown lows.

Profitability measures affecting the value proposition

The introduction of new surcharges (e.g. cancellation fees and waiting fees) is translating into higher effective fares. They bump up GMV but are deterring 'on a budget' users, half of whom view price and promotions as barriers to usage.

Supply shortages putting the brakes on near-term growth

Platforms looking to rebuild their fleets are faced with inflated fuel costs and a labour shortage as F&B, hospitality, and taxi operators ramp up hiring. Transport players are offering financial incentives and social welfare to attract and retain drivers.

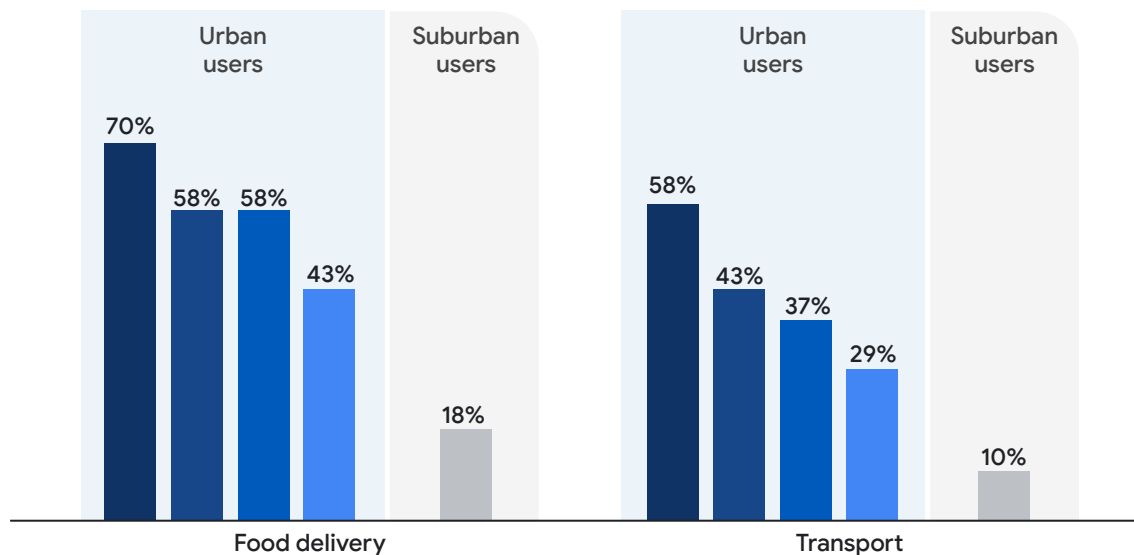
Low penetration and rising urbanisation are long-term tailwinds

Online transport has a 1-3% share of SEA's total transport market, which is lower than the 3-7% seen in the US and China. Growing urbanisation will help boost online transport, but profitable expansion in suburban cities remains tough.

Food delivery & transport: Digital services provide convenience, but they are not for everyone

Monthly active users (%)

● Affluent users ● Young digital natives ● Metro mainstream ● 'On a budget' users ● Suburban users



- Affluent users are the largest segment among transport and food delivery users, and **spend nearly 2X more than the median**.
- Food delivery usage correlates with income levels, with young digital natives and metro mainstream consumers equally **dependent on the ease and convenience it provides**.
- **Metro mainstream consumers are less likely to use** transport services as they are more likely to own a family car.

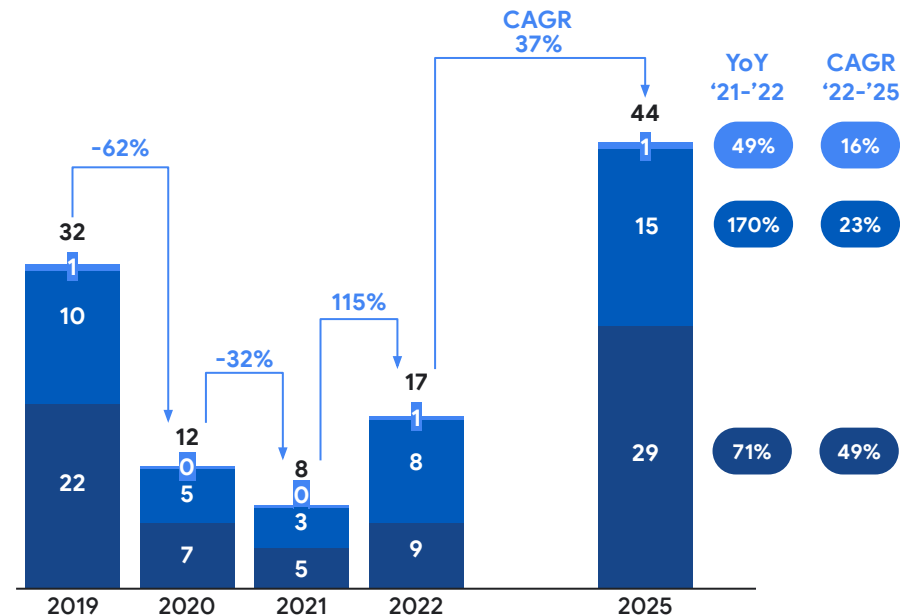
Note: 'Monthly active usage' is derived from % adoption x % monthly usage frequency (among paying users, in the past 3 months).
Question: A2. In the last 3 months, how often did you order [a car or motorbike ride/food online]?
Weighted base: Active users by verticals in Southeast Asia, transport n=1,126, food delivery n= 1,447.
Source: Google-commissioned Ipsos e-Conomy SEA Research 2022

Online travel: 'Revenge travel' is here, but recovery to pre-pandemic levels will take years



SEA travel GMV (\$B)

● Airlines
 ● Hotels
 ● Vacation rentals



*vs Singapore at ~80% of pre-COVID capacity
 Source: Bain analysis

Travel is back but recovery will be gradual

In 2022, the easing of travel restrictions and quarantine requirements spurred a surge in travel demand, but full recovery to 2019 levels is only expected in 2023/2024.

Domestic travel seeing a quicker revival

Hotels in SEA are back to ~80% of pre-COVID GMV. Domestic air travel has rebounded with passenger traffic at 60% and 70% of 2019 levels in Malaysia and Indonesia, respectively.

International travel taking longer to rebound

Flight capacity is still at 30-50% of 2019 levels* as airlines struggle to cope with demand after years of downsizing. Skyrocketing prices are also deterring travellers.

High-value corridors partially choked

The inflow of tourists from mainland China remains limited, and popular destinations for SEA travellers, such as Japan and Korea, were off-limits for much of 2022.

Online travel: Travel-related search interest reaches or exceeds pre-pandemic levels, indicating impending demand

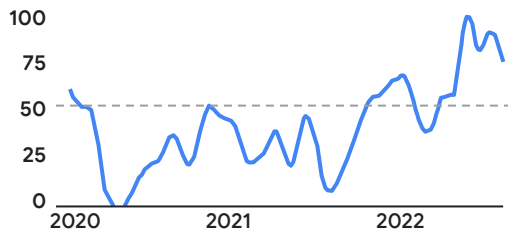
Travel-related search trends, by country

--- Average pre-pandemic search interest

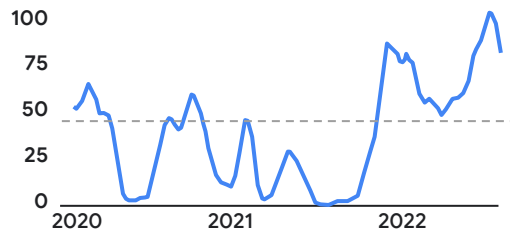
— Indexed searches



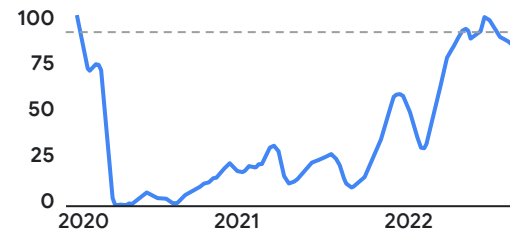
Indonesia



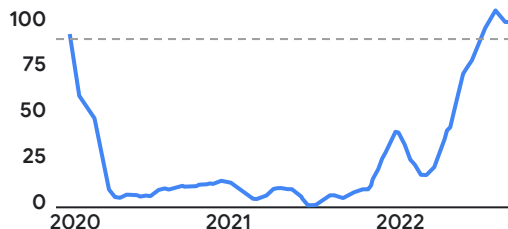
Malaysia



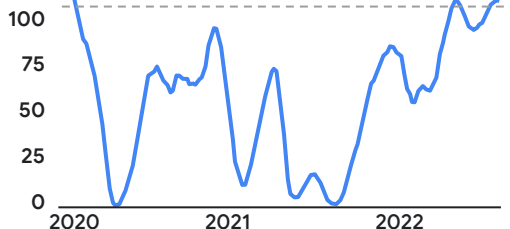
Philippines



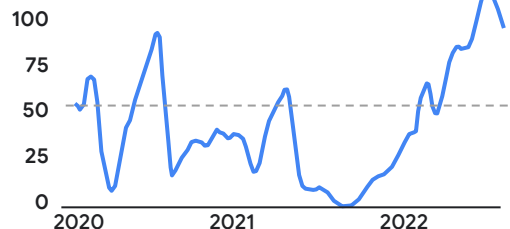
Singapore



Thailand



Vietnam

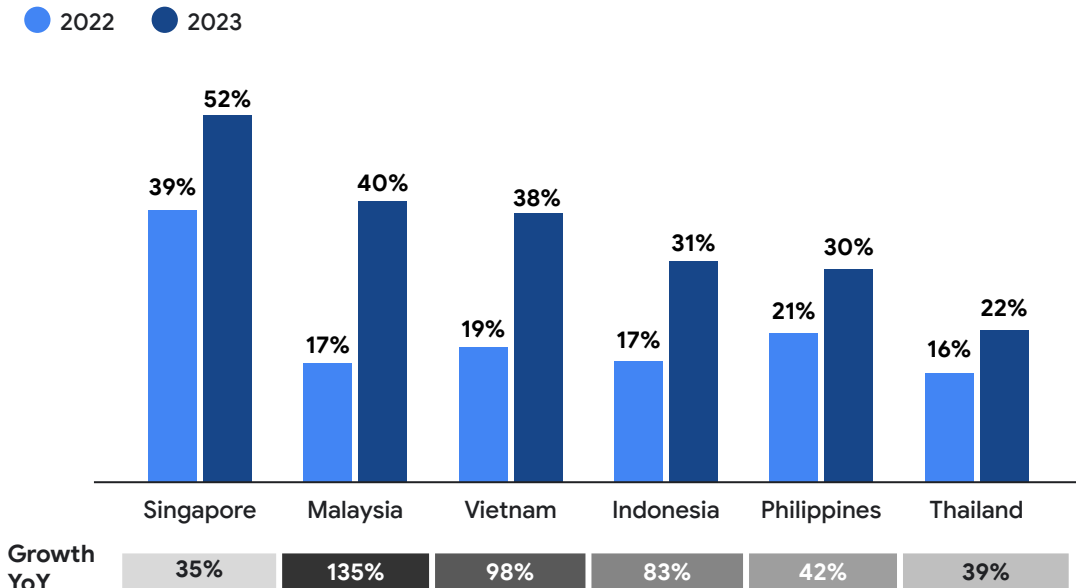


Notes: Includes air- and accommodation-related queries; indexed searches are on a four-week rolling average; pre-pandemic average is for the period of January 2020.
Source: Destination Insights with Google

Online travel: Intent to travel internationally is back, with Singaporeans and Malaysians most likely to take flight



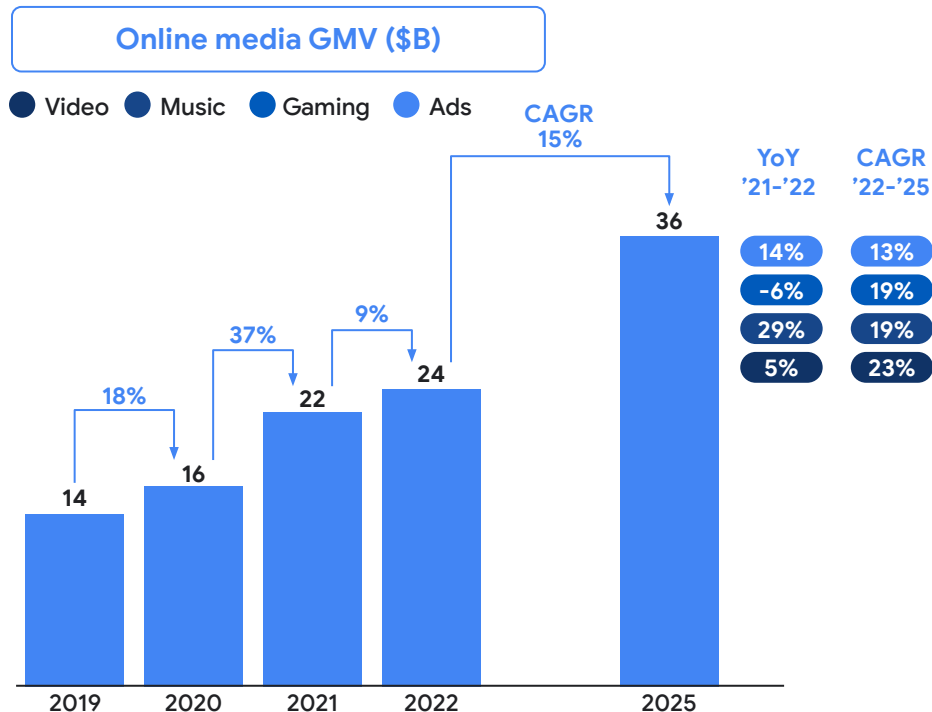
People intending to travel internationally (%)



- People in **Malaysia and Vietnam** show the **biggest leap in intent to travel internationally** next year, doubling from 2022.
- On the flip side, enthusiasm for domestic travel is dipping across all consumer segments—with the **exception of suburban consumers, of whom 50% more plan to travel within the country** in 2023.
- Filipinos and Thais are especially spoilt for choice when it comes to domestic destinations. **Incentive schemes from local governments are also helping boost domestic travel** as international tourism to these countries will take time to recover.

Note: Chart refers to % of urban consumers intending to travel internationally for leisure purposes.
Question: H17. Which of these types of trips have you taken/are you intending to take in the following year?
Base: Digital users in Southeast Asia in the travel vertical, n=3,768.
Source: Google-commissioned Ipsos e-Conomy SEA Research 2022

Online media: Growth slows to single-digit following pandemic acceleration



Video down from peaks and back to trendline

There is much headroom for growth as video-on-demand penetration remains low. Expanding paid usage beyond affluent urban consumers will require more affordable subscription plans and local language content.

Music returning to normality

Music-on-demand is seeing strong recovery as people revert to pre-pandemic, on-the-go music-listening routines. Reactivated content platforms (e.g. live concerts, artist collaborations) are also boosting listening.

Gaming faces post-pandemic pullback

With the return to normal life, gaming has seen dips in downloads, time spent, and in-app purchases.

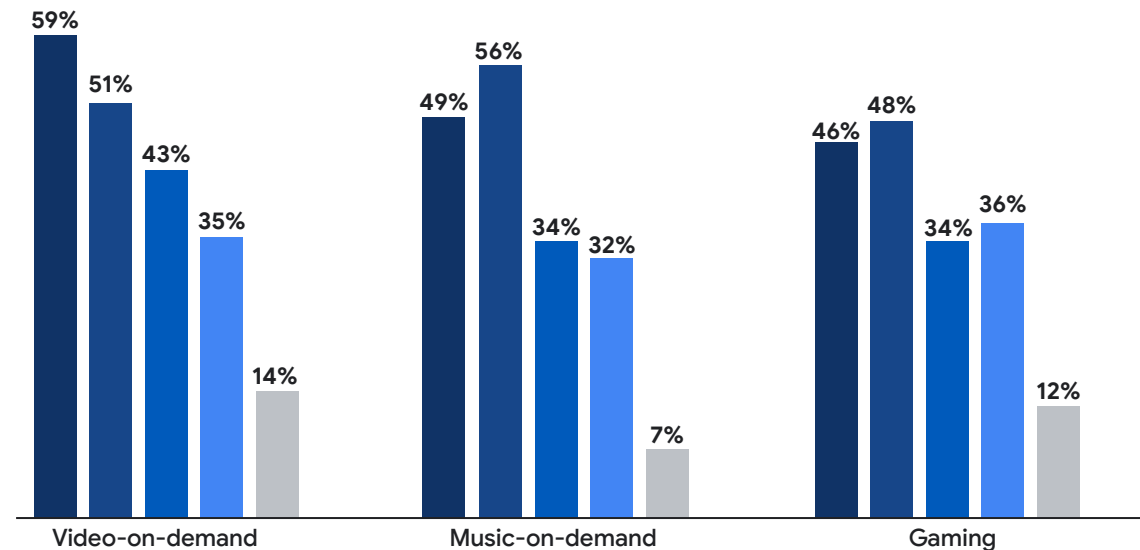
Digital ads maintain momentum

The uptick is driven by increased engagement on new social media platforms, and ads monetisation on marketplaces and platforms, though macro headwinds cloud the industry's near-term outlook.

Online entertainment: Affluent users and young digital natives are the most willing to pay for music, video, and gaming services

Weekly active usage by paying users (%)

● Affluent users ● Young digital natives ● Metro mainstream ● 'On a budget' users ● Suburban users



Despite the widespread popularity of free online entertainment apps, **paid usage in SEA is concentrated in a few urban consumer segments.**

Music-on-demand has a notable skew towards young digital natives, where **30% of them are using the service on a daily basis**—higher than any other consumer segment.

Content variety is the top trigger for video-on-demand users to switch between platforms, while **price is the top trigger for music-on-demand.**

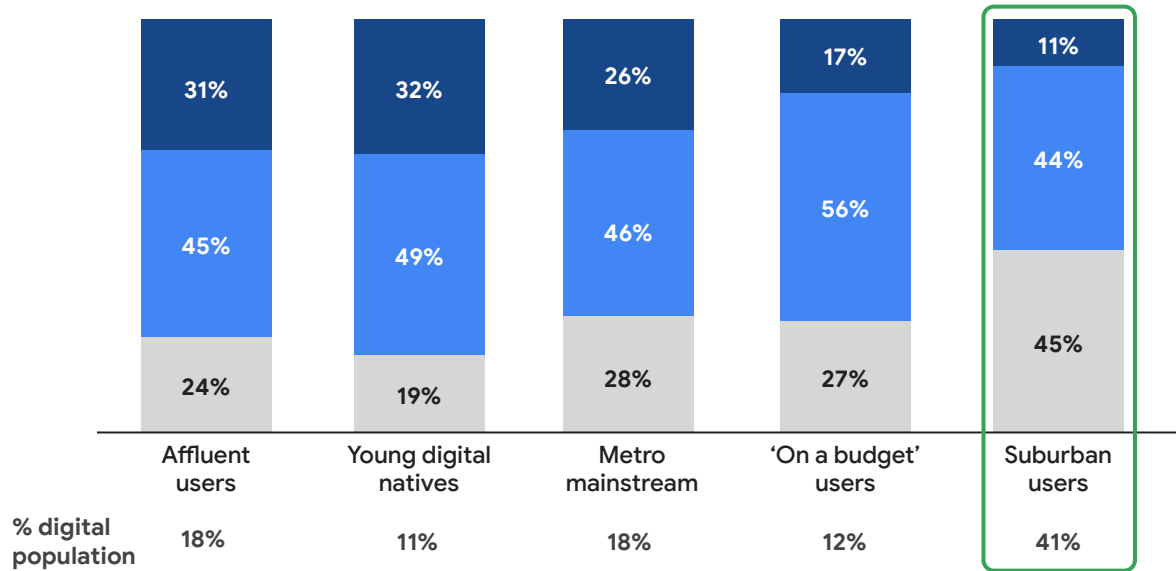
Note: "Weekly active usage" derived from % adoption X weekly usage frequency (among paying users, in the past 3 months).
Question: A2. In the last 3 months, how often did you use [music streaming/video streaming/gaming]?
Weighted base: Active users by vertical in Southeast Asia; gaming, n=953, video streaming, n=1,409, music streaming, n=845
Source: Google-commissioned Ipsos e-Conomy SEA Research 2022

Gaming: Seeing clear pullback from pandemic peaks



Q. Compared to 2020-2021, how much time did you spend playing digital games? (%)

More time than 2020/2021 Same time than 2020/2021 Less time than 2020/2021



7 in 10 gamers are spending the same or less time playing now than during the pandemic.

Nearly 50% cited “I want to spend more time on other hobbies/interests” as the key reason for the drop in frequency.

The decline in time spent is more pronounced among lower income gamers, especially suburban users, who embraced gaming during the pandemic.

Digital financial services (DFS) have **made significant inroads over the years**, buoyed by a highly conducive growth environment.

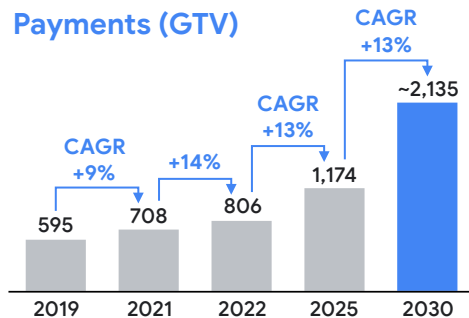
However, **clear shifts in battlegrounds** have made the landscape more competitive.



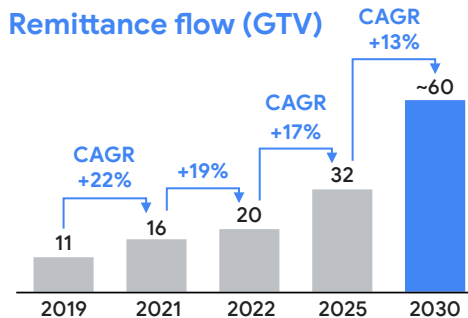
DFS: All sub-sectors are growing as a result of enduring offline-to-online behaviour shifts post-pandemic

Digital financial services (\$B)

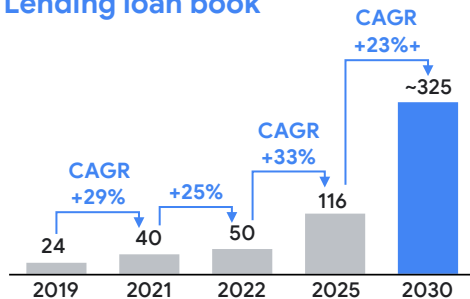
Payments (GTV)



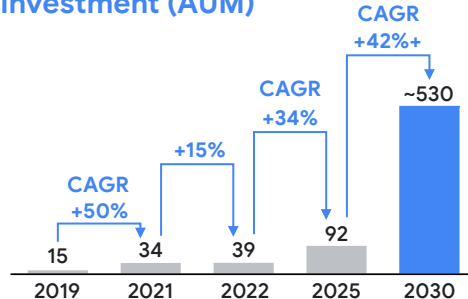
Remittance flow (GTV)



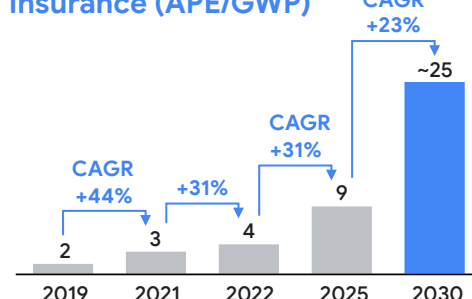
Lending loan book



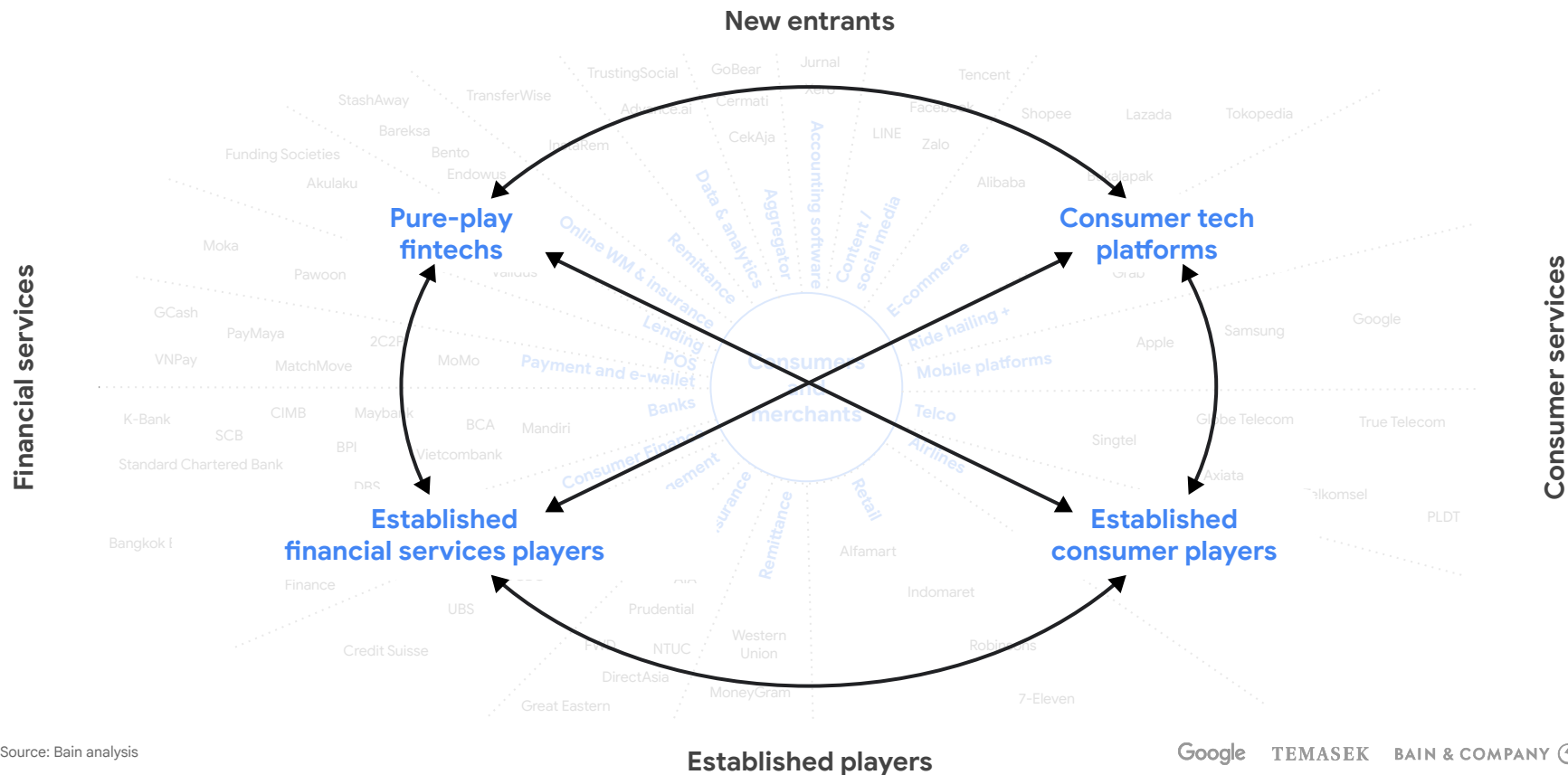
Investment (AUM)



Insurance (APE/GWP)



DFS: We introduced the diverse competitive landscape in 2019...



... fast forward three years and winning business models are emerging

Progress of different DFS business models

↗ Stronger → Stable ↘ Weaker ? Just launching + Strength - Weakness



Pure-play fintechs:

Largely focused on expansion to improve profitability and drive customer stickiness

- + Pace of innovation, a fast-growing suite of financial products, and a dedicated platform
- Operating at subscale levels so profitability is challenging, limited products



Consumer tech platforms:

Leading e-commerce or transport platforms expanding into DFS with initial focus on existing customers

- + Synergistic value-add to the existing consumer journey
- Basic financial products available today, less sophisticated than pure-play fintechs



Established financial services players:

Rapid digitalisation to unlock seamless omnichannel customer journeys and to compete with insurgents

- + Sophisticated financial products across a range of asset classes, extensive customer support
- Slower platform and product innovation than pure-play fintechs



Established consumer players:

Solo attempts at expansion mostly unsuccessful and now pivoting from individual ventures to partnerships

- + Synergistic value-add to the existing consumer journey
- Less effective platforms and services than the expertise and infrastructure of fintech/tech platforms



Digital banks:

New entrants leveraging existing merchant and consumer networks to reach unbanked and underbanked populations

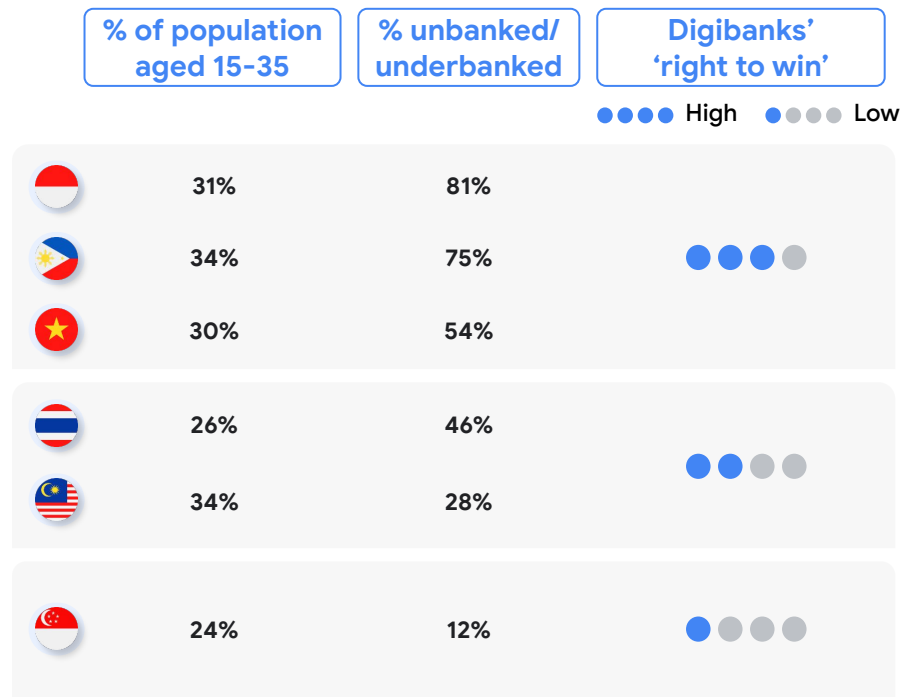
- + Penetration of young digital natives and unbanked/underbanked populations, catalysing financial inclusion
- Unclear value proposition against incumbents in mature financial markets, challenging unit economics in emerging economies

DFS: Digibanks compete for mass and unbanked consumers while established banks fast-track digitalisation

Segment	% of total deposits	Likelihood of switching	Digibanks are starting to gain traction in SEA...	... while incumbents are building on inherent strengths to digitalise quickly
High net worth	40-50%	↘	<p>New entrants are gradually gaining consumer trust, especially among young digital natives.</p> <p>SEA's digibanks aim to emulate peers in developed markets (e.g. the UK or South Korea) that enjoy a 60-70% cost base vs incumbent banks. Efficient, non-legacy platforms, together with streamlined operations and distribution, allow digibanks to pass on savings to their customers (e.g. higher CASA rates) as well as reinvest in new products such as their lending and investment portfolios.</p>	<p>High net worth and affluent customers drive 60-80% of deposit balances, and are more likely to hold multiple products (e.g. investments, insurance, wealth, etc.). They are thus more likely to stick with established financial services.</p>
Affluent	20-30%	→		<p>To stay competitive, leading established banks are investing heavily in ramping up their digital capabilities so as to offer a better user experience and more value-added services, such as digital payments and investments.</p>
Mass affluent	15-25%	→		
Mass	10-15%	↗	<p>“Digibanks’ opportunity lies in credit. They have access to proprietary consumer data and are in a position to capture share of underbanked via alternative credit decisioning.” – VC</p>	<p>“We continue to develop world-class digital solutions to match the value propositions offered by leading fintech and digibanks.” – CEO, leading regional bank</p>
Unbanked	N/A	↑		

Note: CASA = Current accounts and savings accounts.
Source: Bain analysis

DFS: Uptake of digibanks will depend on unbanked share of population and digital maturity of incumbent banks



Digibanks have a higher 'right to win' in Indonesia, the Philippines, and Vietnam, where **digitalisation of incumbent banks is slower, and low digital inclusion of the unbanked and underbanked offers sizable headroom** for growth. Achieving profitable economics, however, will be a challenge.

“Consumers in Indonesia and Vietnam demonstrate significantly higher affinity towards digibanks than in other regional markets.” – VC

In Thailand and Malaysia, digibanks have a medium 'right to win', given the **lower proportion of unbanked and underbanked people. Incumbent banks enjoy ecosystem support** such as protective regulations and integrated partnerships, making it harder for newer players to gain ground.

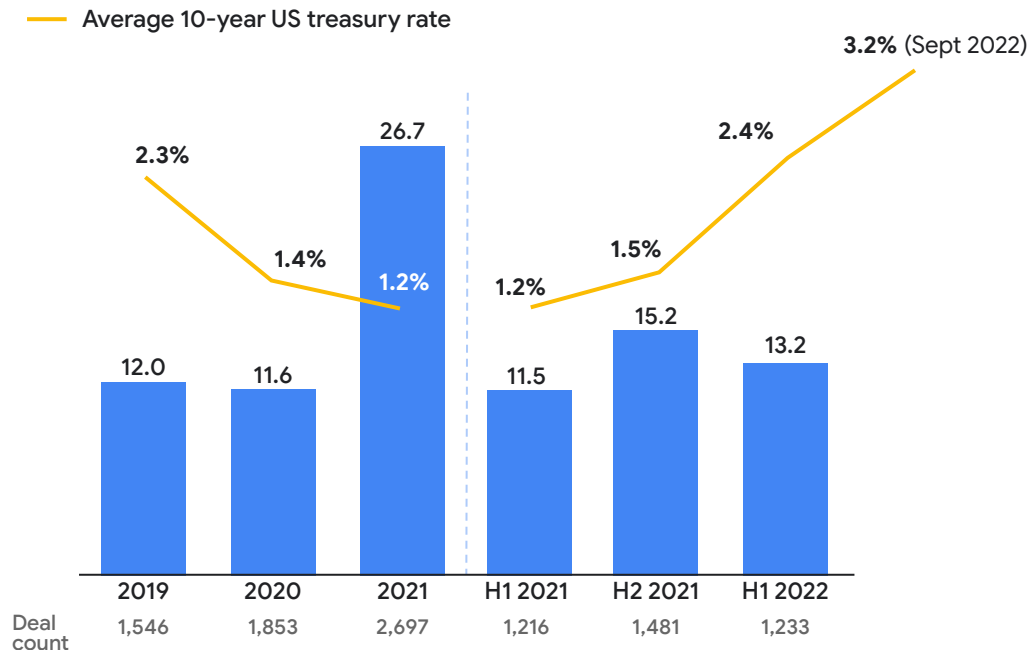
In a mature market like Singapore, digibanks have a low 'right to win', given how few unbanked and underbanked customers there are. The **banking system is concentrated around well-established financial institutions** undergoing rapid digitalisation, which have a stronghold on the most profitable segments—the high net worth and affluent customers.

The background is a stylized illustration of a seascape. It features a bright yellow sun on the left, with a few wispy clouds. In the foreground, two white sailboats with blue and yellow accents are sailing on the water, leaving white wakes. To the right, there are green hills with two white wind turbines and a small white building. The water is depicted with various shades of blue and white waves. The text "Prudence clouds tech investments" is centered in the middle of the image.

Prudence clouds tech investments

Investments maintained strong momentum in H1 2022, but investors are getting increasingly cautious

Private funding value (\$B)



SEA's deal landscape continues last year's upward momentum

While total deal activity remained relatively constant at about 1.2K from H1 2021 to H1 2022, **this year's deal value has already surpassed last year's by ~15%**, mainly driven by larger average ticket sizes of +13% YoY.

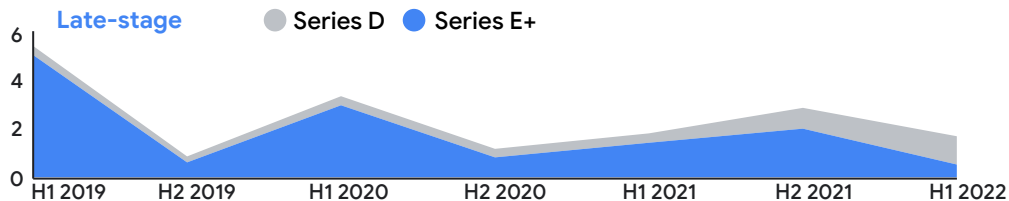
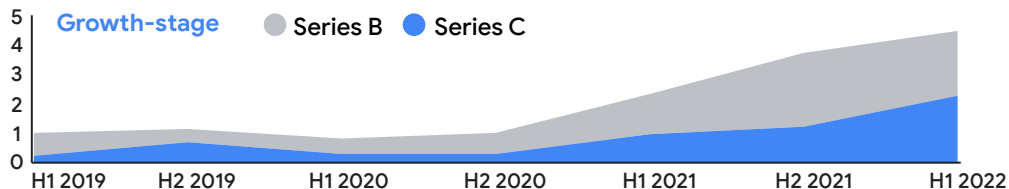
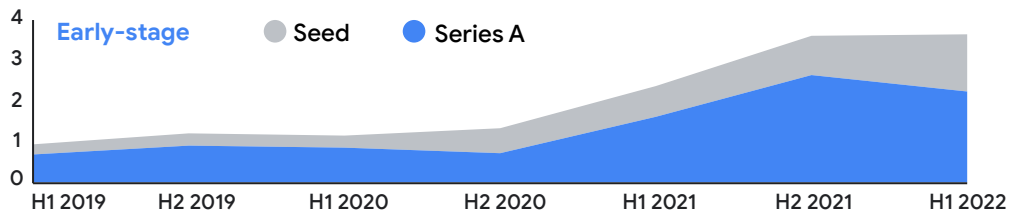
Rising interest rates hindering investments in H2 2022

Historically, the US experiences peak venture capital (VC) investment activities while riding on prolonged periods of low interest rates, like in the past few years.

The recent increase in long-term US treasury rates has made **investments in high-growth tech companies less attractive from a financial perspective**, leading to a gradual slowdown in the latter half of 2022, akin to VC trends in the US.

Early-stageers are flourishing, while late-stage investments are impacted by dim IPO prospects

Private funding value (\$B)



Early-stage investments growing

Even after a record high 2021, funding continued pouring in throughout H1 2022. With **SEA relatively insulated from macro headwinds, ticket sizes have increased by 40-60%**, giving investors reasons to stay optimistic about the region's long-term prospects in the private market.

Growth-stage sees record highs

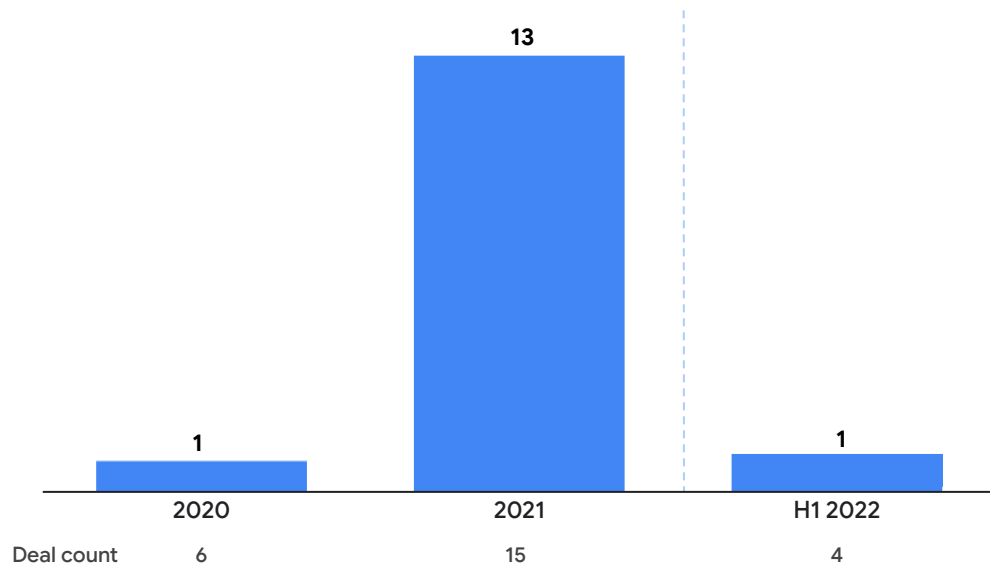
From H1 2021 to H1 2022, growth-stage investments hit an **all-time high**. Larger funds are active in the region and willing to follow up on previous investments, particularly in sectors and companies that accelerated during the pandemic.

Late-stage investments on a downtrend

Amid global headwinds and a recent series of inflated late-stage valuations, **E+ megarounds have seen funding dry up** as pre-IPO companies struggle to build a track record of profitable growth.

In public markets, IPOs and post-IPO financing deals are drying up

Public funding value (\$B)



After a bull run in 2021...

Last year, leading digital players in SEA raised IPO and post-IPO financing rounds ranging between \$1B and \$6B, comprising over 80% of the digital economy's total public funding.

... cool-off is happening in 2022

Now, rising interest rates, plummeting stock valuations, and global investor pivots to 'safe havens' are bringing IPO prospects to a near halt for the next 12 to 18 months.

Most VCs expect valuations to continue dwindling; only a small minority sees recovery in the near-term

3 in 4

investors see valuations declining by at least 10-30%* in 2022

“Following the pullback of leading late-stage funds, **we are starting to see fewer and smaller-sized deals in later-stage rounds**, as well as higher caution among other growth investors.” – VC

1 in 2

investors expect valuations to further decline from 2022 levels

“As we continue to face the impacts of global headwinds, **we expect tighter squeezes on valuations in 2023—with more down rounds**, especially with late-stage companies.” – VC

<1 in 4

investors believe valuations will only return to 2021 peaks in 2023-2024

“We are **optimistic that deal activity and valuations will pick up again** after the uncertainties in macro-conditions have cleared, over the next 2-3 years.” – VC

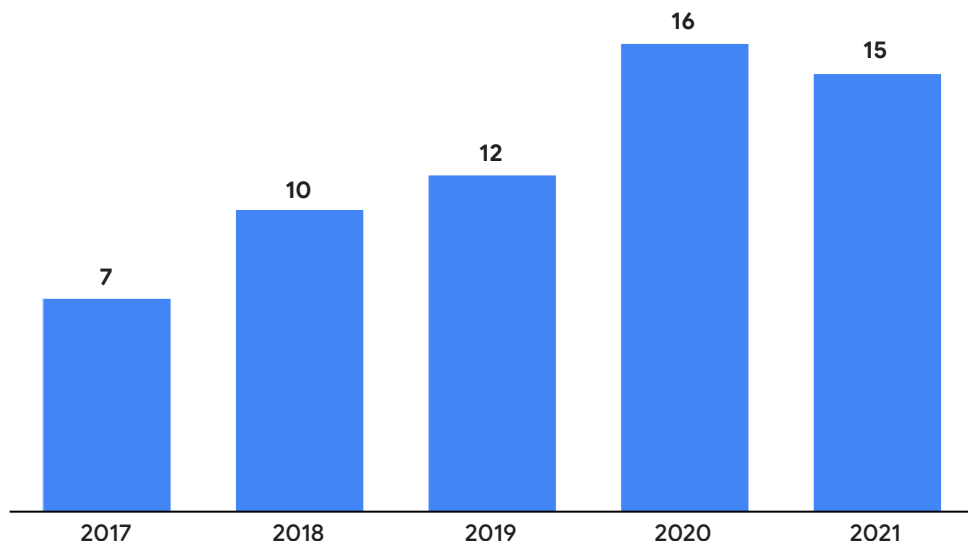
Most tech companies are expediting their paths to financial sustainability

	Previous target / consensus	Revised target	
Grab	H2 2023 EBITDA breakeven for overall delivery segment	H1 2023	“ We have accelerated our expected breakeven timelines for our core food deliveries and overall deliveries segment by one and two quarters, respectively, to Q1 2023 and Q2 2023.” - Grab's Q2 2022 earnings press release
GoTo	Q4 2024 Positive group contribution margin	Q1 2024	“ The Company currently expects group contribution margin to turn positive starting in the first quarter of 2024. ” - GoTo's Q2 2022 earnings press release
Bukalapak	H2 2024 EBITDA breakeven for overall business	H2 2023	“ Bukalapak targets to be Indonesia's fastest e-commerce player to break even , with timeline of EBITDA positive by 2023F.” - BNI Sekuritas analyst report, August 2022
Shopee	2023 Breakeven for Asia market post HQ costs	2023	“ In terms of the breakeven target for the Asia market, post HQ costs, we previously shared that we expect that to happen by next year (2023). There's no change to our expectation on that. ” - Yanjun Wang, Group CCO, during Q2 earnings call

Note: 'Overall delivery' includes food and logistics; EBITDA = Earnings before interest, taxes, depreciation, and amortisation.
Source: Bain analysis

VCs remain vested in the region with \$15B dry powder to sustain deals

SEA funds' dry powder at year-end (\$B)



Committed to investing in SEA...

The existing VC funds lifecycle instils confidence that **investments in SEA will continue throughout the downturn**, despite an expected slowdown in new funds raised.

... with a more cautious approach

VCs are likely to re-invest in their own portfolio companies and weather through the funding winter rather than venture into unproven startups.

However, **some VCs are 'buying the dip' at lower valuations**, with the aim of seeking higher ROI opportunities from the 2022/2023 vintages.

Despite the headwinds, investors remain **confident in SEA's long-term prospects** and the opportunities they bring.

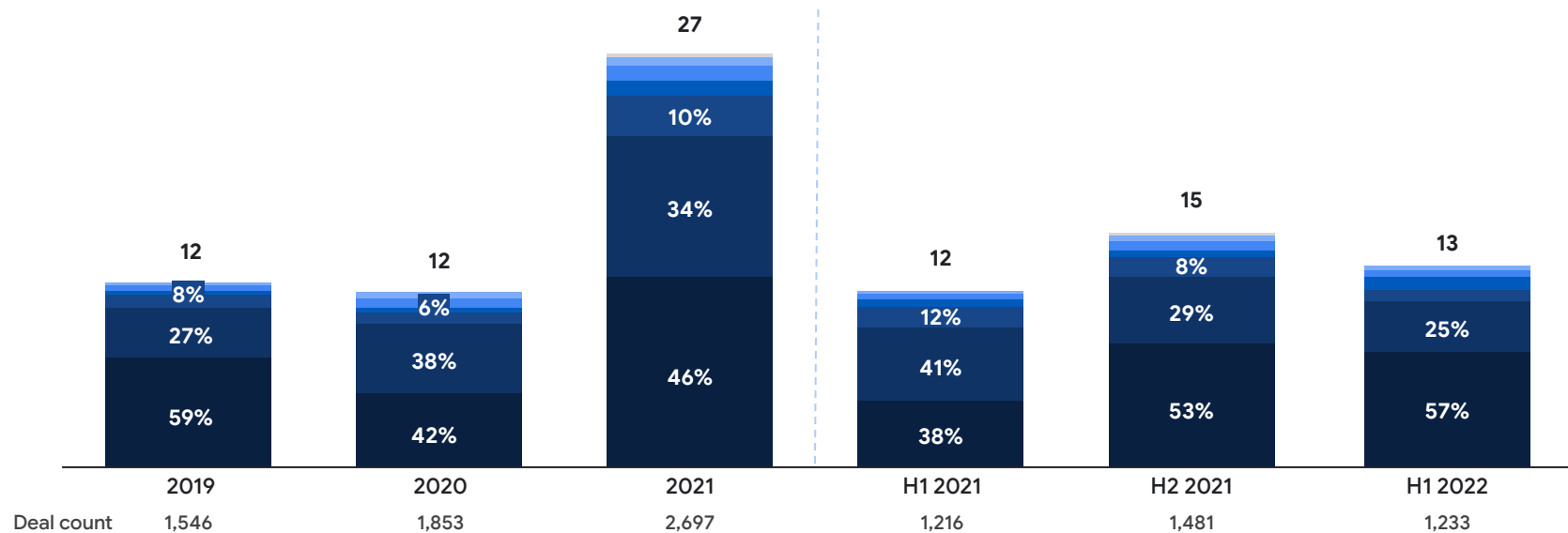
Increasingly, they are spreading their bets in **up-and-coming countries and sectors**.



Singapore and Indonesia are 2022's leading investment destinations yet again

Private funding value, by country (\$B)

● Singapore ● Indonesia ● Vietnam ● Philippines ● Malaysia ● Thailand ● Others

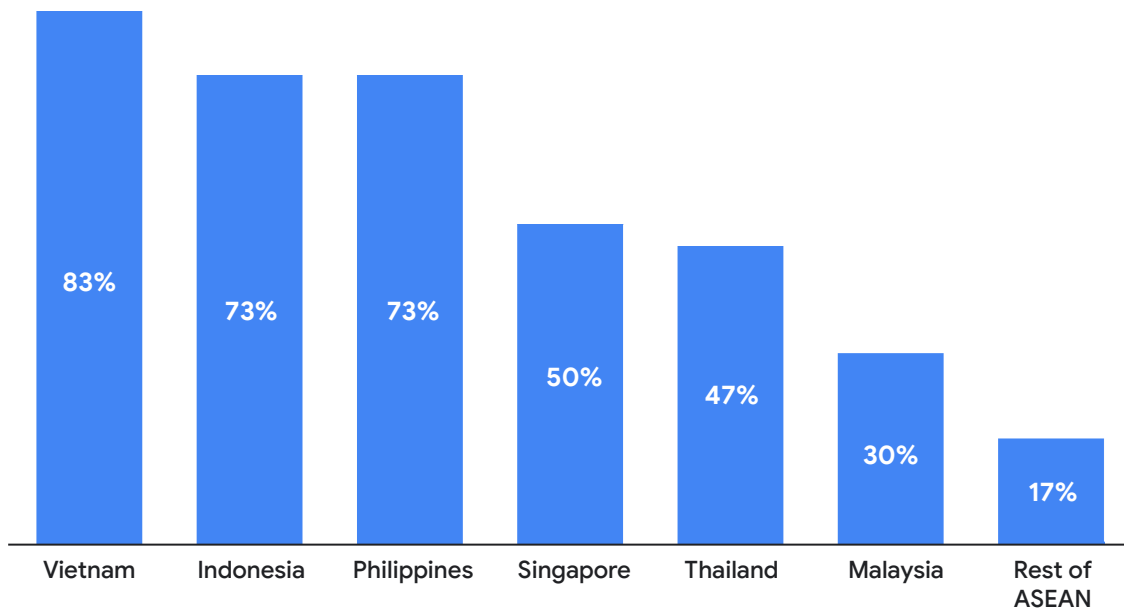


Note: 'Others' include Brunei, Bangladesh, Cambodia, Myanmar, and Sri Lanka.
Source: Bain analysis

Vietnam, Indonesia, and the Philippines are most likely to attract more investors over the longer-term

Q. How do you expect deal activity to change in the long-term (2025-2030) for the following countries?

● Expected increase in deal activity in 2025-2030 vs today



“Indonesia, Vietnam, and the Philippines are clear hot spots for growth and investments in the years ahead, driven by heightened digital savviness and affluence.” – VC

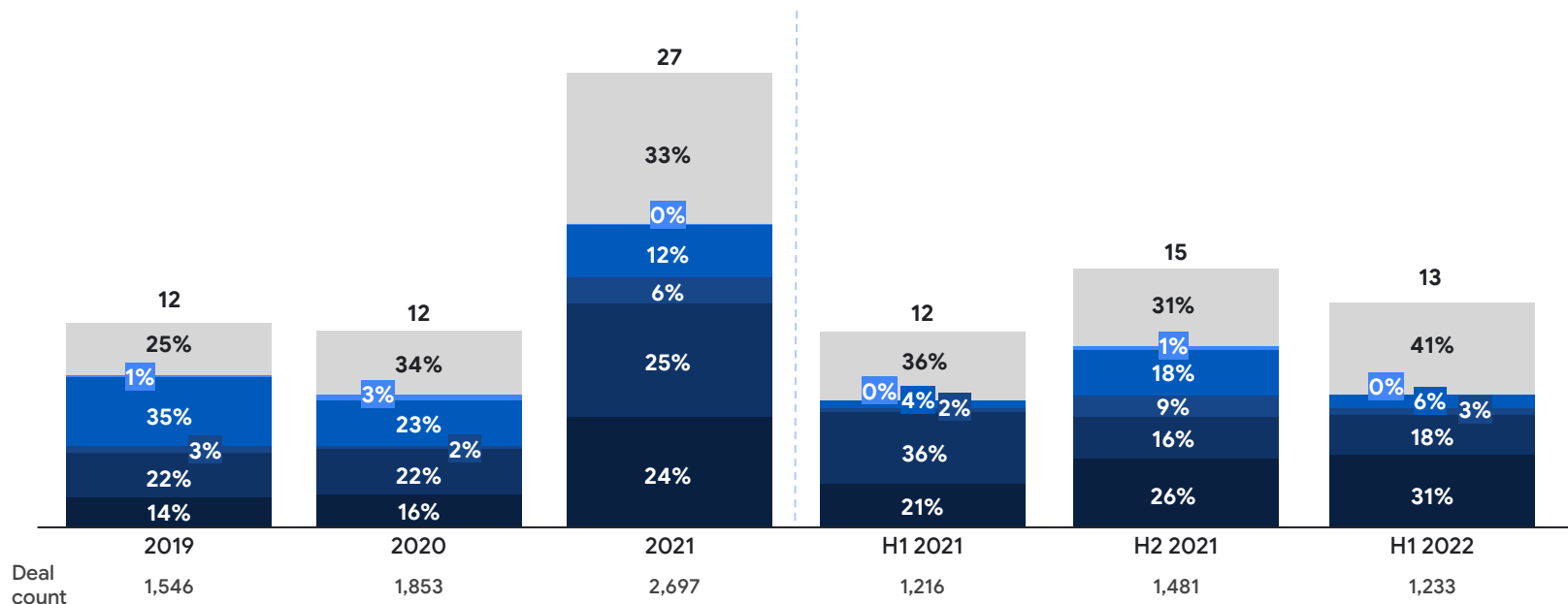
“Singapore will continue to serve as a mature investment market, with a strong pipeline of attractive regional startups.” – VC

“It’s still early days for investments in the rest of ASEAN, where enablers for growth are not yet in place.” – VC

DFS overtakes e-commerce as SEA's top investment sector

Private funding value (\$B)

● DFS ● E-commerce ● Transport ● Digital media ● Leisure & travel ● Others

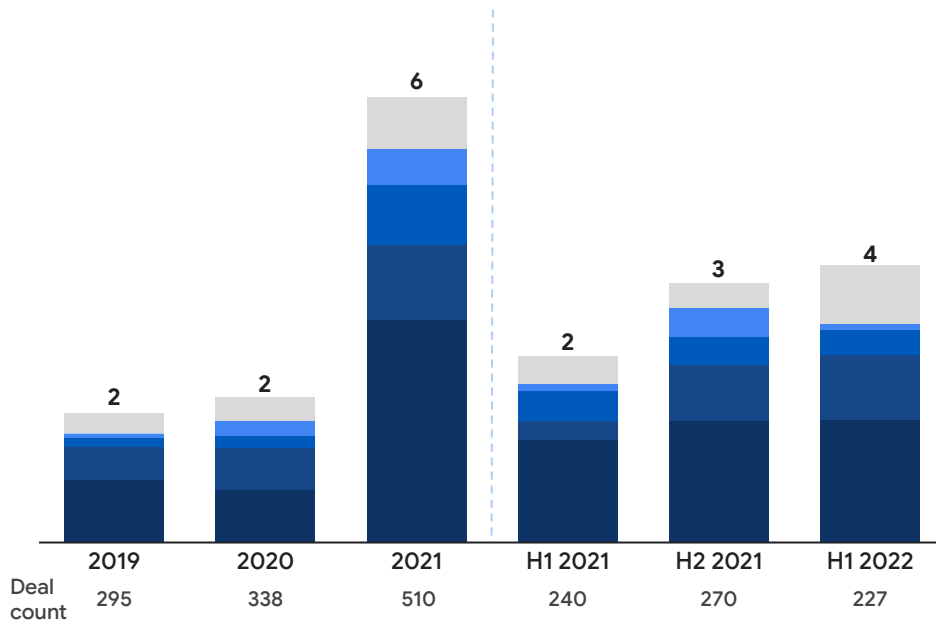


Note: 'Others' include foodtech, B2B tech, transport, cleantech, agritech, etc.
Source: Bain analysis

DFS: Payments retain the lion's share of deal activities

DFS private funding value (\$B)

● Payments ● Lending ● Investments ● Insurance ● Remittance ● Others



Note: 'Others' include digital banks, Web3-related fintechs, etc.
Source: Bain analysis

Payments remain centrestage

Critical 'backstage' enablers like payment gateways and monetisation solutions clocked two of the year's biggest private deals, **making them the sector's superstars. Investors will be on the lookout for more infrastructure-based solutions** as they seek to expand SEA's digital consumer population through DFS.

Lending and new players step into the limelight

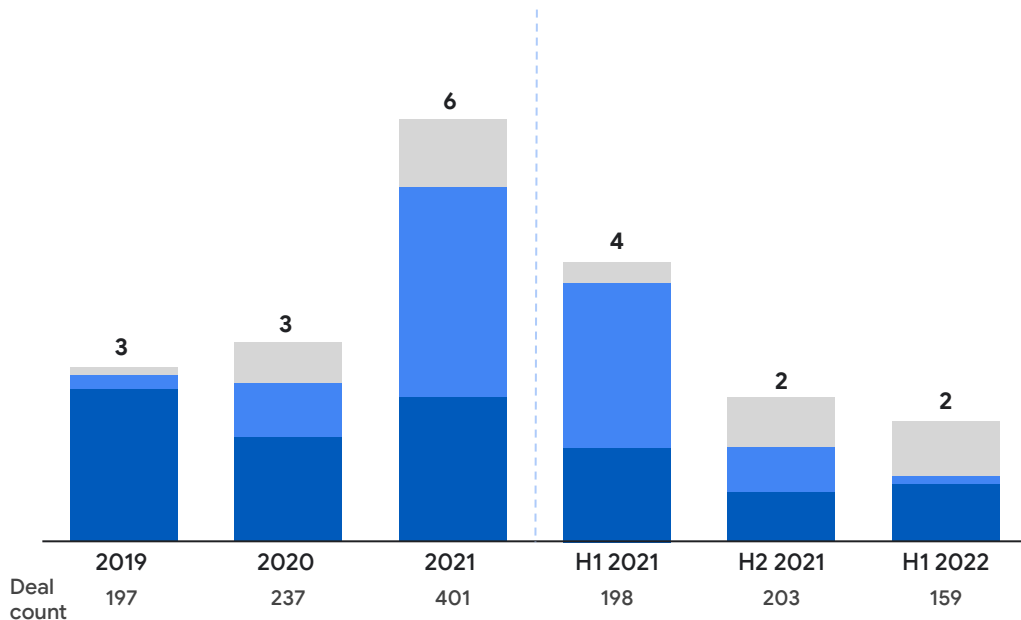
With the rise of buy-now-pay-later (BNPL) platforms, investor **interest in lending has multiplied, with deal value doubling** from H1 2021 to H1 2022. Between BNPL players, super apps, traditional banks, and more, competition is intensifying and consolidation is likely in the next couple of years.

Digibanks and Web3 fintechs have been turning heads too, with investments doubling year-on-year. While nascent, players are eagerly experimenting, learning, and capturing new opportunities.

E-commerce: Logistics deals diminishing after years of growth

E-commerce private funding value (\$B)

● Marketplace ● Logistics ● Others



Fewer deals in a maturing sector

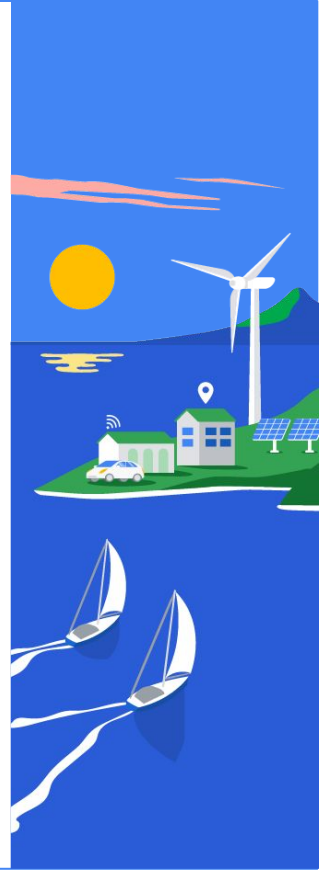
E-commerce is a consolidated market with much of its market share and funding activity centred around regional, at-scale marketplace players. As a result, **there have been ~23% fewer deals in 2022 than in 2021.**

Logistics investments cool off

Coming off a strong funding year in 2021, investments in logistics companies have dwindled, with **key regional players already sufficiently funded to continue capacity expansion** and tide through the 'funding winter'.

Nascent sectors like healthtech, SaaS, and Web3 hold the promise of addressing some of SEA's key challenges.

But as they gather adoption momentum, they're facing persistent challenges in terms of monetisation.



>80% of VCs expect to increase focus on healthtech, SaaS, and Web3, while enthusiasm for edtech cools

Q. How do you expect deal activity to change in the long-term (2025-2030) for the following sectors?

Expected increase in deal activity in 2025-2030 vs today



“The pandemic accelerated the development of digital medical services in order to provide affordable and accessible healthcare to all. We expect to see much **higher adoption in the coming years, especially among the rural population.**” – VC

“SMEs in SEA **contribute a sizable amount to our overall GDP** (especially in Indonesia), and will continue to grow over the next five years. **Affordable SaaS solutions are key** to empowering these companies.” – VC

“Many Web3 technologies will eventually be embedded into Web 2.0 **platforms**, enhancing functionality and engagement in the future. The trend of mixing Web3 tokenisation with Web 2.0 games is a clear example of that.” – VC

“With the return to in-person training and learning, demand for **online-based learning has cooled off significantly** compared to peak levels in the past 2 years. Going forward, it will be **vital to consider hybrid learning forms** to sustain growth.” – VC

Poor access and rising healthcare costs are key reasons for healthtech adoption

Healthtech can help tackle SEA's chronic healthcare pain points



Emerging healthcare systems

Indonesia (ID)
Philippines (PH)
Vietnam (VN)

Poor access to hospital facilities

ID, PH, and VN **have between 1-3 hospital beds per 1,000 residents**, compared to ~13 in Japan

Low insurance coverage for digital health services

Patients in ID and PH **pay out-of-pocket for ~40% of digital health services** (e.g. online pharmacy, tele-meds, self-diagnostics, wellness) compared to ~20% in Australia

“Healthcare accessibility is particularly challenging for suburban cities in emerging economies—**digital solutions can help bridge this gap.**” – VC

“Affordability is another problem, given the scarcity of medical resources. **Tech-based health services can lower these costs.**” – VC



Mature healthcare systems

Singapore (SG)
Thailand (TH)
Malaysia (MY)

Lack of consolidated health records

Hospitals in TH and MY **still operate in siloed databases**, hindering patient and clinical data-sharing and efficiencies

Rising healthcare costs

In 2022, healthcare costs in SG and MY **surged by ~9% and ~16% respectively**, well above South Korea's ~3% rise

Rapidly ageing population

The number of people over 65 in these countries is **expected to double by 2030**

“More mature markets are seeing growth in the aged population, which creates more pressure on the medical system. **Telemedicine can help alleviate some of that pressure.**” – VC

“While Singapore is **progressively consolidating medical records** across providers and platforms, there is significant room for improvement in Thailand and Malaysia.” – VC

Affordable SaaS with embedded finance solutions are key to digitalising and professionalising SMEs in SEA

SMEs are the bedrock of SEA...



Large, growing SME population

SEA's >70M SMEs, including Indonesia's warungs and the Philippines' sari-sari stores, are **key to the region's social and economic development**



SMEs deliver a substantial contribution to the economy

~40% of SEA's GDP is driven by SME activities



Significant job creation

SMEs employ ~67% of SEA's working population

... and SaaS with embedded finance can help address their pain points



Costly backend services

Costly cash transactions and manual bookkeeping practices **cause high operating costs**



Inaccessible financing

Many SMEs are unbankable due to unreliable business and financial data



Limited reach and scalability

Majority of SMEs are offline with limited customer reach, making it a challenge to scale

“SMEs are the backbone of our economy—they **drive a sizable amount of Indonesia's GDP, along with an array of job opportunities**, especially in suburban cities.” – VC

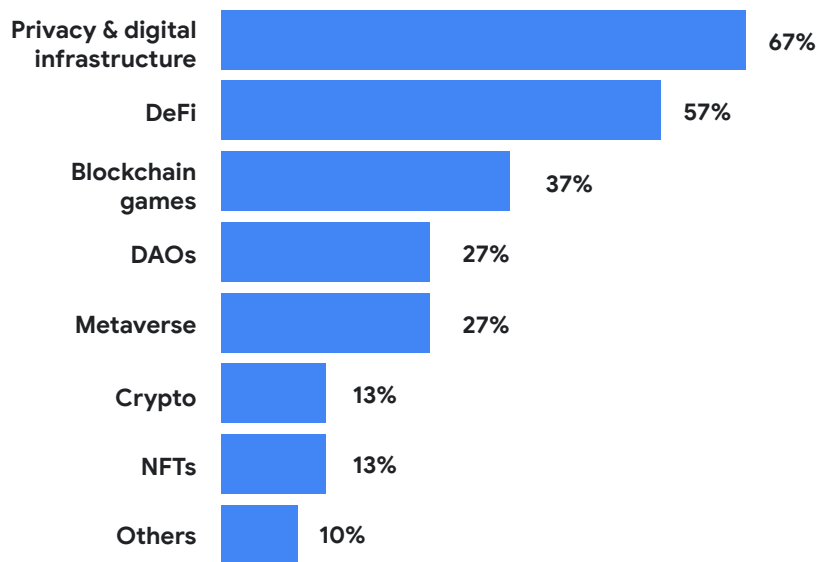
“The opportunity for SaaS in SEA is less on enterprise solutions but **more on free/affordable SME SaaS solutions** with embedded financial services (for monetisation).” – VC

“**SMEs and MSMEs will continue to play a vital role in our economy**, given the heavily fragmented nature of our geography—especially in Indonesia.” – VC

Though nascent, venture capital interest in Web3 themes is growing

Q. Within Web3, which areas are you most interested in investing in?

● % of VC respondents who have started investing in Web3



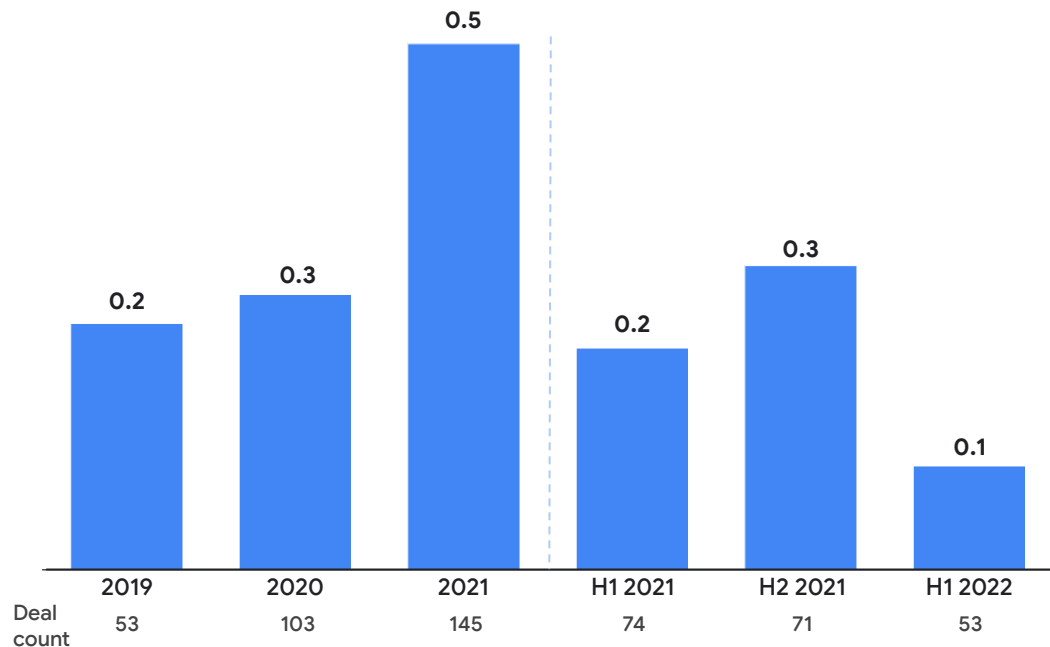
“Although Web3/crypto is a small portion of our investment portfolio today, we have **established a separate fund dedicated to these investments**, and are looking to expand our work in that space.” – VC

“We expect select themes like infrastructure and gaming to gain significant traction in the years ahead. In fact, we are already **seeing >50% of pitches coming from Web3 gaming startups**.” – VC

“All the investment hype in Web3 is on the **infrastructure layer** right now. As for the metaverse, we are taking a ‘wait and see approach’. It is not a priority yet.” – VC

Investments in edtech dip as economies reopen and e-learning gives way to in-person learning

Edtech private funding value (\$B)



Source: Bain analysis

Edtech cools after pandemic peaks

The reopening of economies has led to **higher churn rates, lower uptake of new courses, and reduced average spend**, causing investors to approach edtech cautiously and pivot towards sectors such as SaaS and Web3.

Challenges in scaling into a sustainable business model

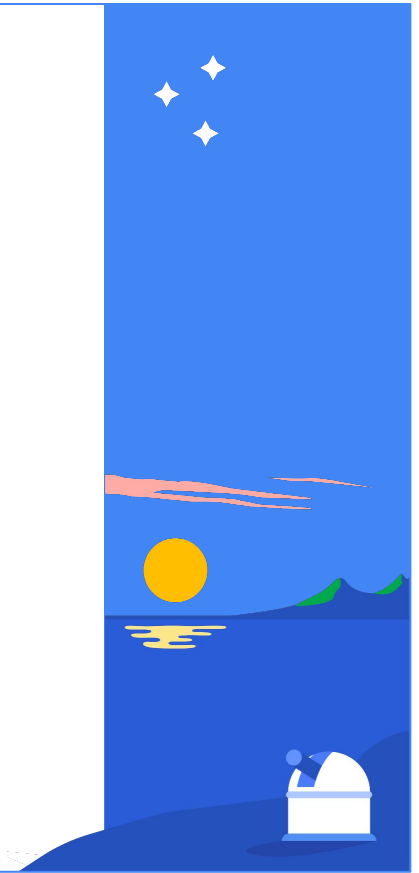
The widespread adoption of technology in learning continues to pose challenges. In order to scale, **edtech needs top quality teaching materials and a learning experience that seamlessly integrates** into traditional learning forms, all while ensuring security and privacy.



Towards a sustainable digital economy

Awareness of **environmental, social, and governance issues** remains nascent, but is **on the rise**.

Digital economy players **can play a positive role in leading SEA consumers** towards more sustainable habits.

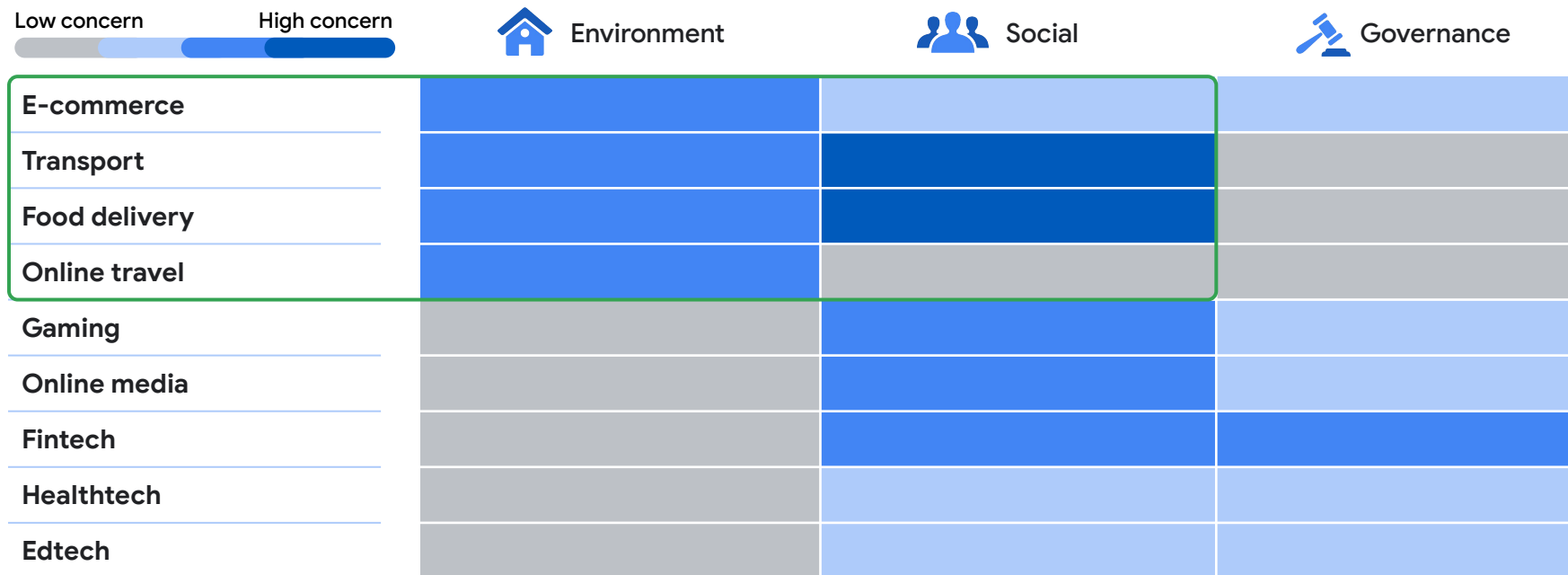


Sustainability spans across environment, social, and governance, and is a key enabler for SEA's digital decade



Environmental and social sustainability are the greatest concerns among SEA's core digital economy sectors

Levels of concern, by sector

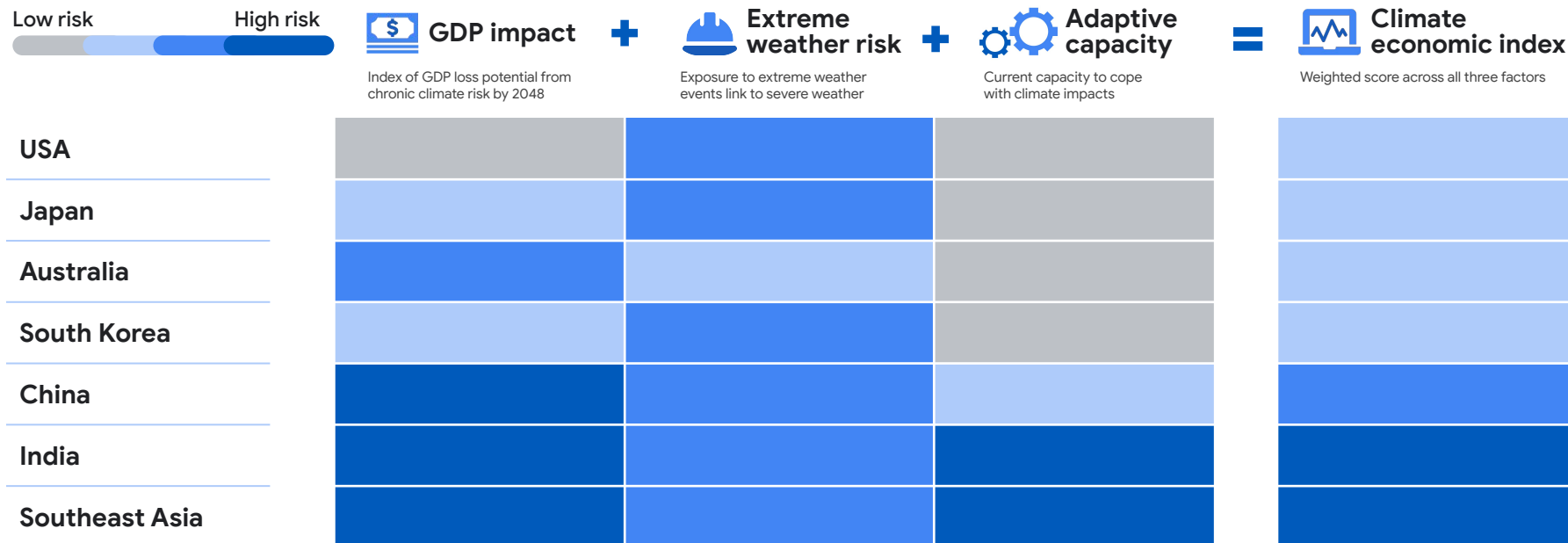


Note: VC's perception of the level of concern ('somewhat concerning' + 'significant concern') for each ESG dimension across different sectors.
Source: Bain, SEA Venture Capital Investors Survey, Q3 2022

Emissions and resources are the hottest environmental issues while labour practices and DEI are top of mind social topics

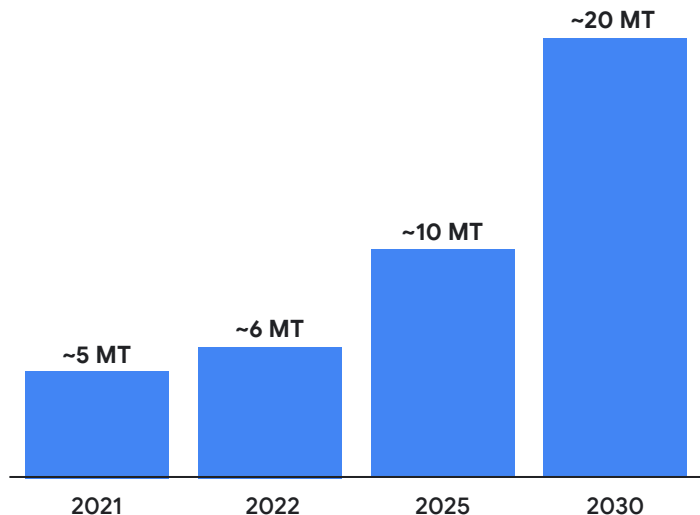


Environment: SEA is one of the most heavily exposed regions to the risks and consequences of climate change



Environment: As the digital economy scales, emissions are projected to reach ~20 MT CO₂e by 2030

Carbon footprint (CO₂e)



CO₂e projections are calculated based on the Greenhouse Gas Protocol Scope 3. The methodologies used to calculate the digital economy's three key sectors are:

Transport

- Estimated average trip, including driver repositioning distance per ride, based on urban area sizes
- Applied blended emissions per km per trip based on electric vehicle (EV) and hybrid electric vehicle (HEV) penetration

Food delivery

- Packaging emissions based on the average amount and type of materials used
- Rider emissions based on average distance to pick-up point, then to customer destination

E-commerce

- Scaled up regional players' published carbon footprint reports, by market share
- Growth in carbon footprint is assumed to follow sector's GMV growth

Online travel has been excluded despite the environmental footprint of air travel, since online platforms facilitate bookings and do not emit material CO₂e themselves.

Notes: The Greenhouse Gas Protocol includes Scope 1, 2 and 3 emissions. Scope 3 defined as: 'Emissions coming from activities from assets not owned by the company, but indirectly impacts in its value chain'. Nascent sectors (e.g. Web3) not included given uncertainties around the technology and business models.

MT CO₂e = million tonnes of carbon dioxide equivalent.

Source: Bain analysis

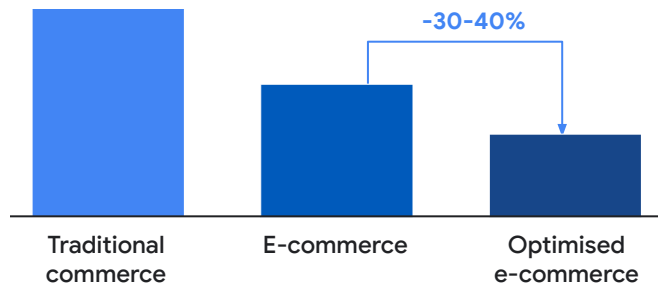
Environment: If optimised, the carbon output from digital channels can be much lower than traditional

Carbon footprint scenarios (indexed emission levels)



E-commerce

Per item scenario comparison



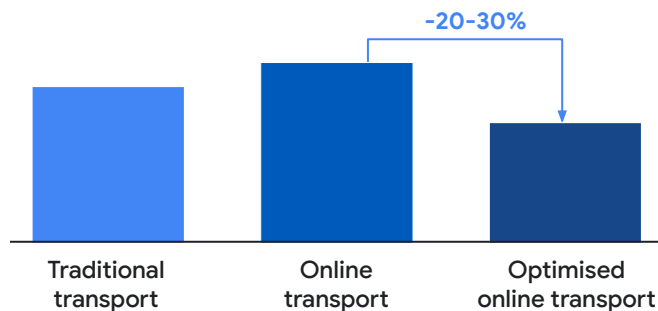
To reduce e-commerce's footprint by 30-40%,

logistics providers can deploy electric vehicles (EV) to handle last-mile deliveries, consolidate operations into satellite distribution centres, and further reduce and recycle packaging materials.



Transport

Per trip scenario comparison



The online transport sector can lower its footprint by 20-30% by helping drivers

reduce wait times, optimising driving routes using mapping technologies, and converting more of its fleets to EV, HEV, and plug-in electric vehicles (PEV) through partnerships with EV manufacturers around the region.

Notes: Differences between scenarios are largely driven by Scope 3 emissions. Purchasing behaviour has significant impact on carbon emissions—if consumers consolidate multiple purchases in the same trip or order, they can reduce emissions on a per item basis. Transport comparison does not consider end-to-end carbon emissions linked to vehicle manufacturing and ownership. Online transport can help reduce the need for vehicle manufacturing and ownership.

Source: Bain analysis

Environment: Achieving optimised carbon goals will first require a concerted effort to address some key questions

Companies



Carbon-friendly practices

- How can we highlight sustainable products and services to **raise awareness and provide options to consumers** who want to reduce or offset their carbon emissions?
- How can we **use environmentally friendly practices**, like waiving flexible-time delivery fees, recycling packaging materials, and opt-ins for cutlery, **to meet the path to profitability goals**?

Merchants



Sustainable sales

- How can we **source and sell sustainable products** that use less packaging materials, last longer, and can be reused and recycled by consumers in a circular economy?
- How can we **grow the business and leverage consumers' emerging willingness to pay** for sustainable products and services, while standing out in a crowded marketplace?

Consumers



Purchasing behaviour

- How can we **adopt environmentally friendly purchasing behaviour**, like choosing sustainable products, services, and merchants, consolidating purchases into larger orders, or accepting longer delivery times to help optimise operations?
- How can we switch from owning vehicles with internal combustion engines (ICE) to using shared electric vehicles (EV) services and **reducing our collective carbon footprint**?

Social: SEA's digital economy has delivered business opportunities, jobs, and economic contribution

Business opportunities

 **20-25M**

unique merchants transacting on e-commerce platforms to date

 **6-7M**

small- to medium-sized restaurants on food delivery platforms to date

Job creation

 **~160K**

direct¹ jobs created to date across the digital economy

 **~30M**

indirect² jobs created to date across the digital economy

Economic contribution

 **~5-10%**

penetration of SEA's GDP³ in 2022 (i.e. digital economy's GMV/GDP)

 **~2X**

expected growth of SEA's digital economy GMV (vs GDP) between 2022 to 2025

Notes: (1) Core sectors include e-commerce, transport, food delivery, online travel, online media, and financial services. (2) Indirect jobs refer to jobs created as a result of the digital platform business, including transport driver-partners, food delivery riders, content creators and personnel of third party logistics companies that support e-commerce, etc. (3) With 5% being the lowest and 10% being the highest GMV/GDP penetration among SEA countries in 2022.
Source: Bain analysis

Social: Companies and institutions must address some key concerns before the digital economy can become truly sustainable

Worker-partner concerns



Welfare

- How do we **better support gig economy workers** in their medical, accident, income protection, and retirement needs?
- How do we **help them build skills relevant** to the 'digital decade' and beyond?
- How do we balance **worker-partners' rights with service affordability and financial sustainability** of the platform?



Well-being

- How do we guarantee a **high standard of workplace safety** in e-commerce warehouses and last-mile delivery centres?
- How do we ensure safety standards for transport drivers and delivery partners that **prioritise well-being over jobs maximisation**?

Consumer concerns



Digital inclusion

- How do we drive **higher adoption of digital economy services in suburban cities**, especially in underserved areas?
- How do we make **digital economy services more affordable** to 'on a budget' consumers?
- How can institutions play a more **active role in closing the digital economy divide**?

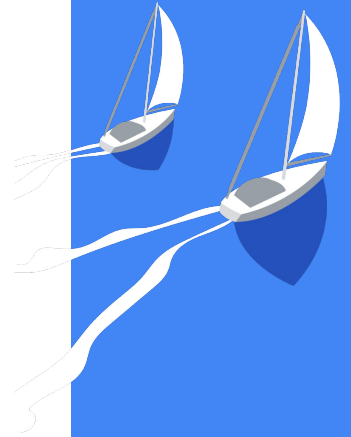


Financial inclusion

- How do we **increase financial literacy**, particularly among suburban and lower income consumers?
- How do we **offer financial services to the unbanked and underbanked** in an economically sustainable way?
- What can institutions do to promote adoption of digital financial services while **regulating against abuse and fraud**?

Despite growing interest in sustainability, adoption remains nascent.

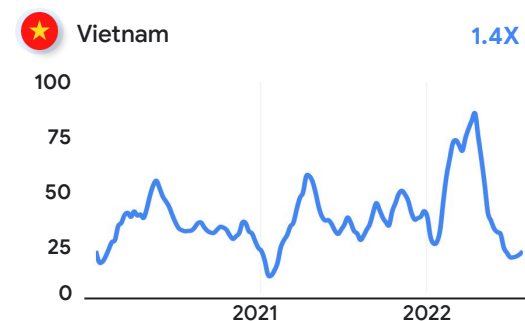
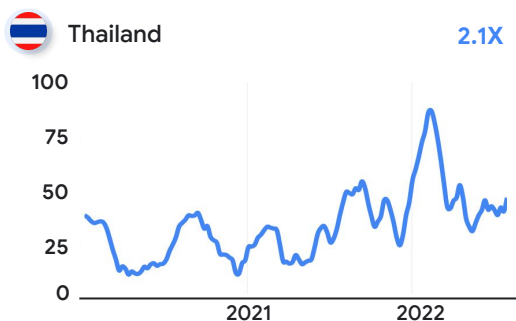
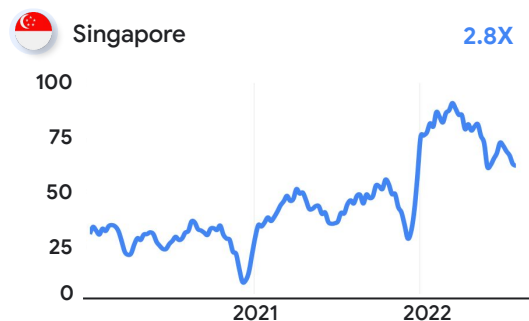
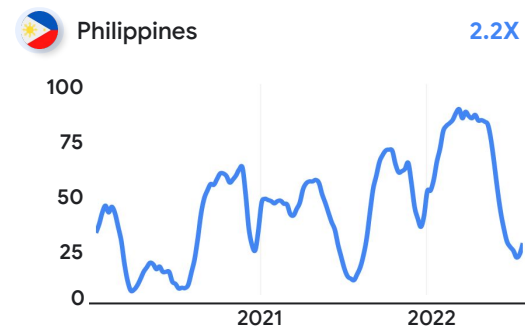
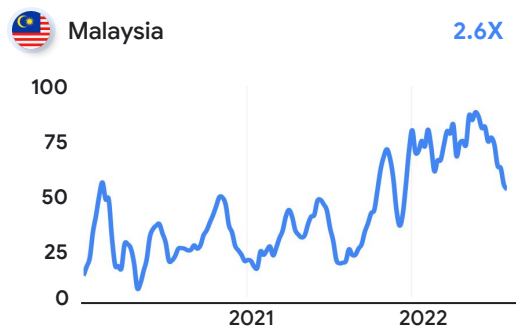
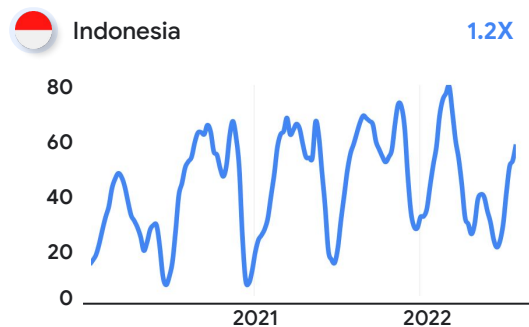
There is much to do, with the onus on consumers, companies, investors, and governments to **jointly strive towards a more sustainable digital economy.**



Consumers: Interest in sustainability is rising across the region

Sustainability-related search trends, by country

— Indexed searches



Note: Terms include 'sustainability' and 'sustainable', and their variants.
Source: Google Trends, 2022 vs 2020 average search volumes

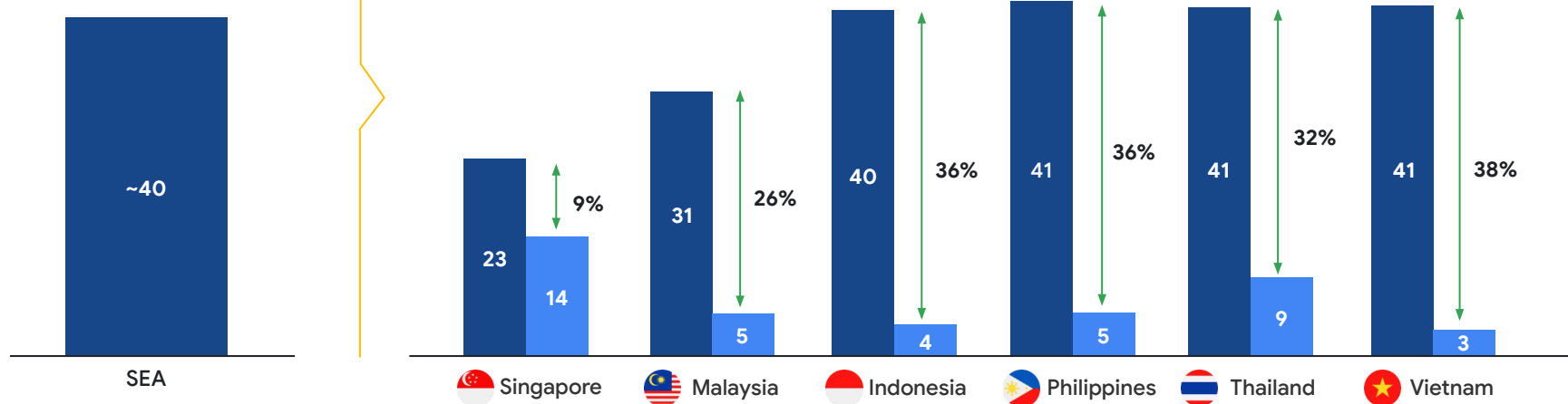
Consumers: A 'say-do' gap exists between declared intentions and actual purchasing behaviour

~40% of SEA consumers say they care about sustainability...

... but only ~3-15% are acting on their intentions by purchasing sustainable foods

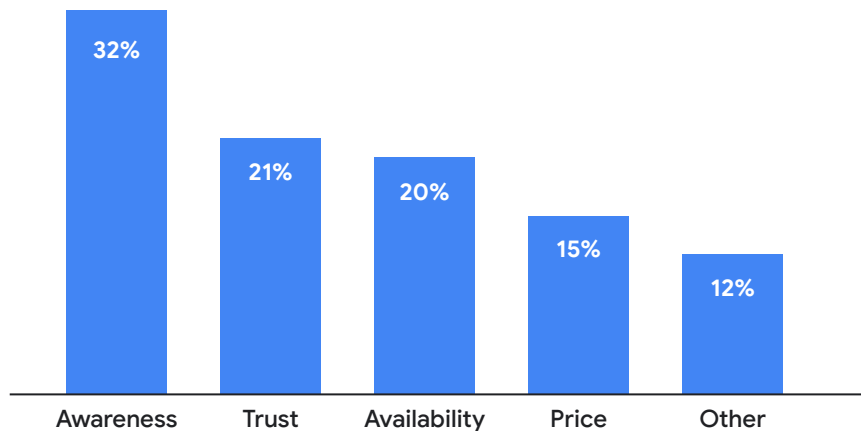
● 'Say' - % of consumers who consider sustainability a top three criteria when purchasing packaged foods

● 'Do' - % market share of packaged foods that is sustainable



Consumers: Awareness, and trustworthy sustainability claims are more pivotal to closing the ‘say-do’ gap than price

Top barriers for sustainability adoption in SEA (%)

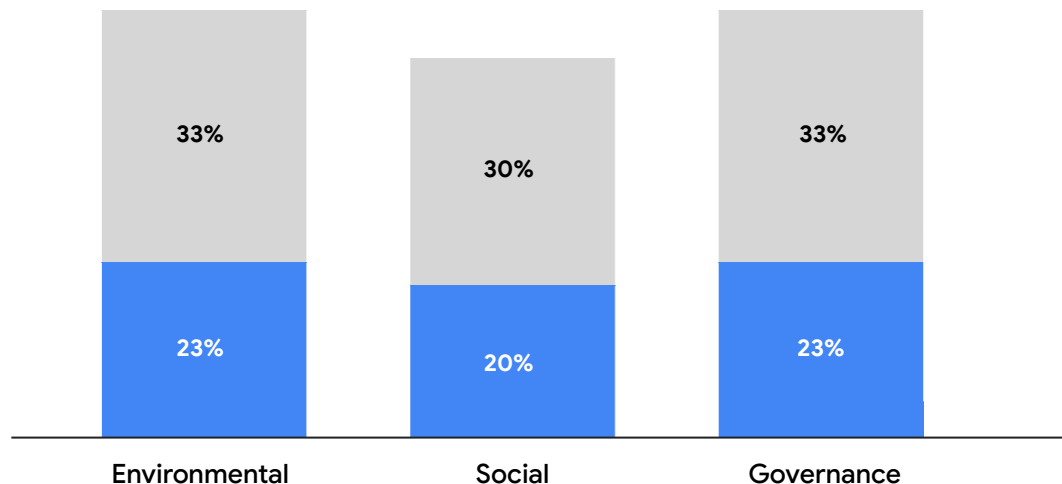


- Consumers generally have insufficient information about the available sustainable options. When they do, they don't necessarily trust the sustainability claims companies make.
- As environmental and social concerns rise across the region, brands need to **provide transparency and trustworthy information so that consumers can make purchases that best align with their values.**
- New brands stand to gain market share by launching more sustainable products, while existing players, like e-commerce and transport platforms, can **highlight their product/service's sustainability features via product descriptions, in their delivery options, or in their merchant ratings/reviews** with the goal of encouraging the adoption of sustainability practices.

Investors: Still in the early stages of wrapping ESG considerations into VC investment processes

Q. How do you rate the importance of ESG dimensions in your investment process?

● Somewhat important ● Very important



Some SEA-focused funds recognise the importance of **incorporating ESG elements into the deal evaluation process**

“We’re actively building our capacity and knowledge depth in the sustainability space...” – VC

For many funds, it is an **ongoing learning process** as most have yet to formulate a structured approach to doing so

“It [ESG] is inherently a part of our diligence process, but more can be done to formalise this...” – VC

Most funds today do not actively assess ESG within the investment due diligence

“While ESG is increasingly important, it is still an early concept for most companies in SEA today and they should not be over-penalised at this stage...” – VC

Companies: Digital platforms have started to take concrete steps towards sustainability, though efforts are still nascent

Environment example



A regional transport player partners with automakers to deploy electric vehicles (EV) in Indonesia

- Through this partnership, over 8,000 electric vehicles were rolled out.
- The same company also worked with leading partners to develop and deploy battery-swapping stations in order to power the fleet.

Social example



A leading e-commerce platform in Vietnam empowers suburban farmers via digital

- The e-commerce platform created an online app that enabled suburban farmers in 23 provinces to sell their produce directly to end-consumers and identify ways to prevent food waste, ensuring sustainable income for the farmers.

Governance example



A regional e-commerce platform commits to responsible governance practices

- The company is a signatory of the World Economic Forum's 'Stakeholder Capitalism Principles', which shape sustainability goals globally, and holds itself accountable against international ESG standards.
- It also established the Sustainability Advisory Council, which includes experts from the World Bank, United Nations, and ASEAN Centre for Energy to ensure that its sustainability commitments meet global standards.

Sustainability is the responsibility of not one, but all stakeholders





Charting the course for the digital decade

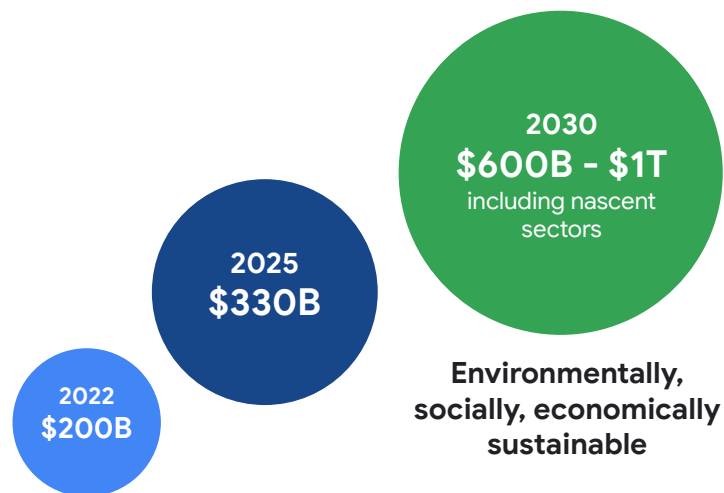
We remain **optimistic about the sustainable development** of SEA's digital economy.

Rooted in strong social and economic fundamentals, SEA's 'digital decade' has **just started to deliver on its promises.**



The SEA digital economy could reach up to \$1T GMV by 2030, provided it can pursue this potential in a sustainable way

Digital economy GMV (\$)



Achieving profitable growth (2023-2025)

The **path to profitability** has risen to prominence as an immediate priority for digital economy companies around the world, and in SEA.

In the next two to three years, they will need to maintain growth against macroeconomic headwinds, in a **balancing act between price increases, cost optimisation measures, and raising cost of capital**.

Unlocking full potential, sustainably (2025-2030)

Digital inclusion of suburban and lower income users in urban areas will be required to unlock the full economic potential and social impact of SEA's digital economy by the end of the 'digital decade'.

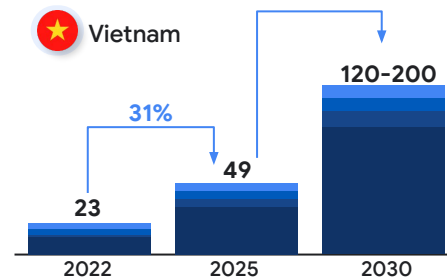
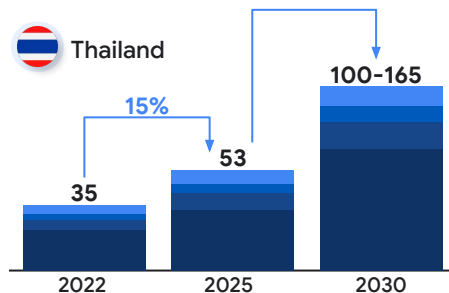
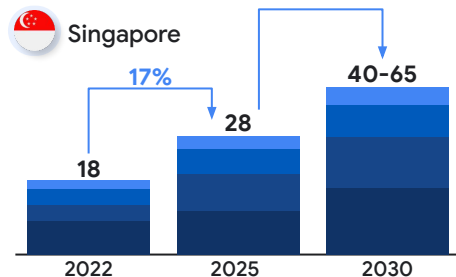
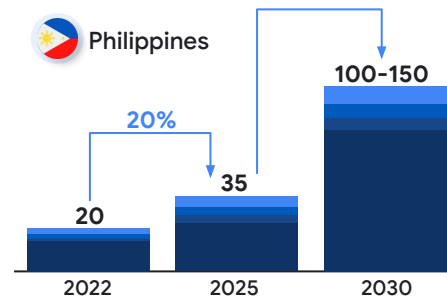
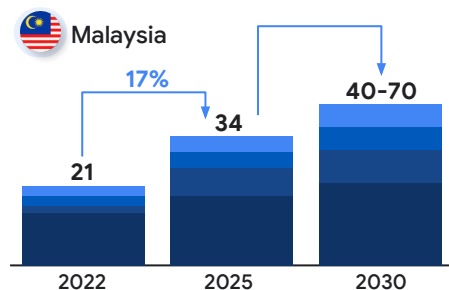
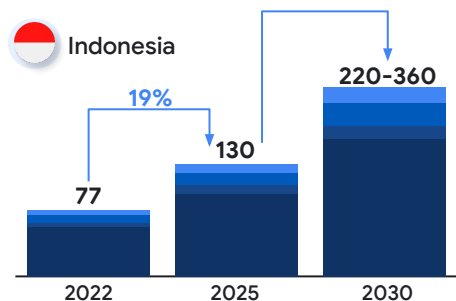
Sustainable growth hinges on addressing environmental, social, and governance responsibilities—which, following trends seen in developed markets like the US and China, will become 'licences to operate'.

Over time, **sustainability will become more important than top line growth**, opening a wide range of GMV scenarios for 2030—from \$600B to \$1T.

Sustained growth expected across the board, with Vietnam and the Philippines as frontrunners going forward

Digital economy GMV (\$B)

● E-commerce ● Travel ● Food & transport ● Online media



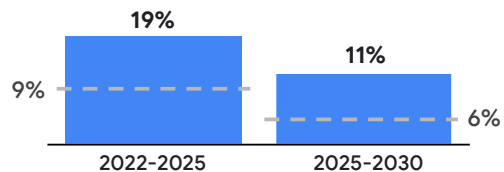
Notes: Excludes DFS and nascent sectors in 2025; includes ballpark estimates for nascent sectors in 2030.
Source: Bain analysis

The digital economy is expected to grow ~2X as fast as GDP through 2030

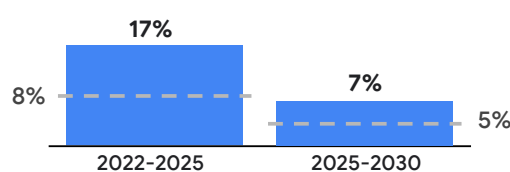
Digital economy GMV growth vs GDP growth (%)

● Expected digital economy CAGR - - - Expected nominal GDP CAGR

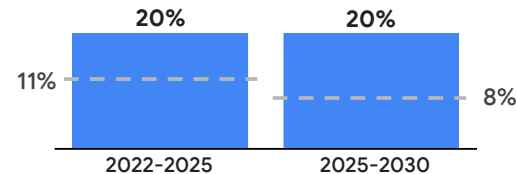
 Indonesia



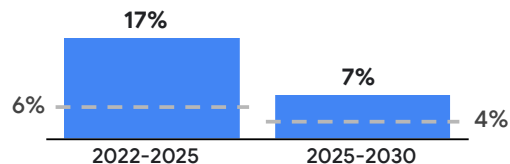
 Malaysia



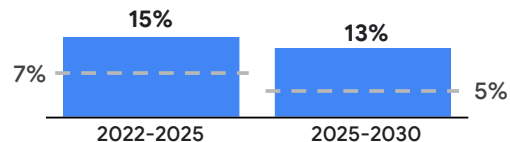
 Philippines



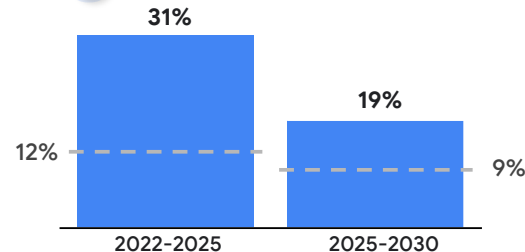
 Singapore



 Thailand



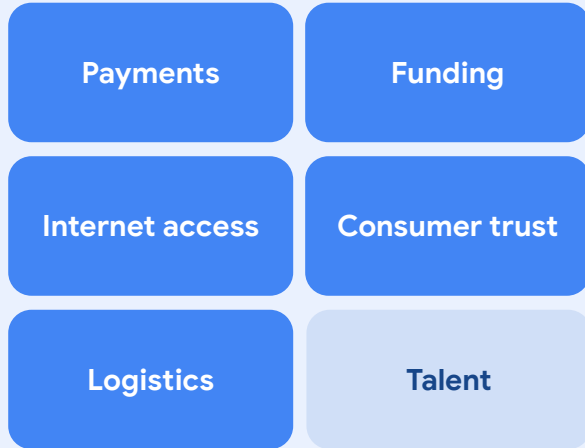
 Vietnam



A new set of enablers can help SEA's digital decade reach new heights

● Advanced ● Some progress ● Nascent

Unprecedented digital economy growth



Towards a sustainable digital economy



Payments and funding push ahead, but talent challenge is shifting focus from headcount to depth of capabilities

Payments

Throughout the pandemic, the adoption and usage of digital payments have accelerated more than ever before, with **payments GTV exceeding \$800B in 2022 after surging over 35% since 2019.**

The rise of e-commerce catapulted digital payments adoption—even in areas where offline merchant payments adoption is not yet ubiquitous.

Internet access

2022 will see 20M new internet users joining the online world, bringing the **total number of users added since the pandemic began to 100M.**

Over 95% of SEA's internet users have access to LTE/WiMax connectivity, and the region enjoys some of the cheapest data in the world.

Logistics

Investments in logistics infrastructure cooled off to \$0.2B in 2022, down from its peak of \$2.5B in 2021.

Nonetheless, logistics providers have built up capacity to deliver over 15B orders per year, given the increasing frequency of shopping festivals across the year.

Funding

VC investments in SEA's digital economy **reached an all-time high of \$27B in 2021, and momentum extended into H1 2022 with \$13B.**

Continued investments in early-stage startups and nascent sectors are needed if the 'digital decade' is to reach its \$1T GMV ambition by 2030.

Consumer trust

Trust in e-commerce players is high, with less than 5% of users dissatisfied with the authenticity of products on marketplaces.

Meanwhile, trust in food delivery is table stakes, as the second least important factor when consumers choose which merchant to order from.

Talent

SEA's digital economy directly employs over 160K people. As companies streamline their operations on the path to profitability, they are **now optimising staffing after years of accelerated growth. Going forward, the focus will shift from headcount growth to depth of capabilities**, especially in specialised disciplines like engineering, data science, cloud technology, and digital marketing.

Digital inclusion and ESG present both opportunities and challenges, and requires balancing with path to profitability

Path to profitability

Investors are **asking companies to achieve financial independence and generate cash by focusing on profitable unit economics** (i.e. cost per order). For example, they could optimise operations, or scale core services.

The risk in doing so is that while **online companies are pulling back incentives and promotions, consumers may find their value proposition less attractive**, especially as price and promotions remain the top reasons that a third of users would switch platforms or revert to offline alternatives.

Environment, social, governance

In SEA, search interest in sustainability has more than doubled over the past three years. Consumers have yet to turn that interest into everyday choices, however, with **a prevailing ~30% 'say-do' gap**.

Companies and investors must increasingly **consider ESG practices as value creation levers** rather than compliance items.

Digital inclusion

A **'digital divide' between urban/suburban lines and income levels persists**. Fewer consumers in suburban areas (20-30% excl. e-commerce) have adopted digital economy services compared to those in urban areas (>90%).

Even urban 'on a budget' users deem digital services too expensive, urging companies to **make them more affordable, such as by offering basic plans and lowering price points**.

Institutional interventions may be needed to invest in digital literacy, and help onboard consumers and areas that companies cannot serve in an economically feasible way.

Data infrastructure and regulation

To enable equitable access, **providers need to continually improve security and speed of connectivity in underserved areas**.

Governments should **ensure balanced policies and regulatory frameworks on privacy, data sharing, and taxes** to encourage interoperability and reduce fragmentation of the internet, thereby enabling businesses to scale digitally.

Ports of call: Country data





A stylized illustration of a seascape. In the foreground, a white sailboat with a red and white sail is sailing on a blue sea, leaving a white wake. To the right, a small green island features a yellow and white lighthouse. In the background, there are green mountains under a blue sky with a large yellow sun and a small pink streak. The word 'Indonesia' is written in white text across the middle of the image.

Indonesia

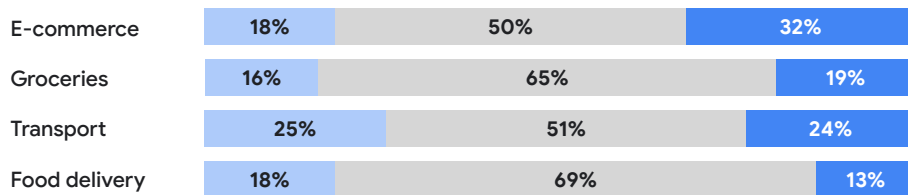


Indonesia: Digital consumers in numbers

Usage intent¹

Intent to use the service in the next 12 months

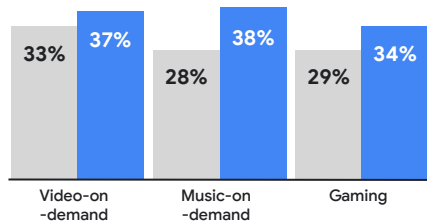
Less Same More



Media usage frequency²

% using at least once a week

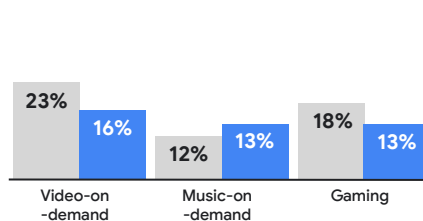
SEA average Indonesia



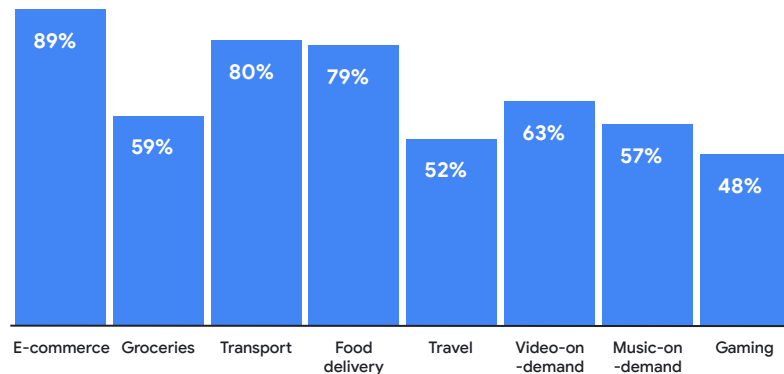
Media usage time³

% using >1 hour per day

SEA average Indonesia



% adoption across urban digital users



Declared willingness to **pay more**
for a sustainable product or service⁴

48%

Questions: 1 - X10. How would you describe your intent to use [e-commerce, online groceries, transport, food delivery] in the next 12 months?; 2, 3 - 'Usage' derived from adoption of X usage frequency/time (among paying users in the past three months); 4 - On average, how much more would you be willing to pay for products/services that are more sustainable (e.g. reducing fuel/carbon emissions, etc)?

Base: Users by verticals in Indonesia, n=948.

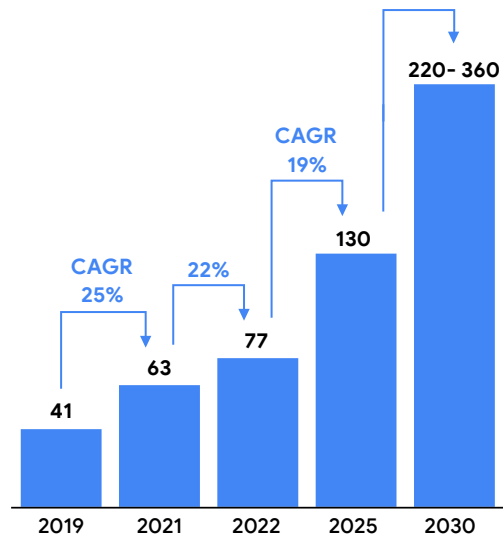
Source: Google-commissioned Ipsos e-Economy SEA Research 2022



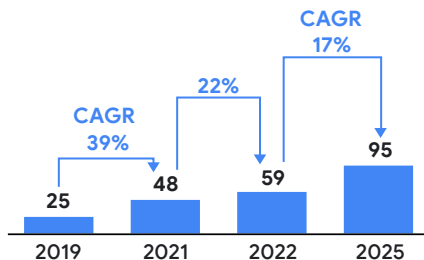
At ~22% YoY GMV growth, Indonesia's digital economy hits ~\$77B in 2022 and is on course to reach ~\$130B by 2025, driven primarily by e-commerce

GMV (\$B)

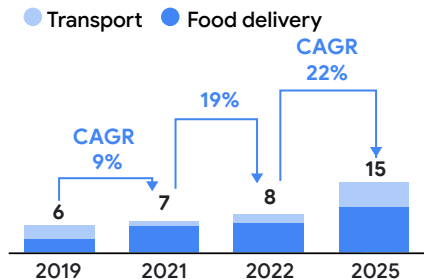
Overall digital economy



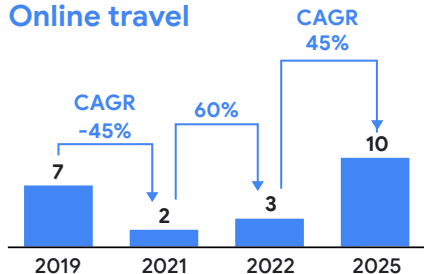
E-commerce



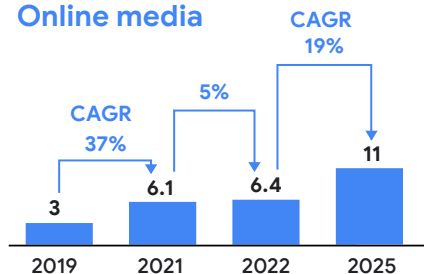
Transport and food



Online travel



Online media

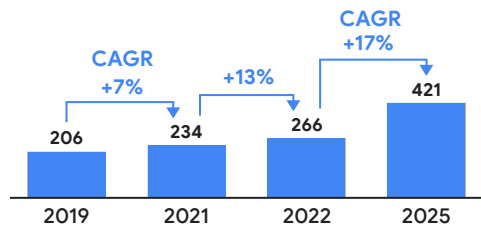




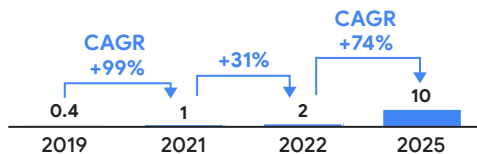
DFS will maintain momentum towards 2025, with digital payments CAGR growing in the teens, and investment platforms accelerating by ~75% CAGR

Digital financial services (\$B)

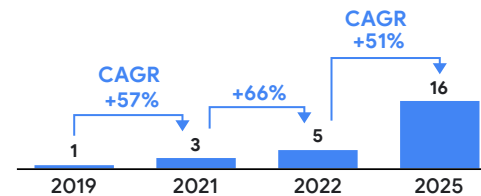
Payments (GTV)



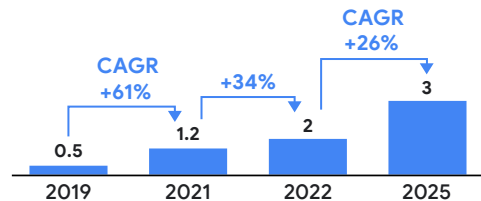
Investment (AUM)



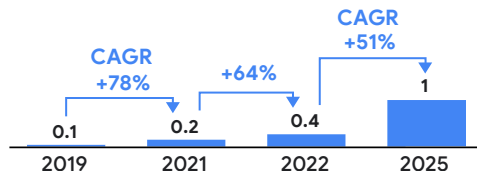
Lending loan book



Remittance (GTV)



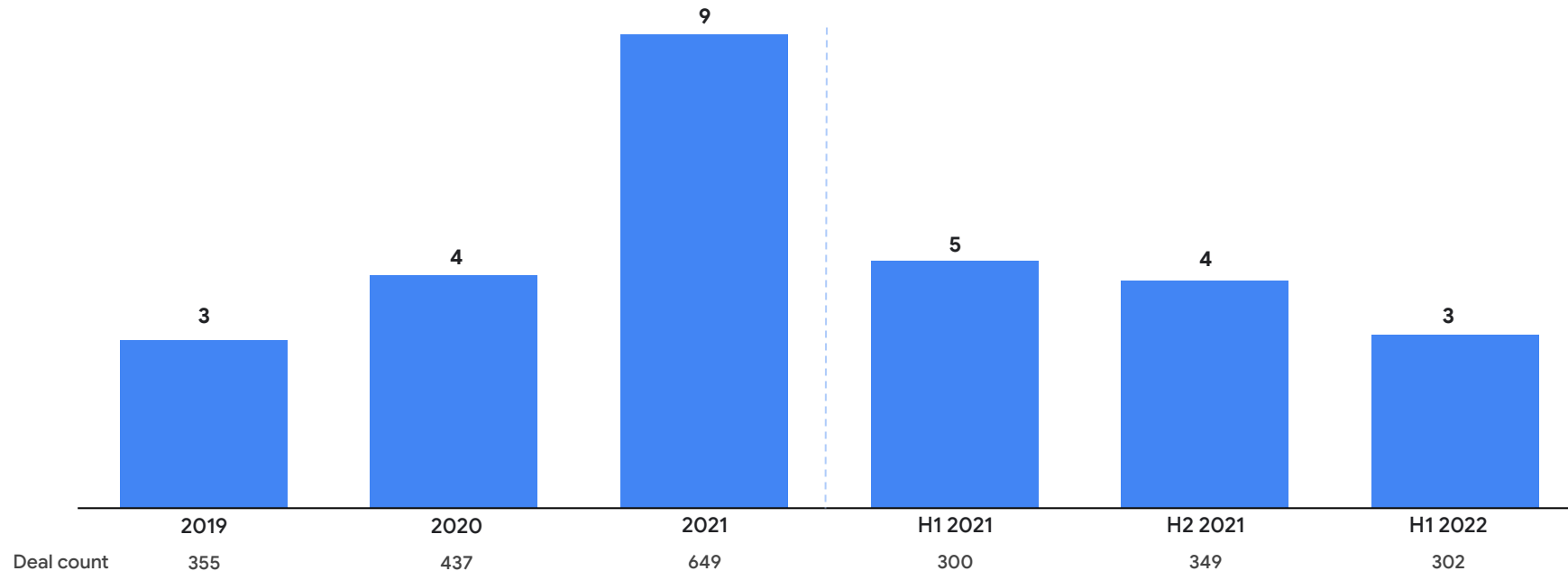
Insurance (APE / GWP)





Deal count constant but deal value dips by ~\$2B YoY as investors prioritise profitability and contend with valuation concerns around late-stage companies

Private funding value (\$B)

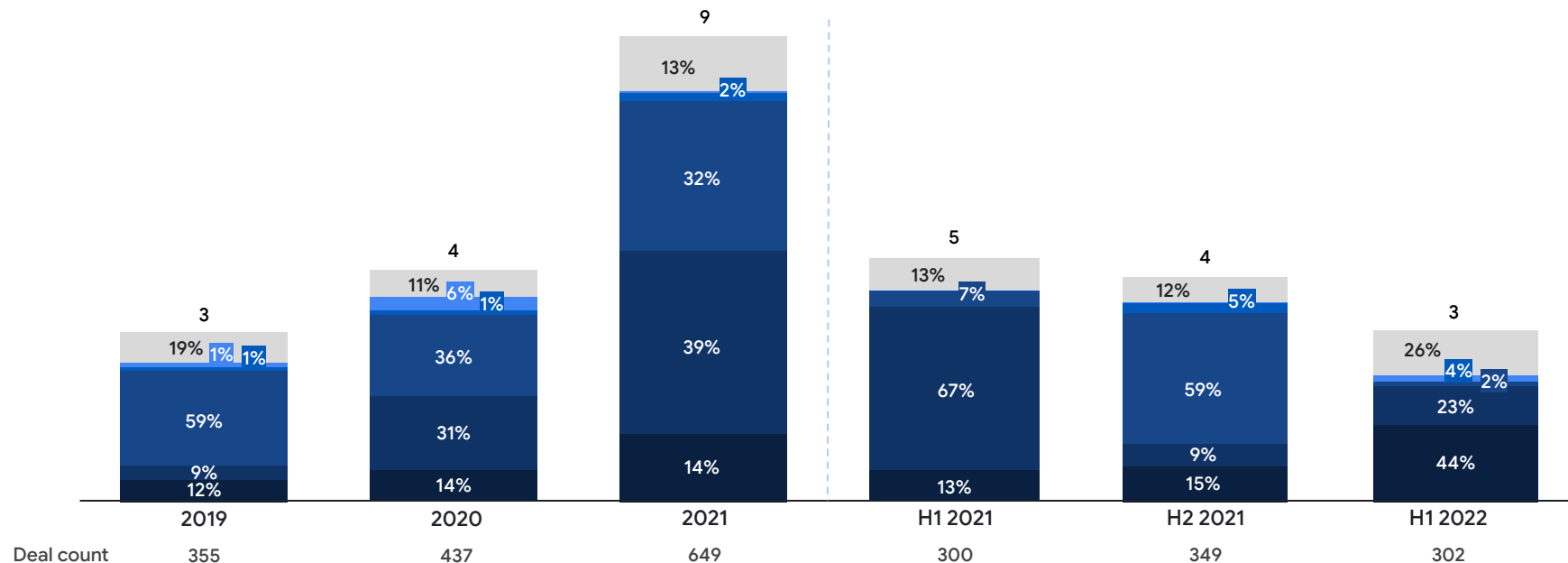




DFS claims lion's share of investor funding, raising ~\$1.5B in H1 2022 alone, with activity primarily focused on B2B payments and lending services

Private funding value (\$B)

● DFS ● E-commerce ● Transport ● Digital media ● Travel ● Others



Note: 'Others' include foodtech, B2B SaaS, Web3, cleantech, agritech, etc.
Source: Bain analysis

Malaysia



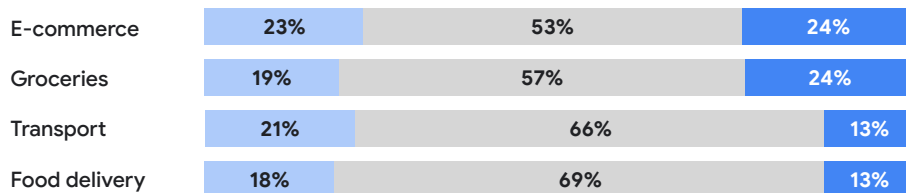


Malaysia: Digital consumers in numbers

Usage intent¹

Intent to use the service in the next 12 months

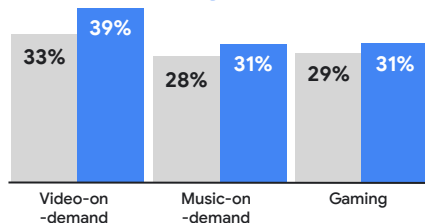
Less Same More



Media usage frequency²

% using at least once a week

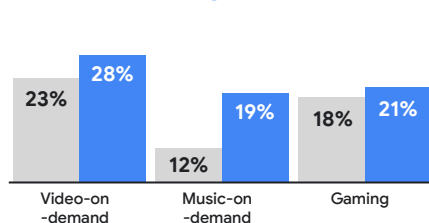
SEA average Malaysia



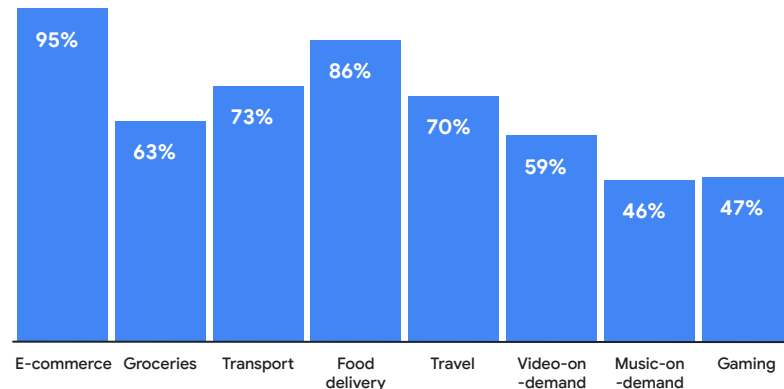
Media usage time³

% using >1 hour per day

SEA average Malaysia



% adoption across urban digital users



Declared willingness to **pay more**
for a sustainable product or service⁴

38%

Questions: 1 - X10. How would you describe your intent to use [e-commerce, online groceries, transport, food delivery] in the next 12 months?; 2, 3 - 'Usage' derived from adoption of X usage frequency/time (among paying users in the past three months); 4 - On average, how much more would you be willing to pay for products/services that are more sustainable (e.g. reducing fuel/carbon emissions, etc)?

Base: Users by verticals in Malaysia, n=987

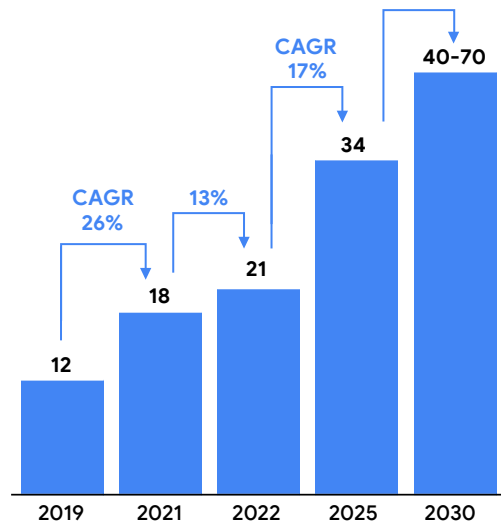
Source: Google-commissioned Ipsos e-Conomy SEA Research 2022



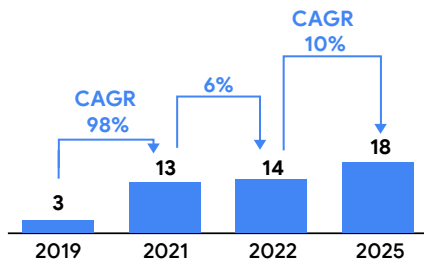
The digital economy continues pushing towards ~\$35B in 2025, largely fuelled by e-commerce's S-shaped growth and online travel's U-shaped recovery

GMV (\$B)

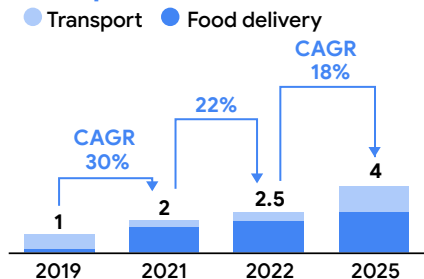
Overall digital economy



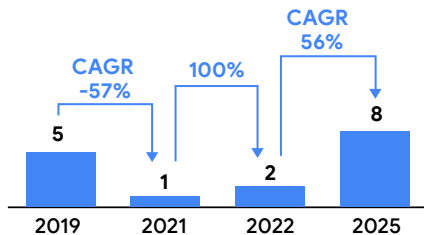
E-commerce



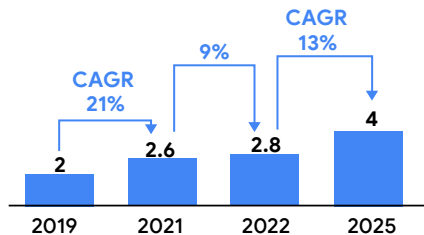
Transport and food



Online travel



Online media

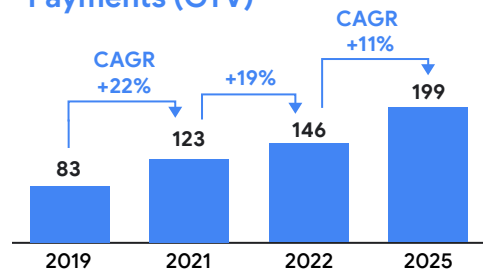




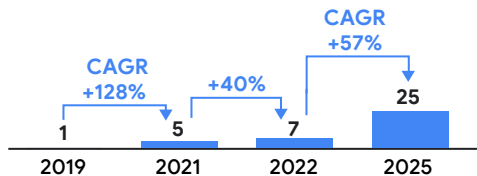
DFS to accelerate towards 2025, driven by digital investments hitting ~\$25B AUM at 40% CAGR and lending reaching ~\$16B at ~39% CAGR

Digital financial services (\$B)

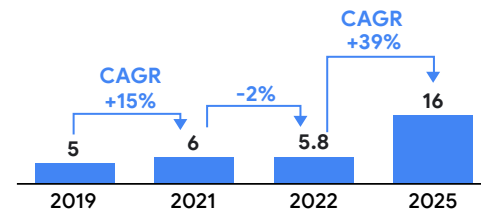
Payments (GTV)



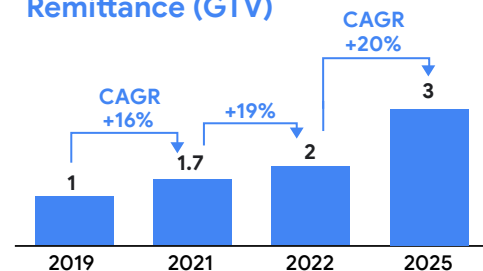
Investment (AUM)



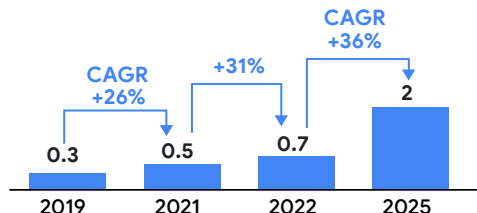
Lending loan book



Remittance (GTV)



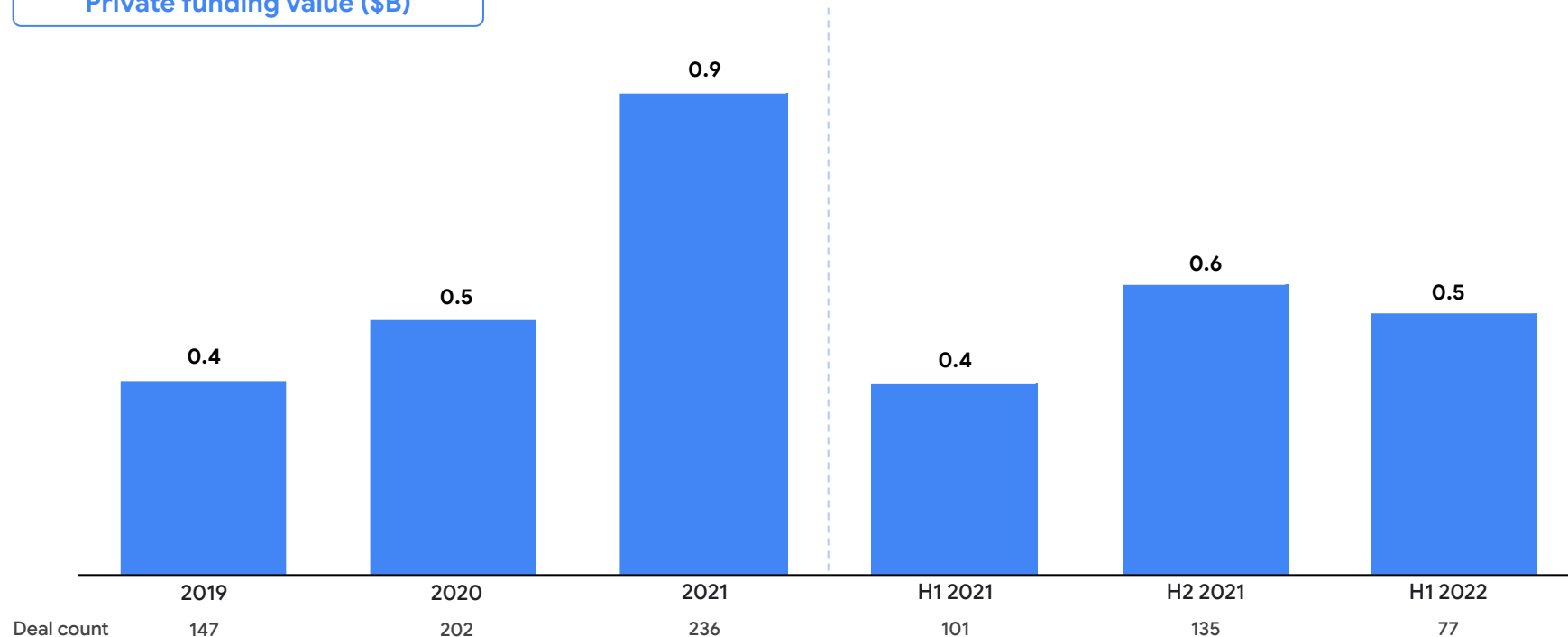
Insurance (APE / GWP)





Despite a ~30% drop in deal activity, deal value grew marginally YoY due to several high-profile investments in new categories

Private funding value (\$B)

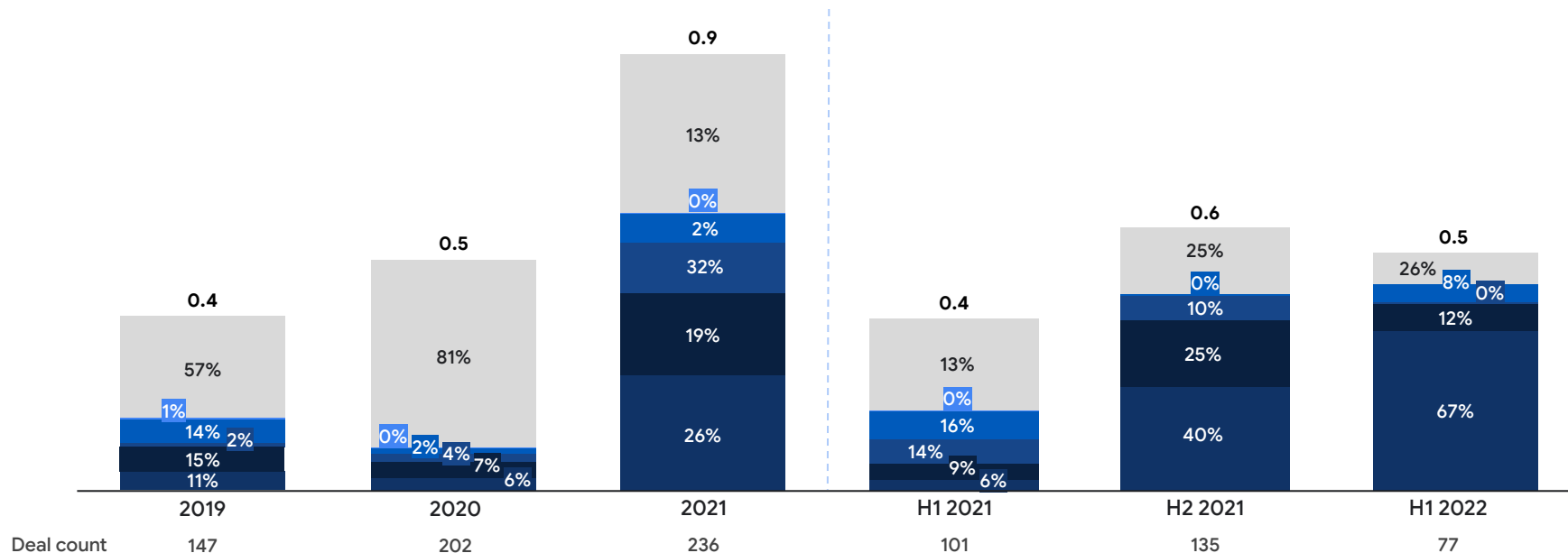




E-commerce attracts ~\$340M in H1 2022, of which the bulk was allocated to Malaysia's first unicorn, outpacing DFS to become the investor favourite

Private funding value (\$B)

● E-commerce ● DFS ● Transport ● Digital media ● Travel ● Others



Note: 'Others' include foodtech, B2B SaaS, Web3, cleantech, agritech, etc.
Source: Bain analysis

Philippines



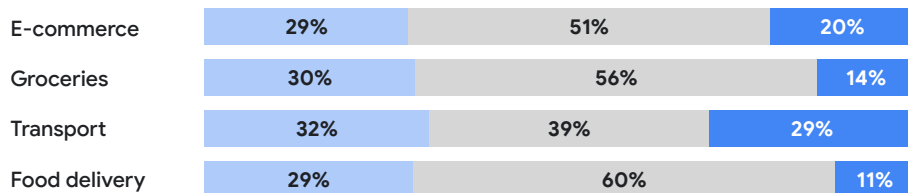


Philippines: Digital consumers in numbers

Usage intent ¹

Intent to use the service in the next 12 months

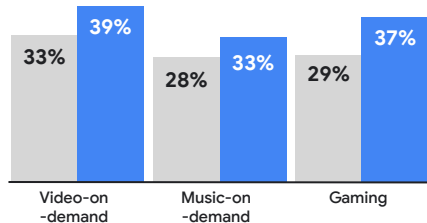
Less Same More



Media usage frequency ²

% using at least once a week

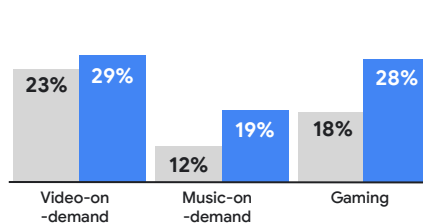
SEA average Philippines



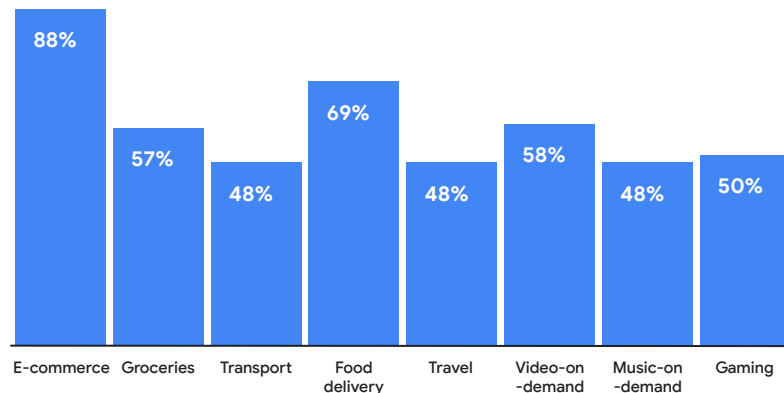
Media usage time ³

% using >1 hour per day

SEA average Philippines



% adoption across urban digital users



Declared willingness to **pay more**
for a sustainable product or service ⁴

42%

Questions: 1 - X10. How would you describe your intent to use [e-commerce, online groceries, transport, food delivery] in the next 12 months?; 2, 3 - 'Usage' derived from adoption of X usage frequency/time (among paying users in the past three months); 4 - On average, how much more would you be willing to pay for products/services that are more sustainable (e.g. reducing fuel/carbon emissions, etc)?

Base: Users by verticals in Philippines, n=1,233

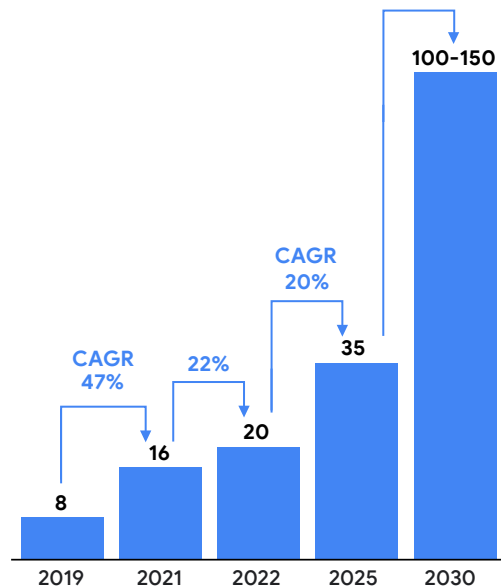
Source: Google-commissioned Ipsos e-Economy SEA Research 2022



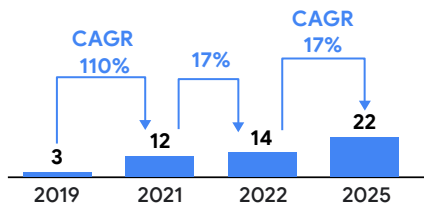
The digital decade continues its upward trend at 20% YoY to reach \$20B this year, with e-commerce propelling it to \$35B by 2025

GMV (\$B)

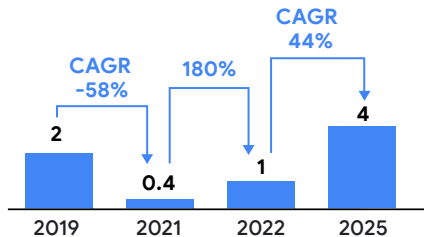
Overall digital economy



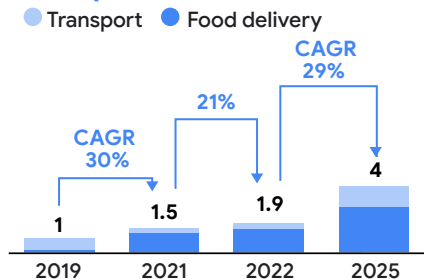
E-commerce



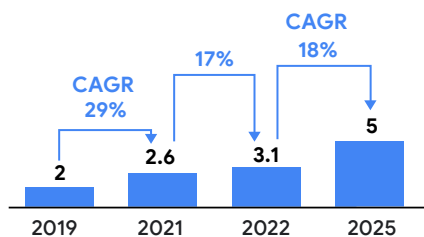
Online travel



Transport and food



Online media

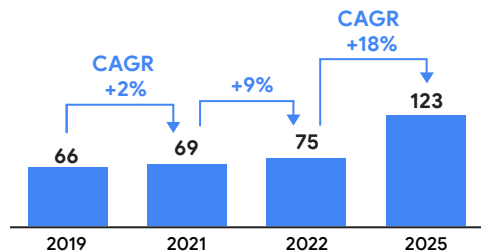




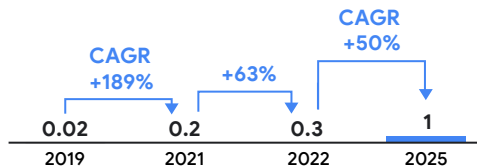
Sustained DFS growth with lending and remittance hitting ~\$8B each (as part of a U-shaped recovery for the latter); digital investments still nascent

Digital financial services (\$B)

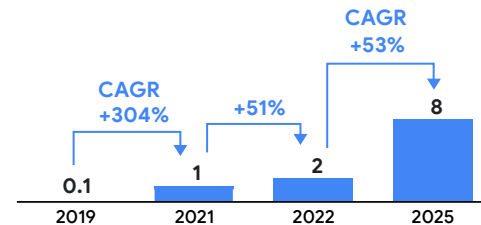
Payments (GTV)



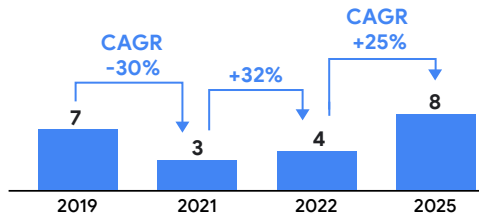
Investment (AUM)



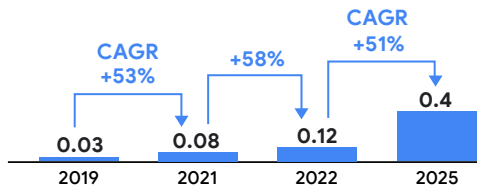
Lending loan book



Remittance (GTV)



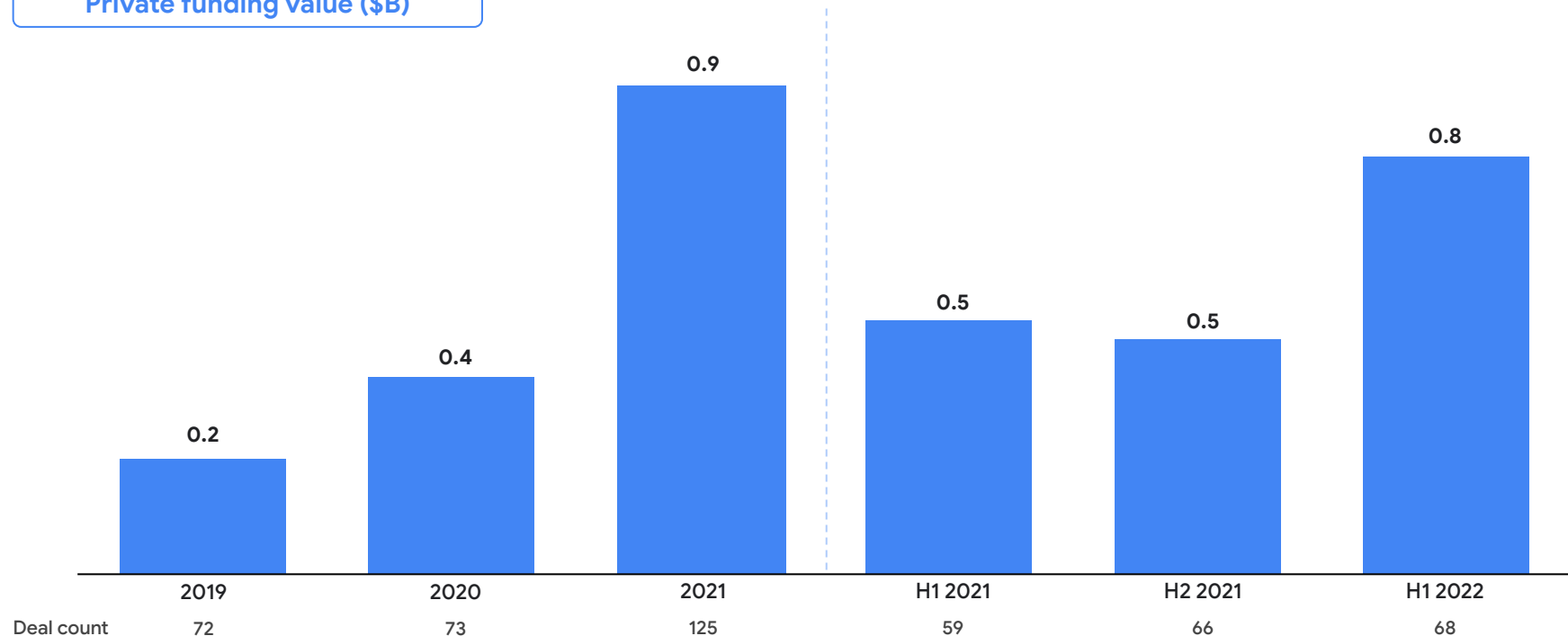
Insurance (APE / GWP)





After a two-year digital economy boom, both deal value and deal activity have risen thanks to sizable investments in incumbent players

Private funding value (\$B)

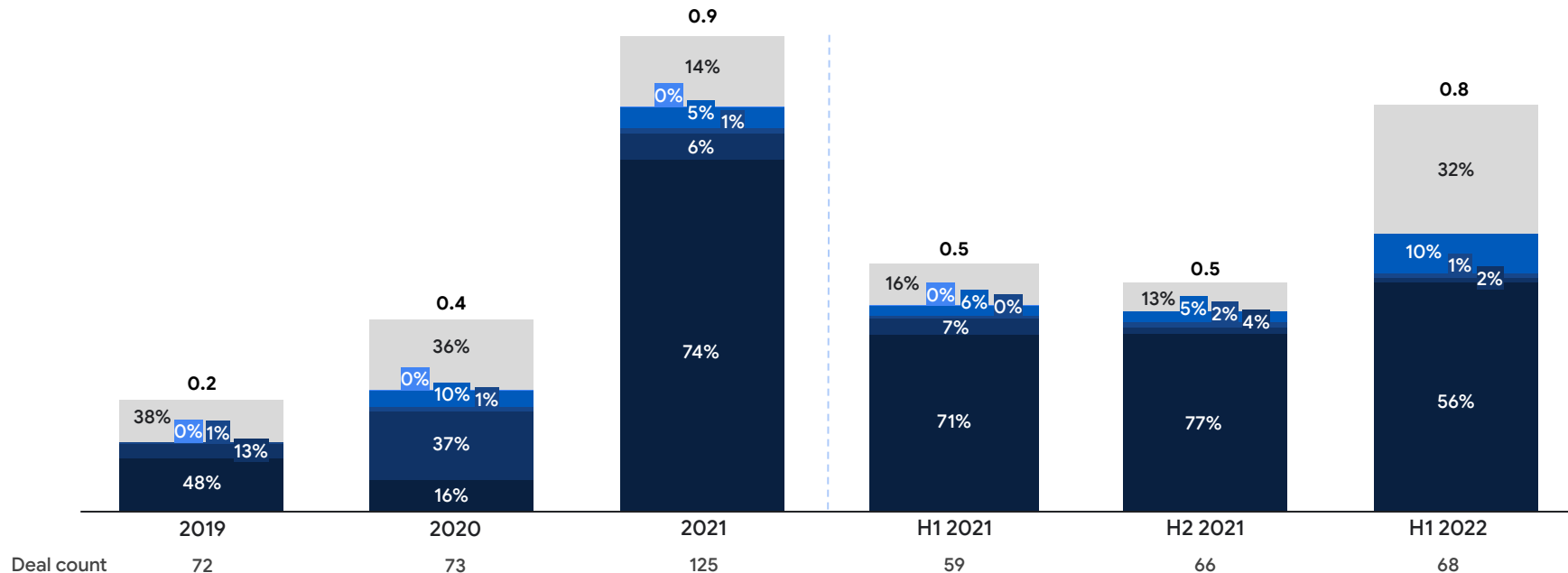




DFS captures 56% of total investor funding and raises ~\$450M in H1 2022 alone; Web3 is also pulling its weight with a ~12% share of the pie

Private funding value (\$B)

● DFS ● E-commerce ● Transport ● Digital media ● Travel ● Others



Note: 'Others' include foodtech, B2B SaaS, Web3, cleantech, agritech, etc.
Source: Bain analysis

A stylized illustration of a seascape. In the upper left, a large yellow sun is partially obscured by a thin, horizontal pink and orange streak. The sky is a gradient of blue. In the background, there are green, jagged mountain peaks. In the foreground, a white sailboat with a red sail featuring a white crescent and star is sailing on a deep blue sea, leaving a white wake. To the right, a small green island features a white lighthouse with yellow horizontal bands. The word "Singapore" is written in white, sans-serif font across the middle of the image.

Singapore

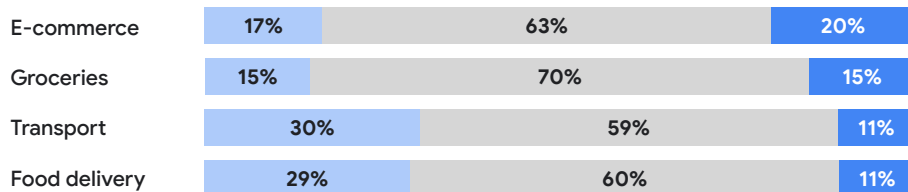


Singapore: Digital consumers in numbers

Usage intent¹

Intent to use the service in the next 12 months

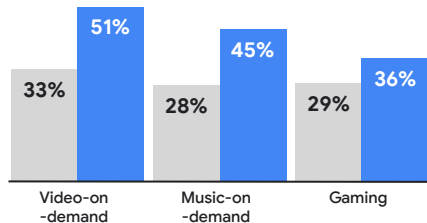
Less Same More



Media usage frequency²

% using at least once a week

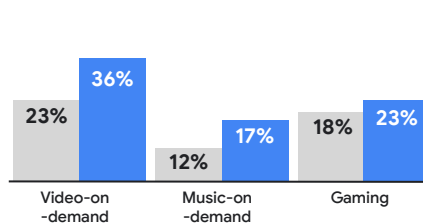
SEA average Singapore



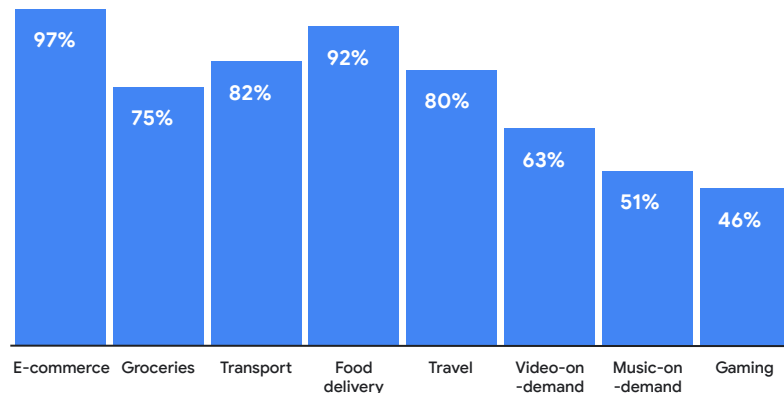
Media usage time³

% using >1 hour per day

SEA average Singapore



% adoption across urban digital users



Declared willingness to **pay more**
for a sustainable product or service⁴

32%

Questions: 1 - X10. How would you describe your intent to use [e-commerce, online groceries, transport, food delivery] in the next 12 months?; 2, 3 - 'Usage' derived from adoption of X usage frequency/time (among paying users in the past three months); 4 - On average, how much more would you be willing to pay for products/services that are more sustainable (e.g. reducing fuel/carbon emissions, etc)?

Base: Users by verticals in Singapore, n=756

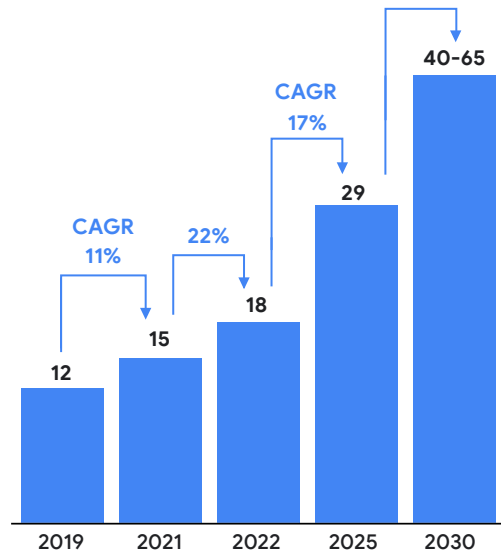
Source: Google-commissioned Ipsos e-Conomy SEA Research 2022



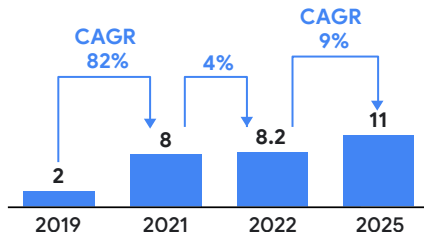
The digital economy grew 22% YoY with expectations to hit ~\$30B by 2025, mainly powered by ~\$11B e-commerce and ~\$9B travel recovery

GMV (\$B)

Overall digital economy

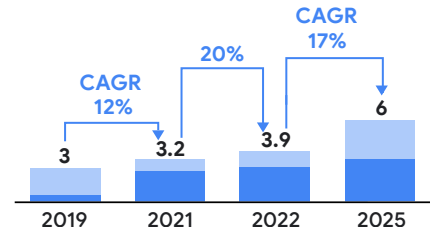


E-commerce

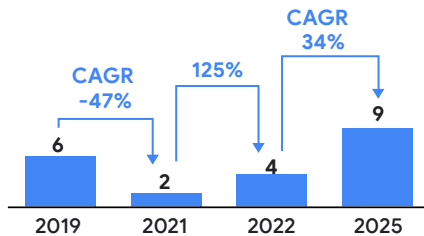


Transport and food

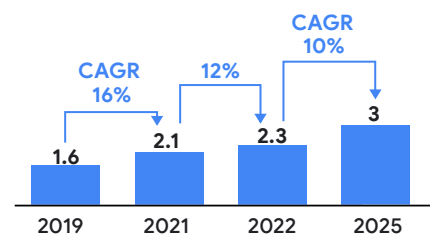
● Transport ● Food delivery



Online travel



Online media

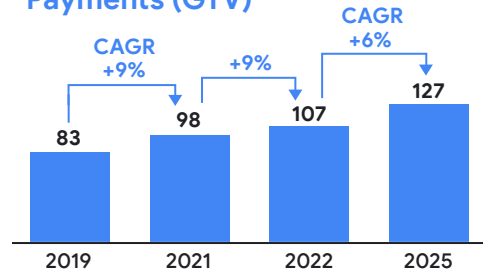




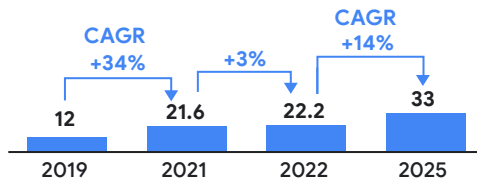
With digital payments nearly ubiquitous, DFS growth to 2025 will be driven by digitalisation of investments and lending via digibanks and fintechs

Digital financial services (\$B)

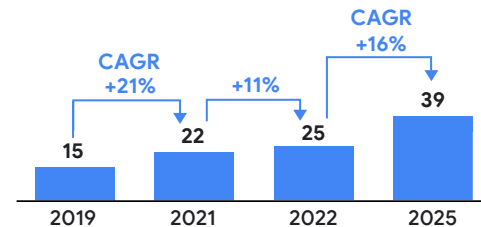
Payments (GTV)



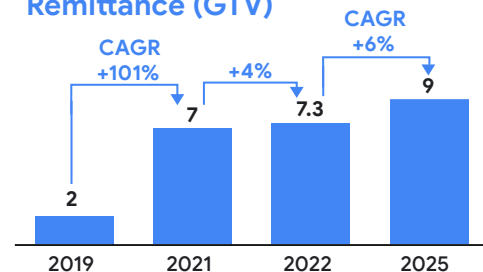
Investment (AUM)



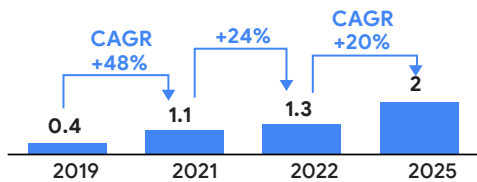
Lending loan book



Remittance (GTV)



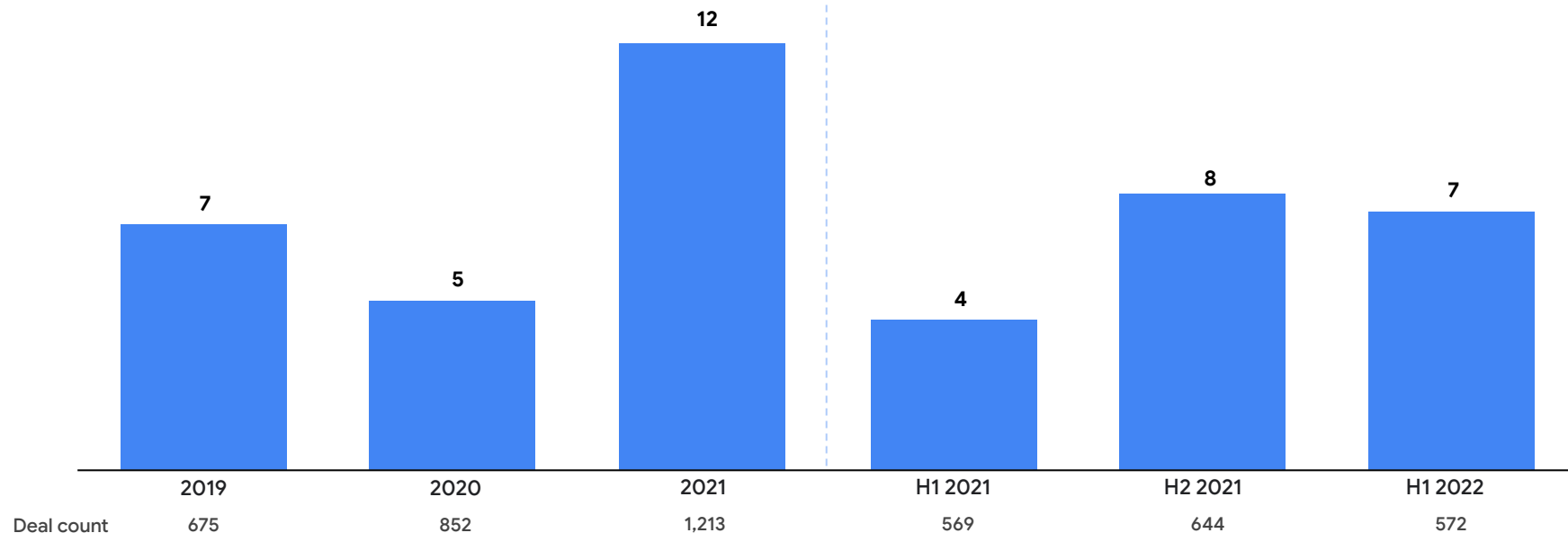
Insurance (APE / GWP)





Deal value grew from ~\$4B in H1 2021 to ~\$7B a year later,
throning Singapore as the region's most favoured investment country

Private funding value (\$B)

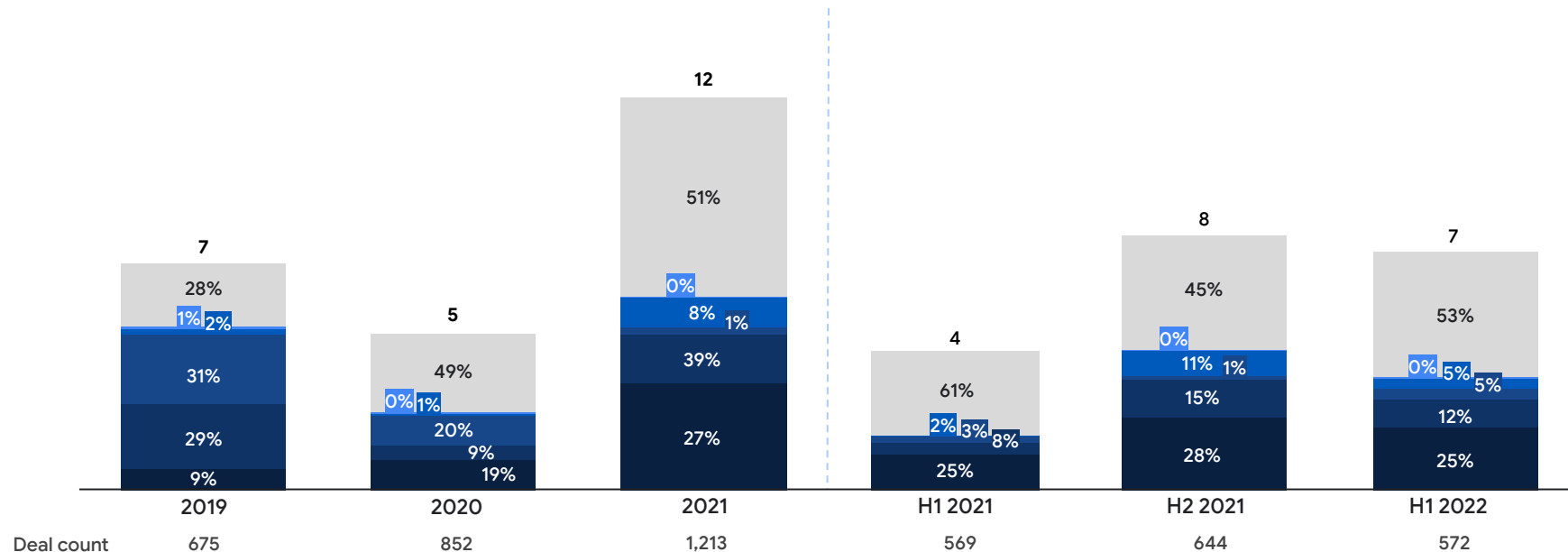




The allure of DFS endures, raising ~\$1.9B in H1 2022; healthtech is rapidly gaining ground with ~15% of investment pool at ~\$1.1B

Private funding value (\$B)

● DFS ● E-commerce ● Transport ● Digital media ● Travel ● Others



Note: 'Others' include foodtech, B2B SaaS, Web3, cleantech, agritech, etc.
Source: Bain analysis



Thailand

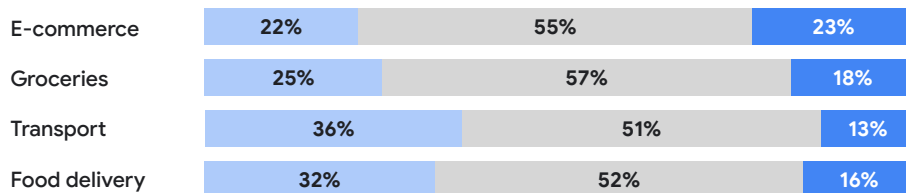


Thailand: Digital consumers in numbers

Usage intent¹

Intent to use the service in the next 12 months

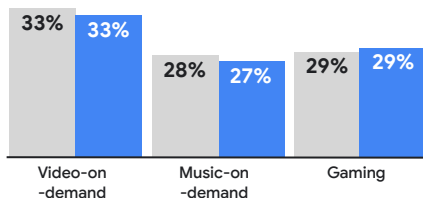
Less Same More



Media usage frequency²

% using at least once a week

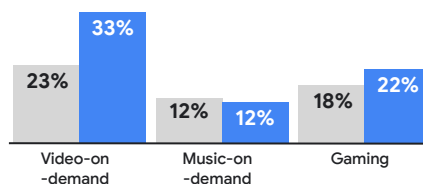
SEA average Thailand



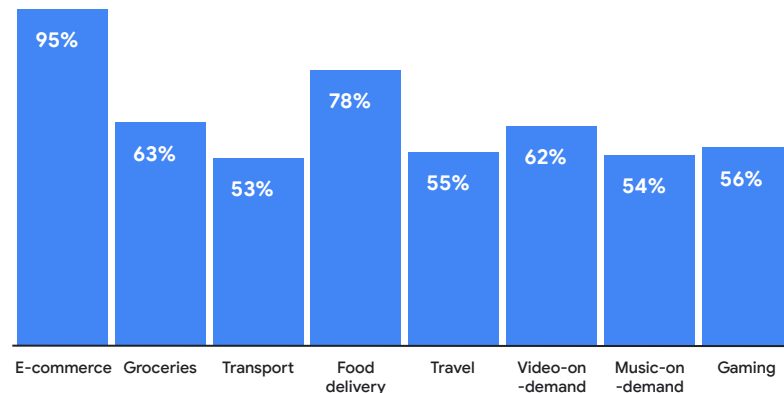
Media usage time³

% using >1 hour per day

SEA average Thailand



% adoption across urban digital users



Declared willingness to **pay more**
for a sustainable product or service⁴

39%

Questions: 1 - X10. How would you describe your intent to use [e-commerce, online groceries, transport, food delivery] in the next 12 months?; 2, 3 - 'Usage' derived from adoption of X usage frequency/time (among paying users in the past three months); 4 - On average, how much more would you be willing to pay for products/services that are more sustainable (e.g. reducing fuel/carbon emissions, etc)?

Base: Users by verticals in Thailand, n=1,340

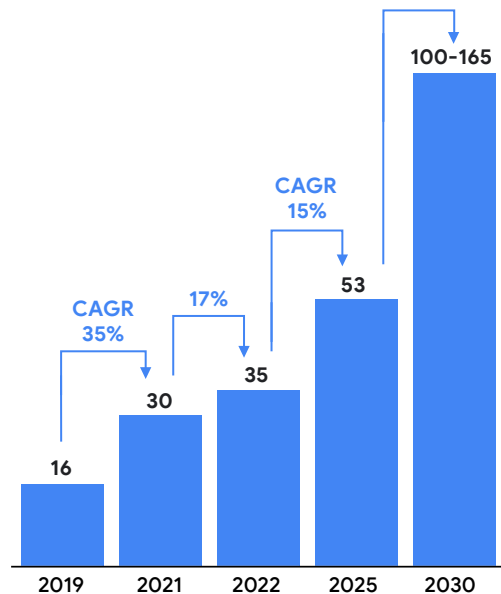
Source: Google-commissioned Ipsos e-Economy SEA Research 2022



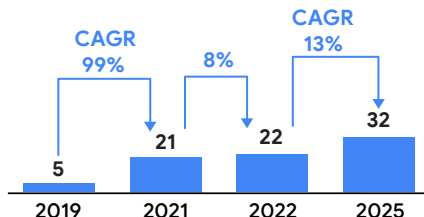
Growing at ~17% YoY and expected to reach ~\$53B by 2025, the digital economy is fuelled by e-commerce, but travel recovery will take time

GMV (\$B)

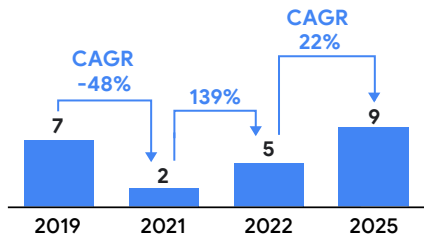
Overall digital economy



E-commerce

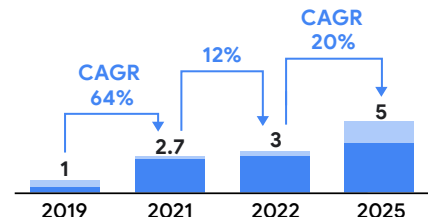


Online travel

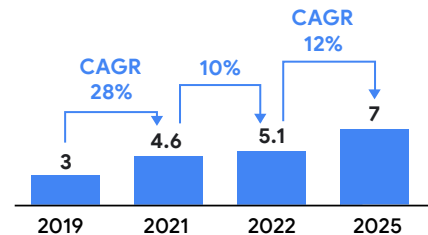


Transport and food

● Transport ● Food delivery



Online media

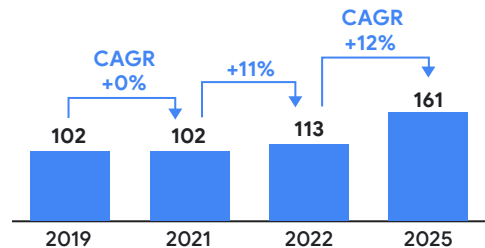




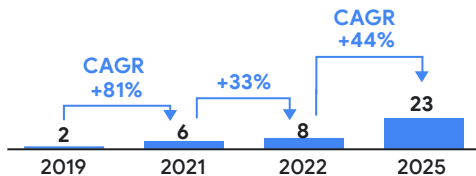
DFS accelerated through the pandemic and is still growing; momentum to 2025 will be led by lending and investments at ~40% and ~45% CAGR, respectively

Digital financial services (\$B)

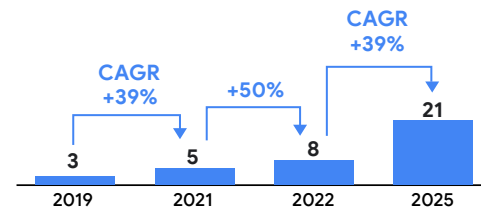
Payments (GTV)



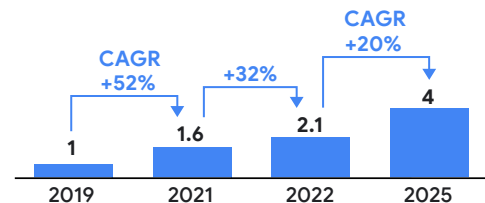
Investment (AUM)



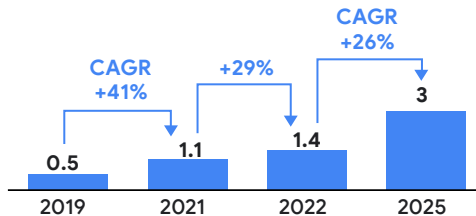
Lending loan book



Remittance (GTV)



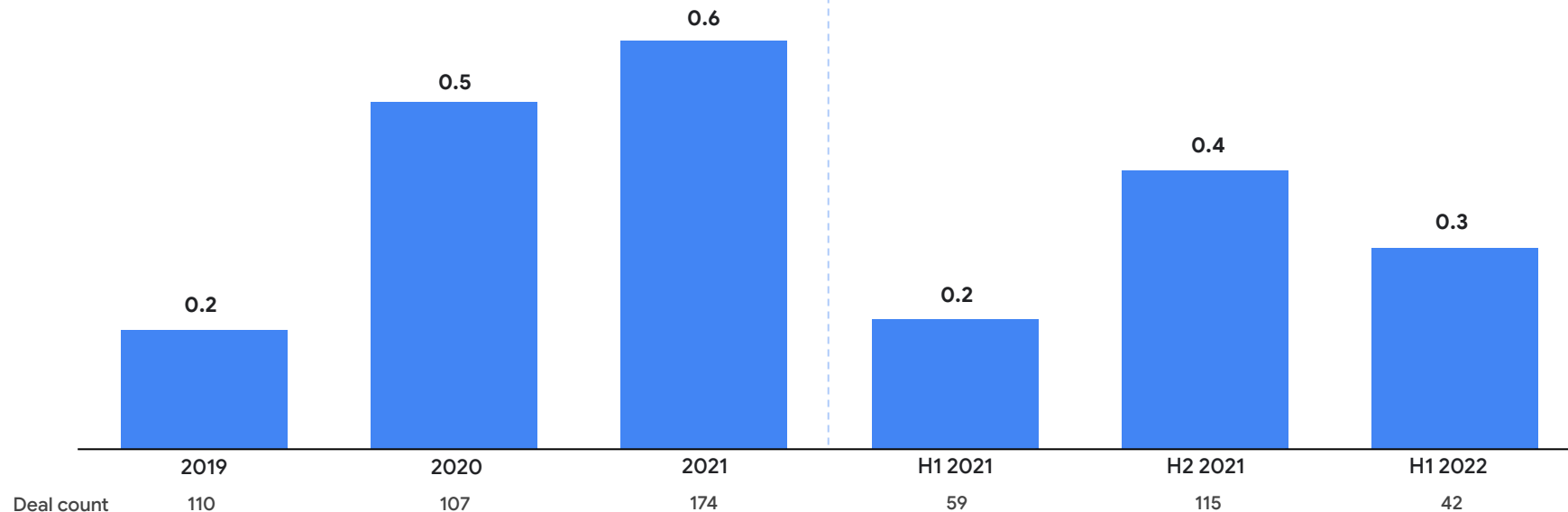
Insurance (APE / GWP)





Deal value is on the rise, driven by several large Series-C investments in DFS and e-commerce

Private funding value (\$B)



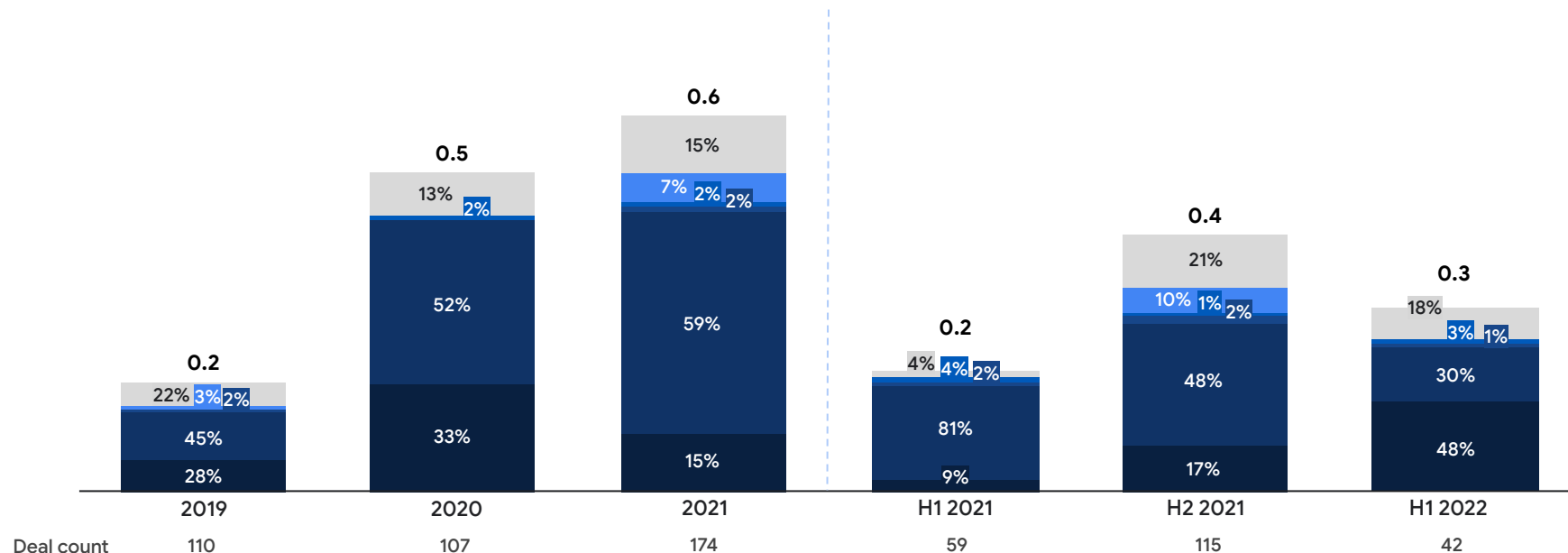
Source: Bain analysis



DFS overtakes e-commerce, nabbing nearly half of all funding and raising ~\$150M in H1 2022 alone

Private funding value (\$B)

● DFS ● E-commerce ● Transport ● Digital media ● Travel ● Others



Note: 'Others' include foodtech, B2B SaaS, Web3, cleantech, agritech, etc.
Source: Bain analysis



A stylized illustration of a seascape. In the foreground, a white sailboat with a red sail featuring a yellow star is sailing on a blue sea, leaving a white wake. To the right, a small green island with a white lighthouse with yellow bands sits on the water. In the background, dark blue mountains with green peaks rise against a blue sky. A large yellow sun is in the upper left, with a thin orange streak above it. The word "Vietnam" is written in white across the middle of the image.

Vietnam

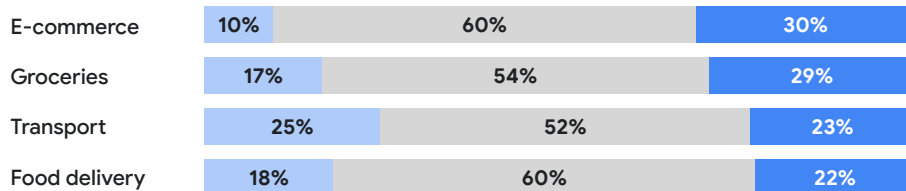


Vietnam: Digital consumers in numbers

Usage intent¹

Intent to use the service in the next 12 months

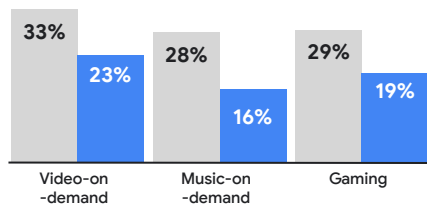
Less Same More



Media usage frequency²

% using at least once a week

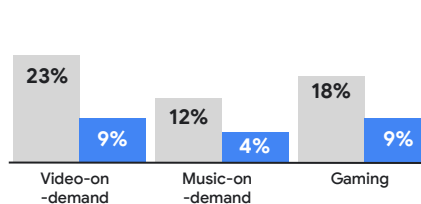
SEA average Vietnam



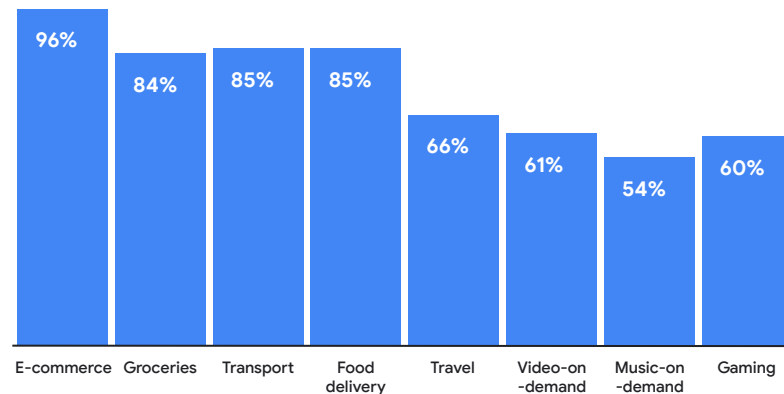
Media usage time³

% using >1 hour per day

SEA average Vietnam



% adoption across urban digital users



Declared willingness to **pay more**
for a sustainable product or service⁴

55%

Questions: 1 - X10. How would you describe your intent to use [e-commerce, online groceries, transport, food delivery] in the next 12 months?; 2, 3 - 'Usage' derived from adoption of X usage frequency/time (among paying users in the past three months); 4 - On average, how much more would you be willing to pay for products/services that are more sustainable (e.g. reducing fuel/carbon emissions, etc)?

Base: Users by verticals in Vietnam, n=2,383

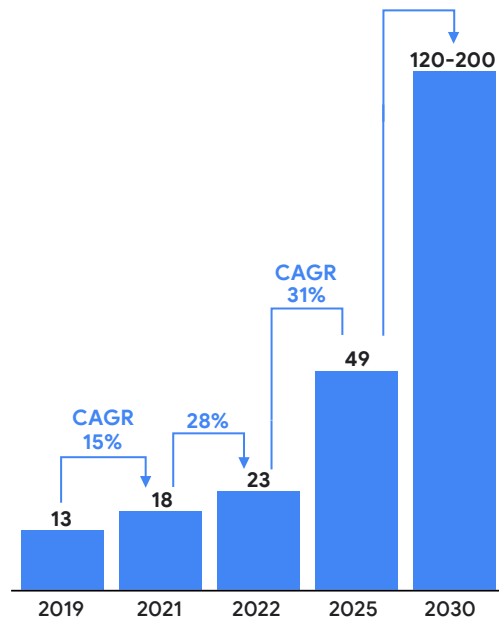
Source: Google-commissioned Ipsos e-Economy SEA Research 2022



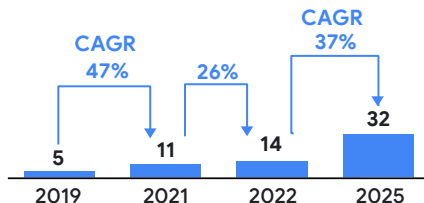
The digital economy hits \$23B in 2022 and is on course for ~\$50B by 2025; the region's fastest growing market due to a booming e-commerce sector

GMV (\$B)

Overall digital economy

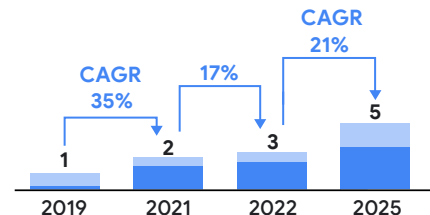


E-commerce

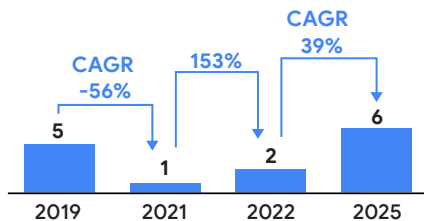


Transport and food

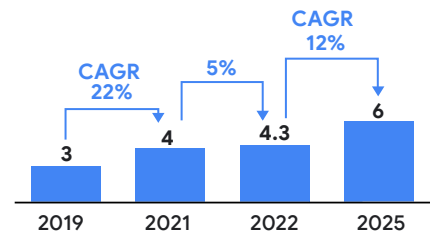
● Transport ● Food delivery



Online travel



Online media

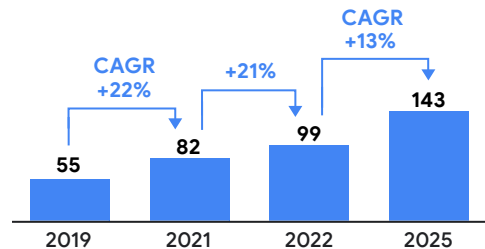




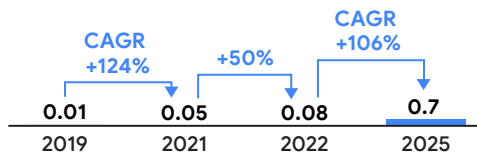
DFS to flourish, with the biggest leaps happening in lending at ~56% CAGR; digital investments to take off only after 2025

Digital financial services (\$B)

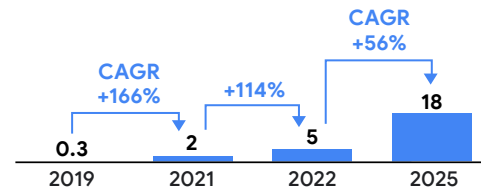
Payments (GTV)



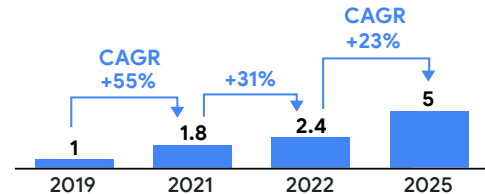
Investment (AUM)



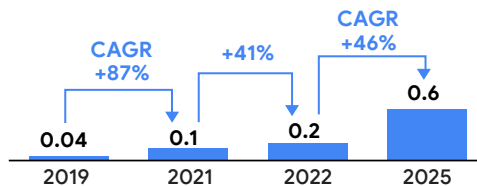
Lending loan book



Remittance (GTV)



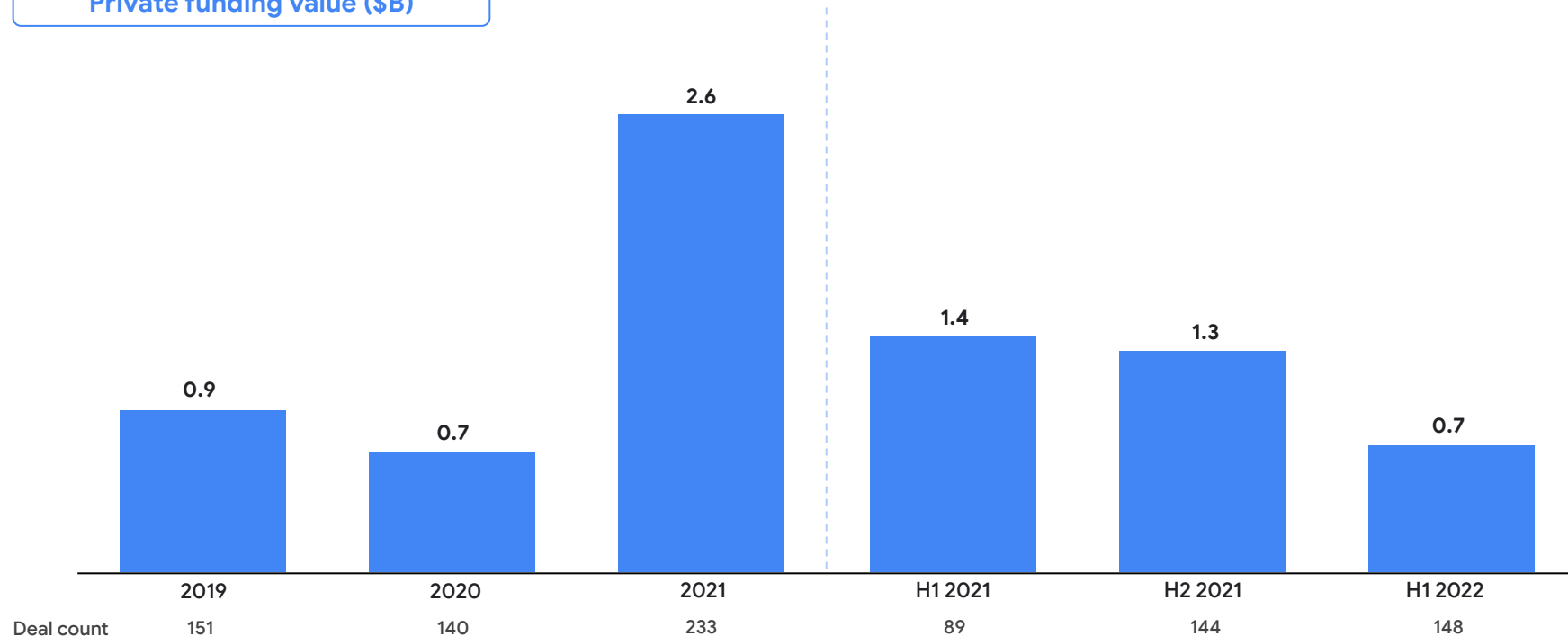
Insurance (APE / GWP)





Deal activity grows by ~60% but deal value drops by half, reflecting investor caution in deploying late-stage capital

Private funding value (\$B)

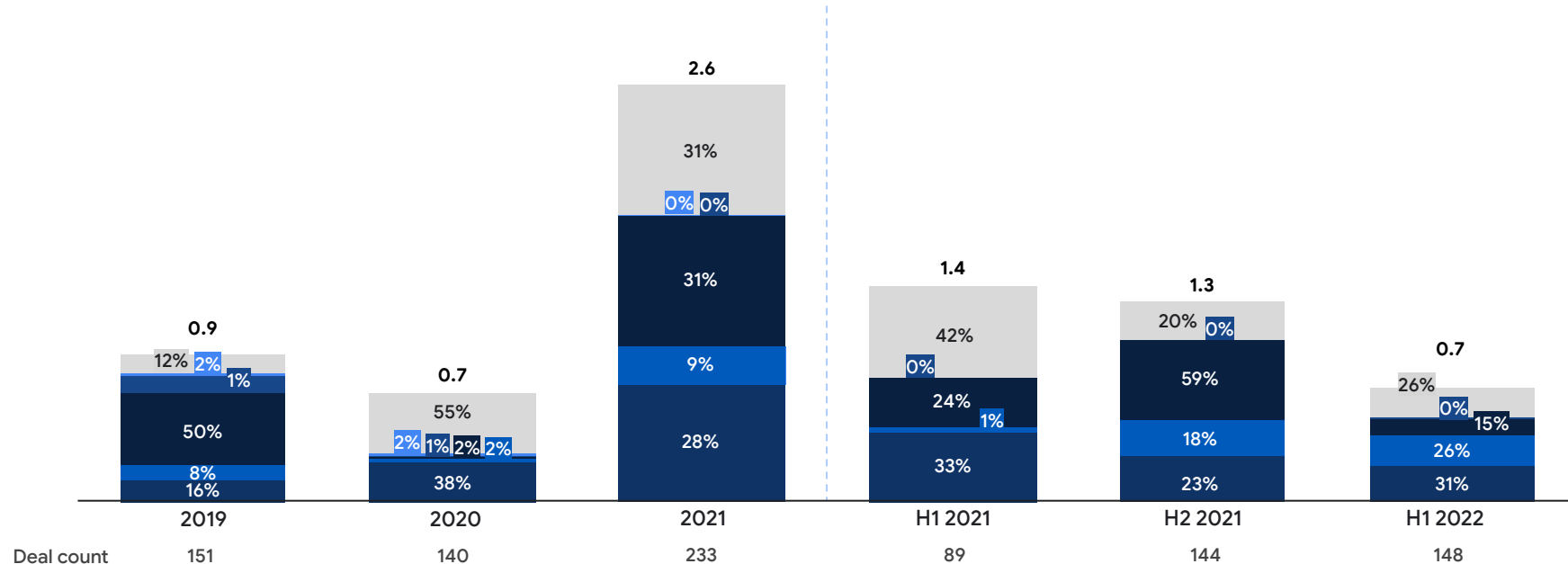




E-commerce raises ~\$230M in H1 2022 to become the investor favourite, followed by online media at ~\$190M

Private funding value (\$B)

● E-commerce ● Digital media ● DFS ● Transport ● Travel ● Others



Note: 'Others' include foodtech, B2B SaaS, Web3, cleantech, agritech, etc.
Source: Bain analysis

Google

TEMASEK

BAIN & COMPANY

The graphic features a large yellow sun partially obscured by the 'e' in 'e-Conomy'. The sun has a reflection on the blue water below. In the background, there are green mountains. The text 'e-Conomy' is in a large, white, sans-serif font, and 'SEA 2022' is in a smaller, white, sans-serif font to its right. The entire scene is set against a blue background with stylized white waves at the bottom and two white sailboats on the left.

e-Conomy SEA 2022

Through the waves, towards a sea of opportunity