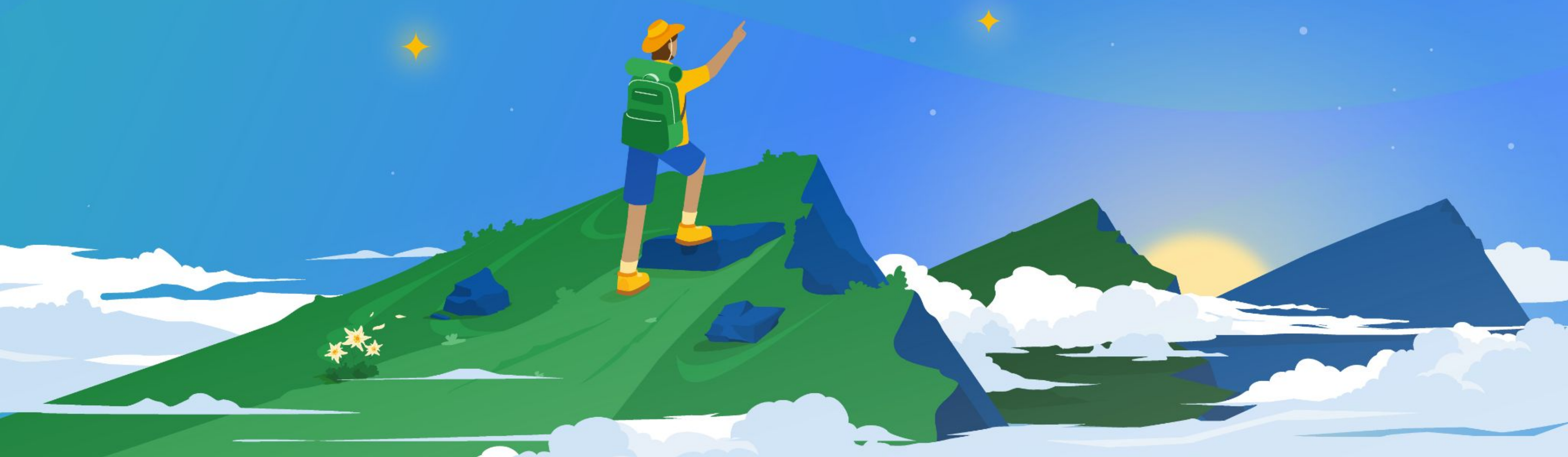
Google TEMASEK BAIN & COMPANY

e-Conomy SEA 2024

Profits on the rise, harnessing SEA's advantage



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, data from research partners, expert interviews, and industry sources to shed light on the digital economy in Southeast Asia (SEA). The information included in this report is sourced as 'Google, Temasek, and Bain, e-Conomy SEA 2024', unless otherwise specified.

Disclaimer

The information in this report is provided on an 'as is' basis. This document was produced by Google, Temasek, Bain, and other third parties involved as of the date of writing and is subject to change. It has been prepared solely for information purposes over a limited period of time to provide a perspective on the market. It is not intended for investment purposes. All financial analysis is derived or estimated by Bain analysis using both non-Google proprietary and publicly available information. Google has not supplied any additional data for financial analysis, nor does Google endorse any financial analysis made in the report. Where information has been obtained from third-party sources and proprietary research, this is clearly referenced in the footnotes. Projected market and financial information, analyses, and conclusions contained in this report should not be construed as definitive forecasts or guarantees of future performance or results. Google, Temasek, Bain, their respective affiliates, or any other third party involved make no representation or warranty, either express or implied, as to the accuracy or completeness of the information in the report and shall not be liable for any loss arising from the use of this report.

9th edition of e-Conomy SEA by Google, Temasek, Bain: Southeast Asia's digital economy research programme

2016
Unlocking the $200B opportunity in SEA

2017
Unprecedented growth for SEA's $50B internet economy

2018
SEA's internet economy hits an inflection point

2019
Swipe up and to the right: SEA's $100B internet economy

2020
At full velocity: Resilient and racing ahead

SEA's Digital Decade

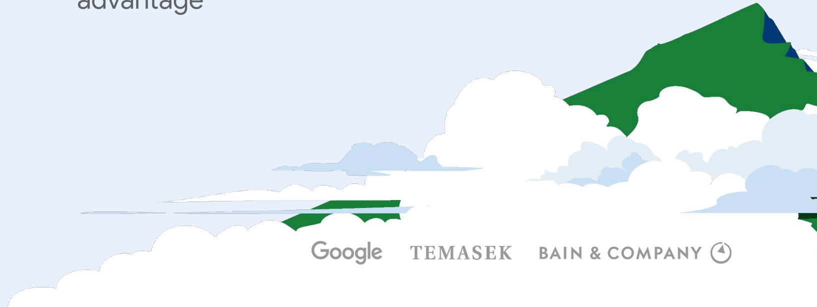
2021
Roaring '20s: The SEA Digital Decade

2022
Through the waves, towards a sea of opportunity

2023
Reaching new heights: Navigating the path to profitable growth

2024
Profits on the rise, harnessing SEA's advantage

2030
Towards a sustainable digital economy



e-Conomy SEA research methodology

Temasek insights

Bain analysis

Google Trends

Research partners[1]

Expert interviews[2] and industry sources

Research partners

VISA

cube

tubular

With contributions from

500

ACVentures

ALPHA JWC VENTURES

ALTERNATIVES.PE

DO VENTURES

East Ventures

GENTREE FUND

Golden Gate Ventures

GraniteAsia

January Capital

JUNGLE

MONK'S HILL VENTURES

OPENSPACE

SBVA

Touchstone PARTNERS

vertex

wavemaker PARTNERS

XA NETWORK SOUTHEAST ASIA

Notes: All dollar amounts are in USD. Unless otherwise stated, all mentions of "Southeast Asia" or "SEA" in this report refer to these six markets: Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. 1) Data provided by third-party research partners. 2) Bain and Temasek conducted interviews and a quantitative survey with SEA-focused venture capital investors from 07/2024 to 09/2024.

e-Conomy SEA covers 6 countries in Southeast Asia...

612M

total population
across the countries

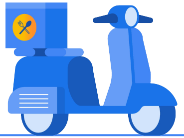
INDONESIA	280M
MALAYSIA	35M
PHILIPPINES	119M
SINGAPORE	6M
THAILAND	72M
VIETNAM	100M

… and 6 leading sectors in the digital economy

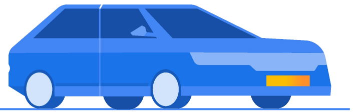
1 E-commerce

Marketplaces
Direct-to-consumer
Groceries
Video commerce

2 Food delivery

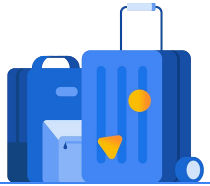


3 Transport



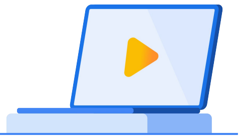
4 Online travel

Flights
Hotels
Vacation rentals



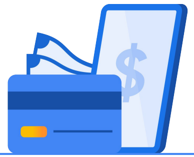
5 Online media

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



6 Financial services

Payments
Lending
Wealth
Insurance



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

Content

Executive summary

Profitability on the horizon

Growth sustained across core metrics

SEA's digital economy has made significant progress, demonstrating solid performance in 2024 with double-digit year-on-year growth across GMV ($263B, +15%), revenue ($89B, +14%), and profit ($11B, +24%).

Profitability on the rise across sectors

Tighter commissions, targeted incentives, and new revenue streams, such as advertising, have contributed to profit multiplying 2.5X over the past two years. Key players have made significant strides towards profitability milestones.

E-commerce reaccelerates, fuelled by video commerce

E-commerce growth surges to +15% year-on-year, propelled by video commerce – which now accounts for 20% of e-commerce GMV, up from less than 5% in 2022.

SEA emerges as a gaming export hub

Developers in the region are capturing an outsized share of the global mobile gaming market, driving 12% of downloads in 2024. In parallel, gaming content is booming, with more top creators and uploads than any other consumer category.

Clearing the path to investment exits

Private funding remains subdued

Higher interest rates and shifts in the geopolitical landscape have contributed to a decline in deal volume.

Investors turn their focus to future potential

Despite muted funding activity, investors express confidence in SEA's long-term potential, directing nearly 50% of investments towards nascent sectors.

Ongoing initiatives clear exit pathways

In a challenging exit environment, early-stage companies are making significant progress towards profitability. Efforts are in motion to improve capital market conditions, such as cross-border collaborations and regulatory changes to support IPOs.

Surveying the terrain ahead

Maintaining digital trust is imperative

Although fraud rates are declining due to heightened user awareness and strengthened fraud controls, online scams remain prevalent, with half of all digital users falling victim despite expressing confidence in spotting them.

Harnessing SEA's AI infrastructure advantage

The region is attracting significant AI investment, with over $30B committed to AI infrastructure in the first half of 2024 alone. SEA is positioned well to compete both in data centres and end-layer applications.

AI applications see accelerated time to value

AI is starting to drive transformative value for SEA's digital economy, through both broad and sector-specific business use cases. Early adopters are realising returns on their investments within 12 months of implementation.

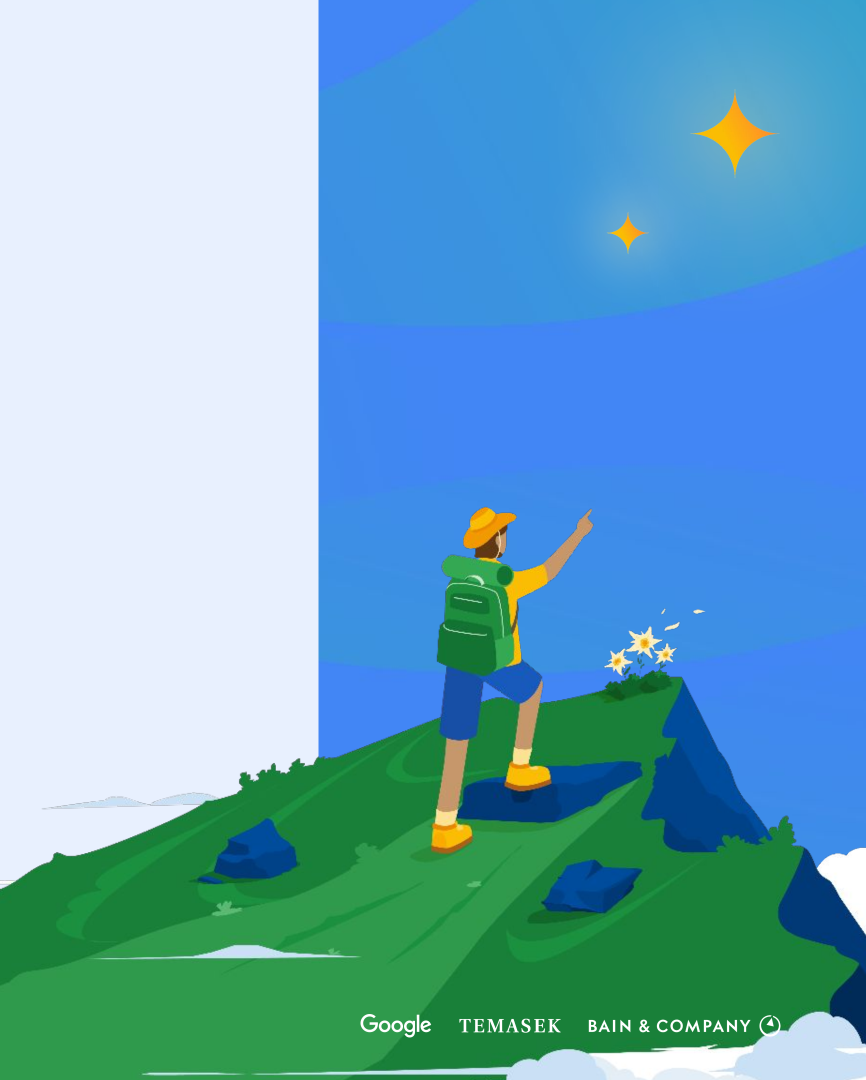
Notes: GMV = gross merchandise value; AI = artificial intelligence; IPO = initial public offering

01

Profitability on the horizon

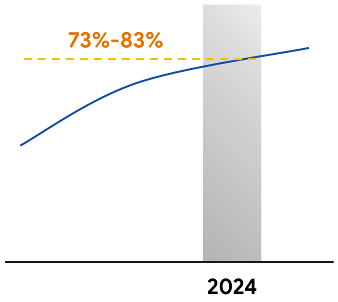
Following years of investment in growth, key players in the SEA digital economy have progressed towards profitability by doubling down on monetisation strategies.

With sustainable growth as the ultimate goal, they will continue innovating to generate revenue and become more cost-efficient.



The digital economy strengthens as players gear towards profitability

SEA internet users (%)

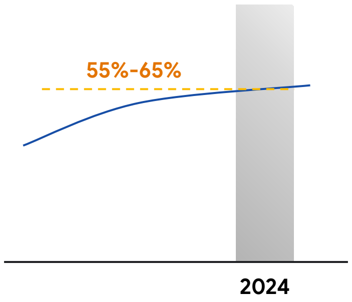


USERS

Internet penetration is now widespread

While internet users will likely continue growing alongside population, sustainable growth will come from increased consumption of digital services, rather than expanded internet access.

SEA internet consumers (%)

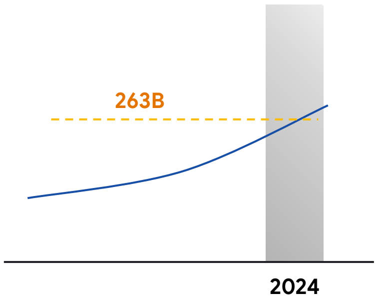


CONSUMERS

Growth continues, as ample headroom remains

Despite current inflationary pressures, consumers continue to spend on digital products. Deeper engagement, through increased frequency, spending, and adoption of new services, will power future growth.

SEA digital economy GMV ($)

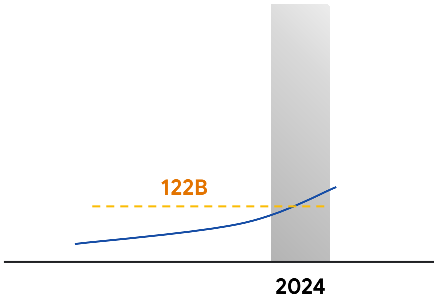


GMV

Some sectors bounce back, while others innovate

Sectors hit hard by COVID have been buoyed by re-accelerated growth to surpass pre-pandemic GMV. In key sectors like e-commerce, new entrants and new forms of engagement are unlocking further growth.

SEA digital economy revenue[1] ($)



REVENUE

Monetisation fuels sustained growth

Digital businesses have ramped up monetisation within their core offerings, while also tapping into adjacent revenue streams. These efforts will continue driving future growth.

Note: 1) Revenue on this slide includes revenue from digital financial services.
Sources: Google, Temasek, and Bain, e-Conomy SEA 2016-2023; Bain analysis

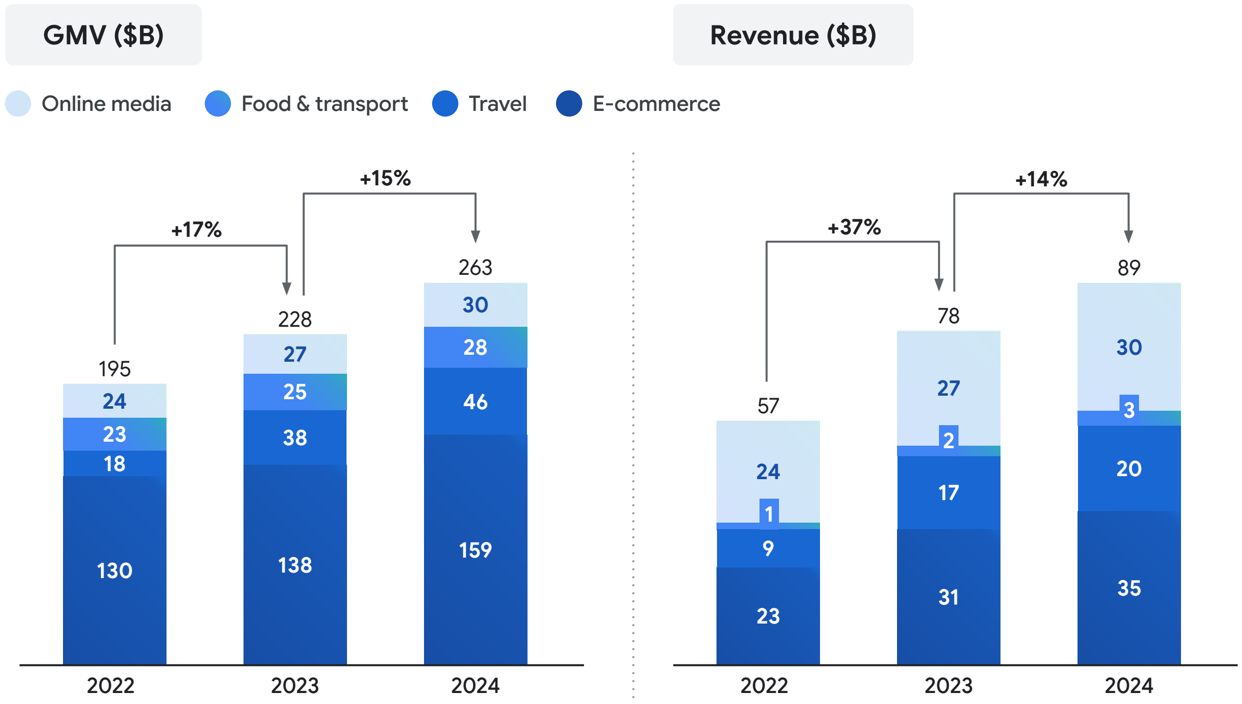
Digital businesses derive revenue through direct sales, or by functioning as an intermediary platform

Key revenue definitions in the digital economy

	E-commerce	Travel	Food delivery	Transport	Online media	Digital financial services (DFS)
Direct (1P) revenue model Seller ▶ Consumer Revenue is the price of the goods or services sold, or the underlying instrument	✓ Brand.com channels	✓ Airline / hotels' own channels	✓ Food.com channels	N/A	✓ Online / game publishers	✓ Insurance, etc.
Third party (3P) platform model Seller ▶ Platform ▶ Consumer Revenue to third party (3P) intermediary platforms is a portion of the price of goods or services sold, or the underlying instrument	✓ E-commerce marketplaces	✓ OTA platforms	✓ Food delivery platforms	✓ Transport platforms	✓ Media platforms	✓ Payments, etc.

Note: OTA = online travel agency

SEA has consistently delivered double-digit growth in GMV and revenue



Growth persists in the face of challenges

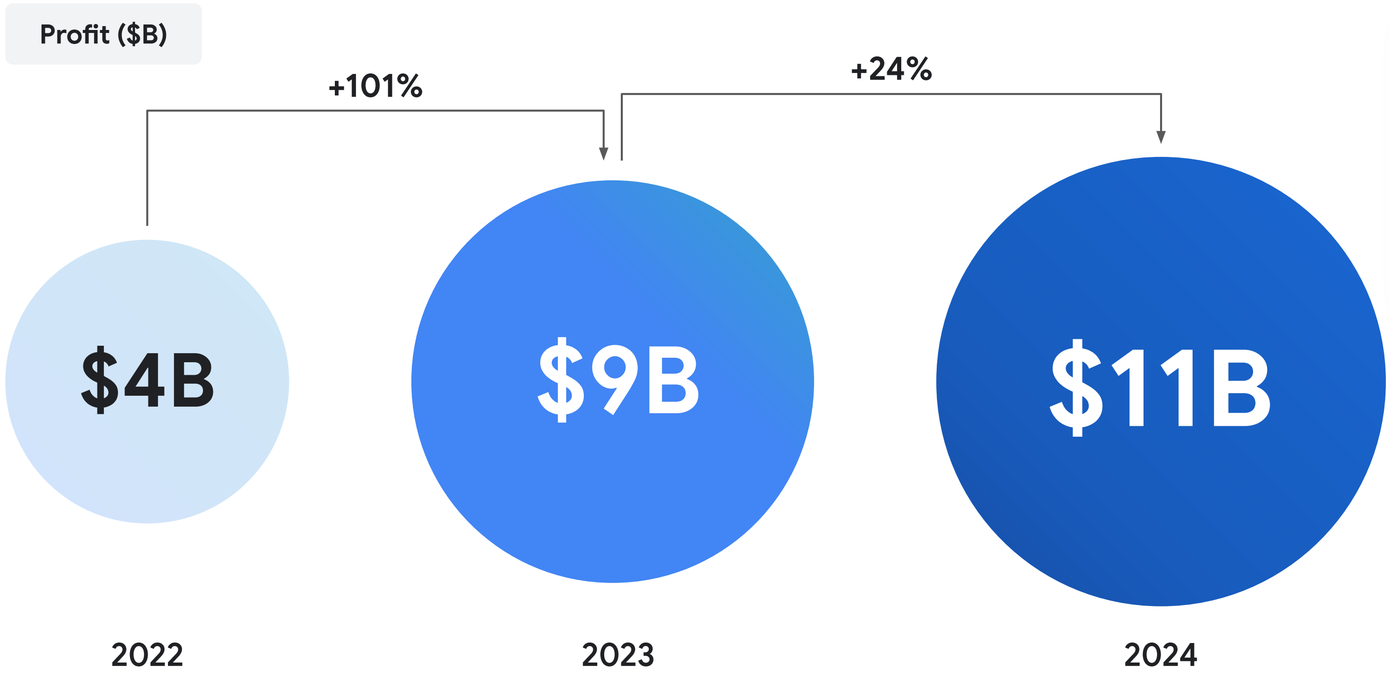
GMV and revenue have shown sustained double-digit growth over the past three years, demonstrating resilience against inflationary pressures and new market entrants.

Revenue growth converges with GMV growth

Monetisation growth, particularly in the travel and e-commerce sectors, accelerated in 2023 to outpace GMV growth as rates steadily progress towards convergence with global benchmarks.

Note: GMV = gross merchandise value
Source: Bain analysis

Profitability push delivers 2.5X profits in two years



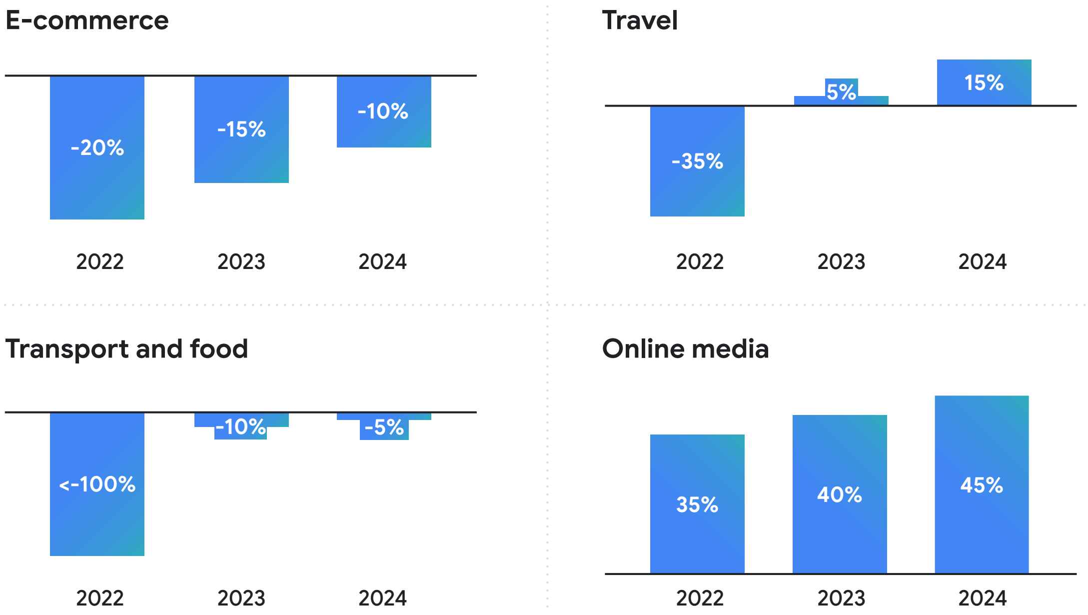
Double-digit growth in recent years

Profitability has consistently grown at double-digits or more over the past three years, demonstrating that GMV and profit growth can happen in parallel.

Notes: Profit shown is earnings before interest, taxes, depreciation, and amortisation (EBITDA), including allocated corporate overhead, for e-commerce marketplaces, food delivery and transport platforms, online travel agencies, and online media players, excluding incumbents, e.g. brick and mortar retailers, taxi companies, etc. Online media profits were calculated with proxies of leading companies in the industry.
Source: Bain analysis

Core sectors make strides toward profitability

EBITDA margins



E-commerce

E-commerce platforms have made significant progress towards profitability by optimising take rates, running more disciplined promotional and marketing campaigns, and introducing new value-added services.

Transport and food

Players have implemented a multi-pronged approach in pursuit of profitability despite intense competition: reducing customer and driver incentives, improving trip efficiency, and growing revenue from in-app ads.

Travel

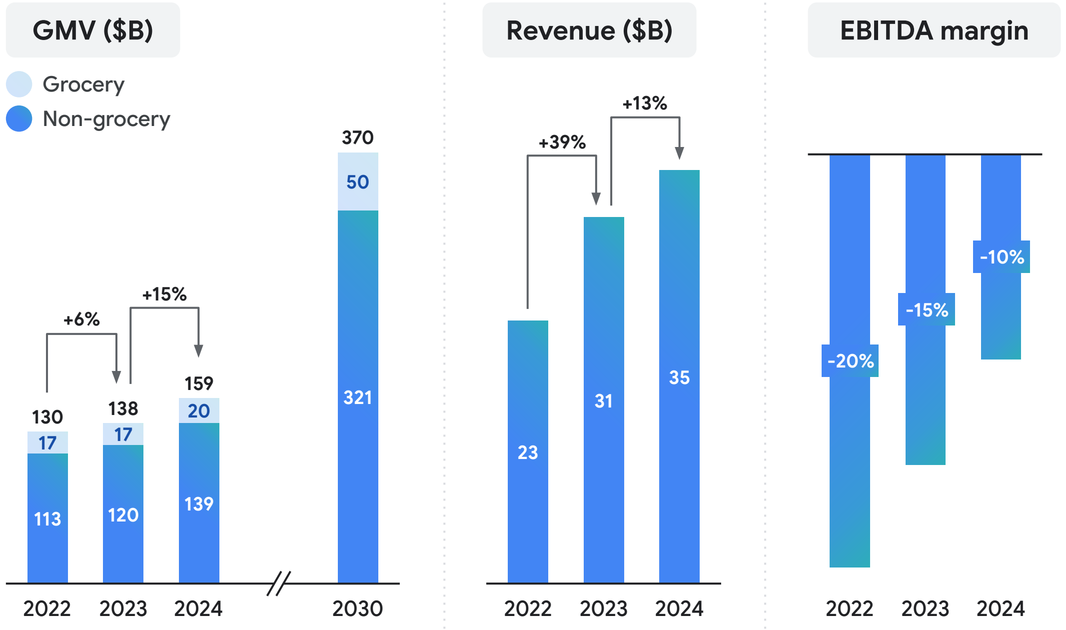
OTAs have raised their commission rates to the ceiling set by global peers, while simultaneously promoting adjacent offerings, such as car rentals, guided trips, and pay-later programmes, that deliver higher margins.

Online media

The online media sector continues to maintain overall profitability, as more digital players invest in ad monetisation efforts, and video streaming services implement price hikes supported by exclusive content offerings.

Notes: Only OTAs are included in “travel”. Profit shown is EBITDA, including allocated corporate overhead, for e-commerce marketplaces, food delivery and transport platforms, online travel agencies, and online media players, excluding incumbents, e.g. brick and mortar retailers, taxi companies, etc. Online media profits were calculated with proxies of leading companies in the industry.
Sources: Interviews with key players; Bain analysis

E-commerce: Healthy growth in GMV and revenue, driven by video commerce and reinvestments into GMV



Incumbents are reinvesting in GMV growth to combat new entrants

The influx of major international players continues to disrupt the market, making GMV growth and market share retention a renewed priority.

Video commerce is on the rise

Video commerce has experienced rapid growth, contributing to increased GMV and customer acquisition. While the full impact of video commerce on long-term customer retention is yet to be seen, it offers the potential to cultivate deeper customer relationships and foster lasting brand loyalty.

Revenue growth faces challenges for both 1P and 3P platforms

Revenue growth is at a healthy level of 13%, albeit slower compared to the year before. On the 1P front, increased competition is challenging monetisation of direct sales, while on the 3P front, take rates have started to plateau. Expanding value-added services, such as advertising, will be essential for future revenue growth.

The path forward: balancing profitability and growth

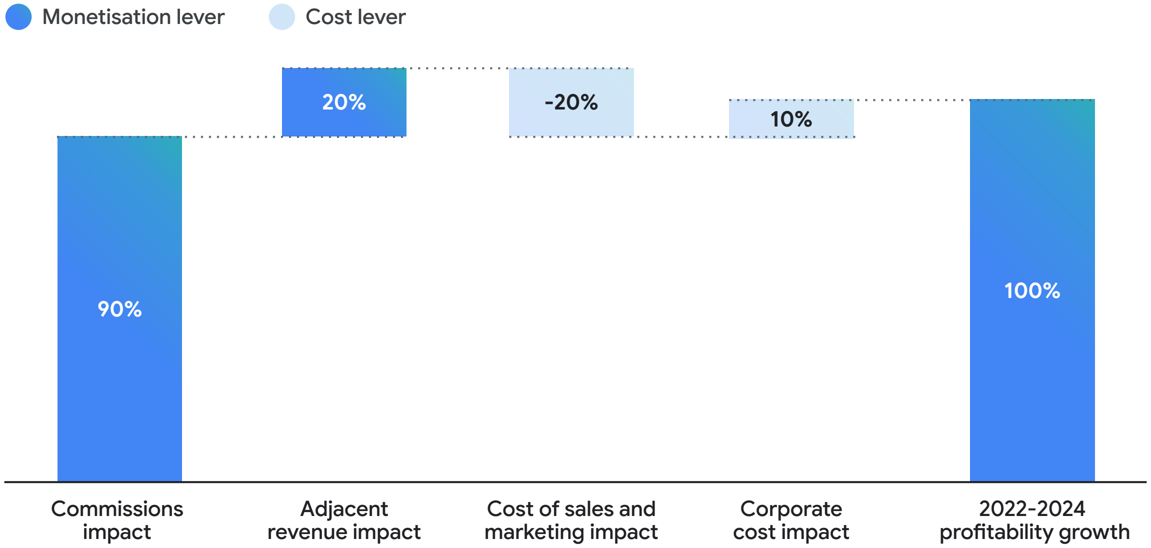
Key players have achieved profitability through disciplined campaigns and optimised seller fees. To sustain growth, a portion of these gains may be redirected toward customer subsidies. Current trends suggest that growth and profitability can be achieved simultaneously.

Notes: Profit shown is EBITDA, including allocated corporate overhead, for e-commerce marketplaces, excluding incumbents, e.g. brick and mortar retailers. 2024 estimates are based on H1'24 annualised results.
Source: Bain analysis

Profitability growth comes mainly from increasing commissions and adjacent streams

Illustrative of major players

E-commerce marketplace platform profit growth drivers (% of growth)



Notes: Cost of sales and marketing includes payment processing fees, warehousing and fulfillment, logistics and shipping, customer service, merchant costs, promotions and discounts, and technology and platform costs. Corporate cost includes general and administrative expenses along with research and development costs.
Source: Bain analysis

Market leaders are paving the way for commission rate hikes

Commission rates continue their upward climb, approaching the ceilings set in China. Key players are leading the trend, but the broader market is following closely behind.

Adjacent revenue streams contribute to profitability

Supplementary revenue streams such as advertising continue to be crucial for profitability due to their high margins. The growth of video commerce has further enhanced advertising revenue potential with new formats like live ads that complement livestreams.

Competition keeps the cost of sales and marketing high

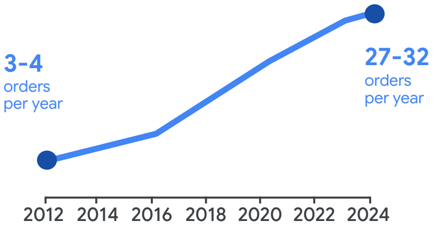
The ratio of cost of sales and marketing to GMV remains elevated, reflecting the competitive landscape. Future profitability hinges on the ability to offset the cost with effective monetisation.

Growth trajectories vary significantly across categories, reflecting respective stages of maturity

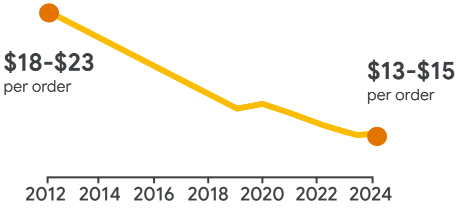
Online share and growth outlook by category

Category	Online share of category sales[1]	Five-year growth outlook
Grocery	Low	Faster
Fashion	High	Slower
Beauty and personal care	High	Momentum
Electronics	Medium	Momentum
Home goods and furniture	Medium	Faster

Orders per shopper



Average e-commerce basket size



Existing users are now the primary growth engine for e-commerce

E-commerce growth is now fuelled primarily by existing customers, who account for 60% to 70% of 2024 growth. This is a departure from the past decade, when growth was driven by consumers who were shopping online for the first time.

Growth will come from increased frequency

Online shopping behaviour has been evolving rapidly. Shoppers are making purchases online nearly 8X more often compared to a decade ago – but spending less each time, due to shifts in the category mix and intense competition. These changes will gradually slow down as the landscape matures.

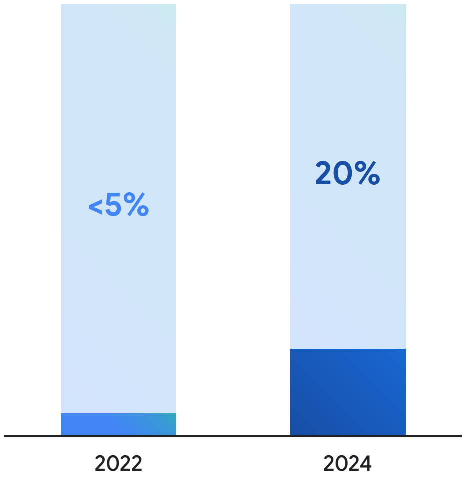
E-commerce category growth prospects vary considerably

The outlook for fashion is subdued as it is a relatively mature category, while beauty is poised to maintain momentum, mainly due to the emergence of digital-first beauty brands. Although average order values are unlikely to decline further, intense price competition and smaller basket sizes could limit their near-term growth.

Note: 1) Indicative share of e-commerce sales as a percentage of total online plus offline retail sales.
Source: Cube, SEA, 2012-2024

Video commerce is turbocharging e-commerce growth in Southeast Asia

Video commerce % of total GMV



Video commerce drivers

Brand creators
+5%
2Y CAGR of the number of brands with video channels in retail categories[1]

Sponsored content
+4%
2Y CAGR of the number of videos sponsored by the retail industry[2]

Video influencers
+9%
2Y CAGR of the number of influencers focusing on retail categories[3]

Consumer behaviour
44%
of online shoppers use video in their shopping journey[4]

Notes: CAGR = compound annual growth rate. 1) Comparison is between Q2'22 and Q2'24. Brand creators are organisations whose primary line of business is not related to media, with more than 10,000 followers. 2) Comparison is between H1'22 and H1'24. Sponsored content refers to content that creators with more than 10,000 followers were paid to create by a sponsor. 3) Comparison is between Q2'22 and Q2'24. Video influencers are persons and public figures with significant social presence, and more than 10,000 followers.
Sources: 1, 2, 3) Tubular, SEA, Q1'22-Q2'24; 4) Google/Kantar, Southeast Asia Shopper Pulse, SEA, 2023, n=18,034. Online survey of adults aged 18-45+ who researched and purchased in a relevant category within the last two months. Q: "Which sources of information did you use when deciding on what [product] to purchase?"

Videos are an integral part of the consumer shopping journey

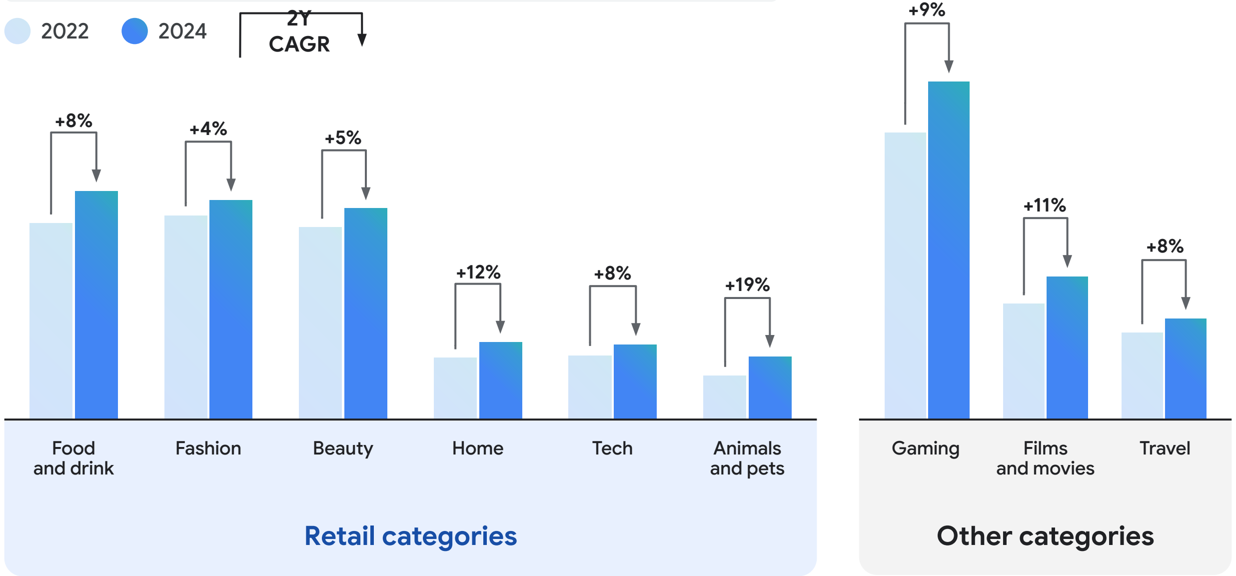
Videos are now deeply ingrained into the consumer shopping experience. From product discovery and research to final purchase, over 40% of online shoppers rely on videos to help them decide.

Brands and marketplaces are embracing all flavours of video commerce

The surge of live shopping marks a turning point for video commerce in the region. Interactive livestreams with limited-time deals pair urgency with seamless transactions. In addition to live shopping, creator-led video content with affiliate links and built-in transaction capabilities are on the rise. As video commerce becomes more integrated into mainstream shopping journeys, video continues to play a role in traditional e-commerce behaviours, such as seller-uploaded product videos and user reviews,

Brands are reaching audiences beyond their core categories by partnering with a more diverse set of creators

Number of SEA creators in selected content categories



A blossoming creator ecosystem opens new doors for brands

Brands are increasingly partnering with creators outside their core categories to expand reach and enhance their relevance. For instance, less than 20% of sponsored content by beauty brands involved creators whose primary focus is beauty.

An explosion of content in food, fashion, and beauty

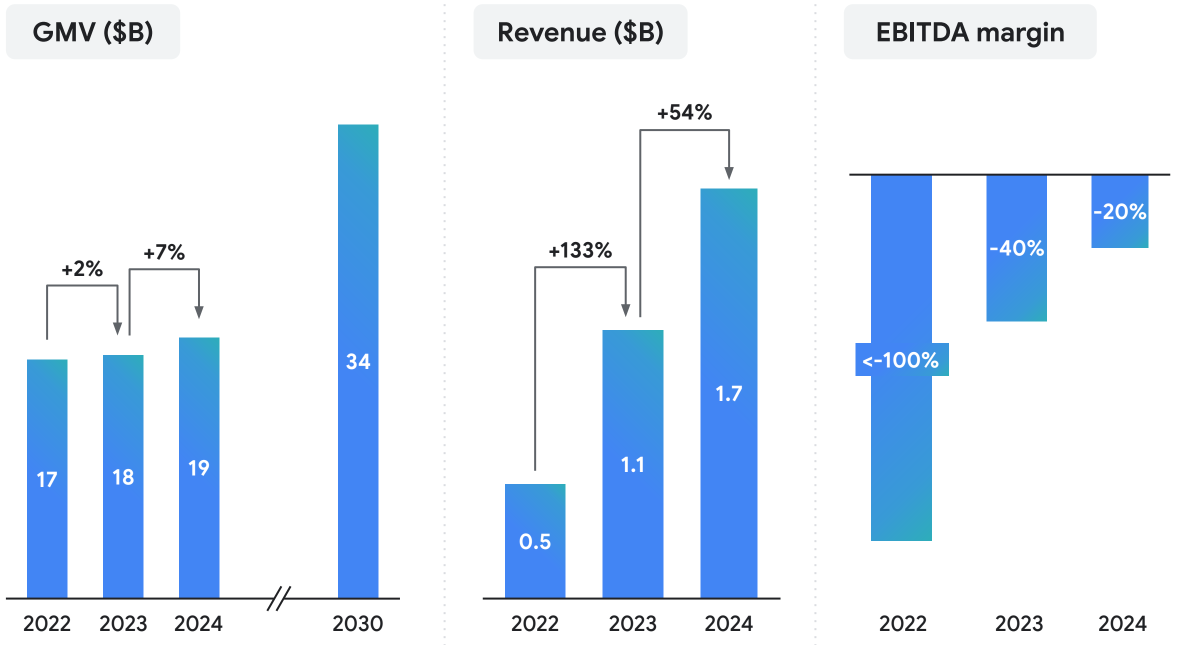
Food, fashion and beauty are among the most competitive categories, each boasting a large share of creators. These creators each post more than five new videos every week, on average.

Strongest creator growth seen in categories that have historically been smaller

While less established categories such as home, tech, and pets are starting with smaller creator pools, these categories are among the fastest-growing in the creator ecosystem.

Note: Comparison is between Q2'22 and Q2'24, for video creators with more than 10,000 followers.
Source: Tubular, SEA, Q1'22-Q2'24

Food delivery GMV growth is gaining momentum as dining-out patterns stabilise; new monetisation pathways propel revenue



The GMV pie expands

GMV growth is rebounding to 7%, as the effect of the return to dining out runs its course. Consumer demand remains robust even though inflation is causing the price of meals to go up.

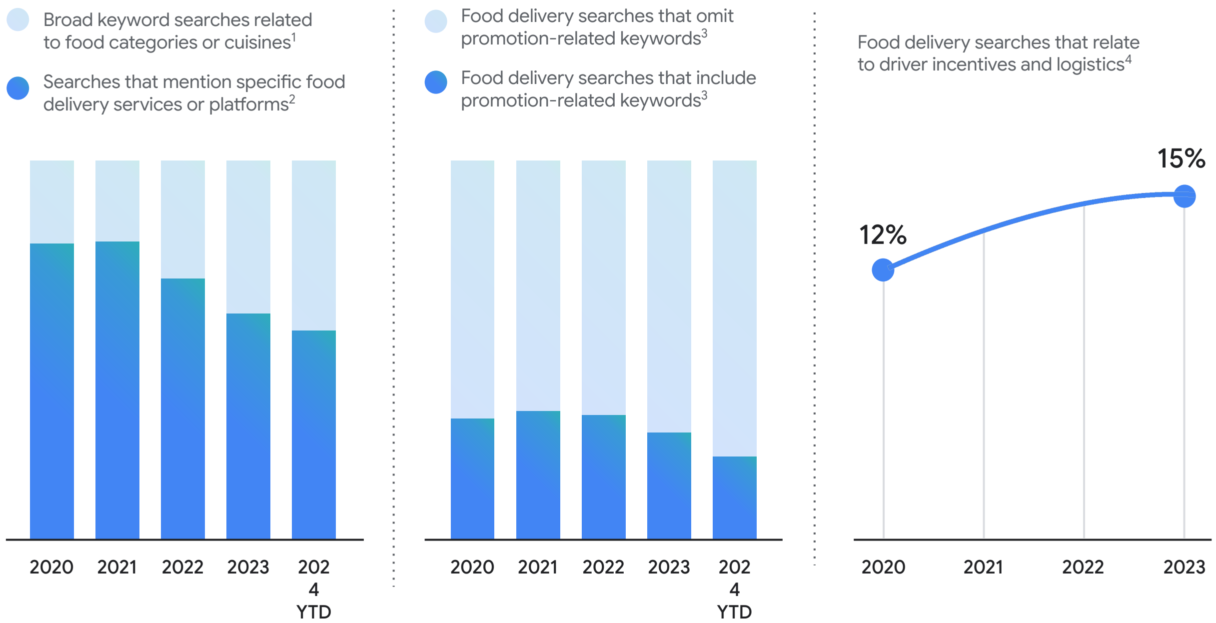
Adjacent revenue streams are hearty side dishes

Commission rates are aligning with those of global peers, suggesting that greater monetisation potential lies in alternative revenue streams. Companies have successfully tapped into other revenue sources, such as in-app advertisements and subscriptions, to sustain growth.

Notes: Profit shown is EBITDA, including allocated corporate overhead, for food delivery platforms, excluding incumbents. 2024 estimates are based on H1'24 annualised results.
Source: Bain analysis

Consumers are becoming more open to discovery and less dependent on offers

Share of Google search volume



Notes: All searches include respective local languages and are averaged across markets in SEA. 1) E.g. searches that contain "Thai food", "coffee delivery", etc. 2) E.g. searches that contain "GrabFood", "ShopeeFood", "foodpanda", etc. 3) Promotion-related keywords such as "promo code", "food delivery deals", etc. 4) E.g. searches that contain "driver registration", "delivery fees", "incentives for drivers", "driver gojek", etc.
Source: Google internal data, SEA, 2020-H1'24

Consumers display an appetite for more choices

The increasing prevalence of food delivery searches that do not include specific platform names suggests that consumers are becoming more open to exploration, as factors such as convenience and variety take precedence over brand loyalty.

Drivers sample a buffet of platforms

The influx of new platforms into the market is giving drivers the ability to easily switch between platforms. As competition for driver loyalty heats up, supply-side dynamics are shifting in favour of drivers.

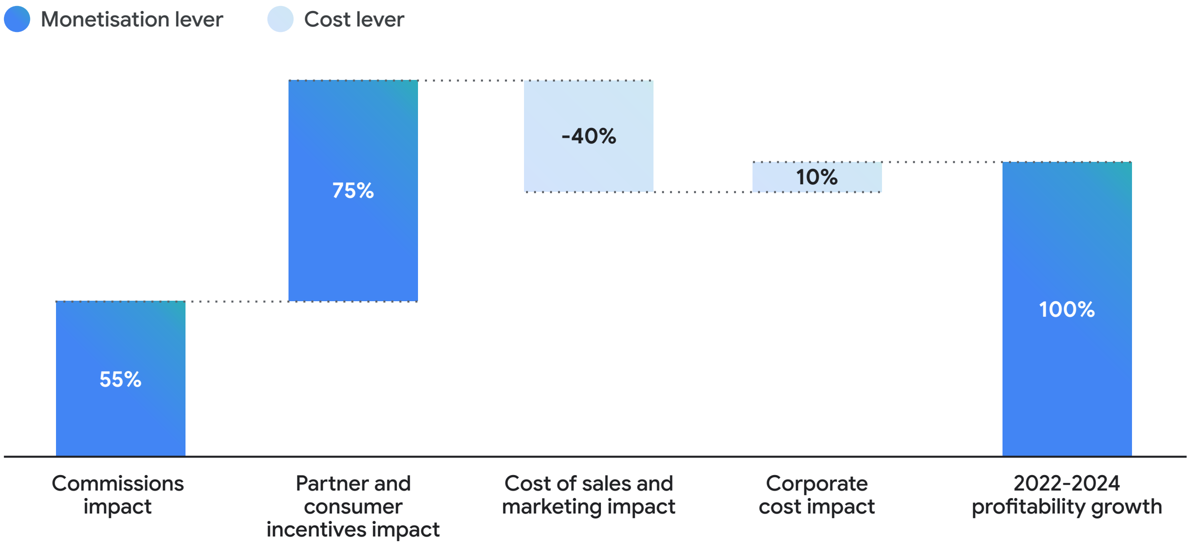
Consumers stomach trade-offs in the absence of incentives

The proportion of searches relating to consumer promotions is declining, in tandem with the cut back on platform incentives. This signals that consumers have accepted the new reality, and are willing to compromise on service quality and speed in order to save.

Profitability growth is anchored on expanding monetisation and operating more efficiently

Illustrative of major players

Food delivery marketplace platform profit growth drivers (% of growth)



Notes: Commissions include commissions on ads. Cost of sales and marketing impact includes sales and marketing expenses, and cost of revenue for food delivery transactions. Corporate cost includes general and administrative expenses along with research and development costs. Cost of sales and marketing impact is primarily driven by a change in business model (from agency to principal model) in some markets leading to higher cost of sales recognised in food delivery.
Source: Bain analysis

Platforms are testing new recipes for future profitability

Major food chains used to dominate premium placements on restaurant selection pages, but local merchants are now also showing up in these spots. Companies are also capitalising on opportunities in adjacent segments such as tourism, business solutions, and groceries.

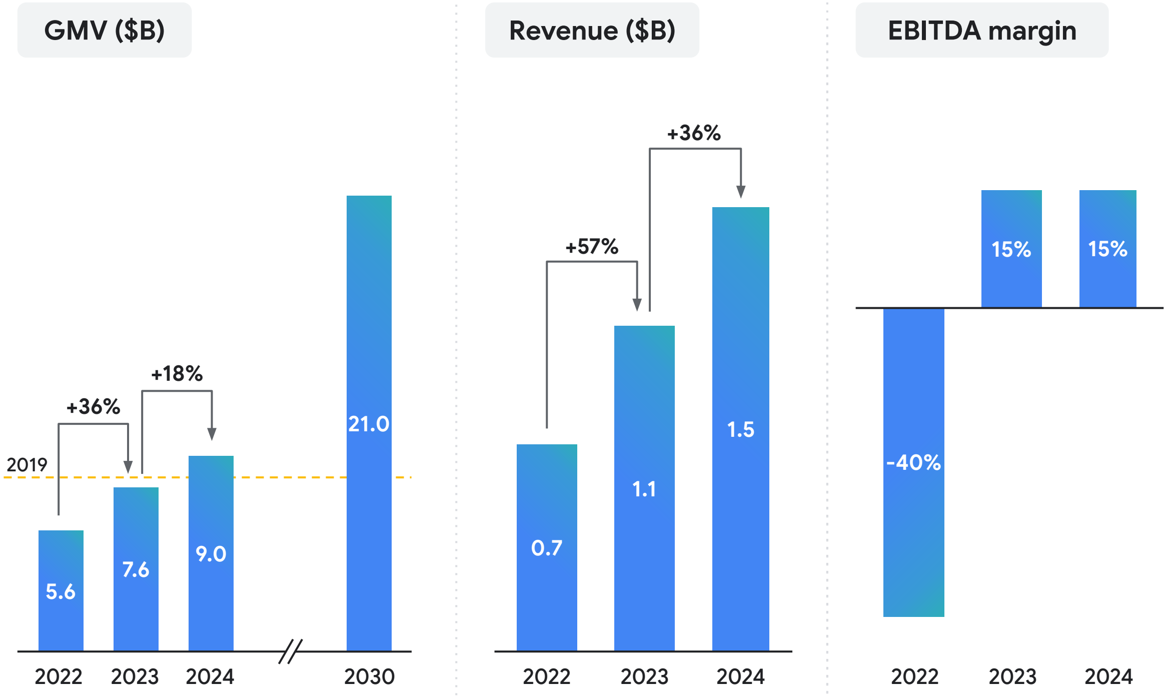
AI serves up improved customer experience and unit economics

Companies are continuing to optimise their delivery operations through AI-powered order batching and route planning, thereby minimising customer wait times and the cost to serve.

Platforms cut back on costs

Platforms have reduced customer incentives, such as free food offers and discounts. Additionally, they are promoting new models to reduce the need for driver incentives, such as self pick-up.

Transport has recovered to hit an all-time high, with revenue growth surging through pricing



GMV accelerates to unprecedented levels

The recovery of commuter demand and international travel has propelled the transport sector to not only rebound, but also surpass the pre-pandemic level of ~$8B in 2019.

Adoption cruises uphill

Despite inflationary pressures driving up ride prices, consumer demand remains robust. This is due to strategic expansions into second-tier cities and rural areas by incumbents, coupled with aggressive promotions by new entrants looking to drive user growth.

Headroom for further monetisation remains

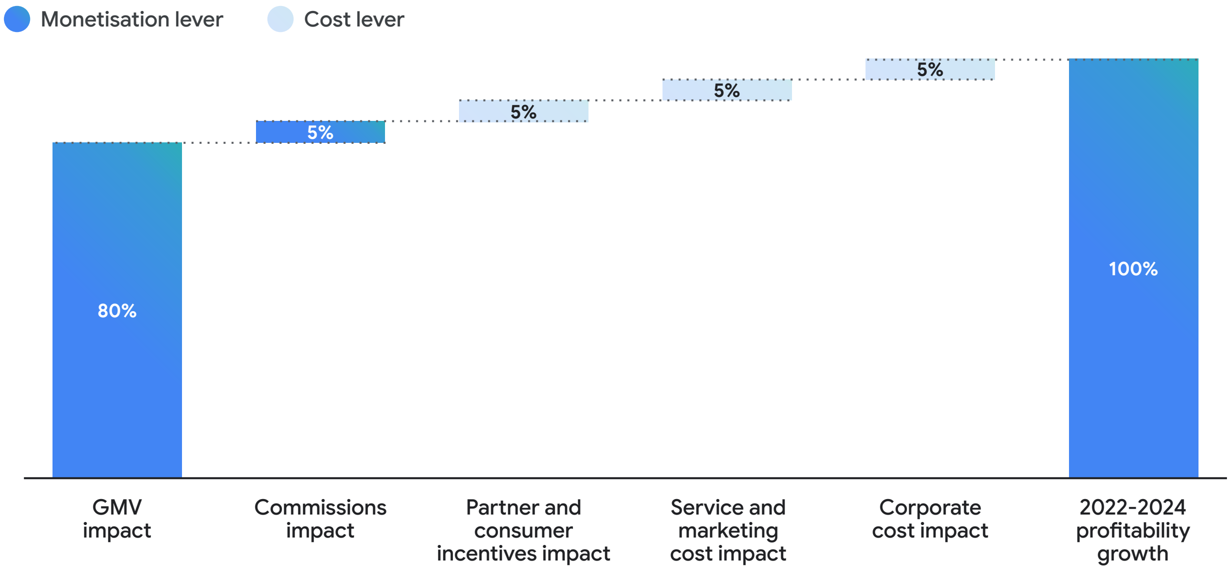
While the EBITDA margin has risen to 15%, there are opportunities to further enhance profitability through strategic pricing mechanisms, such as surge pricing and consumer incentives.

Notes: Profit shown is EBITDA, including allocated corporate overhead, for transport platforms, excluding incumbents, e.g. taxi companies. 2024 estimates are based on H1'24 annualised results.
Source: Bain analysis

GMV recovery has been the main driver of profitability growth

Illustrative of major players

Transport platform profit growth drivers (% of growth)



Tourism and motorbikes fuel GMV growth

Transport platforms are actively expanding their services to cater to tourists, incorporating features such as language translation and foreign payment solutions within their apps. Additionally, the burgeoning popularity of motorbike services in emerging markets presents a significant opportunity for further growth.

Platforms lower the toll of operations and payments

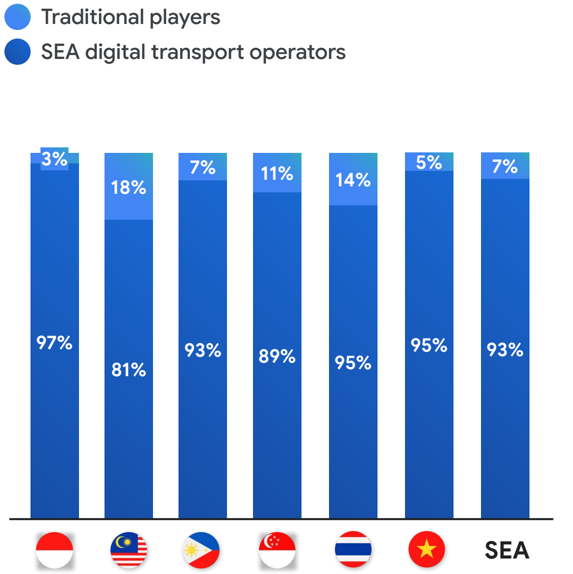
Transport platforms have achieved cost reductions by streamlining operations and optimising payment processing expenses. These include adopting leaner, more cost-effective operational practices, such as efficient route planning and fleet management, and negotiating better terms with payment processors.

Notes: Service and marketing cost includes sales and marketing expenses and cost of revenue, Corporate cost includes general and administrative expenses along with research and development costs.
Source: Bain analysis

Digital transport operators see healthy profits, but competition keeps them on their toes

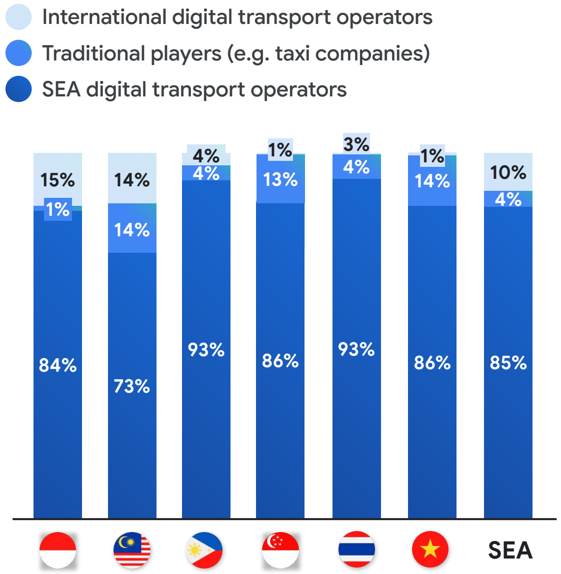
Active user share by segment (2019)

Unified (Android + iOS)



Active user share by segment (2024)

Unified (Android + iOS)



New entrants go the affordable route to capture market share

Some international players have found a footing in the SEA market by prioritising affordability, contributing to a more diverse competitive landscape.

Digital platforms stay in their lane amid heightened competition

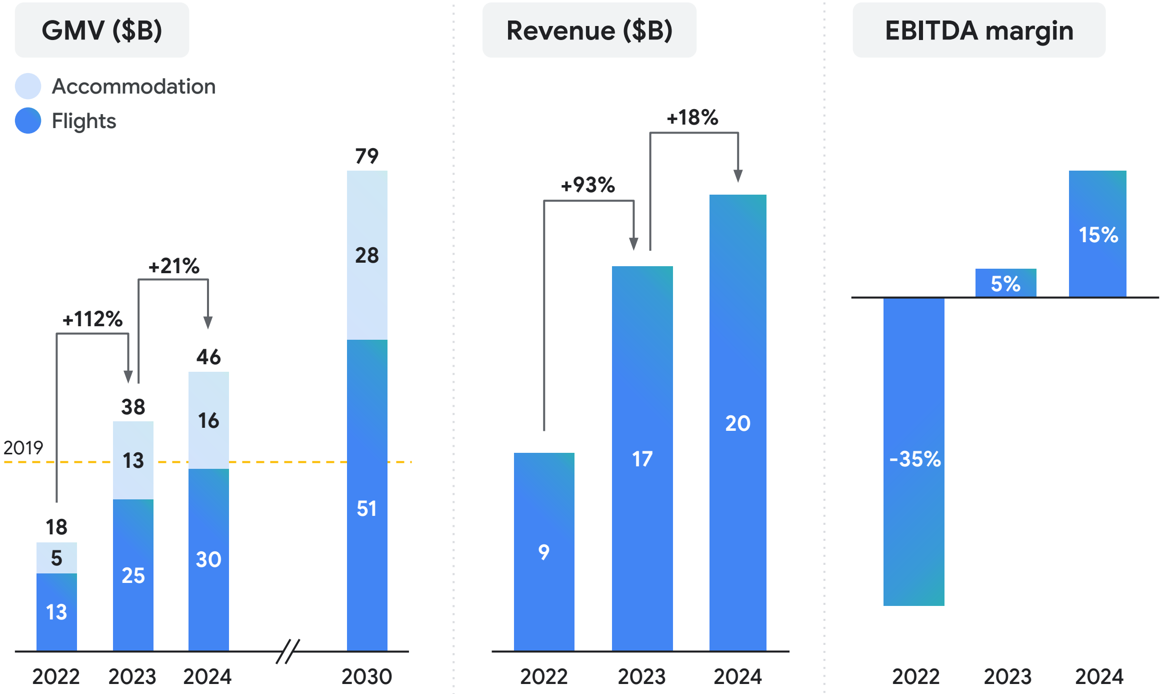
Despite the influx of competition, incumbent platforms are holding on to their established positions in the regional market.

Traditional players face a roadblock

Outside of strongholds like Singapore and Vietnam, traditional taxi companies are losing ground as they struggle to compete with digital platforms and other new entrants.

Notes: SEA digital transport operators have active operations across multiple SEA countries, while international digital transport operators are businesses that were started outside SEA and are now expanding into the region. Traditional players refer to non-digital or hybrid operators, including traditional taxi companies.
Source: data.ai, unified active users for digital transport operators by country, SEA, 2019 vs 01-06/2024

Online travel GTB has overtaken 2019 levels, as the sector makes a full recovery earlier than anticipated



GTB for flights is soaring

The aviation sector has outperformed expectations with a stronger than expected rebound, to now exceed pre-pandemic levels. While this is true across the region, a significant proportion of GTB growth is coming from increased airfares for flights originating out of Singapore.

Travellers make room in their budgets for luxury

Most of the GTB growth in accommodation is coming from hotels, while vacation rental GTB decelerates, largely due to shifting consumer preferences in favour of luxury travel.

OTAs venture into new horizons

Overall revenue growth remains robust at 18%, with 1P channels still the majority contributor. However, OTAs have been successful at monetising both their core business as well as travel-adjacent offerings such as financing and insurance.

Notes: GTB = gross travel bookings, which is the equivalent of GMV for travel. Profit shown is EBITDA, including allocated corporate overhead, for major SEA online travel agencies (OTA), excluding incumbents. 2024 estimates are based on H1'24 annualised results.
Source: Bain analysis

The majority of SEA travel spend stays in APAC, with the largest share going to Japan

Top 5 destination regions

by share of consumer spend and YoY change

Asia Pacific (Excluding SEA)	41%	▲ +9 ppt
Southeast Asia	31%	▼ -1 ppt
Europe	17%	▼ -6 ppt
North America	8%	▼ -2 ppt
Middle East	2%	▼ -1 ppt

Top 5 destination countries

by share of consumer spend and YoY change

Japan	19%	▲ +5 ppt
Singapore	11%	▼ -2 ppt
Malaysia	10%	▲ +2 ppt
USA	8%	▼ -2 ppt
Thailand	7%	▼ -1 ppt

Southeast Asians stay close to home

Fuelled by expanding flight capacity within the region in recent years, over 70% of SEA travel spending now remains within APAC, including SEA itself, highlighting the increasing allure and accessibility of destinations closer to home.

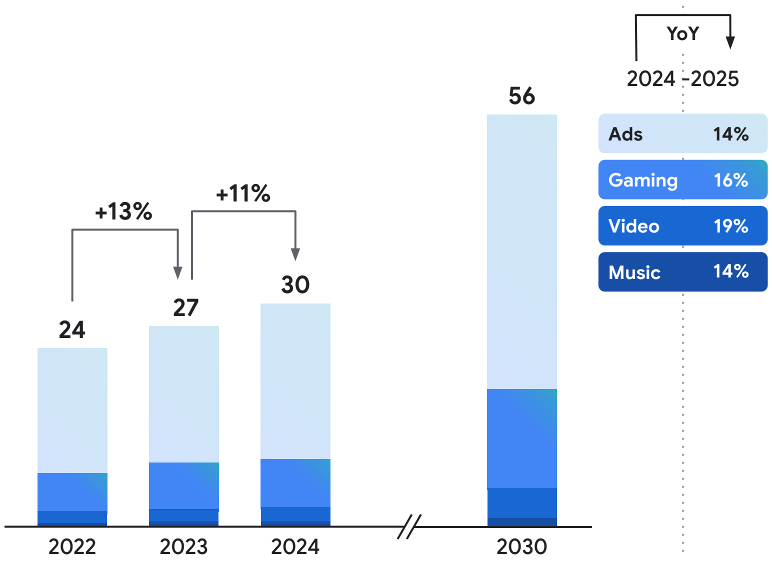
Japan: a budget-friendly destination

Travellers are taking advantage of the relative weakness of the Japanese yen to experience Japan's iconic landmarks, rich culture, and culinary delights. Japan saw a +5ppt year-on-year increase in consumer spend share, the highest among all destination countries.

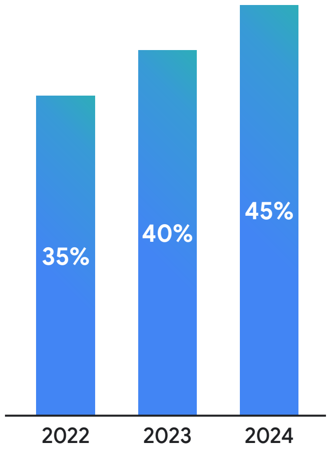
Source: Visa, SEA, H2'23-H1'24 vs H2'22-H1'23

Online media: advertising growth stays on track, while gaming and video pick up speed

Online media GMV[1] ($B)



EBITDA margin



Ads
GMV growth for online ads is powered by the continued rise of video commerce, the increasing sophistication of ad formats, and the resurgence of ad networks. Many digital players are also turning to advertising as a valuable revenue stream.

Gaming
SEA is still one of the fastest-growing regions for gaming. The constantly expanding gamer base is not only fuelling the popularity of esports, but is also driving a surge in localised content. Game developers are increasingly incorporating language options and cultural nuances into their games to cater to a progressively diverse audience.

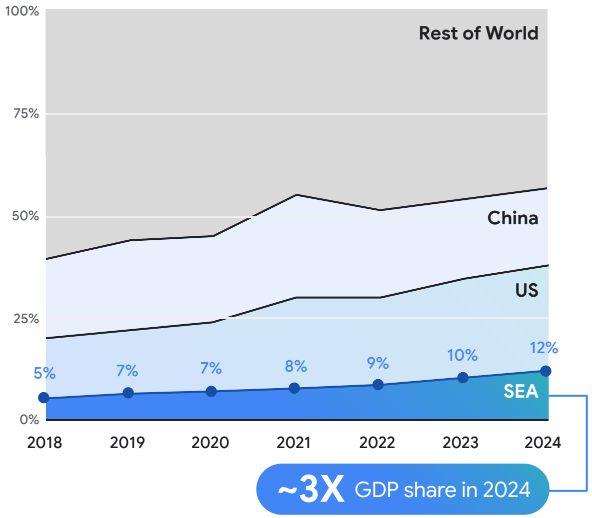
Music
Although some notable players have exited the market, paid music subscriptions continue on a strong growth trajectory. Streaming platforms can keep the momentum going by cracking down on account sharing and introducing tiered offerings.

Video
Video-on-demand platforms are using original content to retain and attract subscribers. Prices are increasing across SEA, as platforms strive for profitability in previously heavily-subsidised markets.

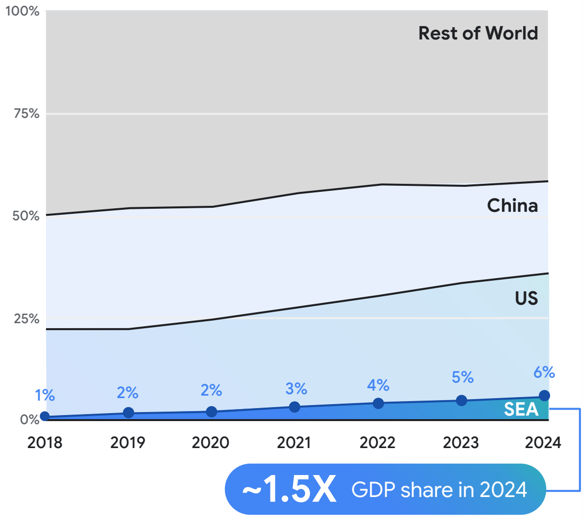
Notes: 1) For online media, GMV is equal to revenue. Online media profits were calculated with proxies of leading global companies in the industry. 2024 estimates are based on H1'24 annualised results.
Source: Bain analysis

Game developers in SEA are capturing a growing share of global mobile gaming

Developer share of game downloads



Developer share of in-app revenue



Increasing user base ▶ Increasing monetisation

SEA is carving out a niche in casual gaming

Developers in SEA are capturing a growing share of global mobile game downloads and revenue. This success extends beyond major studios, as casual games are a significant driver of growth in the region.

Diversified monetisation caters to a multitude of players

Although advertising has been a traditional revenue stream, developers are embracing hybrid models, combining in-app purchases, subscriptions, and ads to cater to various player segments worldwide.

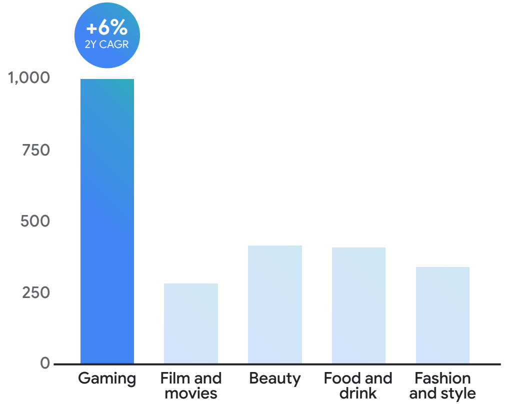
Vietnam is levelling up SEA game development

Vietnam boasts a growing pool of talented developers and a supportive ecosystem, making it a hotbed for innovation in the mobile gaming sector.

Notes: Mapping is based on developer's headquarter country. Data unified across Android and iOS.
Source: data.ai, SEA, 01/2018-01/2024

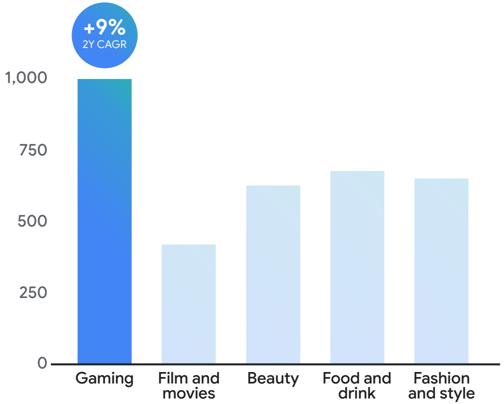
The increasing popularity of gaming is fostering a thriving creator ecosystem

Uploads in each category[1]



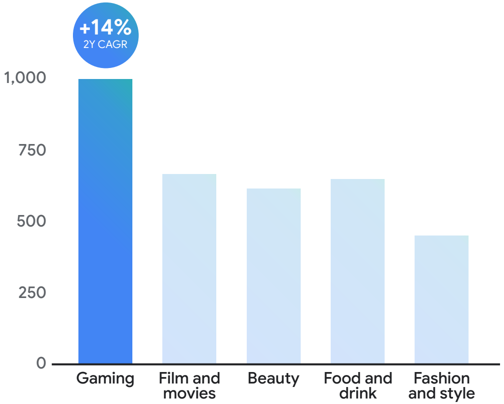
The volume of video content in the gaming category is more than twice that of the leading retail category. Across all sectors, but particularly in gaming, the short-form video format has vastly simplified content creation, boosting creator output.

Creators in each category[2]



Gaming boasts the largest pool of creators. As pioneers in livestreaming, gaming creators have paved the way for other verticals to use livestreaming to facilitate two-way interaction between sellers and customers.

Followers per creator[3]



On average, gaming creators in SEA tend to have larger followings than those in other categories. This points not only to strong audience demand for gaming content, but also the fervour of the fan communities that surround gaming creators.

Notes: Numbers are indices. 1) Average number of uploads per creator, for creators with more than 10,000 followers. 2) Number of creators with more than 10,000 followers. 3) Average number of followers per creator, for creators with more than 10,000 followers.
Source: Tubular, SEA, Q2'24

02

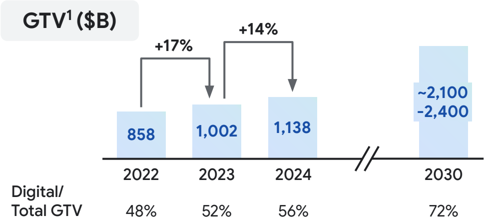
Digital finance stays on the ascent

The widespread adoption of QR codes and increased access to app-based credit solutions are keeping digital finance on a strong trajectory.

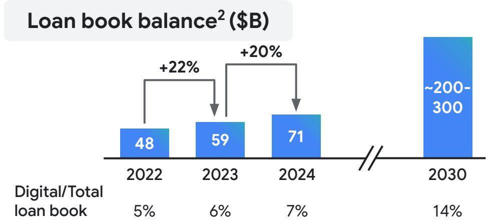
This momentum should continue as merchant acceptance expands, risk underwriting capabilities improve, and consumers migrate online for their insurance and wealth needs.

Strong digital appetite continues to fuel healthy growth across DFS sectors

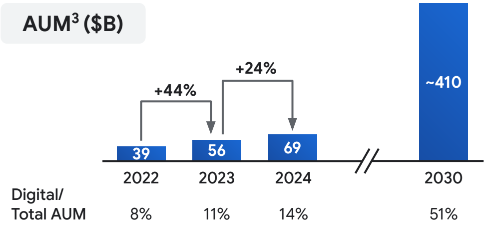
Digital payments



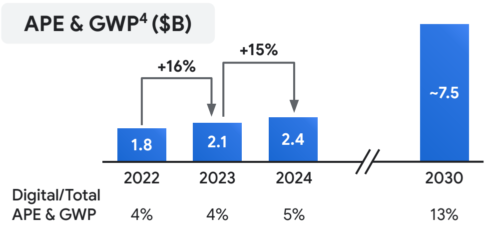
Digital lending



Digital wealth



Digital insurance



Notes: 1) Gross transaction value (GTV) for digital payments includes the value of credit, debit, prepaid card, account-to-account (A2A), and e-wallet transactions. 2) Loan book balance for digital lending includes end-of-year balance for consumer loans (excluding credit card and mortgage) and small/medium enterprise (SME) loans. 3) Assets under management (AUM) for digital wealth includes end-of-year mutual fund AUM balance. 4) Annual premium equivalent (APE) and gross written premium (GWP) for digital insurance includes APE for life insurance and health under life insurance policies and GWP for non-life insurance.
Source: Bain analysis

Payments

Digital payments are becoming more widespread, propelled by partnerships between leading e-wallet providers and major payment card networks – as well as the expansion of regional cross-border payment connectivity, such as QR codes for account-to-account transfers.

Lending

Digital lending continues to grow steadily as an appealing and accessible option, particularly for underserved communities with limited access to traditional financial services. Peer-to-peer lending platforms have improved credit management practices, keeping non-performing loan (NPL) ratios low.

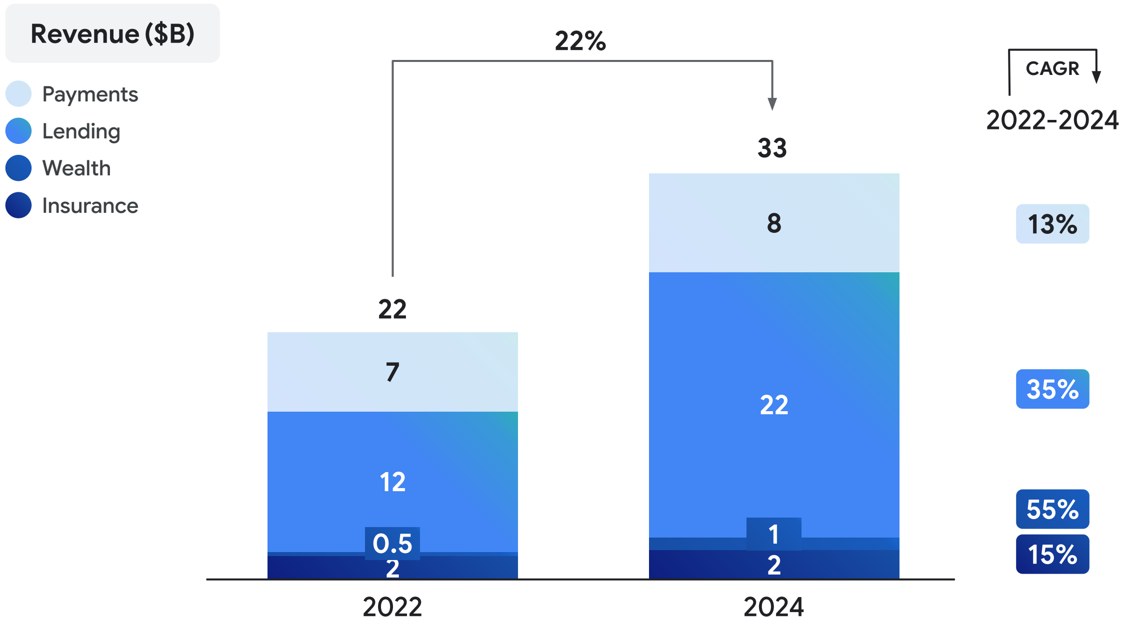
Wealth

Renewed confidence in global markets has led to a resurgence in brokerage platform activity, following a slowdown in 2022. Mass affluent consumers are increasingly turning to digital channels for their investment needs, prompting more e-wallet providers to expand into wealth management.

Insurance

Digital adoption of life insurance is limited by the value consumers place on personal interactions with human agents. However, embedded insurance bundled into e-commerce and transport services continues to gain traction.

Within DFS, lending remains the biggest revenue driver, representing ~65% of total revenue



Note: Revenue is measured using different metrics for each DFS sector:
- Payments: merchant fees (based on merchant discount rates)
- Lending: average effective interest rates plus servicing fees
- Wealth: annual management fees and platform fees
- Insurance: annual premium equivalent for life insurance and gross written premium for non-life insurance

Source: Bain analysis

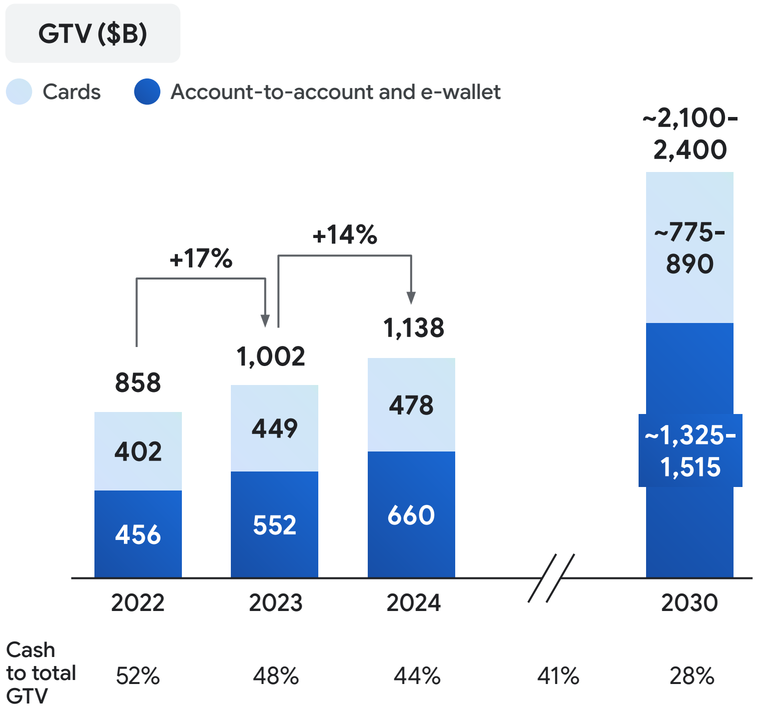
Payments
Despite the overall downward trajectory of merchant discount rates (MDRs), major e-wallet providers in some countries are adjusting their MDRs upward as part of a concerted effort to bolster profitability.

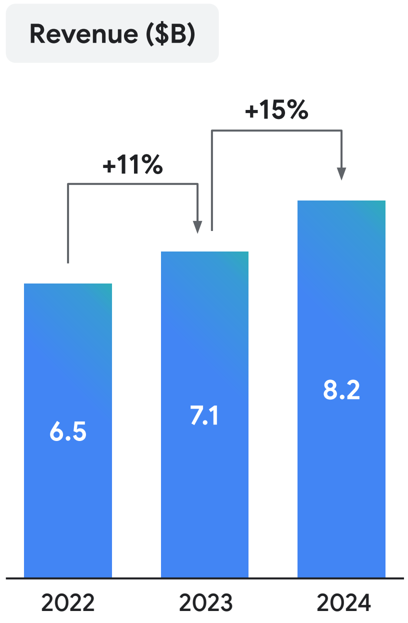
Lending
Lending remains the cornerstone of DFS revenue, with NPLs staying low. However, projected growth for 2024 is expected to moderate slightly due to heightened regulatory oversight aimed at safeguarding consumers against the risks associated with excessive credit issuance.

Wealth
Revenue growth has been significantly propelled by a surge in consumer interest in mutual funds across the region, as asset management and digital investment firms implement management and platform fee rate adjustments.

Insurance
Agencies and bancassurance are still the primary channels for insurance sales, especially for life insurance. However, digital channels are exhibiting notable growth, with the auto and health sectors leading the charge.

E-wallet and account-to-account (A2A) transactions ride the wave of QR code adoption





QR payments grow in popularity

The surge in adoption of QR codes across the region has significantly boosted e-wallet and A2A transactions, particularly in Indonesia and Vietnam. This trend is supported by new partnerships between payment card networks and major e-wallet apps, as well as regional initiatives enabling cross-border QR payments, such as between Indonesia and Singapore.

Differentiated MDRs for cards and e-wallets

Credit and debit cards generally command higher MDRs, particularly in competitive markets like Singapore. In contrast, e-wallets offer lower MDRs, with considerable variation depending on merchant profile. Smaller merchants often benefit from subsidised rates incentivising adoption.

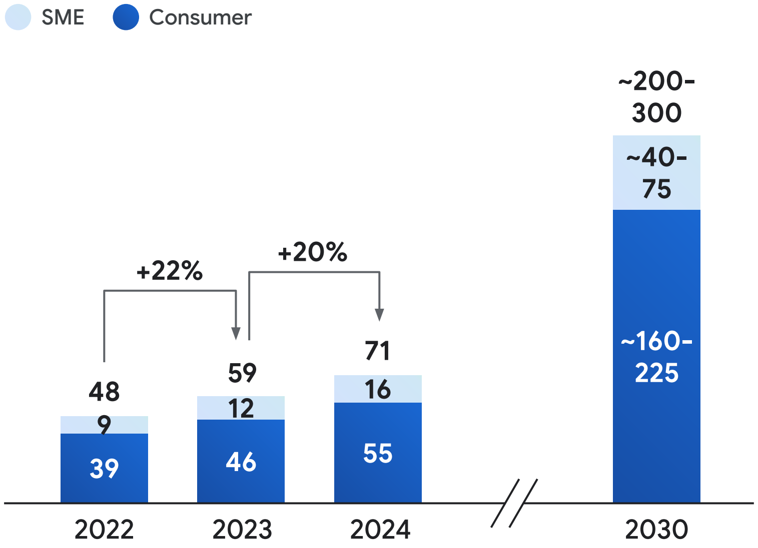
Credit and debit cards maintain distinct advantages

Credit and debit cards remain prominent in SEA, particularly in Singapore and Malaysia. Rewards and benefits, as well as security features and flexible payment options, make them attractive for high-value transactions and affluent spenders.

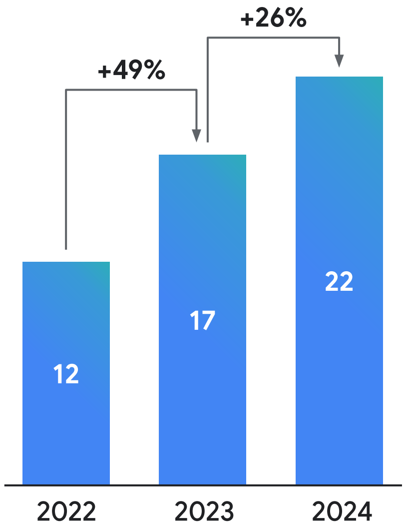
Source: Bain analysis

Loan book and revenue continue to expand despite tighter regulations

Digital loan book balance ($B)



Revenue ($B)



Digital banks expand lending with AI

Key players in the digital economy have entered the DFS sector by launching digital banks. They are embracing generative AI to power virtual assistants and perform credit scoring for underserved customers, among other uses. These innovations are set to boost speed and accuracy, intensifying competition in fintech lending.

P2P players maintain low NPLs amid loan book growth

Leading players across the region are reporting low NPLs. According to Indonesia's Otoritas Jasa Keuangan, local P2P lenders have managed to cap NPLs at around 2-3%, even as loans outstanding doubled from $2B to $4B between 2022 and 2024.

Regulators step in to ward off excessive credit

Regulatory measures, such as lending and charge rate limits for both consumptive and productive loans, and income-based loan caps, may affect the size of the digital loan book and lending revenue.

Note: P2P = peer-to-peer.
Sources: Bain analysis; Otoritas Jasa Keuangan (Indonesian Financial Services Authority)

Fintechs and digital banks excel in relevance and distribution, but trail traditional banks in other areas

	Profit drivers		Lag	Lead
Customer	Relevance	Extent of integration into consumer lifestyles	Incumbent banks	Fintech lenders, Digital banks
Customer	Distribution	The level of digital advancement in their distribution capabilities	Incumbent banks	Fintech lenders, Digital banks
Customer	Perception and trust	Their safety and reliability as perceived by consumers	Fintech lenders, Digital banks	Incumbent banks
Business	Value proposition	Product variety and scalability	Fintech lenders, Digital banks	Incumbent banks
Business	Unit economics	Resilience of their products' profit margins	Digital banks, Fintech lenders	Incumbent banks
Business	Financial discipline	Degree of rigour in their financial models and risk assessments	Fintech lenders, Digital banks	Incumbent banks

Incumbent banks
They offer a wide range of already-profitable products, which enables them to offer consumers targeted propositions and pricing. Heightened consumer awareness of fraud risks has led to a growing perception of traditional banks as trustworthy institutions.

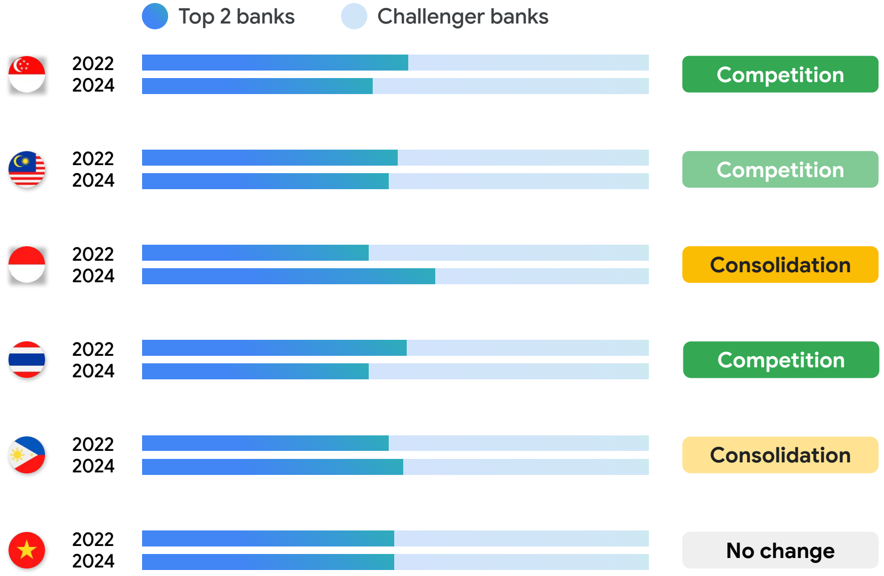
Fintech lenders
Younger demographics are attracted to the fully digital online credit experience, encompassing easy processing and competitive pricing. Fintech lenders are focused on evolving their proposition, from an alternative to cash loans for everyday transactions, to providers of higher-value services.

Digital banks
They are able to drive personalised reach and seamless engagement via their access to rich data and technology. Digital banks must establish a scaled profitable product portfolio in order to join the ranks of major financial institutions.

Competition intensifies in lending as both established banks and domestic fintechs cede market share

Traditional banks

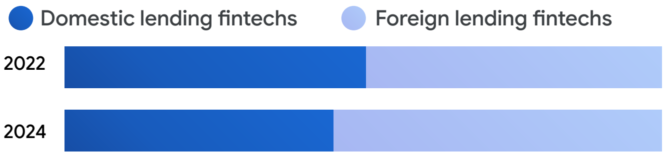
Consumers' share of mind[1]



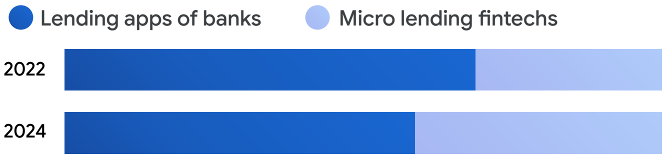
Fintech pureplays

Monthly active users[2]

Foreign fintechs aggressively increase footprint in Indonesia's underpenetrated credit market



Competition intensifies in Thailand's micro lending segment as non-bank fintech players gain prominence



Notes: 1) Percentage of search queries for loans that mention bank names. 2) Average monthly active users averaged over the respective periods.
Sources: Google internal data, SEA, 2022 and 01-06/2024; 2) data.ai, ID and TH, 01-07/2022 and 01-07/2024

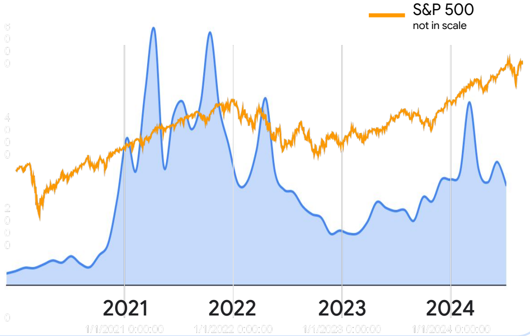
A generational shift in investor behaviour is contributing to a more dynamic wealth landscape

Growing preference for self-directed channels

Brokerage platforms are surging in popularity as a growing middle class and a new generation of high-net-worth individuals seek more control over their investments.

These tech-savvy investors are financially confident and want to independently capitalise on market trends.

Download volume of top brokerage platforms in SEA[1]

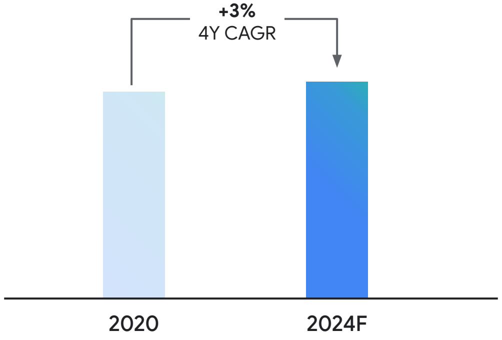


A wealth boom across APAC creates expansion opportunities

Led by China, India, Indonesia and Malaysia, Asia Pacific is poised for substantial wealth expansion.

This surge in wealth has amplified demand for advisory services from local high-net-worth individuals as well as clients from abroad.

Number of financial advisors in SEA[2]

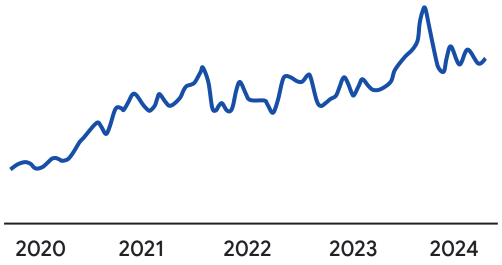


Sustainability and impact investing gain prominence

Investors in the region are increasingly concerned about climate change, pollution, and social infrastructure.

Their growing desire to align investment choices with personal values and contribute to positive change is driving the development of more sustainable investment products and solutions.

Searches for sustainable investing and impact investing in SEA[3]



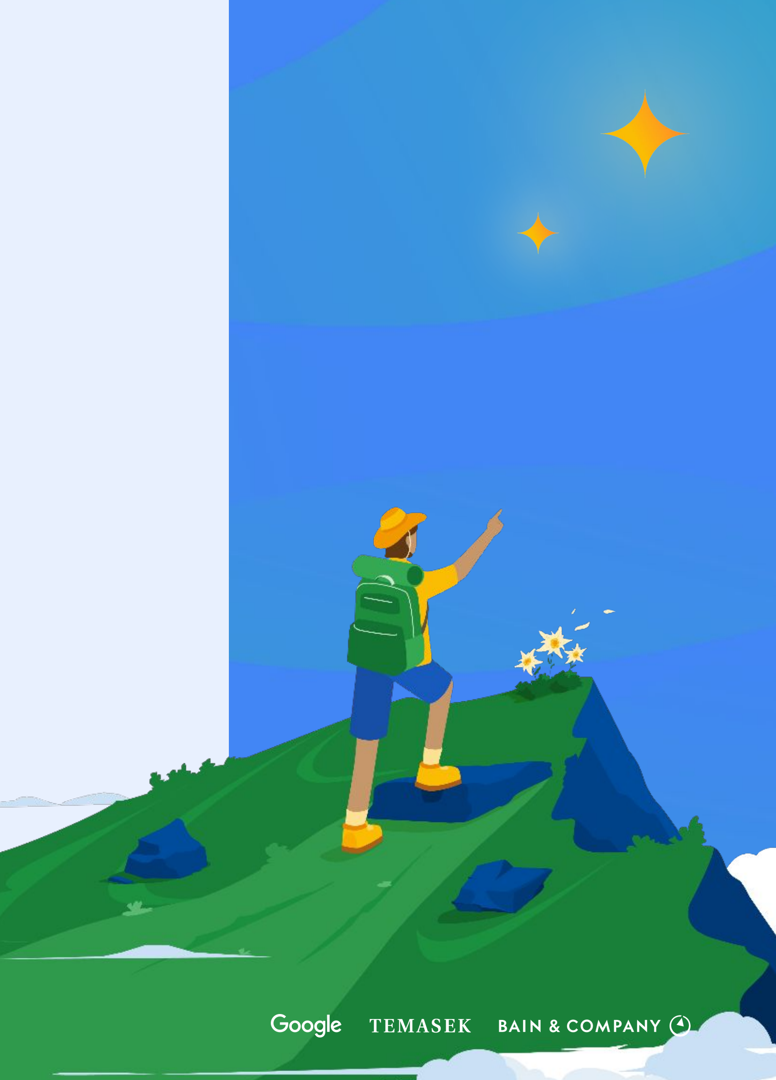
Sources: 1) data.ai, leading brokerage platforms, SEA, 01/2020 - 07/2024; 2) Statista Market Insights, Financial Advisory - SEA (n.d.). Retrieved 25/10/2024 from https://www.statista.com/outlook/fmo/wealth-management/financial-advisory; 3) Google internal data, SEA, 01/2020-07/2024

03

Clearing the path to investment exits

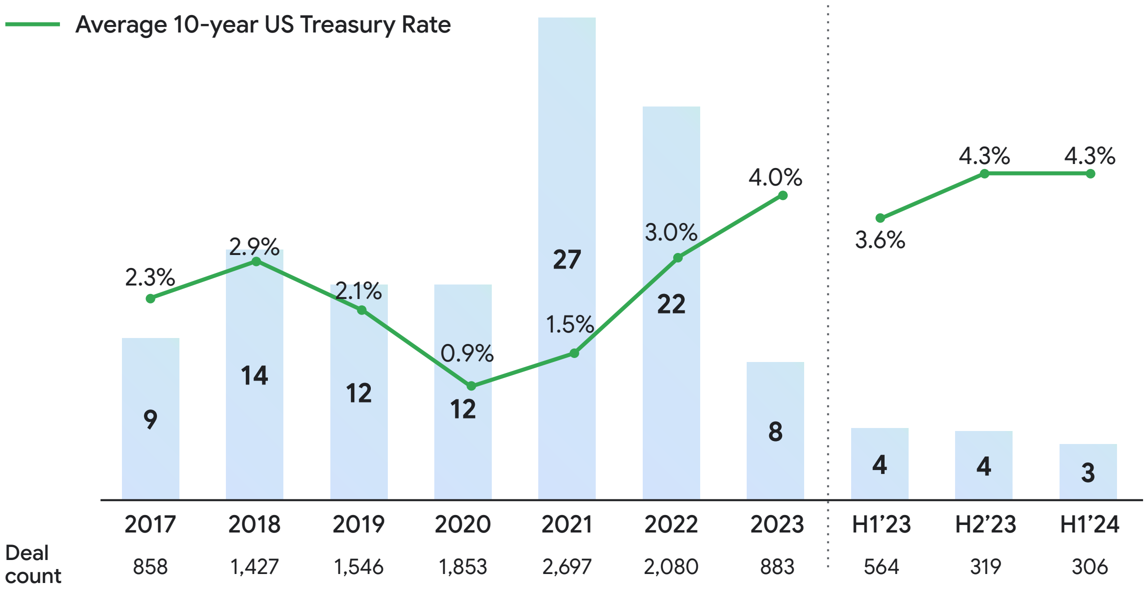
Amid subdued private funding, investors are casting a wider net, displaying cautious optimism about the region’s long-term potential.

Even as profitability milestones are reached, further growth hinges on the reliability of exit pathways and improved macroeconomic conditions.



Private funding in Southeast Asia remains subdued, mirroring the global trend

Private funding value ($B)



Funding faces ongoing challenges

Funding activity remains subdued in 2024. Higher interest rates and shifts in the geopolitical landscape have contributed to a decline in deal volume.

The path to profitability continues to be a priority for both investors and entrepreneurs

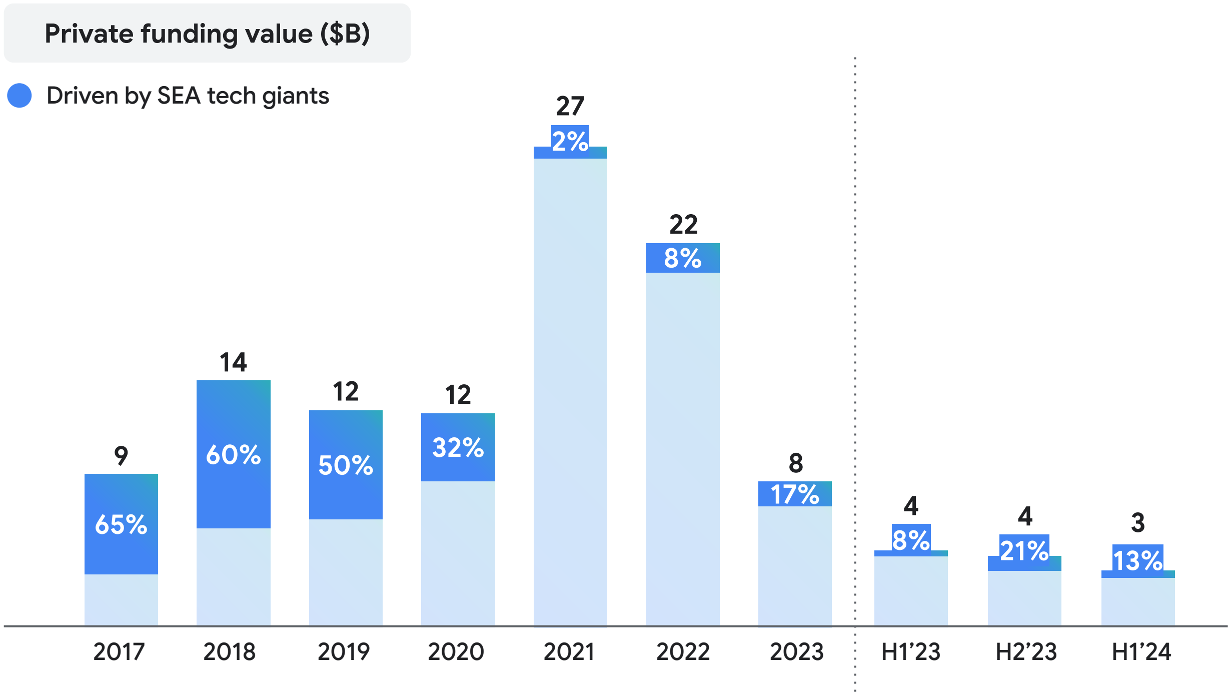
Investor sentiment and market conditions have not changed significantly from 2023. Investors are still looking for companies with a clear path to profitability, robust market potential, and strong unit economics. As a result, founders have come to understand that a plan for profitability is a necessary foundation for new business models. Moving forward, striking the right balance between profitability and growth will be crucial.

Investors cast their net wide

Investors are expanding their focus beyond purely digital companies to sectors such as food and beverage, or fitness, that have the potential for technological disruption – continuing the trend of tech enablement. They are also paying attention to nascent sectors like artificial intelligence (AI) and software as a service (SaaS).

Note: Private funding value covers digital economy-related sectors, and excludes public financing deals, e.g. PIPE, IPO, ICO.
Source: Bain analysis, FRED St. Louis historical 10-year US treasury rates

Excluding SEA tech giants, private funding has returned to pre-pandemic levels



Funding has normalised as SEA's pioneer cohort of unicorns reaches maturity

Private funding reached a fever pitch in 2021 as investors saw the upside exemplified by companies such as Grab, Gojek, and Tokopedia. As these major players have matured and consolidated, investor enthusiasm has subsided, with funding declining to current levels.

Investors are on the lookout for innovation

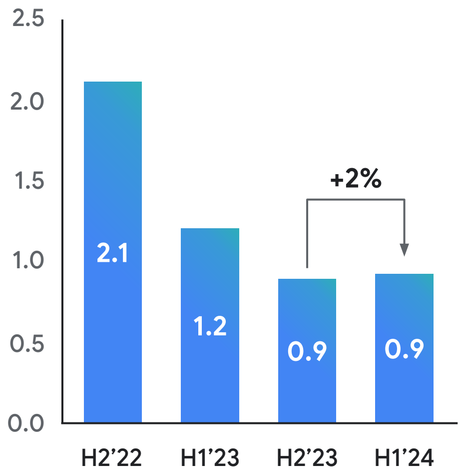
Investors are looking for groundbreaking ideas to spur the next wave of deal activity. Startups need to check all the boxes: new, disruptive solutions that demonstrate long-term sustainability and appeal. As AI capabilities accelerate, investors have their eye on incumbents that are working on near-term efficiency enhancements, and new players with the agility to build AI-ready infrastructure.

Note: Tech giants refer to Gojek, Grab, Lazada, Shopee, and Tokopedia.
Source: Bain analysis

Late stage funding remains challenged, but early and growth stage investments are seeing positive momentum

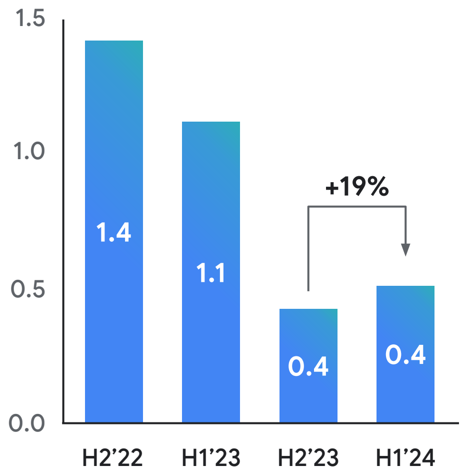
Private funding value ($B)

Early stage: Seed & Series A



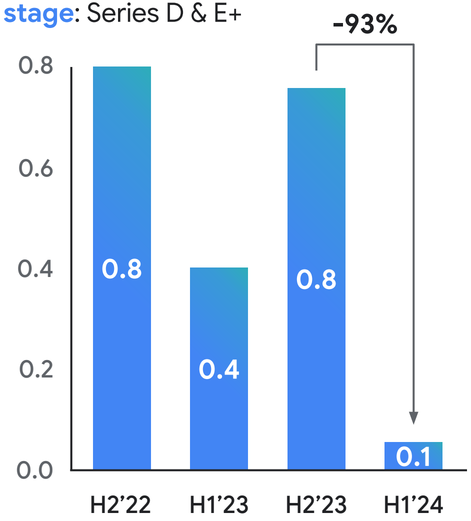
	H2'22	H1'23	H2'23	H1'24
Deal count	495	358	210	192

Growth stage: Series B & C



	H2'22	H1'23	H2'23	H1'24
Deal count	46	51	21	20

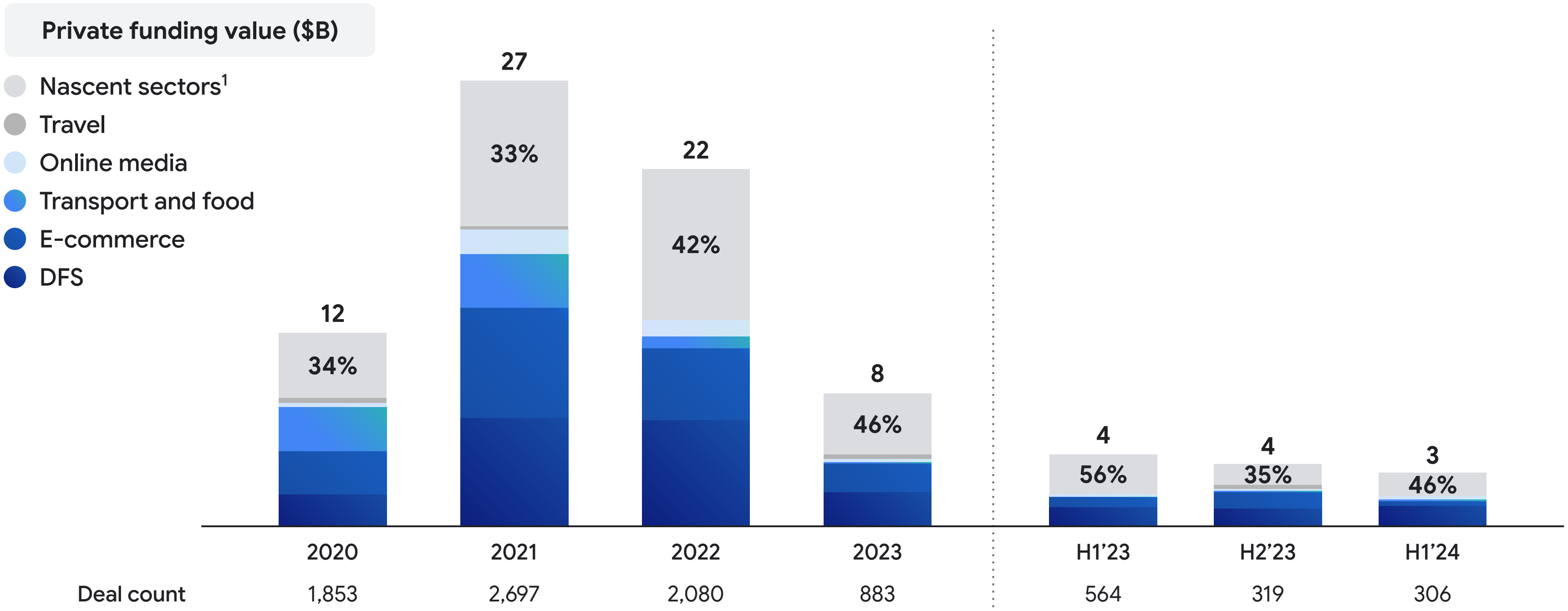
Late stage: Series D & E+



	H2'22	H1'23	H2'23	H1'24
Deal count	11	4	6	2

Note: Private funding value covers digital economy-related sectors, and excludes public financing deals, e.g. PIPE, IPO, ICO.
Source: Bain analysis

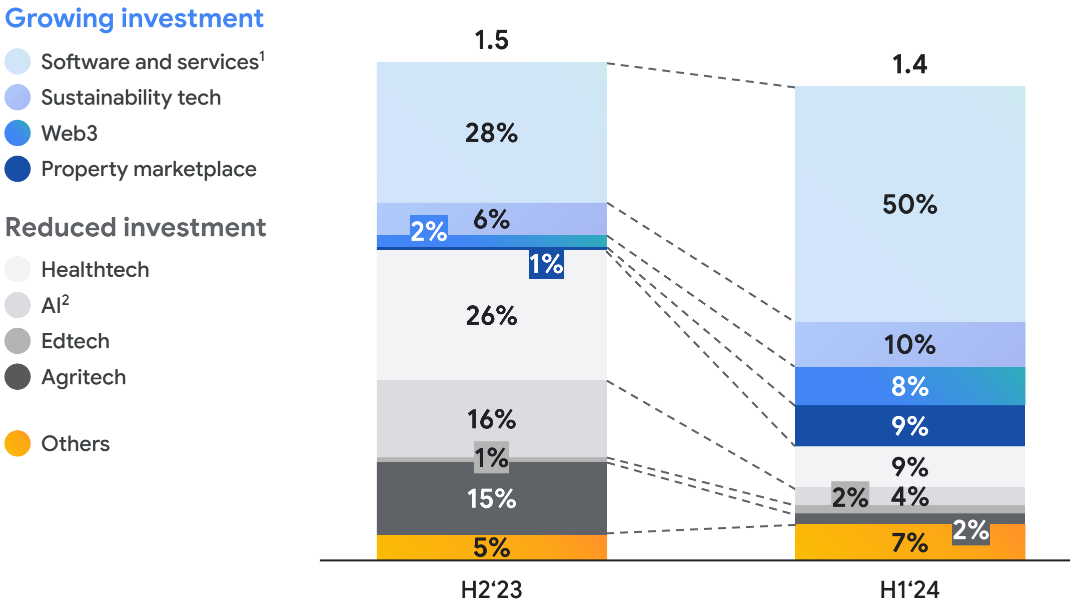
Nascent sectors are attracting interest from investors looking to the next wave of growth



Note: 1) Nascent sectors include new, emerging digital economy sectors such as software and services, sustainability technology, Web3, and others.
Source: Bain analysis

Within nascent sectors, investor focus is shifting

Nascent sector private funding value ($B)



Continued interest in software and services

Software and service startups that cater to enterprise use cases, particularly in areas such as data collaboration and analytics, remain attractive to investors. They have the potential to become a key pillar of SEA's digital economy.

Investors recognise the value of AI in driving efficiencies

Investors appreciate that the integration of AI across their portfolio companies is augmenting the efficiency of customer communications, back-end operations, and marketing. However, when it comes to the profit potential of AI foundational models, investors' expectations are muted, citing a lack of compelling opportunities, limited regional relevance, and an over-reliance on basic LLM-based applications.

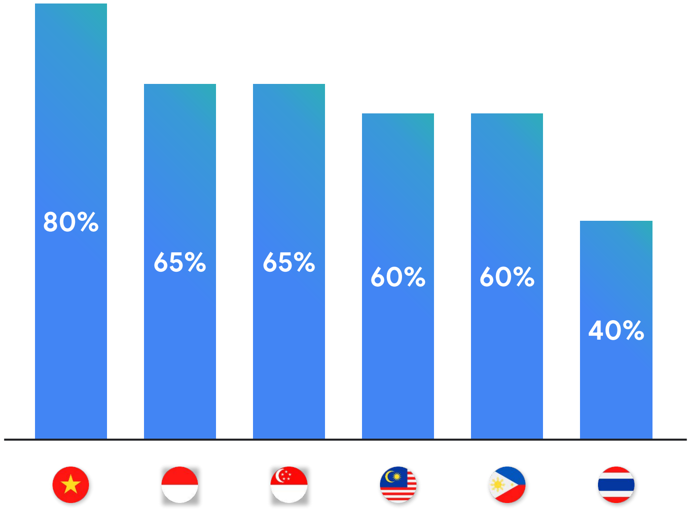
Healthtech and agritech deals stall, but investor interest remains

As pure technology deals dry up, the focus shifts to tech-enabled companies in traditional industries. These are sectors such as healthtech, e.g. online pharmacies and advanced diagnostics, as well as agritech, e.g. yield-enhancing technology. Investments in these sectors dwindled in the past year, but investors remain on the lookout for suitable targets. Should these come to fruition, these investments will move SEA closer to becoming a digital-first economy.

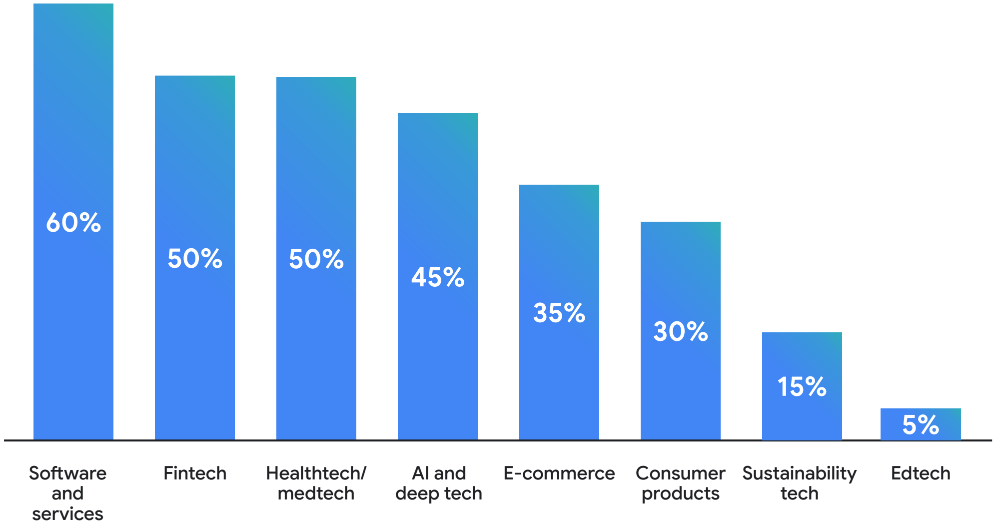
Notes: 1) "Software and services" includes software as a service (SaaS) and enterprise IT solutions. 2) "AI" includes companies offering top-layer applications (e.g. photo generation, speech processing) and leveraging AI as a key differentiator and core offering. LLM = large language model.
Source: Bain analysis

Most investors expect deal volume to pick back up, particularly in software and services, fintech, healthtech, and AI

% of investors who expect in-country funding activity to increase in the long term (2025-2030)



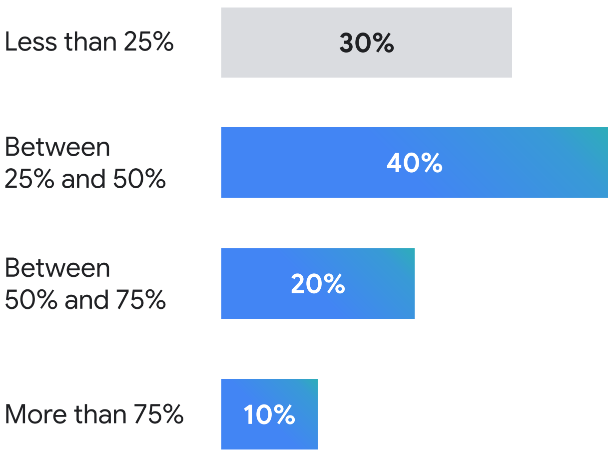
% share of top three target investment sectors in the next two or three years, as selected by investors



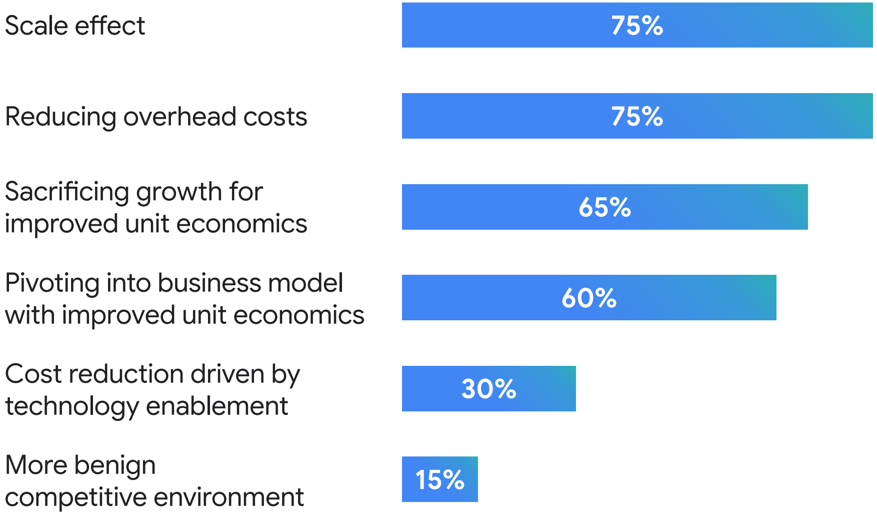
Note: "Software and services" includes software as a service (SaaS) and enterprise IT solutions.
Source: Bain SEA Venture Capital Investors Survey, Q3'24

For the majority of early-stage investors, at least a quarter of their portfolio companies have reached or will reach profitability soon

% of portfolio currently profitable or expected to be profitable in next 12 months



% of investors who agree it is a factor for achieving profitability

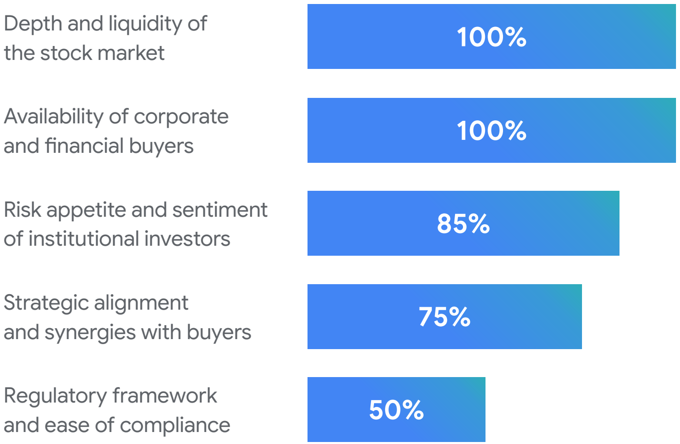


Source: Bain SEA Venture Capital Investors Survey, Q3'24

Steps are being taken to improve the exit environment in SEA

Several conditions need to be in place to facilitate exits ...

% investors who believe it is an important characteristic of a supportive exit environment



... and key players are stepping up to address the challenges

Greater regional cooperation and integration

Examples of measures include closer partnerships between stock exchanges to facilitate cross-listings, such as Singapore's SGX and Thailand's SET, and joint marketing efforts to attract more regional liquidity.

Capital market enhancements

Key markets are looking to enhance regulatory frameworks to improve capital market efficiency – for example, the Malaysia Securities Commission has reduced IPO time to three months, and the Monetary Authority of Singapore has formed a review group to attract more listings to the region.

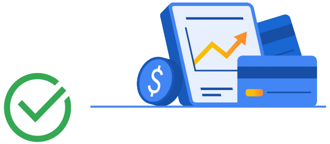
Note: IPO = initial public offering
Sources: Bain SEA Venture Capital Investors Survey, Q3'24; Bain analysis

Last year, we outlined four enablers to revitalise the funding landscape; most have been achieved, with one remaining gap that can be addressed

Realistic entry valuations

There is consensus among investors that valuations have largely stabilised or decreased compared to 2023, and will stay at current levels moving forward.

Proven monetisation model



Across sectors, GMV is growing in tandem with revenue, demonstrating that monetisation efforts are not hindering overall market growth.

Clear path to profitability

Businesses in the digital economy have proved that profitability is possible, paving a clear and attainable path to profitability for newer ventures.

Dependable exit pathways

Investor confidence in exit strategies within the region remains tempered, particularly due to prevailing capital market conditions.

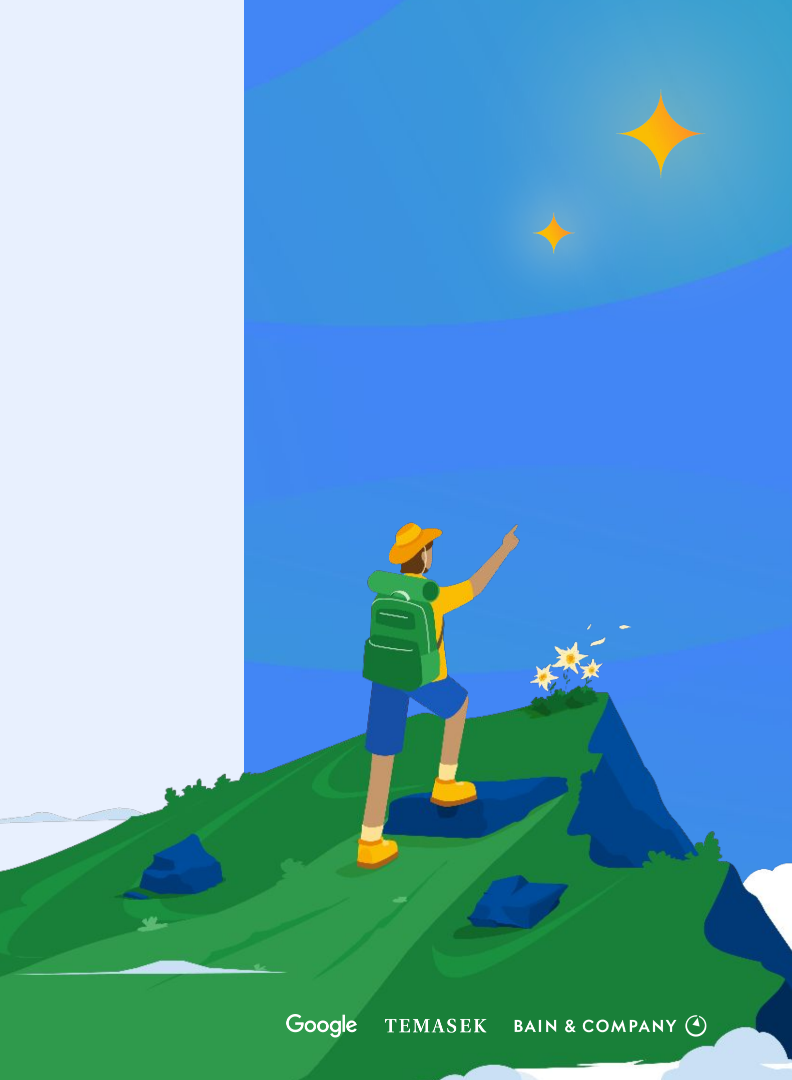
Source: Bain SEA Venture Capital Investors Survey, Q3'24; Bain analysis

04

Surveying the terrain ahead

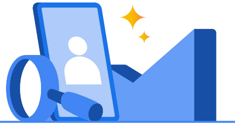
Robust macroeconomic conditions in SEA continue to underpin the digital economy, supported by moderating inflation and improved fundamentals.

SEA's digital economy will be shaped by increasing user sophistication, the growing importance of digital safety and security, and the need to unlock greater business value from AI.



As the digital economy matures, inclusive growth can be driven by:

1



Adapting to evolving user needs

Consumers are becoming increasingly discerning: seeking detailed information, exploring a wider array of products and services, and demonstrating a keen interest in emerging technologies such as AI.

2

Enhancing digital safety and security

Improvements in digital security need to keep up with the rapid pace of digital adoption, particularly given the threat of online scams and the sophistication of cyberattacks. It has become essential to deploy AI to keep the playing field level.

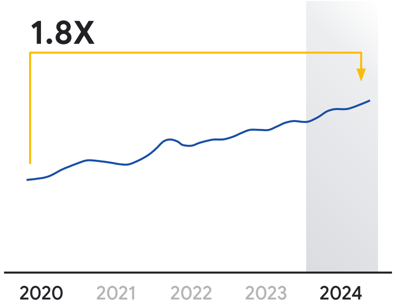
3

Unlocking business value from AI

Digital players have been early adopters of AI, recognising its potential to unlock significant value. Startups must be strategic in choosing AI investments that deliver a clear competitive advantage.

The increasing digital fluency of SEA users opens up new avenues for growth as businesses adapt

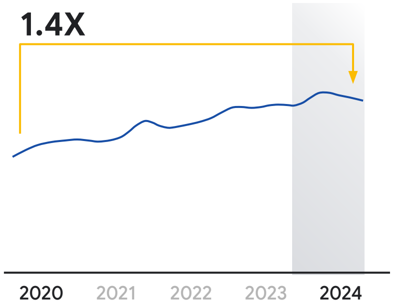
Category exploration[1]



More room for competition as consumers explore options

The increasing prevalence of brand-agnostic searches for services and products intensifies competition, compelling businesses to actively seek ways to differentiate their offerings.

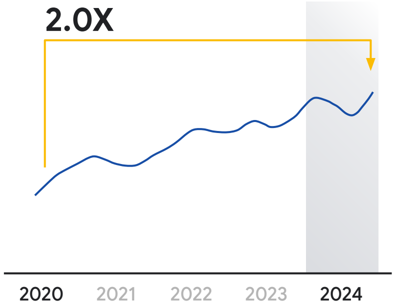
Use of local languages[2]



Brands can win by speaking the language of their consumers

SEA users consistently demonstrate a preference for using local languages. Businesses that invest in locally-relevant experiences and offers can unlock stronger growth, increasing the likelihood of usage, repeat purchases, and platform loyalty.

Search specificity[3]



Consumers search for relevance with increasingly specific queries

Searches are becoming longer, signalling demand for information and services that are more tailored to their needs. To improve conversion rate and deepen engagement, brands must adapt their strategies to become more relevant.

AI interest[4]

The potential of AI comes to light as consumers seek to learn more

The surge in searches relating to AI indicates growing consumer interest in exploring and adopting AI-powered tools and services.

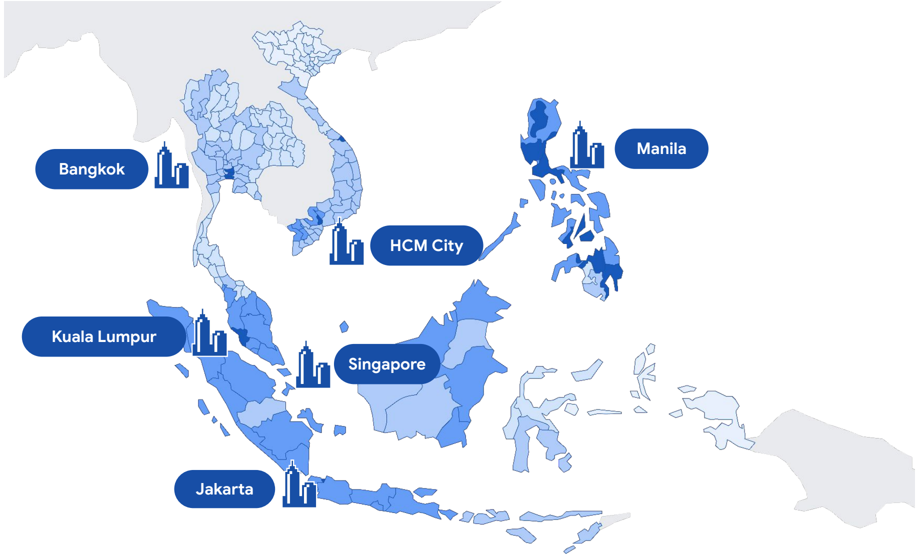
Notes: All data reflect searches across SEA, and across digital economy sectors unless otherwise stated. 1) "Category exploration" refers to non-branded searches using broad terms. 2) "Use of local languages" refers to searches in national languages, with the exception of SG where English language was excluded. Transport and food are also excluded. 3) "Search specificity" refers to the share of searches involving four or more keywords, expressed as the growth of the percentage contribution of those searches to total searches. 4) "AI interest" refers to searches that are related to AI.
Sources: Google internal data, SEA, 01/2020-09/2024; Google Trends, SEA, 01/2020-09/2024

Consumers are curious about AI, with metro cities driving the surge in interest and demand

AI: Interest and demand[1]

Indexed AI interest per internet capita

0 — 1



Top industries driving AI search interest[2]

#1 Education

#2 Marketing

#3 Gaming

#4 Healthcare

#5 Travel

#6 Automotive

Three SEA markets are in the global top 10

Singapore, the Philippines, and Malaysia are among the most interested globally when it comes to AI-related searches and demand – signalling curiosity, and an active interest in the potential impact of AI and its applications.

Notes: 1) The AI interest index indicates the level of interest in and demand for AI, calculated based on AI-related search volume, indexed to the relative internet population across the respective markets. Areas that do not meet the minimum search interest thresholds are not included in the analysis. Simplified illustrative maps are not representative of administrative borders and territories for which data is not available. 2) Top industries driving AI search interest refers to AI-related search topics that are relevant to the respective industries.
Sources: Google internal data, SEA, 01/2024-08/2024; Euromonitor, Internet Users by Country, SEA, 01/2024-08/2024. Internet users are people aged 5+ with access to the worldwide network via home, work internet-enabled computers, internet cafes or mobile phones.

Digital trust is the foundation for sustained progress

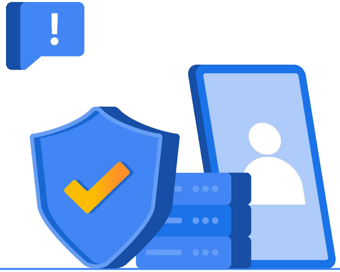
Building and maintaining digital trust requires:

Digital safety

Protecting users from **unintentional harm**

Threats:

- Accidental data exposure
- Oversharing on social media
- Online addiction



Digital security

Protecting digital devices and data from **intentional threats**

Threats:

- Cyberattacks
  (e.g. hacking, phishing, scams, other malicious activities, etc.)
- Data breaches
  (e.g. passwords, financial records, etc.)
- Identity theft

As SEA consumers become more sophisticated, so too do scams and cybercrimes

Online users tend to overestimate their digital literacy and vigilance, leaving them vulnerable

1 in 2

digital users in SEA have fallen victim to online scams, despite expressing confidence in spotting and avoiding them

25-34

is the most susceptible age group to fall victim to online scams

Top reasons:

- Lucrative deals
- Clickbait headlines

Bad actors are increasingly sophisticated, exploiting multiple digital touchpoints and formats

3 in 4

online scams happen through messaging apps and social media; the rest take place via phone, email, or SMS

Financial and investment-related scams are the most commonly reported types of scams

The convergence of these factors present significant risks, with potentially severe outcomes

Financial losses for consumers

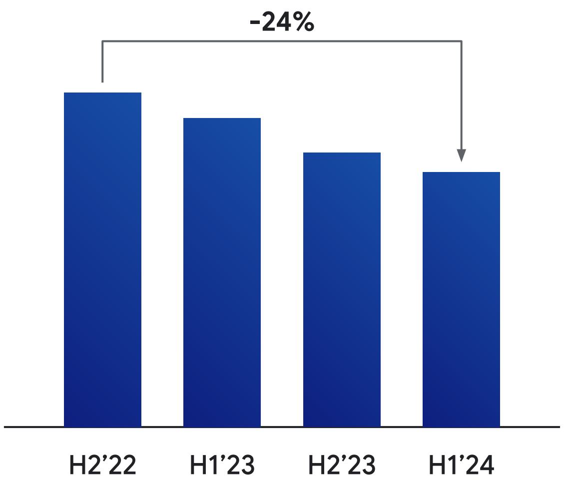
Reputational damages for businesses

Loss of confidence in the digital ecosystem

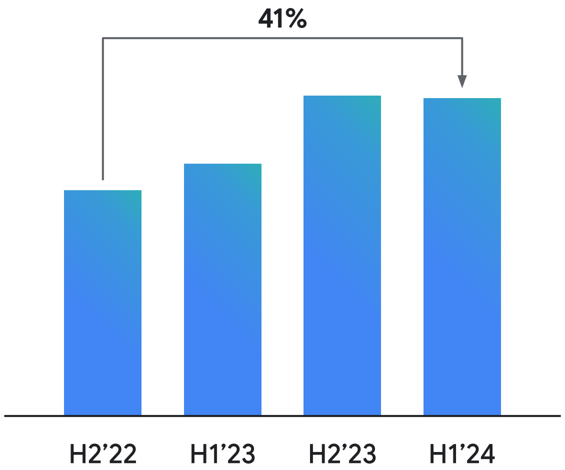
Note: SMS = short message service.
Source: Google/Qualtrics, APAC Online Scam Survey, ID (n=1,247), SG (n=1,251), TH (n=1,251), and VN (n=1,248), online population aged 18 and above. Fieldwork ran from 11/12/2023 to 22/12/2023 for ID, SG, TH, and 11/12/2023 to 02/01/2024 for VN.

Savvier users and stronger fraud controls drive down fraud rates, but scam values are going up

% of card accounts impacted by fraud[1]



Loss per fraud incident



Resilience against scams grows

While fraud remains a threat, SEA users are becoming tougher targets for scammers. Enhanced risk controls, combined with increased user awareness and vigilance, are contributing to a decline in overall fraud rates.

Cybercriminals are becoming more strategic

While the proportion of consumers falling victim to scams has been trending downwards since 2022, cybercriminals have become more adept at extracting greater value from successful attacks. The average loss per incident has risen sharply by 41% in the same period, underscoring the escalating financial impact of such scams.

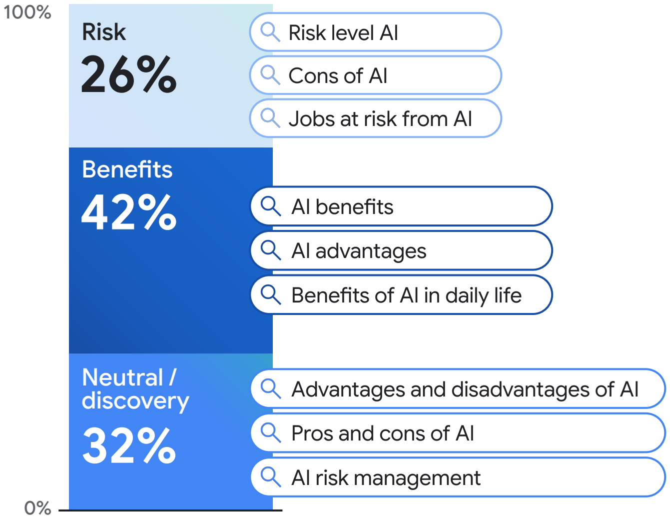
Affluent users are targeted more often and risk losing more[2]

The increase in average loss per fraudulent incident is largely driven by scams specifically targeting affluent individuals. This demographic is 1.3X more likely to be scammed, and when they are, their loss is on average double that of other user groups.

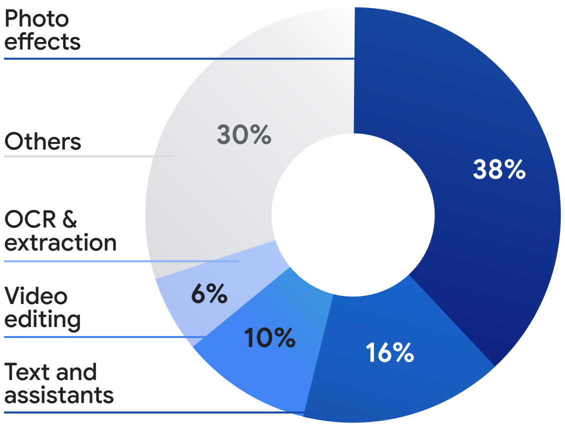
Notes: 1) Visa accounts impacted by financial fraud as a proportion of total Visa active accounts in SEA.
2) Affluent users are cardholders of Visa Affluent products (e.g. Visa Signature, Infinite, Ultra High Net Worth).
Source: Visa, SEA, H2'22-H1'24

Consumer trust in SEA is evolving in response to emerging technologies like AI, with relatively more interest in potential benefits than concerns

AI interest and demand[1]



Mobile app download share by AI feature



How consumers assess benefits against risks

Consumers in SEA are increasingly aware of both the potential benefits and risks associated with AI. Their perceptions are often shaped by a combination of factors, including productivity, economic opportunities, privacy violations, and security risks.

SEA embraces mobile apps with AI features

As a mobile-first region, SEA's interest in AI is intrinsically linked to its integration in everyday apps. Consumers actively seek out mobile applications offering specific AI-powered features, such as advanced phone effects for creative expression, intelligent text and messaging assistants for seamless communication, and intuitive video editing tools for simplified content creation.

Notes: OCR = optical character recognition. 1) Searches related to AI were assigned to one of three categories. "Benefits" are searches related to the advantages of AI, while "risks" are searches related to the downsides of AI. "Neutral / discovery" are searches containing terms relating to both benefits as well as risks of AI.
Sources: Google internal data, SEA, 01-08/2024; data.ai, SEA, 01-09/2024

Building digital trust is a collective effort that requires the participation of various stakeholders in the ecosystem

Consumers

Individuals need to be vigilant about their online activities and take steps to protect themselves from cyber threats. This includes using strong passwords and two-factor authentication, being wary of phishing attempts, and regularly updating their software and devices.

Government

Governments need to implement policies that support AI innovation while mitigating risks. These include encouraging secure software development practices, adopting zero-trust architectures, and embedding security controls to protect citizens. In addition, they can deploy AI at scale to enhance digital security defenders.

Businesses

Companies need to prioritise security and privacy by design. This means implementing robust cybersecurity measures, protecting user data, and being transparent about their data collection and usage practices.

Civil society

Civil society organisations play a crucial role in raising awareness about cybersecurity risks, and empowering consumers to protect themselves online. Furthermore, they can advocate for policies that strengthen digital trust by promoting open standards, best practices, and technical standards developed through multi-stakeholder governance, open dialogue, and international collaboration.

Generative AI is the latest breakthrough in the ongoing evolution of AI

Artificial intelligence

The science and engineering of making intelligent machines, especially intelligent computer programs

Machine learning

A branch of artificial intelligence which focuses on the use of data and algorithms to imitate the way that humans learn

Generative AI (GenAI)

A combination of unsupervised or semi-supervised machine learning models designed to create new content such as text, images, and videos

GenAI has made solid progress in performing **simple** tasks ...

- Language generation
- Audio generation
- Image and video generation

... and is pushing boundaries on **complex** tasks

- Common sense completion
- Grade school math
- Code generation

Favourable conditions in SEA support AI adoption and development

Young, savvy population interested in AI

SEA's young and growing population, coupled with high rates of digital literacy and AI enthusiasm, provides a large and receptive market for AI-powered products and services, encouraging further investment in AI development and deployment across the region.

Government support and investment

Many SEA governments are actively promoting AI adoption and development through national strategies, funding initiatives, and regulatory sandboxes. This creates a favourable environment for AI innovation, and attracts investment from both domestic and international players.

Dynamic startup ecosystem

SEA's startup ecosystem has the potential to be a hotbed of AI innovation by addressing unique local challenges in fintech, e-commerce, and healthcare. The region must boost its competitiveness and attract sustained venture capital investment in order to capitalise on AI advancements.

Conducive geopolitical environment

The relatively stable regional geopolitical environment and its rapidly growing economies make SEA an attractive destination for businesses and investors alike. This is evidenced by companies investing in infrastructure, including data centres, to scale business operations and meet anticipated future demand.

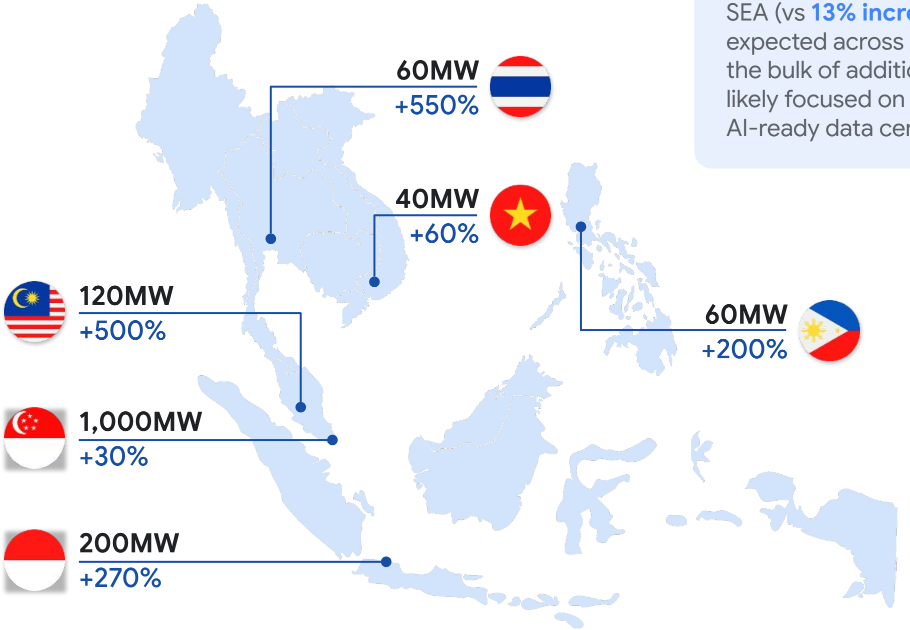
SEA has a unique opportunity to compete in the global AI landscape, particularly in data centres and innovative end-layer applications

	AI technology stack	SEA's ability to compete
Software	End-layer applications	The fragmented market with low barriers to entry (e.g. fewer deep-tech talent requirements) presents opportunities for businesses across industries to embed AI into their core products, resulting in enhanced offerings for their respective end-markets.
Software	Platforms and tools	SEA faces no structural barriers to competing. Software engineering talent is crucial for developing the necessary tools for large language model operations.
Software	Adapted models	The barriers to entry are lower compared to building foundation models. There is potential for differentiation by adapting models for regional languages and use cases.
Software	Foundation models	Regional players aiming to develop their own foundation models will need to overcome challenges related to talent scarcity and high upfront investments in advanced technology.
Hardware	Data centres	The current scarcity of AI-ready data centre capacity presents an opportunity to proactively address growing demand by investing in new capacity and partnering with global players.
Hardware	Compute hardware (servers, storage, networking equipment manufacturing)	While more established players hold an advantage, regional players can still participate in the areas of the value chain where they are strong, such as chip manufacturing and assembly.
Hardware	Semiconductor design and manufacturing	There is potential for SEA to participate in specific back-end processes, such as outsourced semiconductor assembly and test (OSAT) operations – more so than in front-end chip design and manufacturing.

Source: Bain analysis

SEA is answering the demand for AI infrastructure with accelerated investments in AI-ready data centres

Current data centre capacity (MW)
Planned additional capacity from today (%)



Planned **~1.5X** increase in data centre capacity within SEA (vs **13% increase** expected across APAC) with the bulk of additional capacity likely focused on building up AI-ready data centres

In H1 2024 alone, significant investments were committed to building AI-ready data centres:

- Malaysia: **~15B**
- Singapore: **~9B**
- Thailand: **~6B**

Notes: Analysis based on publicly reported announcements as of H1'24. Simplified illustrative maps are not representative of administrative borders.
Source: Bain analysis

These data centres will empower accelerated computing, AI services, and data growth – both regionally and globally

Benefits for SEA

Job creation

Create thousands of new jobs in high-demand fields like data science, software development, and AI engineering, providing new opportunities for the growing SEA workforce.

Economic growth

Attract foreign investment from a spectrum of players: tech giants looking to establish regional headquarters or data centres, and AI startups seeking to capitalise on the growing market.

Innovation hub

Establish SEA as a leading hub for cutting-edge AI research and development, attracting top talent from around the world and fostering a culture of innovation and entrepreneurship.

Benefits from SEA to the world

Distributed infrastructure

Strengthen the global data centre network by distributing resources, reducing reliance on single locations, and improving overall stability.

Improved access to AI

Increase global access to AI services and resources, particularly for developing countries that may lack the infrastructure to build their own advanced data centres.

Global collaboration

Facilitate increased collaboration and knowledge sharing between global researchers and institutions, fostering a more collaborative AI community.

AI is driving transformative value for the SEA digital economy through both broad and sector-specific business use cases

GMV / revenue | Profit

All sectors

- Customer service (Profit)
- Content development (Profit)
- Employee productivity (Profit)
- Supply chain operations (Profit)
- Fraud detection (Profit)
- Pricing models (GMV / revenue)

+

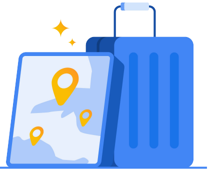
	E-commerce	Online travel	Gaming	Lending	Food & transport
	Product recommendations (GMV / revenue)	Travel planning and personalisation (GMV / revenue)	Enhancing gaming assets (GMV / revenue)	Underwriting and risk assessment (Profit)	Route optimisations (Profit)
AI application	In e-commerce, GenAI is driving deeper personalisation through tailored product recommendations	GenAI is transforming the travel industry with smart planners that personalise the travel experience	GenAI can quickly create high-quality game assets, like characters, textures, environments, etc. – and also improves procedural level design	The latest AI advancements offer a more nuanced understanding of borrower risk	Multimodal models enable real-time route planning and optimisation against a variety of sources (e.g. traffic and social feeds)
AI impact	Higher engagement, leading to increased basket size and growth in GMV	Higher engagement, leading to improved conversion rates and increased GTB	Game library expansion at lower cost, and increase in GMV	More accurate lending decisions, reduced financial losses, and improved profitability	Faster deliveries, lower fuel costs, and ultimately lower operational costs

Notes: Includes use cases that have seen more than ~5% GMV uplift, revenue, or relevant profitability metrics.
Estimations are based on expert interviews with digital players, venture capitalists, and case studies from early adopters.

AI is demonstrating tangible value for SEA businesses

GMV/revenue

Leading online travel agency inspires travellers with smart trip planners



Customers that make use of AI-powered travel planners bookmark 15% more trips on average, leading to increased revenue and higher customer satisfaction.

3X
GTB from customers using smart trip planners vs average

>80%
of customers are satisfied with AI travel planners

Profit

Leading e-commerce player turns merchant onboarding over to AI

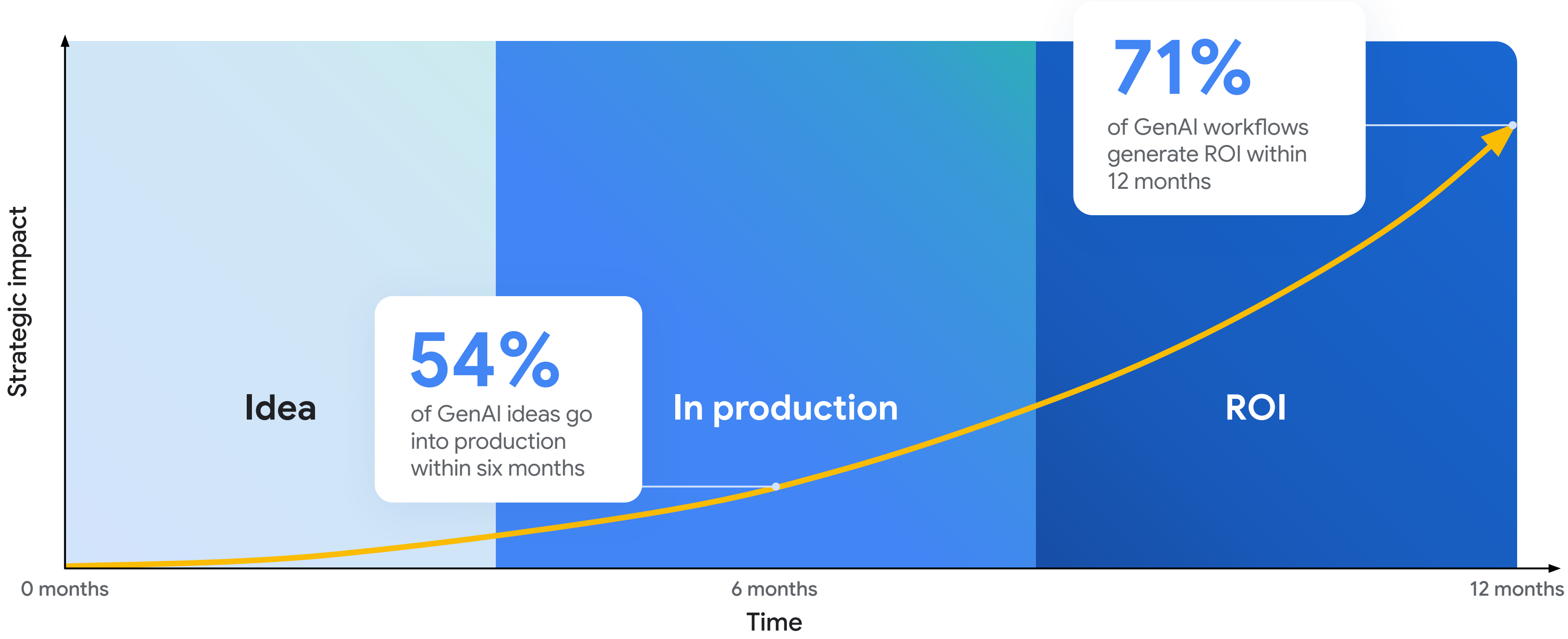
AI-powered face detection technology is used to verify sellers' selfie photos against their identification document. This has significantly reduced friction in merchant onboarding.

-70%
reduction in approval operational costs

-20%
reduction in merchant rejection rate

Source: Interviews with enterprises deploying GenAI workloads

Digital businesses in the region are seeing accelerated time to value for end-layer applications



Source: Survey of 2,500 senior leaders of global enterprises ($10M+ revenue), conducted by Google Cloud and National Research Group in SEA, n=199.
Q: "What % of our GenAI ideas are going into production?", filtered for percentage of ideas going into production within six months
Q: "What % of the GenAI workflows in production are generating ROI within 12 months?", filtered for ROI within 12 months

GenAI opens doors for a new wave of startups to tackle complex legacy challenges outside core digital sectors

	Education	Healthcare	Agriculture
Top AI applications	Accessibility; Personalisation; Engagement	Prevention; Detection; Diagnosis	Disease and pest control; Livestock management
Industry challenge	Traditional language learning methods in SEA often follow a one-size-fits-all approach. This can be ineffective for many learners as they each have unique learning styles, paces, and needs.	Most SEA countries have significant rural and ageing populations with limited access to hospitals and specialists, resulting in delayed diagnoses, inadequate treatment, and ultimately, poorer health outcomes.	Early detection and effective management of pests and diseases are crucial to keep crops healthy and yields optimal. However, farmers may lack the knowledge or resources to do so.
Startup solutions	AI startups are developing adaptive learning platforms that personalise the learning journey. These platforms leverage AI to analyse learner data and provide customised feedback, content recommendations, and learning paths tailored to individual progress, strengths, and weaknesses.	AI startups are developing telemedicine platforms equipped with AI-powered diagnostic tools that enable enable patients in remote areas to consult with doctors, receive preliminary diagnoses, and obtain advice on further treatment options. The AI can also assist with triage, ensuring that urgent needs are prioritised.	AI-powered image recognition tools can help farmers quickly identify pests and diseases affecting their crops. By analysing images of plants, these tools can provide diagnoses, recommend appropriate treatments, and even predict potential outbreaks based on environmental factors.

Scaling efficiently and sustainably in SEA

SEA businesses must invest in the key building blocks to navigate the AI transformation journey

AI strategy and use case development

Far beyond a mere technological upgrade, companies should make it a strategic initiative to align AI initiatives with core business objectives in order to solve real problems and deliver measurable value. They can start small with pilot projects, learn, and then scale strategically.

Talent

Talent is a critical catalyst for unlocking the full potential of AI in SEA's growing digital economy. Companies must strategically invest in acquiring and nurturing diverse AI talent, spanning data scientists, machine learning engineers, and AI ethicists.

Data preparation and management

Robust data management is fundamental: rigorous processes for data collection, cleaning, and governance ensure quality, security, and compliance. Effective data labelling and annotation are crucial for training AI models, while breaking down data silos can foster cross-functional collaboration. Underlying all this, ethical data usage, respect for privacy, and the avoidance of bias are vital for building trust and ensuring the long-term sustainability of AI initiatives.

Tech infrastructure

To effectively manage the increasing demands of AI workloads, investment in scalable and adaptable infrastructure is crucial. This includes prioritising cloud computing, high-performance computing, and robust data storage solutions capable of supporting the collection, processing, and analysis of large datasets. In addition, fostering strong partnerships with technology providers will ensure access to the latest AI tools and expertise.

Policies that consider both risks and opportunities will balance business growth and societal progress

Three policy focus areas to balance growth with societal impact

Fostering innovation and infrastructure

- Support for AI research and development through policies that encourage cross-border data flows
- Innovation-friendly copyright frameworks, open access to public data
- Energy-efficient AI infrastructure

Upskilling and supporting change management

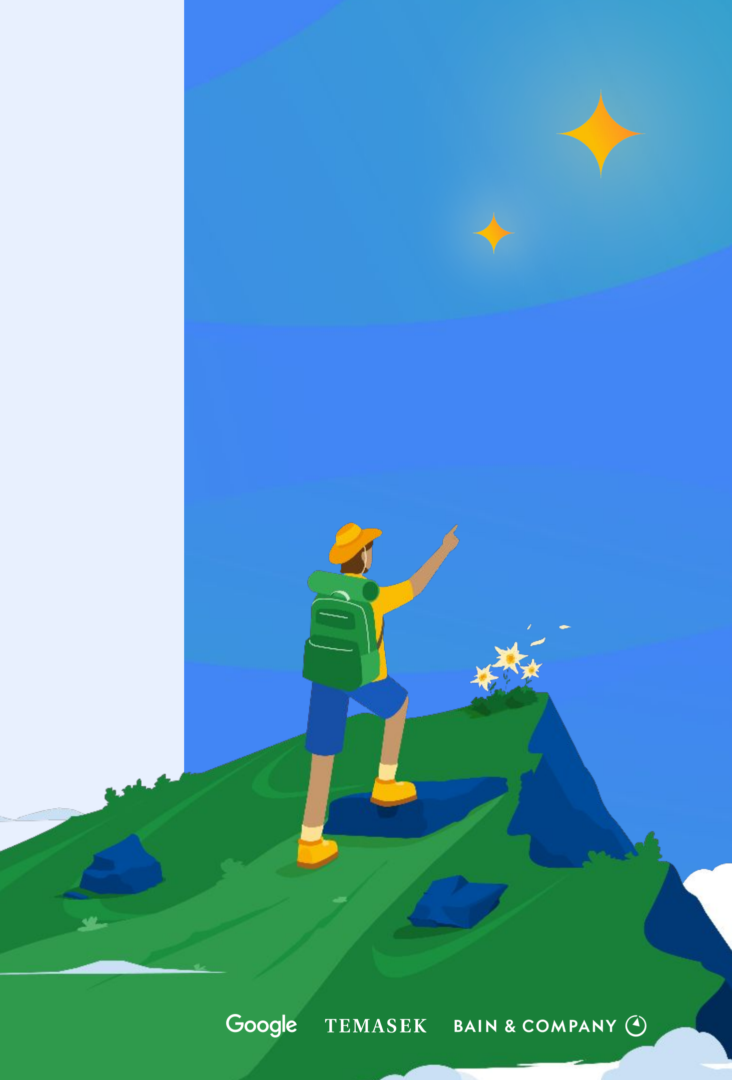
- Investments in AI-powered reskilling and upskilling initiatives to equip the workforce with essential AI skills
- Support for change management to help organisations integrate AI into their workflows and maximise its potential

Enabling responsible AI deployment

- Clear obligations for developers, deployers, and users for ethical AI processes
- Enablement of responsible AI experimentation through risk-based frameworks and regulatory sandboxes that balance innovation with safety
- Authority for existing sectoral regulators to address AI-based activities in their respective domains
- Promotion of trust and transparency in AI systems through clear guidelines, third-party assurance, and certifications that are globally interoperable

SEA's success in achieving profitability while maintaining growth creates exciting possibilities for the future.

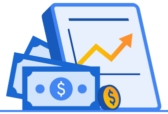
This marks a significant step towards a more inclusive digital economy, in which the benefits of growth are accessible to a wider range of users.



SEA digital economy takes significant steps towards sustainable growth

Towards a sustainable digital economy in 2030

Monetisable growth



SEA's digital economy has delivered a 10X increase in revenue since 2016

The collective effort to drive monetisation through tighter commissions and expanded revenue streams has driven an impressive surge in revenue.

Profitable growth

Profits rise 2.5X in two years, with key SEA players achieving profitability

The concurrent growth of GMV and profitability signals that the digital economy is maturing, and proves that SEA digital businesses can operate sustainably.

Inclusive growth

There are opportunities to deepen participation in underserved segments

Inclusive growth depends on extending opportunities to underserved segments, particularly residents of non-metro cities, as well as the mass market.

Physical infrastructure
Investing in robust logistics, including infrastructure, warehousing, and last-mile delivery beyond key metros

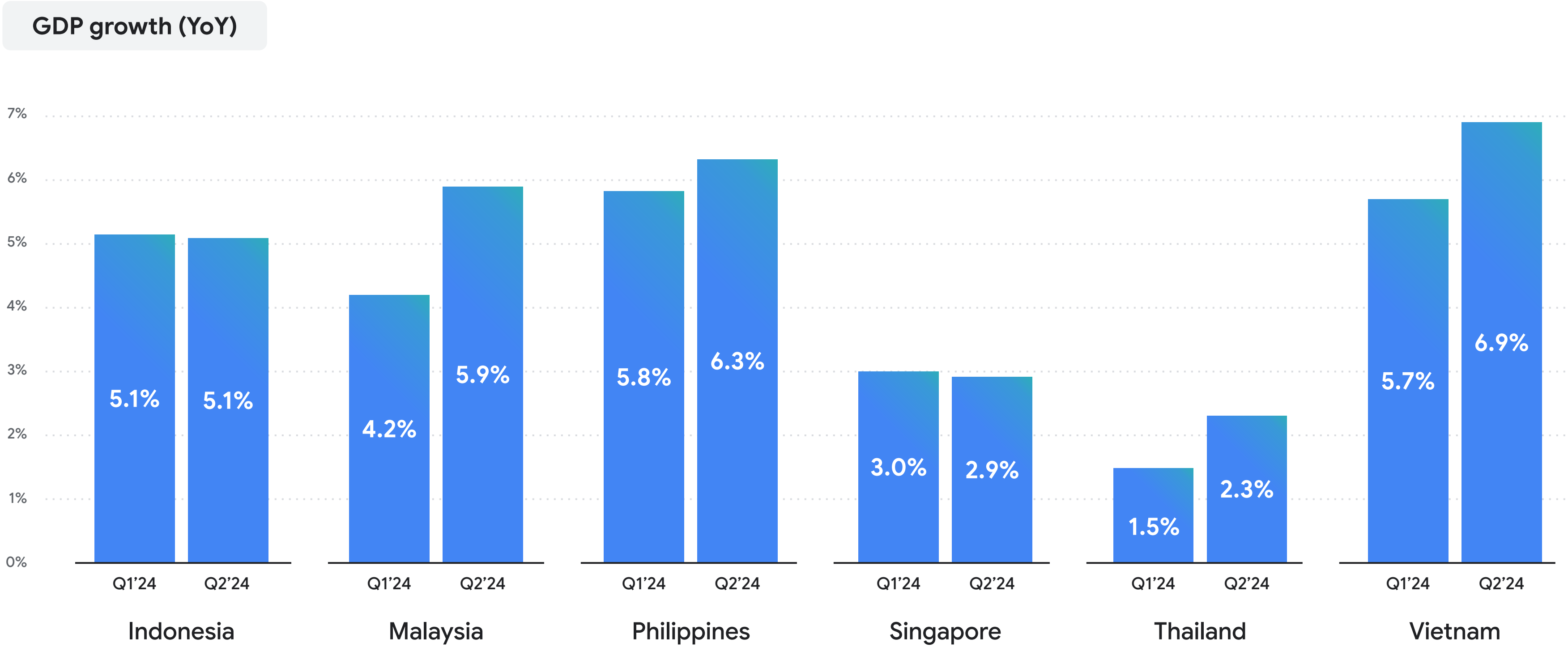
Digital security measures
Bolstering cybersecurity infrastructure to protect businesses and individuals from cyber threats

Responsible use of AI
Harnessing AI to address social challenges like healthcare accessibility, financial inclusion, and education

05

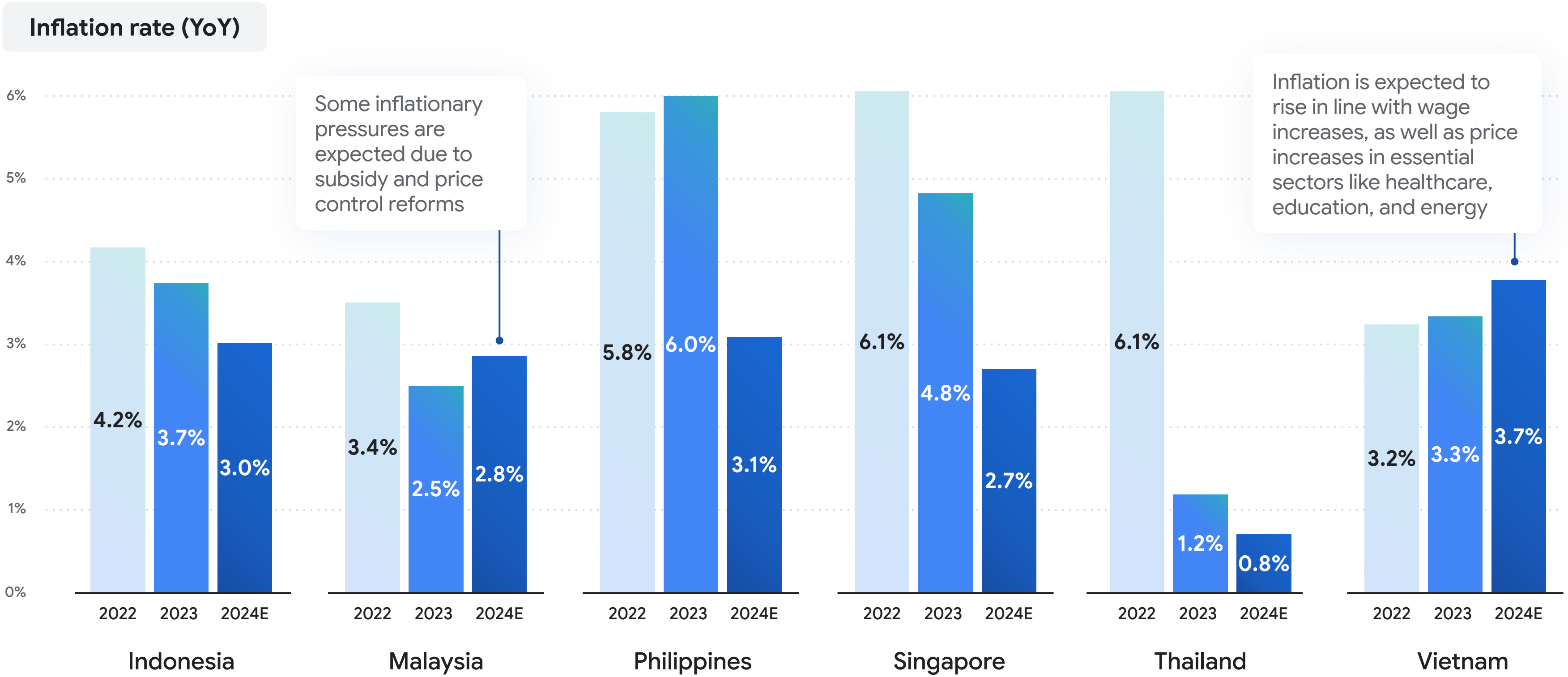
Country spotlights

The first half of 2024 saw robust growth across most of SEA



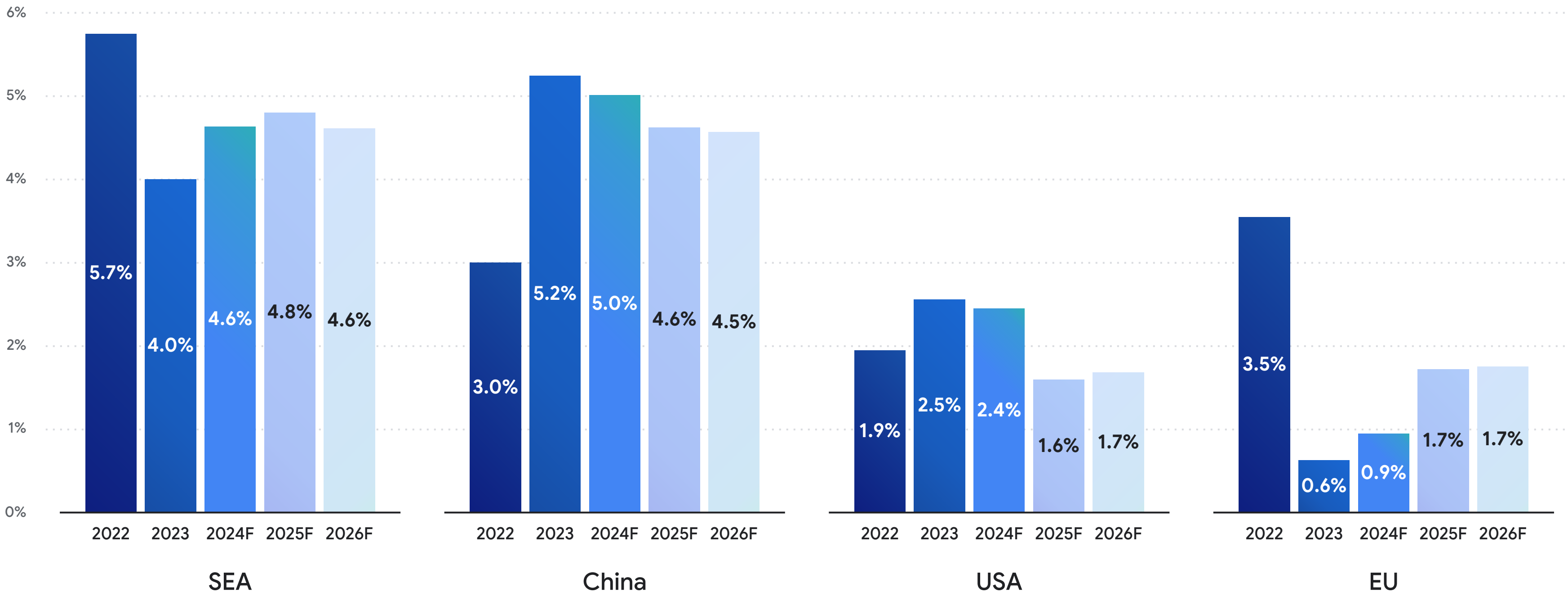
Sources: S&P Global Market Intelligence; Singapore Ministry of Trade & Industry; Bain analysis

Inflation continues to ease across most countries in the region



Sources: S&P Global Market Intelligence; Bain analysis

SEA's GDP growth is robust, matching that of China and outpacing most developed economies



Source: S&P Global Market Intelligence; Bain analysis

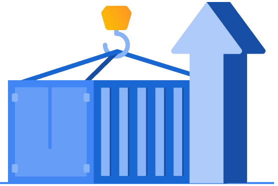
Broader tailwinds support near- to mid-term economic growth

+19%

YoY growth in FDI

+9%

YoY growth in exports



51.5

average monthly PMI in H1'24

+8%

YoY growth in consumer expenditure

Notes: FDI = foreign direct investment; PMI = Purchasing Managers' Index. YoY numbers are Q1'24 vs Q1'23.
Sources: Relevant national statistical agencies; CapIQ; Euromonitor; Bain analysis

Indonesia

Country overview

Government measures to stimulate economic growth

The government is taking proactive steps to spur economic growth while keeping inflation under control. The central bank has most recently maintained interest rates at 6%; in addition, the government is pursuing a downstreaming policy, processing raw materials domestically to add value to exports and boost revenues. These efforts also address climate change-related impacts on food prices, aiming to ensure long-term economic stability and resilience.

E-commerce competition intensifies as video commerce takes off

In response to regulatory changes, a leading social media company acquired a popular local e-commerce platform in order to continue its e-commerce operations. This acquisition has intensified market competition, forcing other players to reassess and bolster their growth strategies to maintain market share.

The growth of digital loans is being moderated by regulatory moves

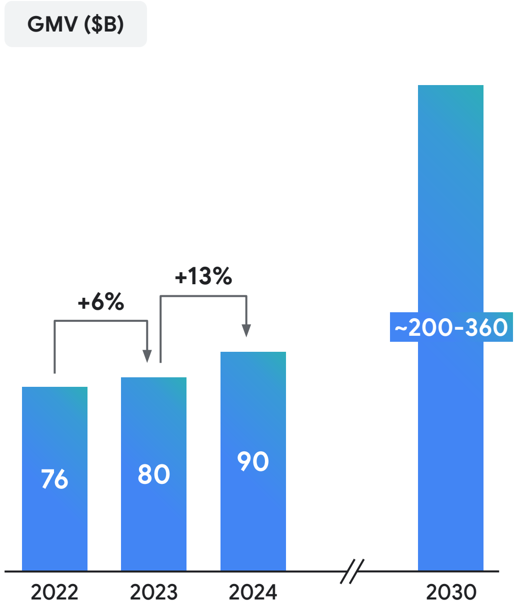
Regulators are tightening controls to mitigate the risks associated with excessive credit issuance. Daily rates on both consumptive and productive loans have been capped at 0.3% and 0.1% respectively, and borrowers are now limited in the number of lending platforms they can access. While aimed at preventing over-indebtedness, these restrictions may affect the size of the digital loan book as well as lending revenue.

Digital giants expand into smaller cities to support future growth

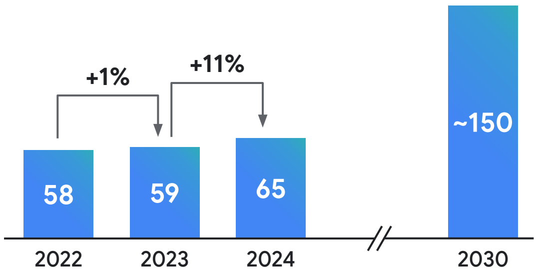
Indonesian tech giants are opening offices in smaller cities in a bid to reduce operational costs and enhance profitability. This strategic shift not only taps into new talent pools outside Jakarta but also stimulates regional economic growth and development. The establishment of the new capital city is also expected to support future growth outside of Java.

Growth doubles, bringing GMV to $90B in 2024

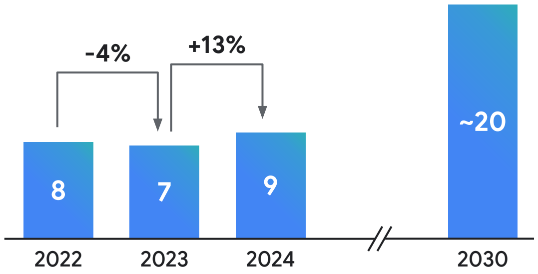
Overall digital economy



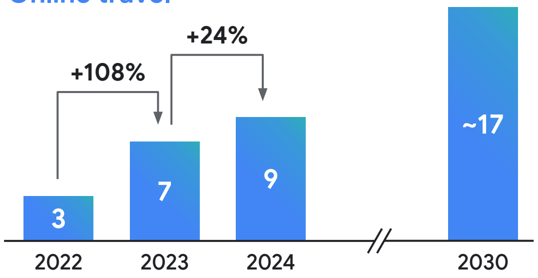
E-commerce



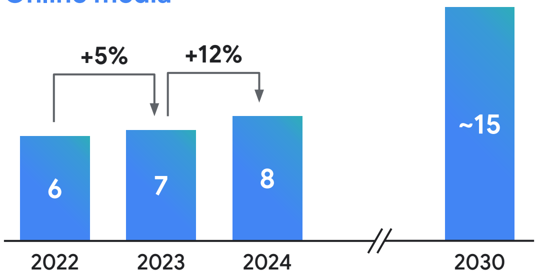
Transport and food



Online travel



Online media

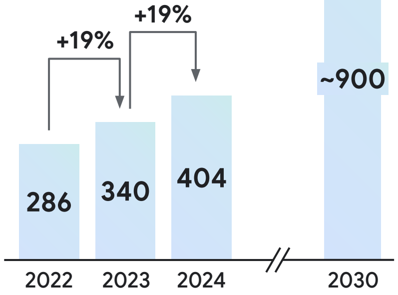


Note: Only OTAs are included in “Travel”.
Source: Bain analysis

DFS continues to exhibit strong growth despite increased regulatory oversight

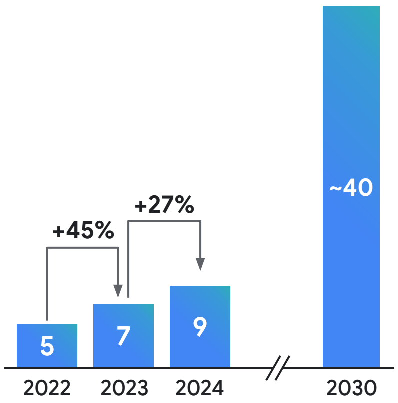
Digital payments

GTV[1] ($B)



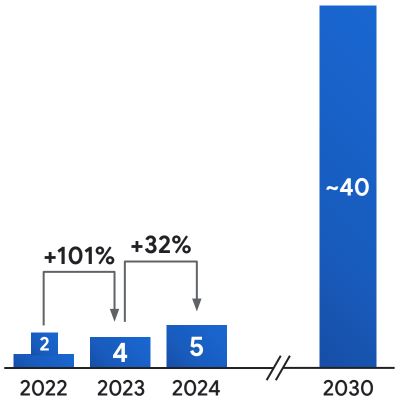
Digital lending

Loan book balance[2] ($B)



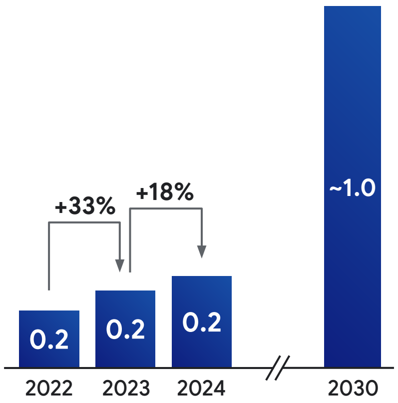
Digital wealth

AUM[3] ($B)



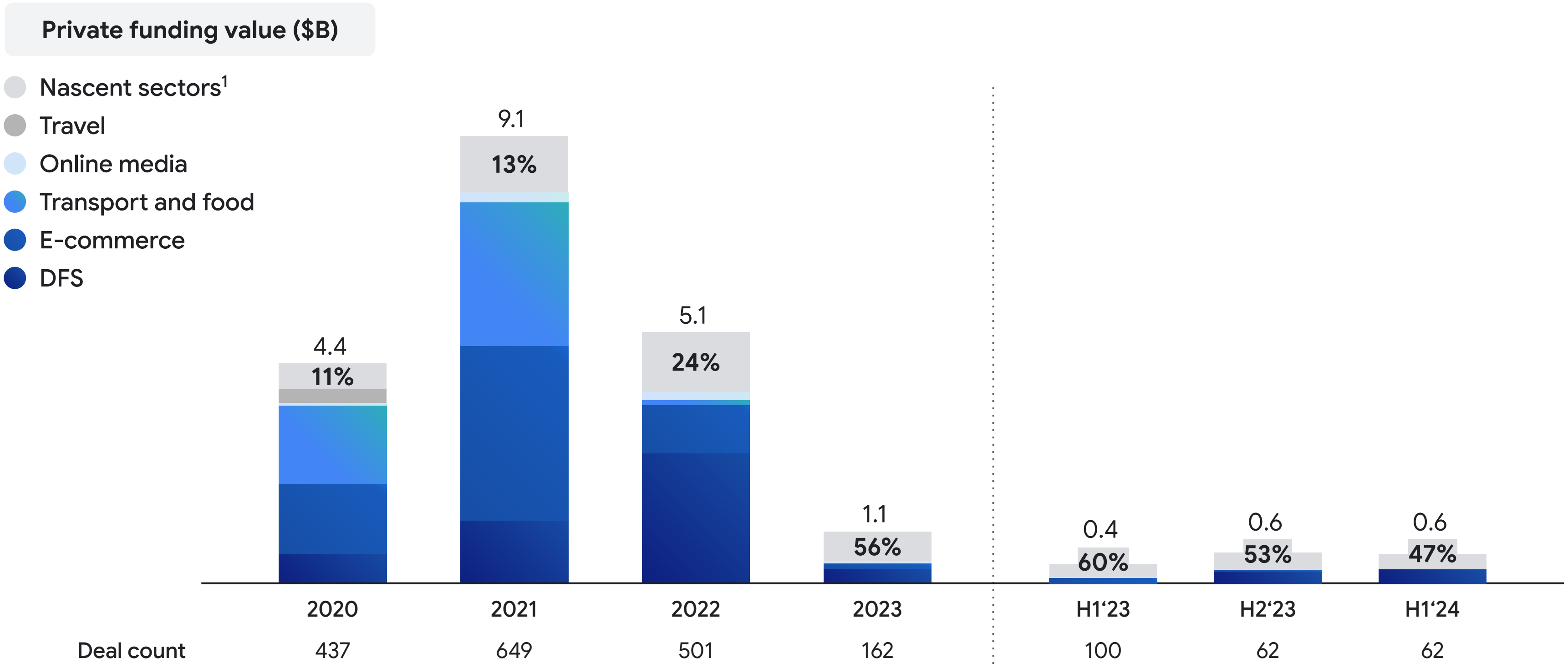
Digital insurance

APE & GWP[4] ($B)



Notes: 1) Gross transaction value (GTV) for digital payments includes the value of credit, debit, prepaid card, account-to-account (A2A), and e-wallet transactions. 2) Loan book balance for digital lending includes end-of-year balance for consumer loans (excluding credit card and mortgage) and small/medium enterprise (SME) loans. 3) Assets under management (AUM) for digital wealth includes end-of-year mutual fund AUM balance. 4) Annual premium equivalent (APE) and gross written premium (GWP) for digital insurance includes APE for life insurance and health under life insurance policies and GWP for non-life insurance.
Source: Bain analysis

Private funding continues to be challenged across all sectors



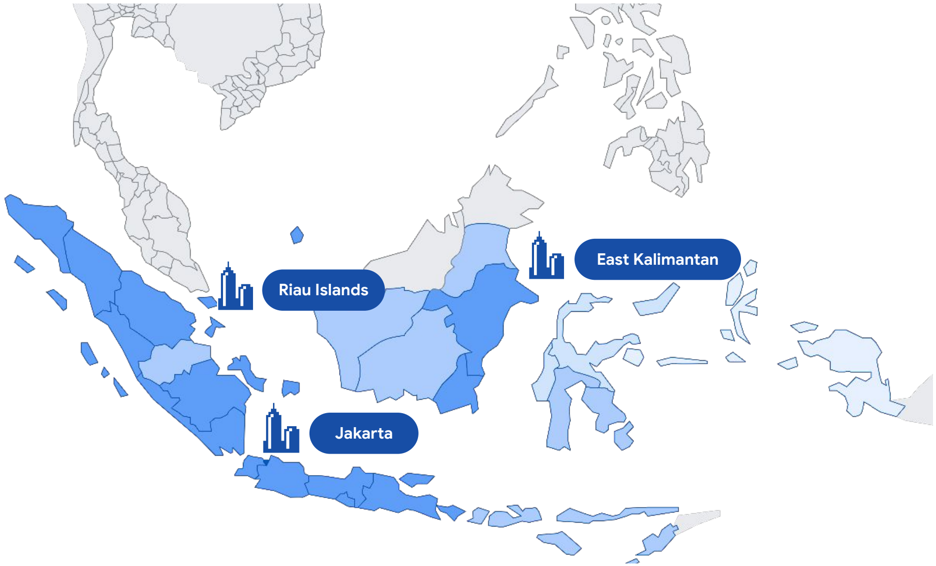
Note: 1) Nascent sectors include new, emerging sectors such as software and services, sustainability technology, Web3, and others.
Source: Bain analysis

East Kalimantan, Jakarta & Riau Islands lead in AI interest and demand

AI: Interest and demand[1]

Indexed AI interest per internet capita

0 — 1



Top industries driving AI search interest[2]

#1 Marketing

#2 Gaming

#3 Education

Mobile app download share by AI feature

Not to scale

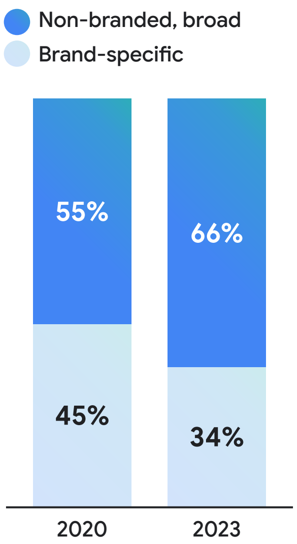
- 9% — Content creation
- 9% — Photo effects
- 7% — Video editing
- 69% — Others

Notes: 1) The AI interest index indicates the level of interest in and demand for AI, calculated based on AI-related search volume, indexed to the relative internet population across the respective markets. Areas that do not meet the minimum search interest thresholds are not included in the analysis. Simplified illustrative maps are not representative of administrative borders and territories for which data is not available. 2) Indexed interest per capita. Top industries driving AI search interest refers to AI-related search topics that are relevant to the respective industries.
Sources: Google internal data, ID, Jan-Aug 2024; Euromonitor, Internet Users by Country, ID, Jan-Aug 2024; data.ai, ID, Jan-Aug 2024

Consumers and creators in Indonesia prefer to use the local language

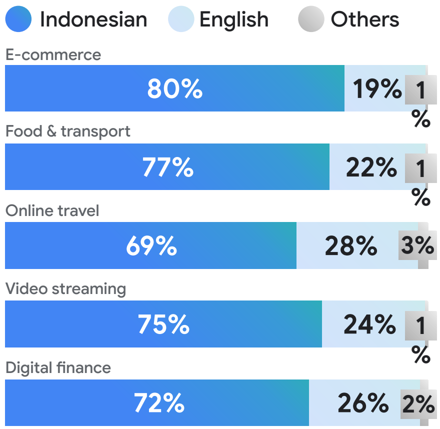
Consumer trends[1]

Category exploration[2]



Local language usage[3]

77%



Creator economy[4]

Brand creators[5]

+1%

2Y CAGR of the number of brands with video channels in consumer categories

Video influencers[6]

+7%

2Y CAGR of the number of video influencers focusing on consumer categories

Uploads

+16%

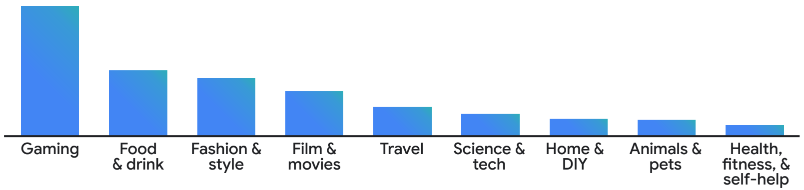
2Y CAGR of the number of video uploads

Language[7]

88%

of video creators create content primarily in Indonesian

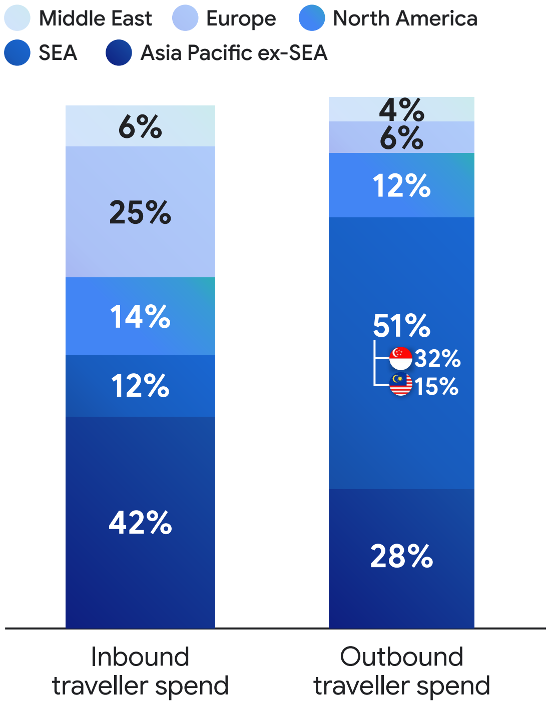
Number of creators by consumer category[7] (Indexed)



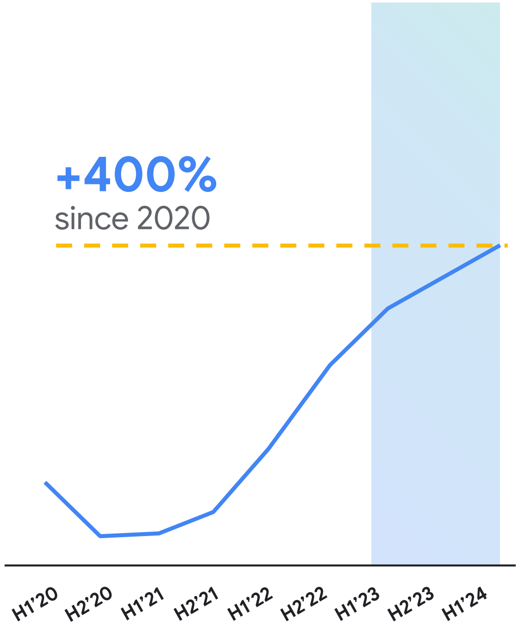
Notes: 1) All data reflect searches across ID, and across digital economy sectors unless otherwise stated. 2) "Category exploration" refers to non-branded searches using broad terms vs brand specific searches, expressed as a percentage of all searches. Data from 01/2020 to 12/2023. 3) "Local language usage" refers to searches in the national language(s), expressed as a percentage of all searches. Data from 01/2023 to 12/2023. 4) Comparisons are between Q2'22 and Q2'24, for video creators in ID with more than 10,000 followers. 5) Brand creators are organisations whose primary line of business is not related to media. 6) Video influencers are video creators who are persons and public figures with significant social presence. 7) As of Q2'24.
Sources: 1) Google internal data, ID, 01/2020-12/2023; 4) Tubular, ID, Q2'22 vs Q2'24

Over 50% of Indonesians' travel spending happens within SEA

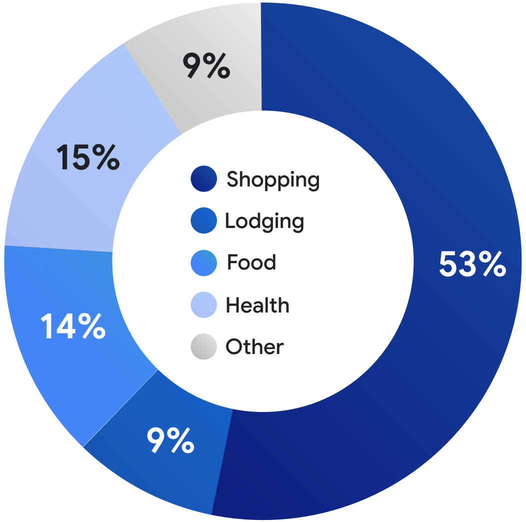
Traveller spend



Outbound traveller spend



Top outbound travel spend categories



Source: Visa, Global, H2'20-H1'24. On this slide, SEA includes KH, BN, and MM in addition to ID, MY, PH, SG, TH, and VN. World regions with low traveller spend have been excluded.

Malaysia

Country overview

Steady economic momentum with looming talent challenges on the horizon

The country is consolidating returns on prior infrastructure investments, and leveraging its established expertise in electronics, semiconductors, and data centres. The government has also raised sales and service taxes to boost revenue, and introduced a low-value goods tax to support local businesses. However, political shifts and the gradual outflow of talent could impact future economic progress.

The return of international tourists

Malaysia's international tourism sector is experiencing a robust recovery and is expected to exceed pre-pandemic levels in 2024. This resurgence is driven by several factors, including improved air connectivity, strategic airline partnerships targeting key markets like China and ASEAN nations, and a favourable exchange rate that enhances Malaysia's affordability for regional travellers.

Online banks reignite the momentum in digital financial services

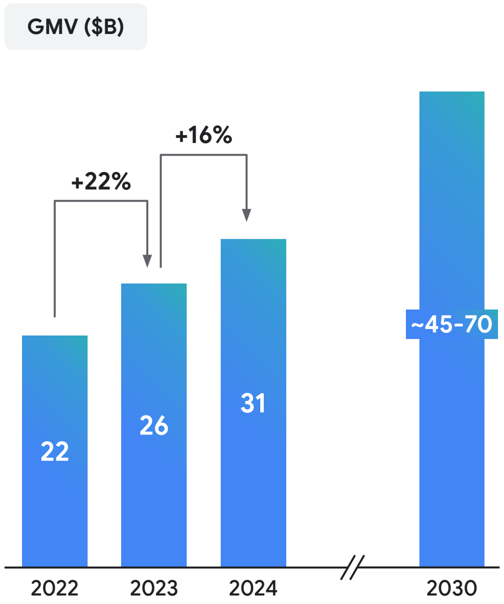
Malaysia's financial services sector is on the cusp of a significant disruption with the advent of digital banks. GXBank, AEON Bank, and Boost Bank are leading this charge with their low barriers to entry and aggressive marketing strategies. These digital banks offer compelling features and ease of access, contributing to the rapid growth of the DFS landscape. The anticipated launch of two additional licensed digital banks will further stimulate competition and innovation.

Government commits to ecosystem and digital infrastructure development

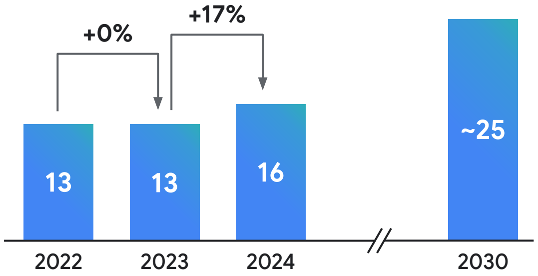
Malaysia is actively courting foreign direct investment through strategic initiatives such as the KL20 plan, designed to bolster the startup ecosystem through incentives for high-tech industries, tax exemptions for foreign venture capitalists, and ~$1B of government funding for startups in Malaysia and SEA. In parallel, the "Cloud First Policy" has successfully attracted significant data centre investments of $15B in H1'24 alone, positioning the country as a regional leader.

E-commerce and online travel propel Malaysia' digital economy growth, despite slower gains in transport and food

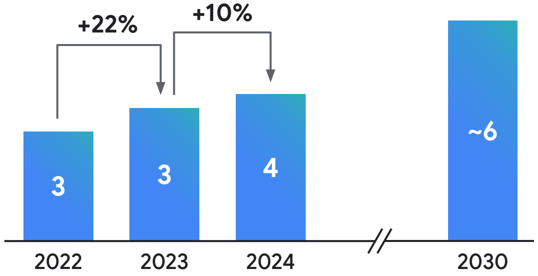
Overall digital economy



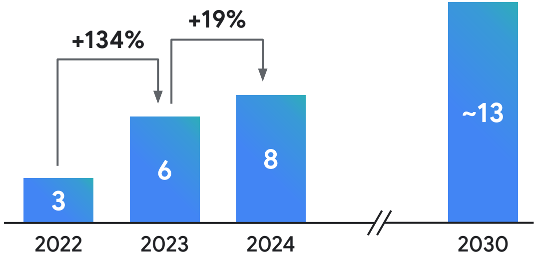
E-commerce



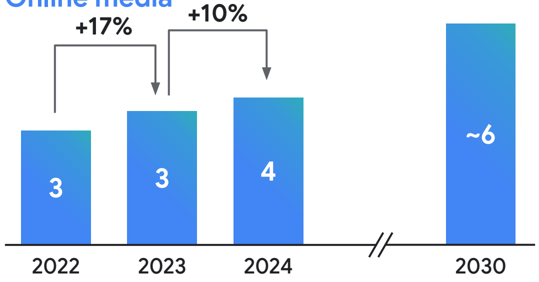
Transport and food



Online travel

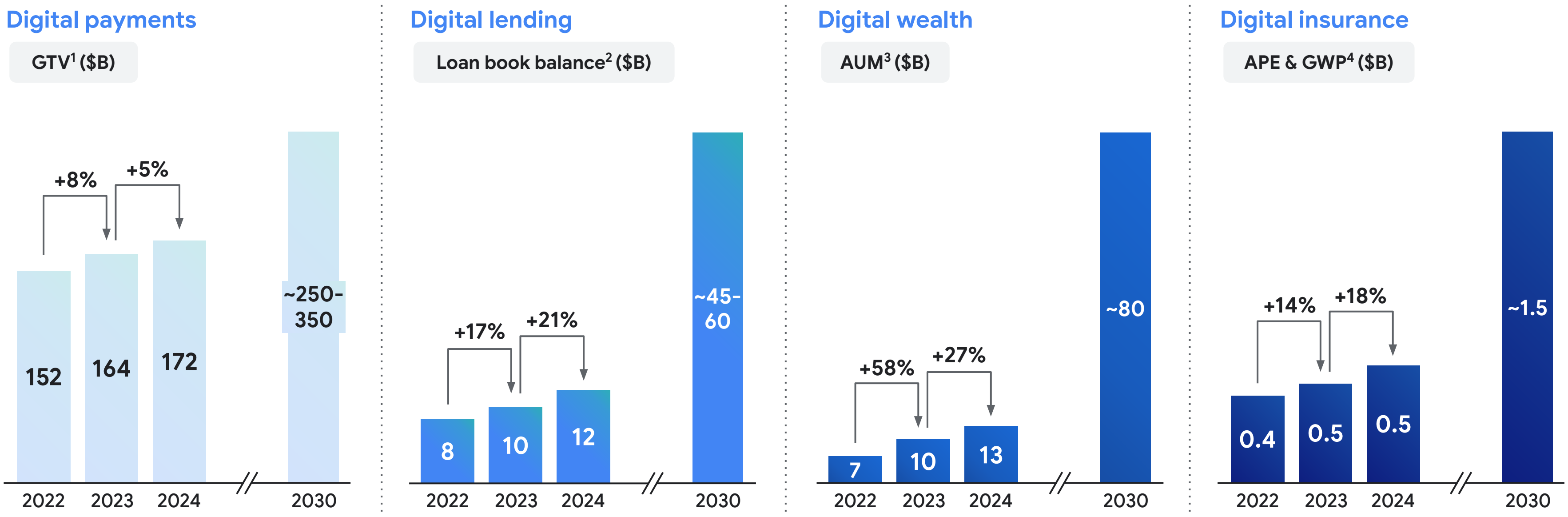


Online media



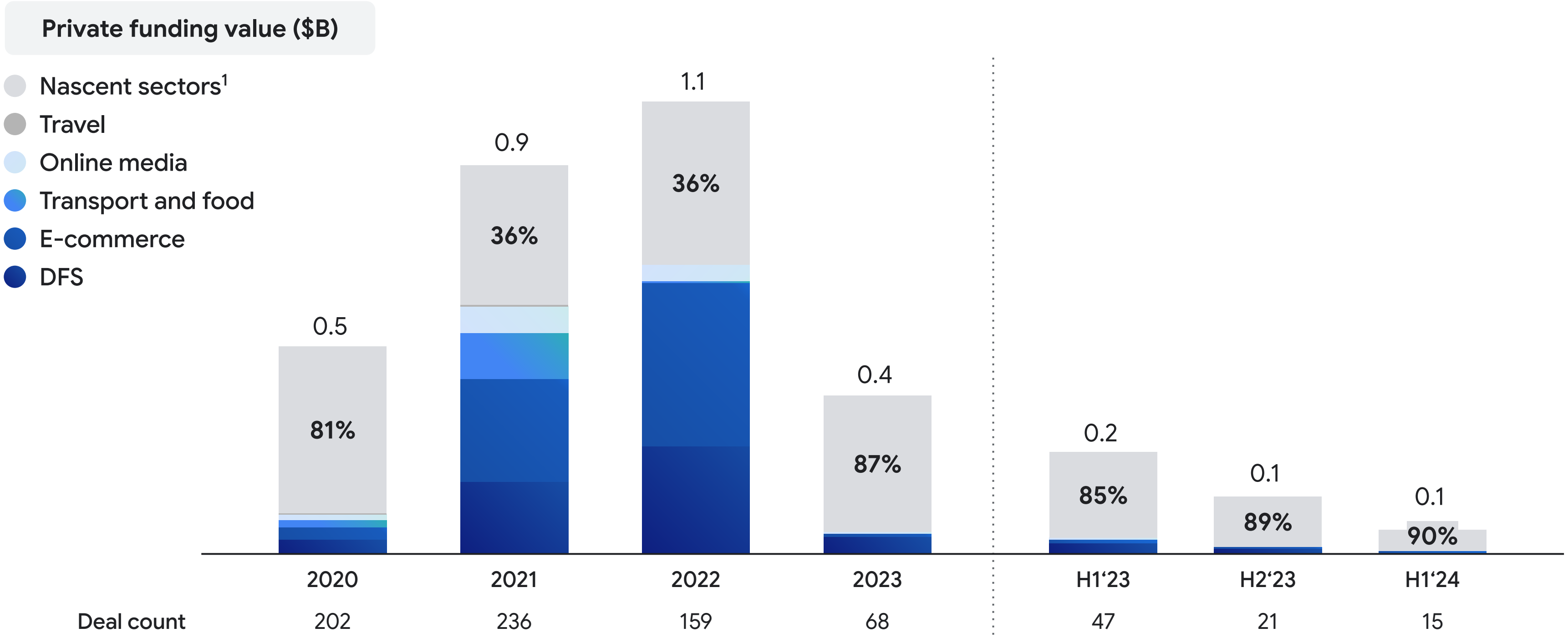
Note: Only OTAs are included in "Travel".
Source: Bain analysis

DFS is on an upward trajectory; wealth to significantly expand by 2030



Notes: 1) Gross transaction value (GTV) for digital payments includes the value of credit, debit, prepaid card, account-to-account (A2A), and e-wallet transactions. 2) Loan book balance for digital lending includes end-of-year balance for consumer loans (excluding credit card and mortgage) and small/medium enterprise (SME) loans. 3) Assets under management (AUM) for digital wealth includes end-of-year mutual fund AUM balance. 4) Annual premium equivalent (APE) and gross written premium (GWP) for digital insurance includes APE for life insurance and health under life insurance policies and GWP for non-life insurance.
Source: Bain analysis

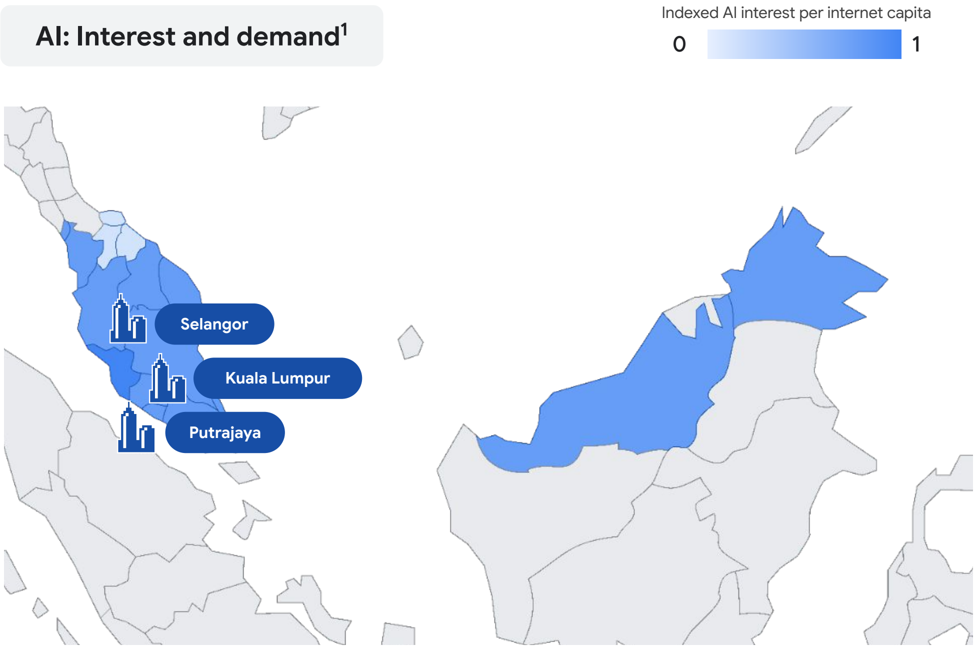
Private funding continues to be challenged, particularly in the core digital economy sectors



Note: 1) Nascent sectors include new, emerging sectors such as software and services, sustainability technology, Web3, and others.
Source: Bain analysis

Kuala Lumpur, Putrajaya, and Selangor lead in AI interest and demand

AI: Interest and demand[1]



Top industries driving AI search interest[2]

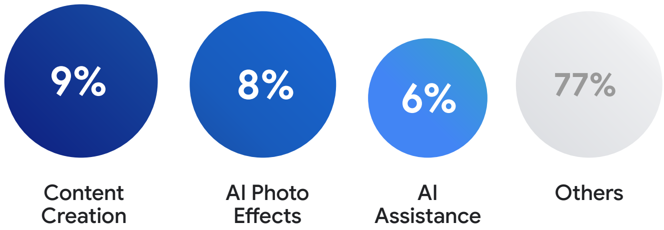
#1 Education

#2 Marketing

#3 Gaming

Mobile app download share by AI feature

Not to scale

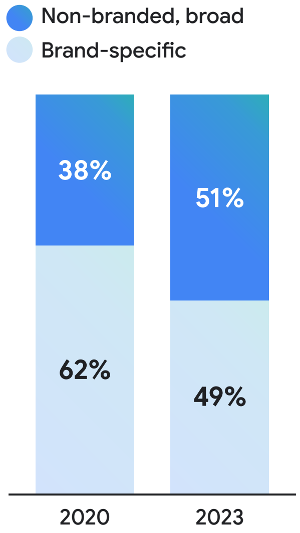


Notes: 1) The AI interest index indicates the level of interest in and demand for AI, calculated based on AI-related search volume, indexed to the relative internet population across the respective markets. Areas that do not meet the minimum search interest thresholds are not included in the analysis. Simplified illustrative maps are not representative of administrative borders and territories for which data is not available. 2) Indexed interest per capita. Top industries driving AI search interest refers to AI-related search topics that are relevant to the respective industries.
Sources: Google internal data, MY, 01-08/2024; Euromonitor, Internet Users by Country, MY, 01-08/2024; data.ai, MY, 01-08/2024

Strong growth observed in the number of brand and influencer video creators

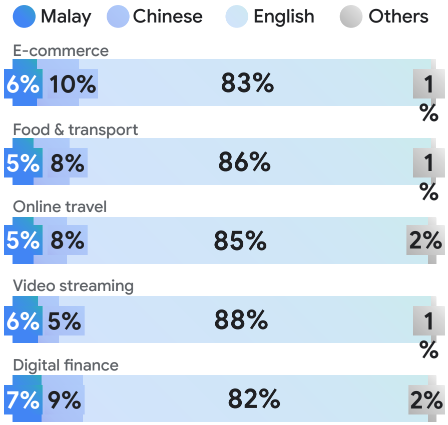
Consumer trends[1]

Category exploration[2]



Local language usage[3]

6%



Creator economy[4]

Brand creators[5]

+7%

2Y CAGR of the number of brands with video channels in consumer categories

Video influencers[6]

+9%

2Y CAGR of the number of video influencers focusing on consumer categories

Uploads

+13%

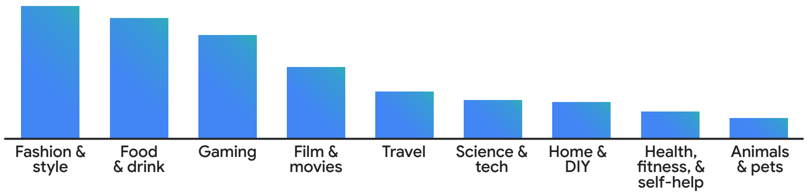
2Y CAGR of the number of video uploads

Language[7]

51%

of video creators create content primarily in Malay

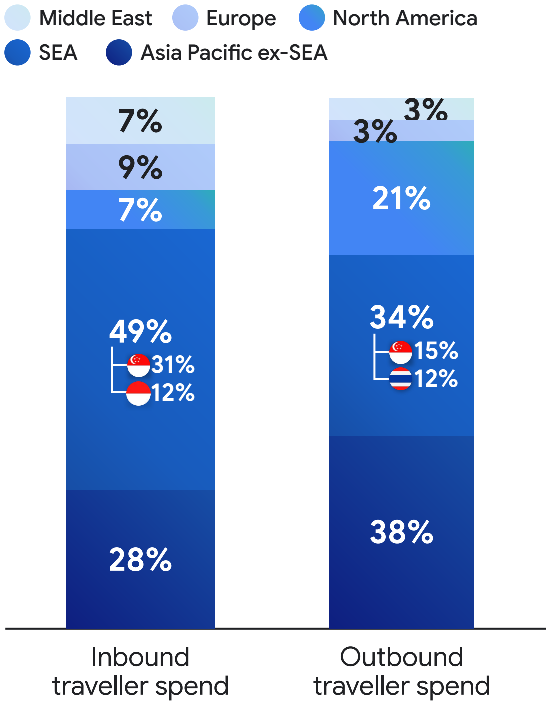
Number of creators by consumer category[7] (Indexed)



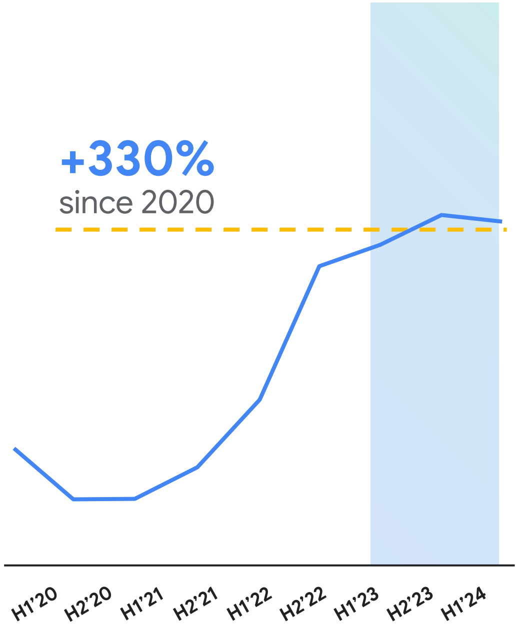
Notes: 1) All data reflect searches across MY, and across digital economy sectors unless otherwise stated. 2) "Category exploration" refers to non-branded searches using broad terms vs brand specific searches, expressed as a percentage of all searches. Data from 01/2020 to 12/2023. 3) "Local language usage" refers to searches in the national language(s), expressed as a percentage of all searches. Data from 01/2023 to 12/2023. 4) Comparisons are between Q2'22 and Q2'24, for video creators in MY with more than 10,000 followers. 5) Brand creators are organisations whose primary line of business is not related to media. 6) Video influencers are video creators who are persons and public figures with significant social presence. 7) As of Q2'24.
Source: 1) Google internal data, MY, 01/2020-12/2023. 4) Tubular, MY, Q2'22 vs Q2'24

SEA visitors account for half of Malaysia's inbound traveller spend

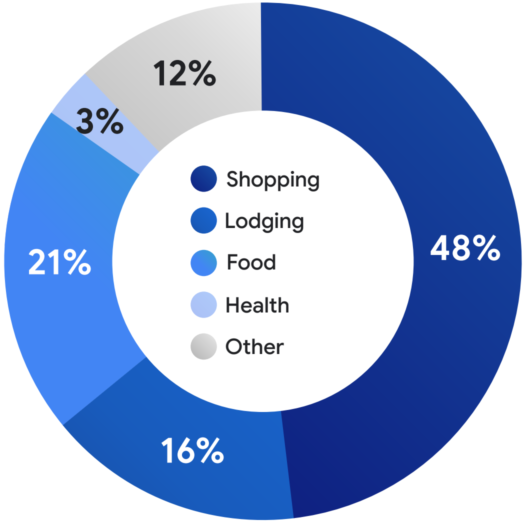
Traveller spend



Outbound traveller spend



Top outbound travel spend categories



Source: Visa, Global, H2'20-H1'24. On this slide, SEA includes KH, BN, and MM in addition to ID, MY, PH, SG, TH, and VN. World regions with low traveller spend have been excluded.

Philippines

Country overview

Strong growth to continue on top of a recovery in domestic consumption

The Philippines is poised for continued strong growth, underpinned by robust domestic consumption, a revitalised services sector, and increased remittances from overseas workers. Stabilising inflation and declining unemployment rates will further stimulate private consumption, driving increased demand for digital services.

Increased oversight over digital businesses

The government's enactment of the Internet Transactions Act, requiring all online businesses to register with the Department of Trade and Industry, aims to enhance safety in e-commerce. These regulations also impose compliance obligations on e-marketplaces and e-merchants alike. Additionally, a 12% value-added tax on non-resident digital service providers seeks to level the playing field between local and international digital businesses.

Digital payments become widespread

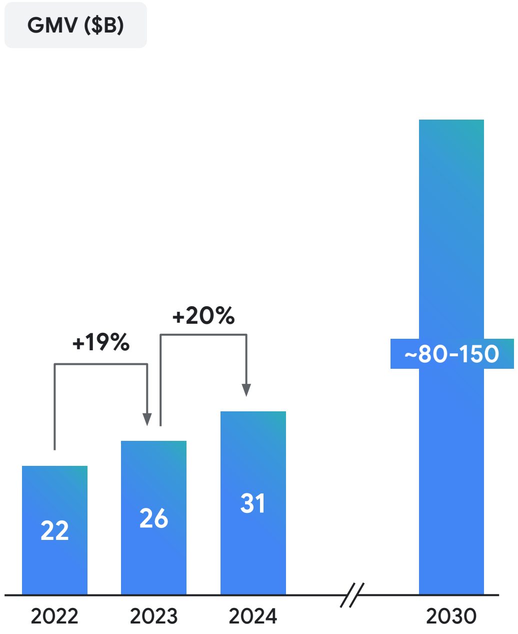
The increase in digital payment volumes is compelling service providers to maintain competitive fees while enhancing security and service reliability. As the digital payments landscape matures and adoption becomes more widespread, e-wallet providers are increasing merchant discount rates. Super-apps are expected to maintain their prominent role in digital payments, with their comprehensive offering.

Expansion of digital infrastructure to reach last-mile communities

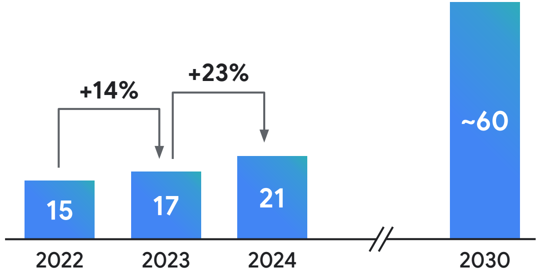
The Philippines is strategically prioritising infrastructure development with an emphasis on improving digital access in rural communities. A prime example is the recently approved $288M Philippine Digital Infrastructure Project. This initiative aims to bolster broadband connectivity nationwide, particularly in remote areas of the country.

Philippines continues its double-digit growth across all core sectors, driven by e-commerce

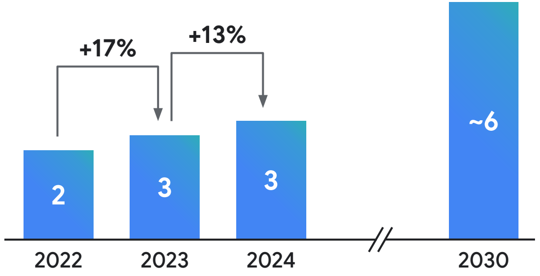
Overall digital economy



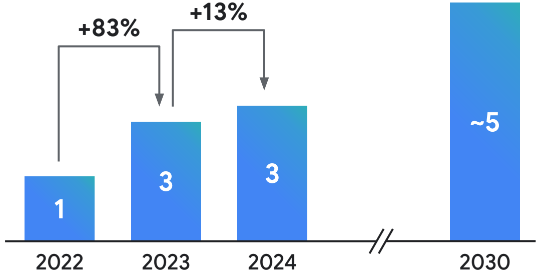
E-commerce



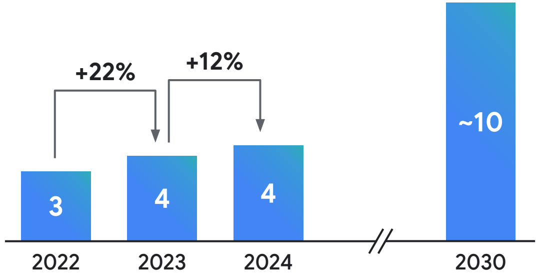
Transport and food



Online travel



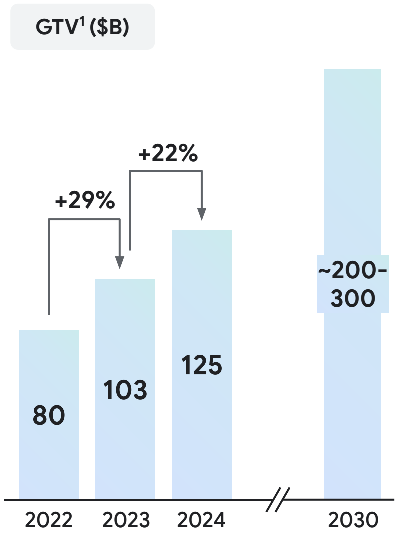
Online media



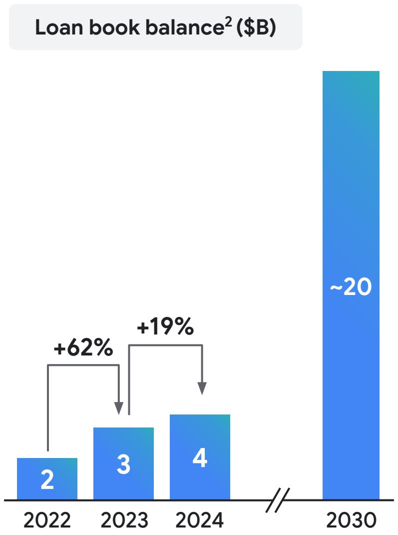
Note: Only OTAs are included in "Travel".
Source: Bain analysis

Digital payments and wealth are poised to drive DFS expansion

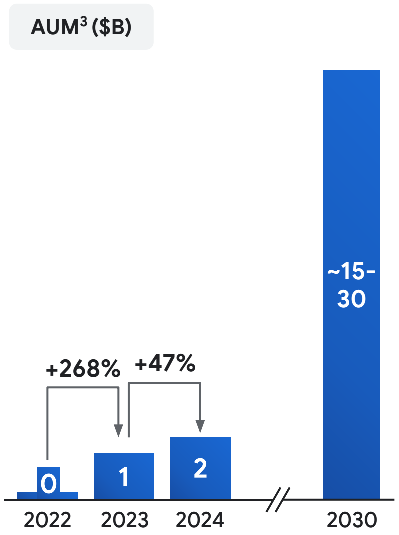
Digital payments



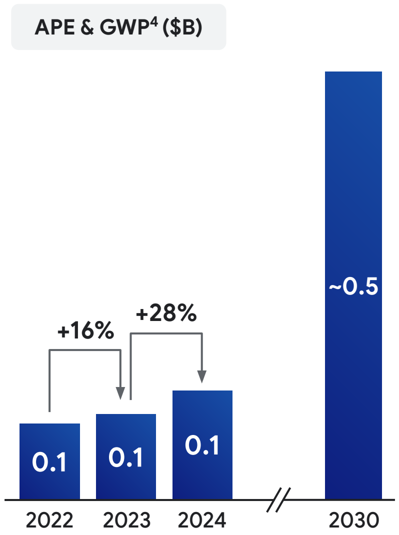
Digital lending



Digital wealth

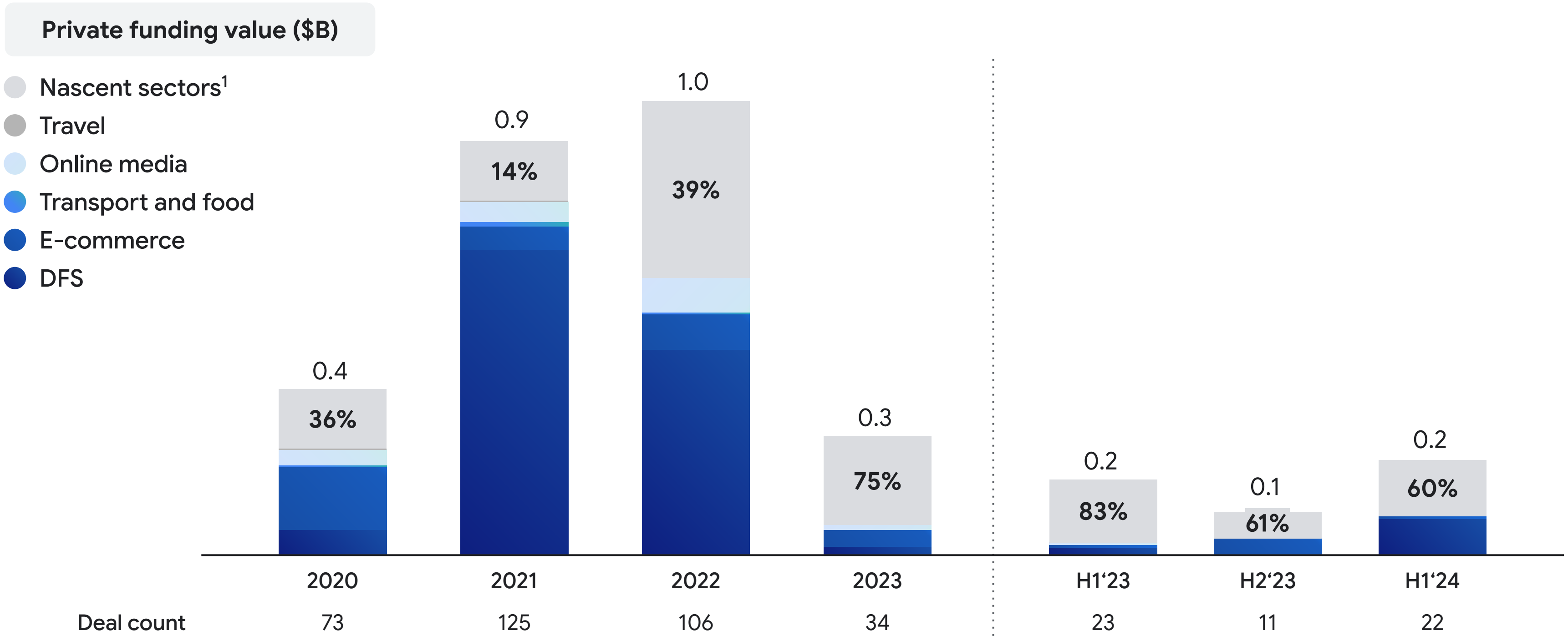


Digital insurance



Notes: 1) Gross transaction value (GTV) for digital payments includes the value of credit, debit, prepaid card, account-to-account (A2A), and e-wallet transactions. 2) Loan book balance for digital lending includes end-of-year balance for consumer loans (excluding credit card and mortgage) and small/medium enterprise (SME) loans. 3) Assets under management (AUM) for digital wealth includes end-of-year mutual fund AUM balance. 4) Annual premium equivalent (APE) and gross written premium (GWP) for digital insurance includes APE for life insurance and health under life insurance policies and GWP for non-life insurance.
Source: Bain analysis

Investments show signs of recovery in early 2024



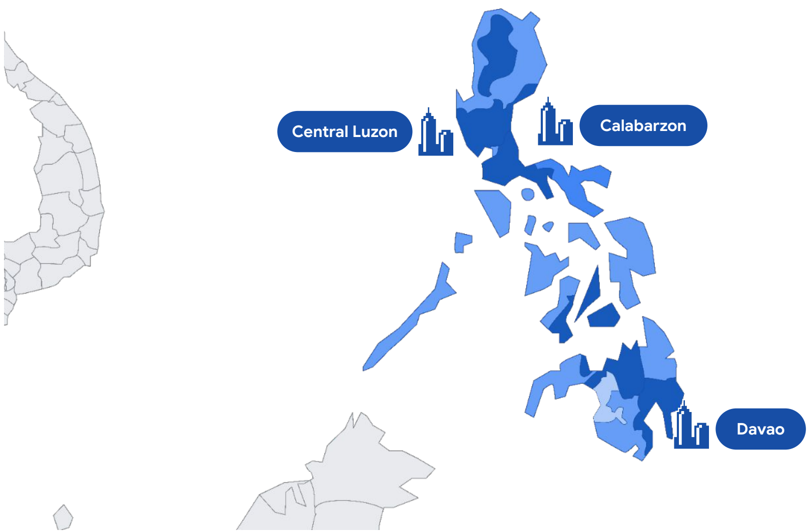
Note: 1) Nascent sectors include new, emerging sectors such as software and services, sustainability technology, Web3, and others.
Source: Bain analysis

Calabarzon, Central Luzon, and Davao lead in AI interest and demand

AI: Interest and demand[1]

Indexed AI interest per internet capita

0 1



Top industries driving AI search interest[2]

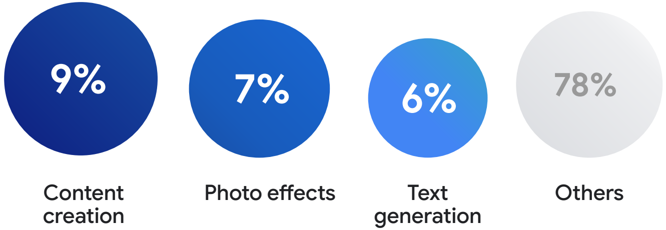
#1 Education

#2 Marketing

#3 Gaming

Mobile app download share by AI feature

Not to scale



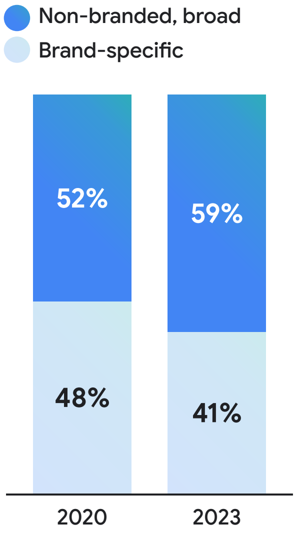
Notes: 1) The AI interest index indicates the level of interest in and demand for AI, calculated based on AI-related search volume, indexed to the relative internet population across the respective markets. Areas that do not meet the minimum search interest thresholds are not included in the analysis. Simplified illustrative maps are not representative of administrative borders and territories for which data is not available. 2) Indexed interest per capita. Top industries driving AI search interest refers to AI-related search topics that are relevant to the respective industries.

Sources: Google internal data, PH, 01-08/2024; Euromonitor, Internet Users by Country, PH, 01-08/2024; data.ai, PH, 01-08/2024

A healthy creator ecosystem is evident across categories and creator types

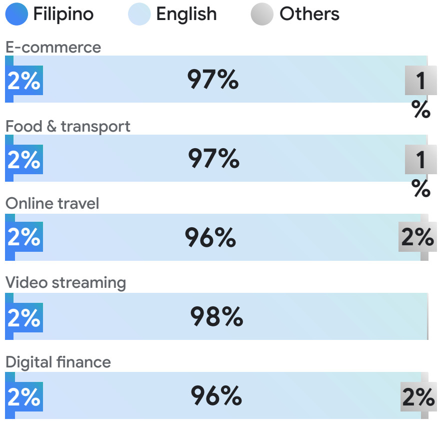
Consumer trends[1]

Category exploration[2]



Local language usage[3]

2%



Creator economy[4]

Brand creators[5]

+5%

2Y CAGR of the number of brands with video channels in consumer categories

Video influencers[6]

+8%

2Y CAGR of the number of video influencers focusing on consumer categories

Uploads

+9%

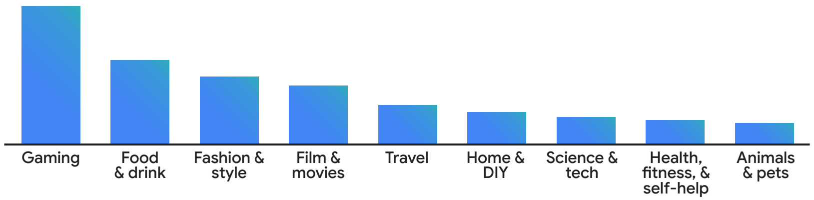
2Y CAGR of the number of video uploads

Language[7]

21%

of video creators create content primarily in Filipino

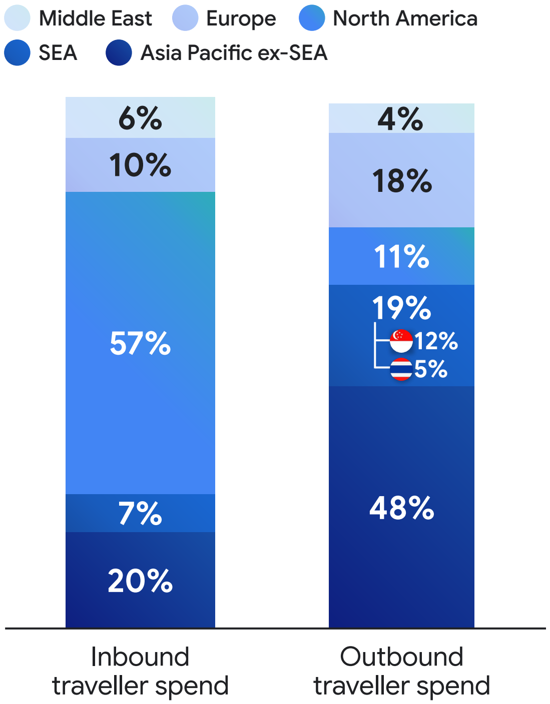
Number of creators by consumer category[7] (Indexed)



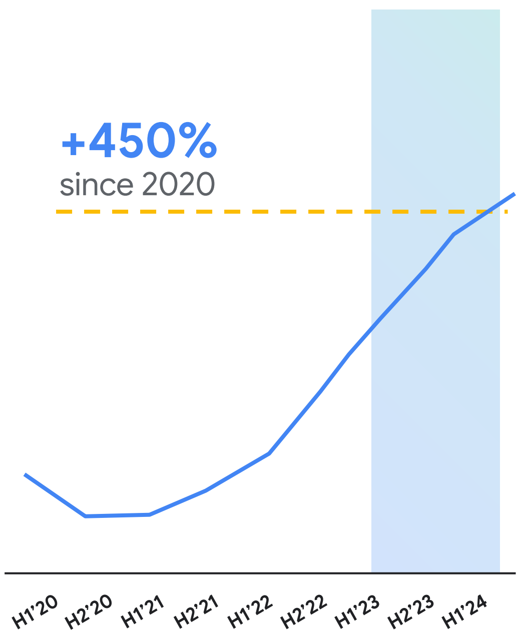
Notes: 1) All data reflect searches across PH, and across digital economy sectors unless otherwise stated. 2) “Category exploration” refers to non-branded searches using broad terms vs brand specific searches, expressed as a percentage of all searches. Data from 01/2020 to 12/2023. 3) “Local language usage” refers to searches in the national language(s), expressed as a percentage of all searches. Data from 01/2023 to 12/2023. 4) Comparisons are between Q2’22 and Q2’24, for video creators in PH with more than 10,000 followers. 5) Brand creators are organisations whose primary line of business is not related to media. 6) Video influencers are video creators who are persons and public figures with significant social presence. 7) As of Q2’24.
Source: 1) Google internal data, PH, 01/2020-12/2023. 4) Tubular, PH, Q2’22 vs Q2’24

The Philippines has seen the fastest post-pandemic travel spend growth in SEA

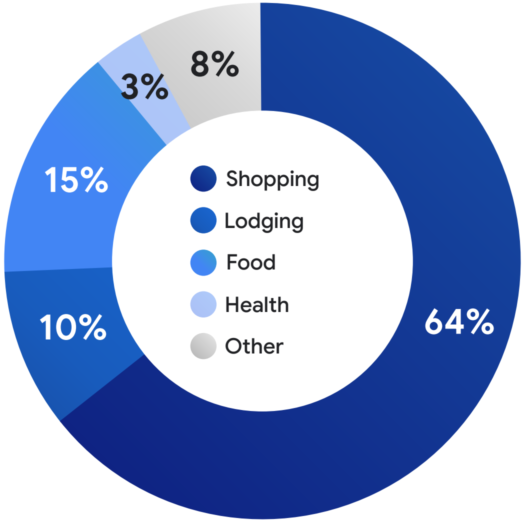
Traveller spend



Outbound traveller spend



Top outbound travel spend categories



Source: Visa, Global, H2'20-H1'24. On this slide, SEA includes KH, BN, and MM in addition to ID, MY, PH, SG, TH, and VN. World regions with low traveller spend have been excluded.

Singapore

Country overview

More inclusive policies and skills development programmes

Amidst easing inflation and a positive overall economic outlook, the government is implementing leading-edge, inclusive programmes to navigate global headwinds and propel the digital economy. These include initiatives such as the National Digital Literacy Programme and the TechSkills Accelerator. Furthermore, the recently enacted Platform Workers Act represents a significant stride towards greater protection and inclusivity within the digital economy.

AI innovations take centre stage in Singapore's thriving tourism scene

Singapore's tourism industry is experiencing a remarkable surge in 2024, propelled by excellent global flight connectivity, strategic tourism marketing campaigns, and exciting new attractions. AI is playing a key role, powering chatbots that offer personalised recommendations, analysing visitor data to optimise marketing strategies, and enhancing visitor experiences through interactive exhibits and bespoke guides.

Enduring appeal to investors and capital inflow

Singapore continues to be a highly attractive destination for foreign investment, due to its stable political environment, robust infrastructure, and pro-business policies. Initiatives such as the Global Investor Programme and tax incentives offered by the Economic Development Board play a key role in attracting substantial foreign capital. Furthermore, Variable Capital Company (VCC) 2.0 is proving effective in attracting investment funds and family offices.

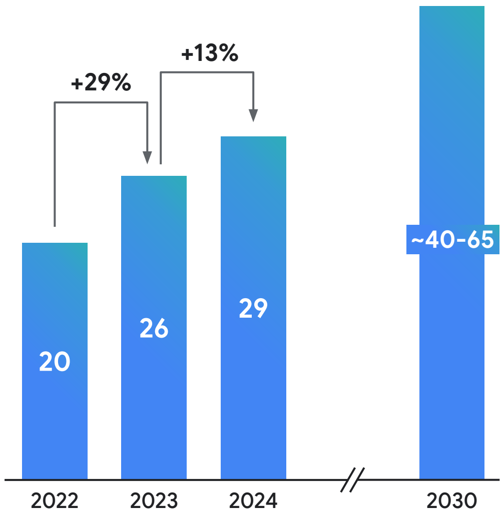
Singapore continues to be a tech and fundraising hub as SGX takes steps to improve the exit environment

Singapore remains a central hub for venture capital and private equity, bolstered by its status as the regional headquarters for many major technology companies. The presence of these industry giants cultivates a strong talent pool, fosters innovation, and attracts further investment. To maintain the country’s competitive edge, SGX has implemented key initiatives to promote regional cooperation, so as to improve exits and attract investor capital and IPOs.

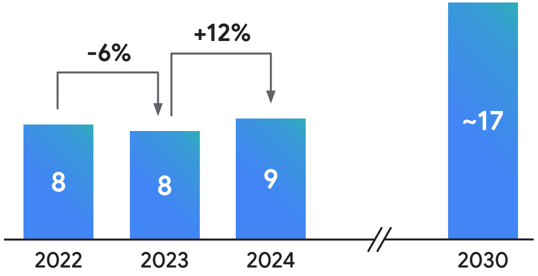
E-commerce rebounds, as travel continues on a growth trajectory

Overall digital economy

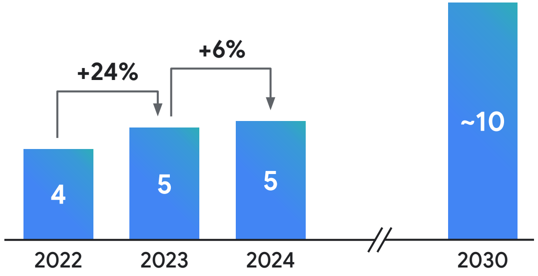
GMV ($B)



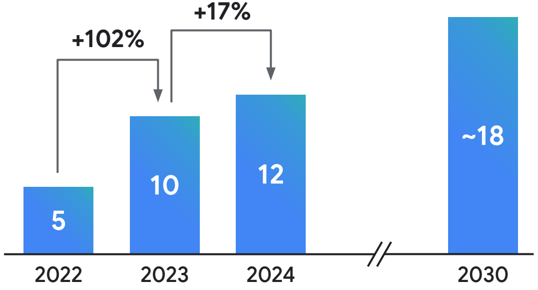
E-commerce



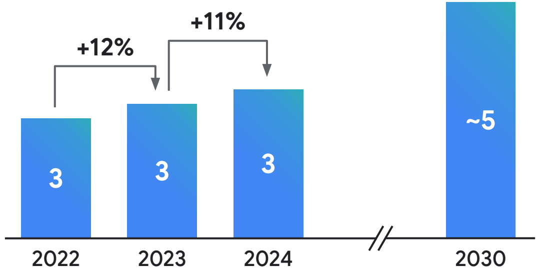
Transport and food



Online travel

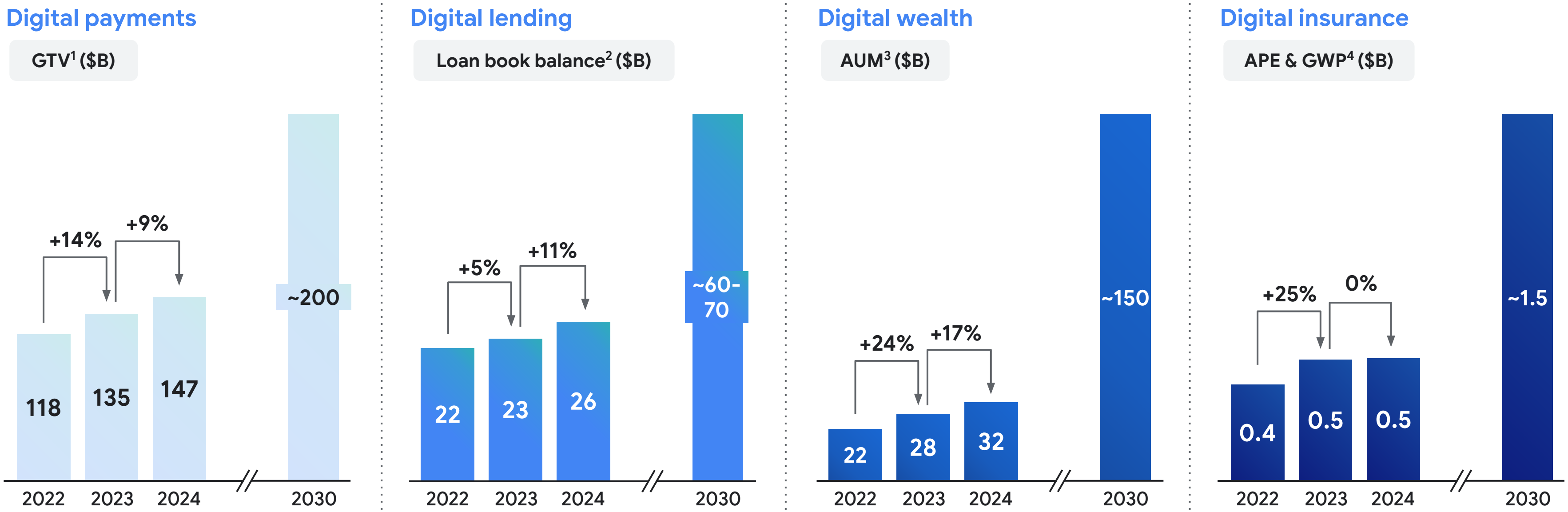


Online media



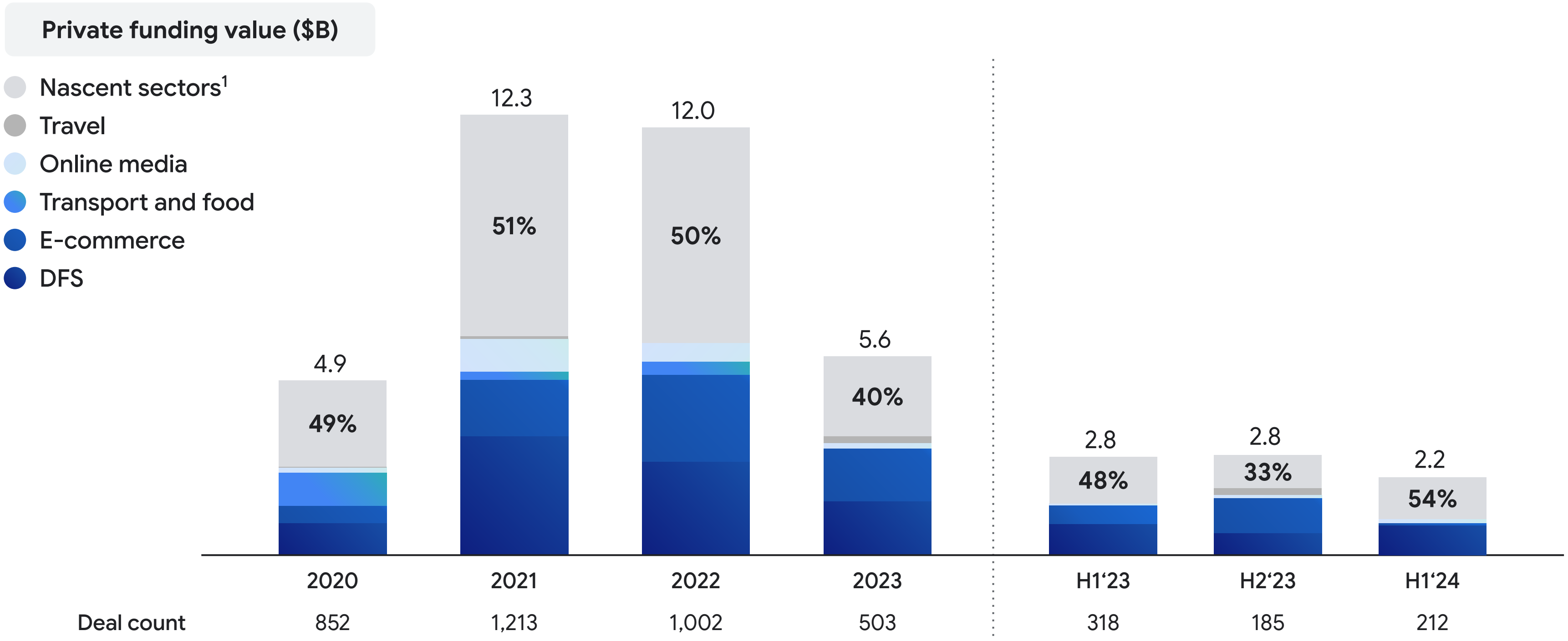
Note: Only OTAs are included in "Travel".
Source: Bain analysis

Digital payments and wealth are projected to lead strong growth in DFS



Notes: 1) Gross transaction value (GTV) for digital payments includes the value of credit, debit, prepaid card, account-to-account (A2A), and e-wallet transactions. 2) Loan book balance for digital lending includes end-of-year balance for consumer loans (excluding credit card and mortgage) and small/medium enterprise (SME) loans. 3) Assets under management (AUM) for digital wealth includes end-of-year mutual fund AUM balance. 4) Annual premium equivalent (APE) and gross written premium (GWP) for digital insurance includes APE for life insurance and health under life insurance policies and GWP for non-life insurance.
Source: Bain analysis

DFS dominates in H1 2024 as overall funding declines



Note: 1) Nascent sectors include new, emerging sectors such as software and services, sustainability technology, Web3, and others.
Source: Bain analysis

High level of interest in and adoption of AI, complemented by government initiatives and a thriving tech ecosystem

Top industries driving AI search interest[1]

#1 Education

#2 Travel

#3 Marketing

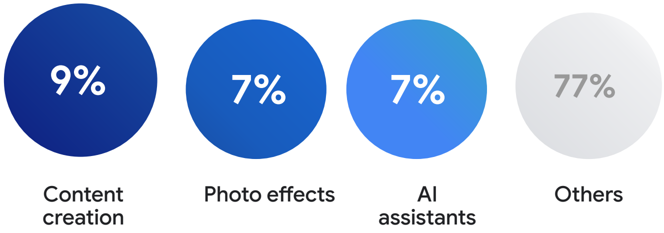
#4 Gaming

#5 Healthcare

#6 Automotive

Mobile app download share by AI feature

Not to scale



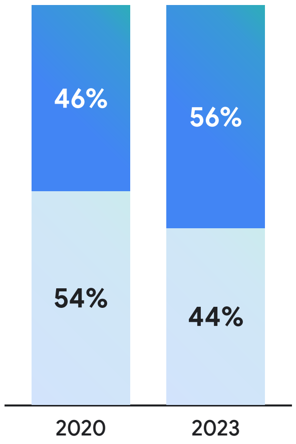
Notes: 1) Indexed interest per capita. Top industries driving AI search interest refers to AI-related search topics that are relevant to the respective industries.
Sources: Google internal data, SG, 01-08/2024; Euromonitor Population; data.ai, SG, 01-08/2024

English dominates consumer searches and creator content in multilingual Singapore

Consumer trends[1]

Category exploration[2]

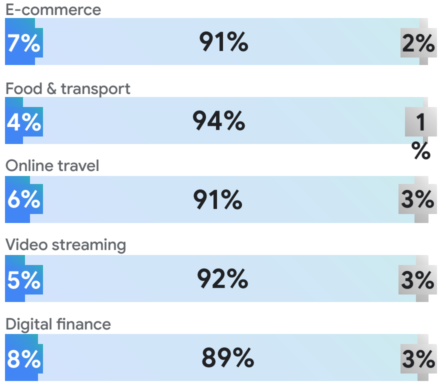
Non-branded, broad
Brand-specific



Local language usage[3]

98%

Chinese, Malay, Tamil
English
Others



Creator economy[4]

Brand creators[5]

+8%

2Y CAGR of the number of brands with video channels in consumer categories

Video influencers[6]

+18%

2Y CAGR of the number of video influencers focusing on consumer categories

Uploads

+19%

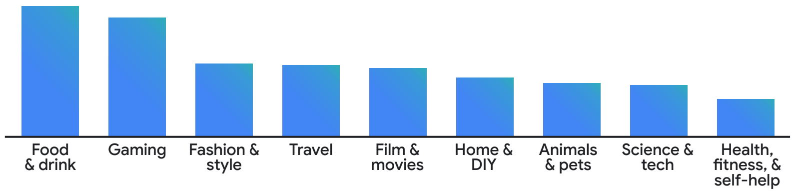
2Y CAGR of the number of video uploads

Language[7]

69%

of video creators create content primarily in English

Number of creators by consumer category[7] (Indexed)

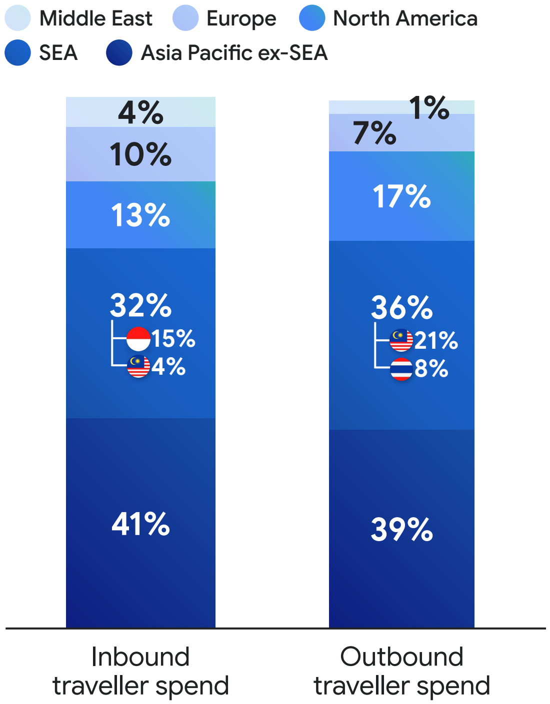


Notes: 1) All data reflect searches across SG, and across digital economy sectors unless otherwise stated. 2) "Category exploration" refers to non-branded searches using broad terms vs brand specific searches, expressed as a percentage of all searches. Data from 01/2020 to 12/2023. 3) "Local language usage" refers to searches in the national language(s), expressed as a percentage of all searches. Data from 01/2023 to 12/2023. 4) Comparisons are between Q2'22 and Q2'24, for video creators in SG with more than 10,000 followers. 5) Brand creators are organisations whose primary line of business is not related to media. 6) Video influencers are video creators who are persons and public figures with significant social presence. 7) As of Q2'24.

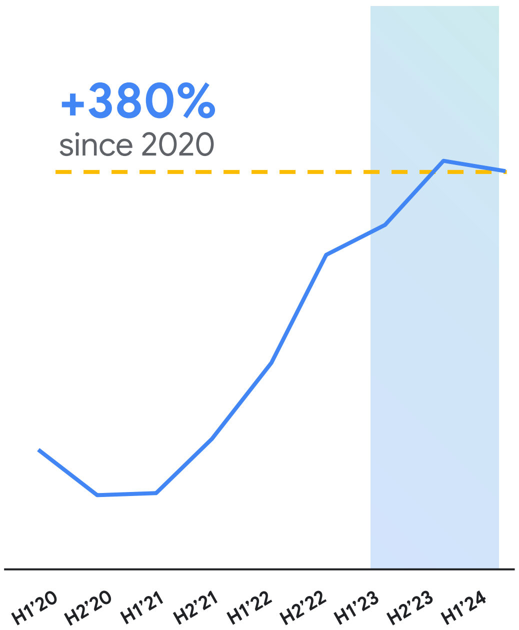
Source: 1) Google internal data, SG, 01/2020-12/2023. 4) Tubular, SG, Q2'22 vs Q2'24

Mirrored distribution of inbound and outbound travel spend

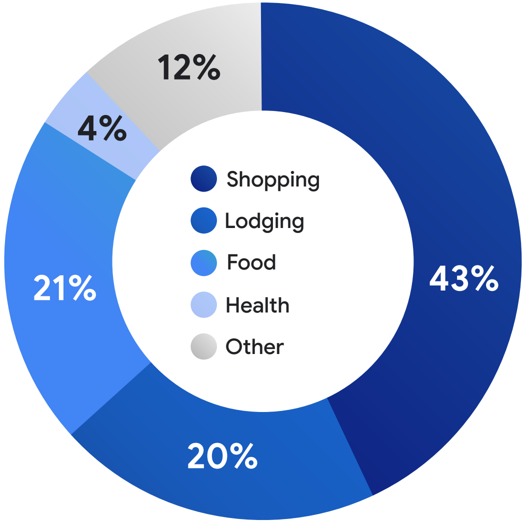
Traveller spend



Outbound traveller spend



Top outbound travel spend categories



Source: Visa, Global, H2'20-H1'24. On this slide, SEA includes KH, BN, and MM in addition to ID, MY, PH, SG, TH, and VN. World regions with low traveller spend have been excluded.

Thailand

Country overview

Moderate growth as e-commerce remains the primary driver of the digital economy

Thailand's economy is showing positive signs, buoyed by a resurgence in tourism. Within the digital sphere, e-commerce is a key growth driver, with the rising popularity of video commerce playing a significant role. The interactive shopping experiences and engaging content offered through video commerce are captivating Thai consumers and fuelling online sales.

Tourism climbs as visa requirements are relaxed

The tourism sector is growing, as Thailand introduces new visa measures to boost inbound travel. These include visa exemptions for visitors from 93 countries (up from 57), a digital nomad visa scheme, and visa on arrival (VOA) schemes. Sustainable and eco-conscious travel is gaining traction, as travellers increasingly seek out eco-friendly accommodations and responsible tourism experiences.

Government evolves nationwide digital wallet programme to drive adoption

In response to online registration rates for the nationwide digital wallet programme falling short of expectations, the government successfully pivoted by including cash distributions alongside digital payments. This flexible approach ensures broader accessibility while supporting the transition towards a cashless society. By offering diverse options, the programme caters to varying levels of digital literacy and preferences, ultimately fostering greater financial inclusion across Thailand.

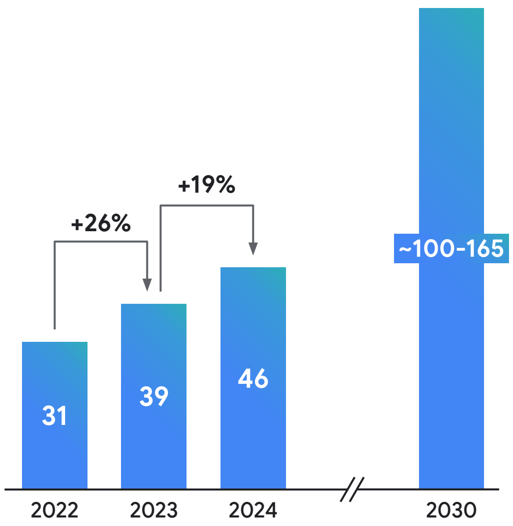
New government strategy to position Thailand at forefront of digital

The country has launched a four-year strategy to attract global technology leaders and promote Thailand as a hub for data centres and AI. This includes tax incentives, a streamlined application process, and easier licence approvals that encourage international companies to locate their regional headquarters in Thailand.

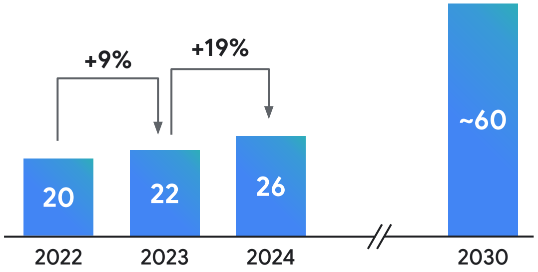
Thailand continues its strong double-digit growth, propelled by e-commerce and travel

Overall digital economy

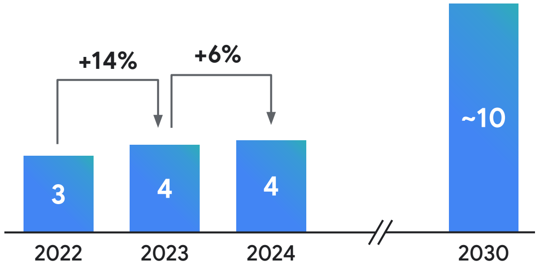
GMV ($B)



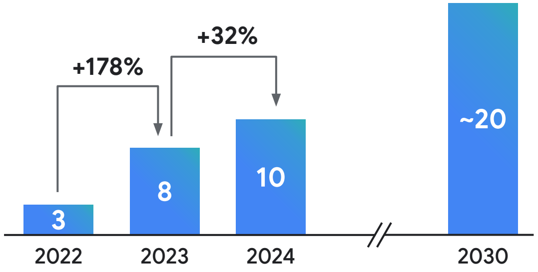
E-commerce



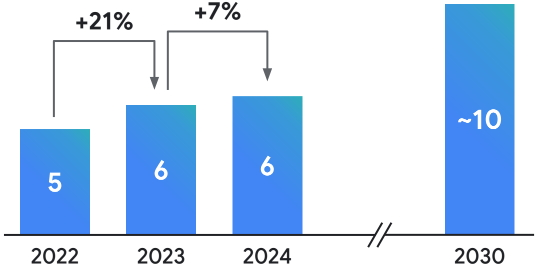
Transport and food



Online travel



Online media

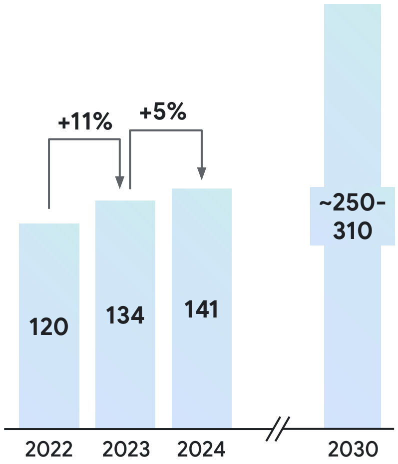


Note: Only OTAs are included in "Travel".
Source: Bain analysis

Growth in digital wealth and lending will accelerate towards 2030

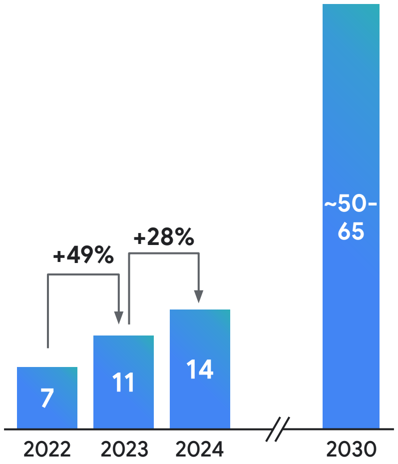
Digital payments

GTV[1] ($B)



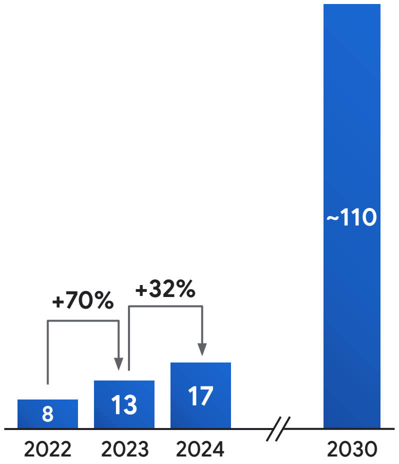
Digital lending

Loan book balance[2] ($B)



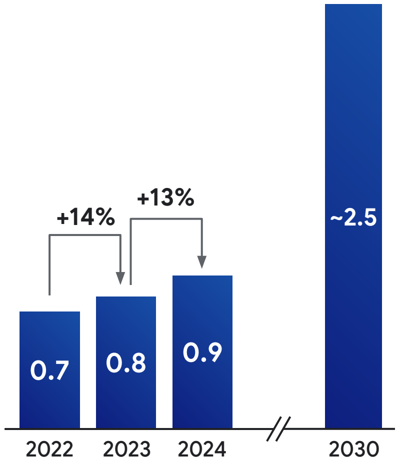
Digital wealth

AUM[3] ($B)



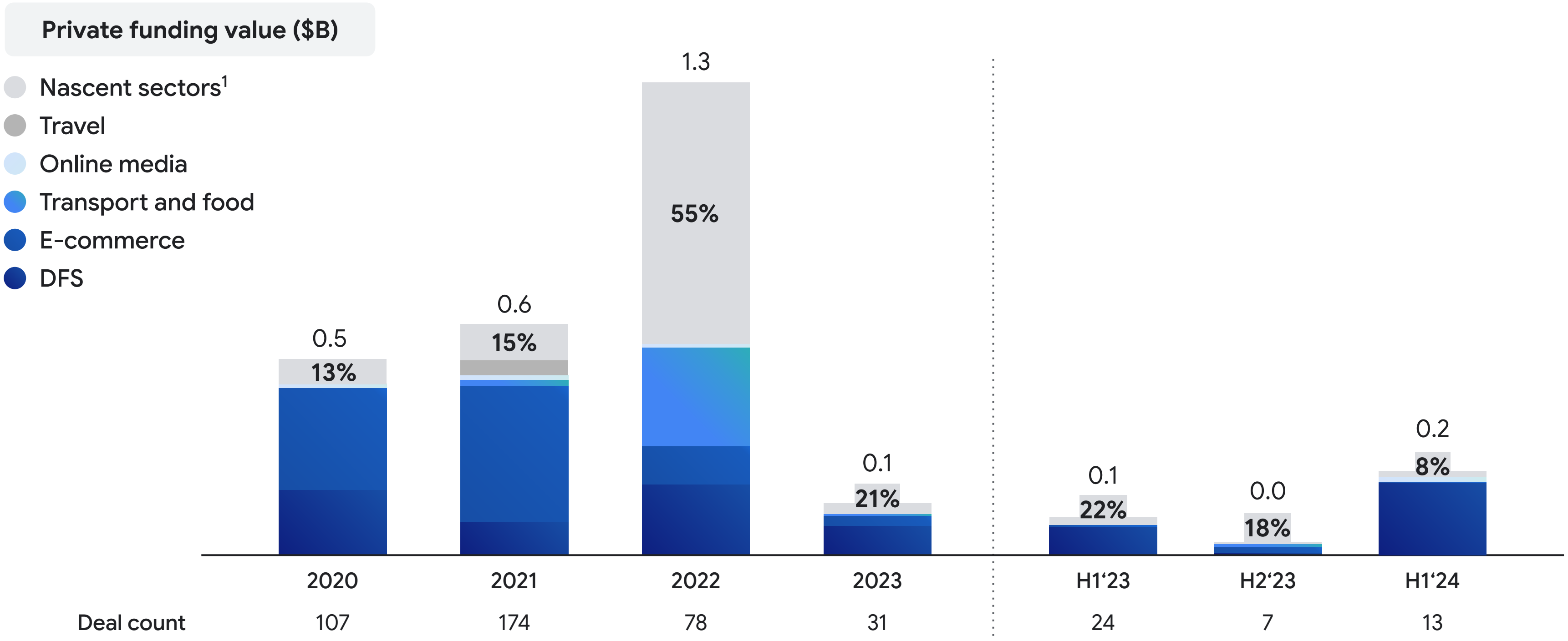
Digital insurance

APE & GWP[4] ($B)



Notes: 1) Gross transaction value (GTV) for digital payments includes the value of credit, debit, prepaid card, account-to-account (A2A), and e-wallet transactions. 2) Loan book balance for digital lending includes end-of-year balance for consumer loans (excluding credit card and mortgage) and small/medium enterprise (SME) loans. 3) Assets under management (AUM) for digital wealth includes end-of-year mutual fund AUM balance. 4) Annual premium equivalent (APE) and gross written premium (GWP) for digital insurance includes APE for life insurance and health under life insurance policies and GWP for non-life insurance.
Source: Bain analysis

Following a steep drop, DFS has pulled funding back up slightly



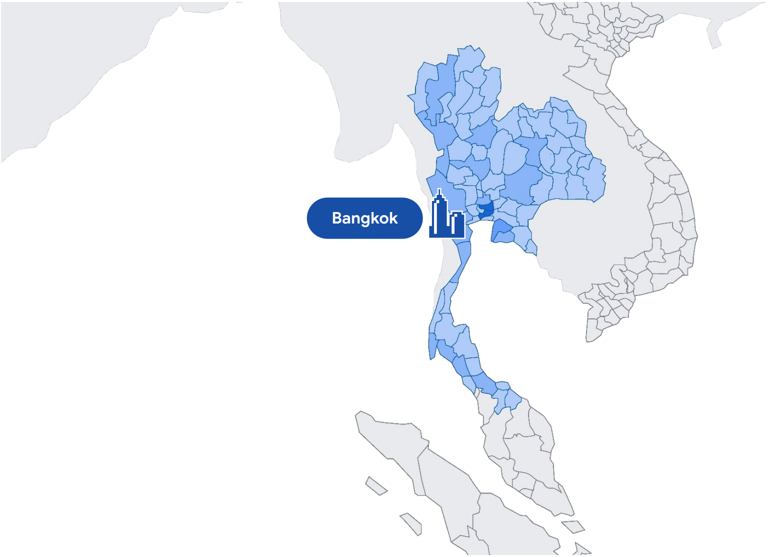
Note: 1) Nascent sectors include new, emerging sectors such as software and services, sustainability technology, Web3, and others.
Source: Bain analysis

Bangkok Metropolitan Region leads in AI interest and demand

AI: Interest and demand[1]

Indexed AI interest per internet capita

0 — 1



Top industries driving AI search interest[2]

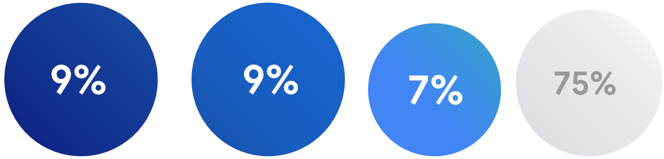
#1 Education

#2 Gaming

#3 Marketing

Mobile app download share by AI feature

Not to scale

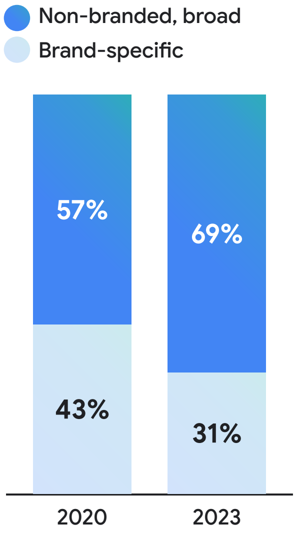


Notes: 1) The AI interest index indicates the level of interest in and demand for AI, calculated based on AI-related search volume, indexed to the relative internet population across the respective markets. Areas that do not meet the minimum search interest thresholds are not included in the analysis. Simplified illustrative maps are not representative of administrative borders and territories for which data is not available. 2) Indexed interest per capita. Top industries driving AI search interest refers to AI-related search topics that are relevant to the respective industries.
Sources: Google internal data, TH, 01-08/2024; Euromonitor, Internet Users by Country, TH, 01-08/2024; data.ai, TH, 01-08/2024

Thai consumers show a high tendency for broad, non-branded searches

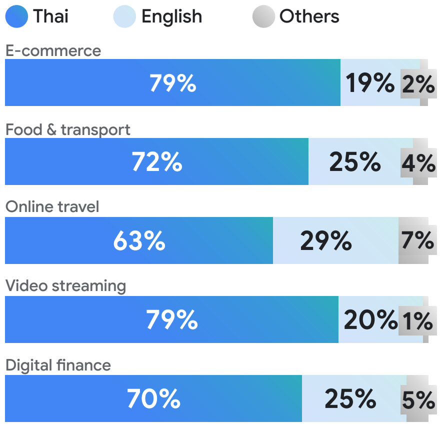
Consumer trends[1]

Category exploration[2]



Local language usage[3]

73%



Creator economy[4]

Brand creators[5]

+3%

2Y CAGR of the number of brands with video channels in consumer categories

Video influencers[6]

+5%

2Y CAGR of the number of video influencers focusing on consumer categories

Uploads

+13%

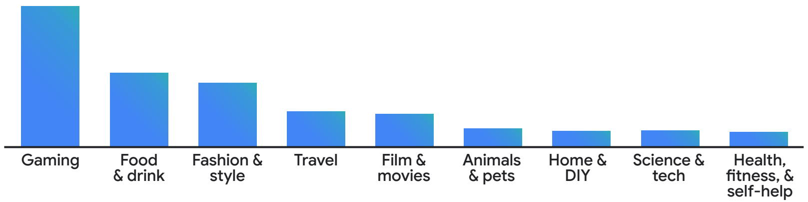
2Y CAGR of the number of video uploads

Language[7]

85%

of video creators create content primarily in Thai

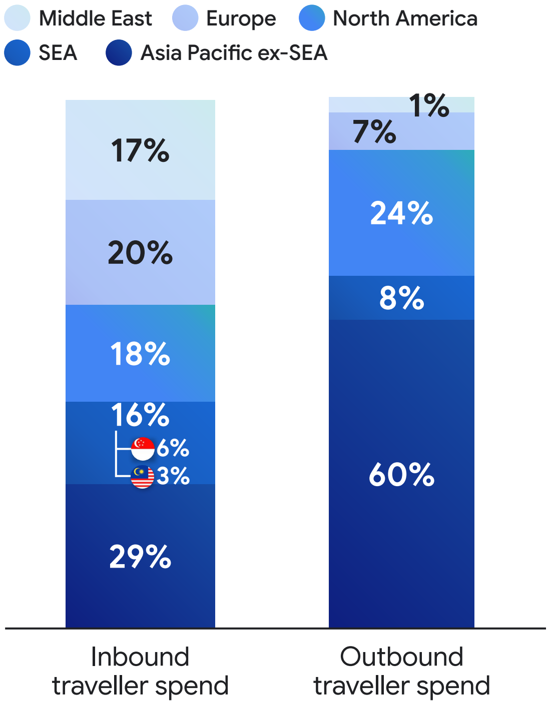
Number of creators by consumer category[7] (Indexed)



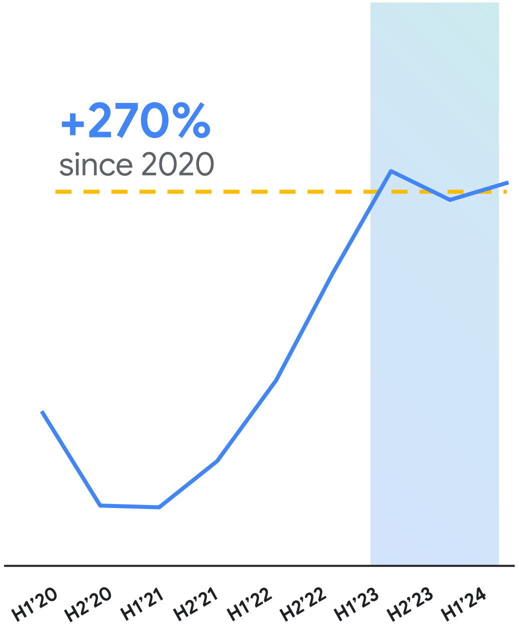
Notes: 1) All data reflect searches across TH, and across digital economy sectors unless otherwise stated. 2) "Category exploration" refers to non-branded searches using broad terms vs brand specific searches, expressed as a percentage of all searches. Data from 01/2020 to 12/2023. 3) "Local language usage" refers to searches in the national language(s), expressed as a percentage of all searches. Data from 01/2023 to 12/2023. 4) Comparisons are between Q2'22 and Q2'24, for video creators in TH with more than 10,000 followers. 5) Brand creators are organisations whose primary line of business is not related to media. 6) Video influencers are video creators who are persons and public figures with significant social presence. 7) As of Q2'24.
Source: 1) Google internal data, TH, 01/2020-12/2023. 4) Tubular, TH, Q2'22 vs Q2'24

Thai travellers spend mostly within APAC

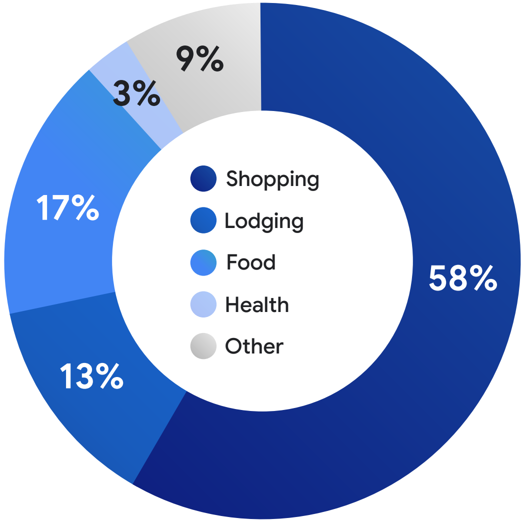
Traveller spend



Outbound traveller spend



Top outbound travel spend categories



Source: Visa, Global, H2'20-H1'24. On this slide, SEA includes KH, BN, and MM in addition to ID, MY, PH, SG, TH, and VN. World regions with low traveller spend have been excluded.

Vietnam

Country overview

Macroeconomic indicators are strong despite inflation and currency depreciation

Vietnam's high growth rates are expected to hold steady, driven by the manufacturing and processing sector. However, high inflation poses latent risk for businesses, as evidenced by a recent rise in public wages. While currency depreciation enhances the competitiveness of Vietnamese exports, prudent monetary oversight and management will be essential to ensure continued economic expansion.

Ride-hailing heats up as local and EV players gain traction

Vietnam's ride-hailing sector is undergoing a period of intensified competition, driven by the emergence of domestic and electric vehicle (EV) players. This increasingly competitive landscape has led to the exit of some regional players. As the sector continues to evolve, competition is expected to further intensify, reshaping the industry and potentially accelerating EV adoption.

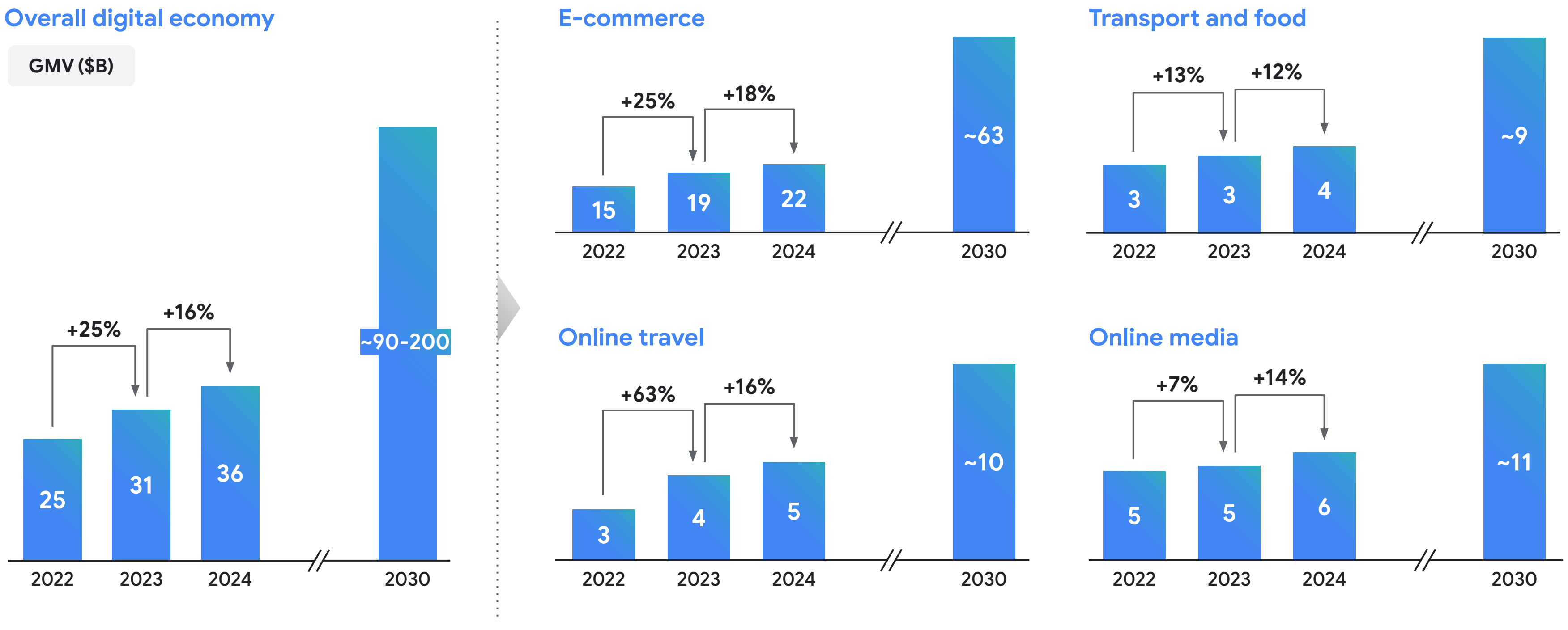
Digital and semiconductor are key priorities

Vietnam's leadership has unveiled an ambitious digital roadmap for the year, which emphasises AI and semiconductor technologies alongside economic growth and improved public services. This proactive approach by the government sets Vietnam up well for significant digital advancements despite previous limitations in infrastructure investment.

Vietnam's rapid shift towards a cashless society

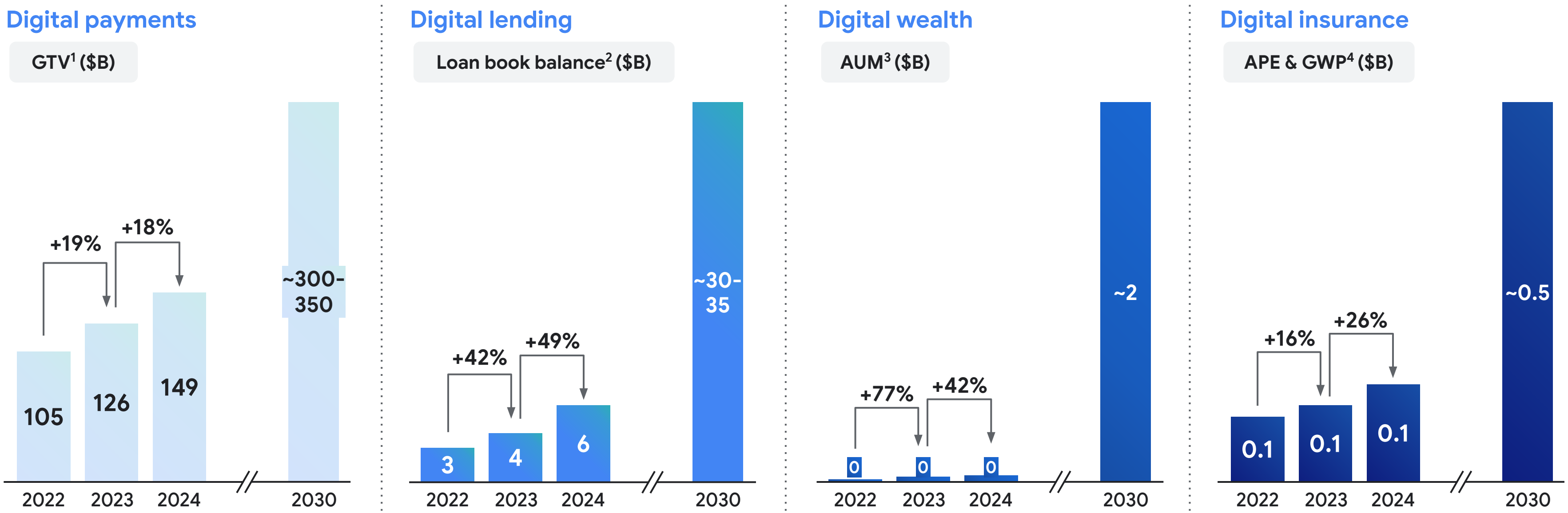
Vietnam is rapidly going cashless, fuelled by public initiatives and innovative financial solutions. The rise of e-wallets, coupled with the widespread adoption of QR code payments, has significantly reduced cash transactions. Government initiatives have standardised payment systems and enhanced interoperability, further encouraging the shift away from cash.

Vietnam continues its solid double-digit growth, propelled by e-commerce and travel



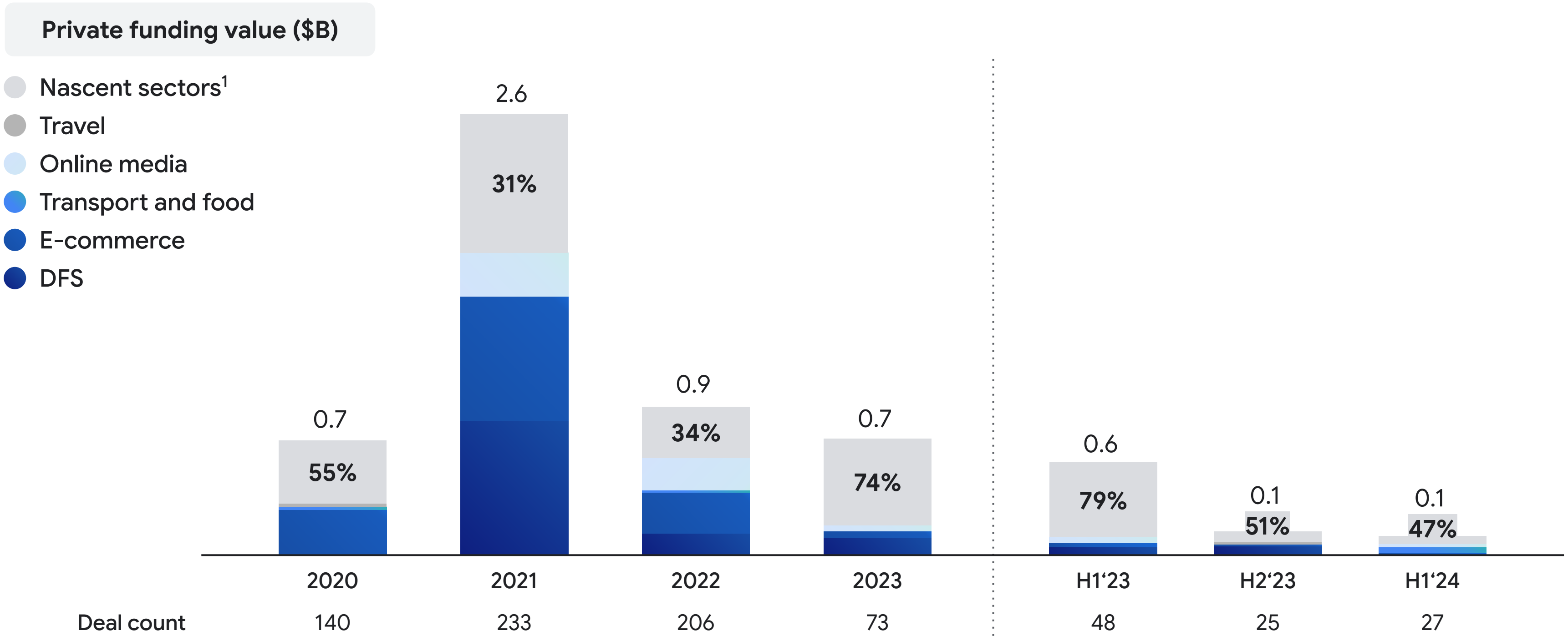
Note: Only OTAs are included in "Travel".
Source: Bain analysis

Digital payments maintain momentum with widespread QR code and e-wallet usage



Notes: 1) Gross transaction value (GTV) for digital payments includes the value of credit, debit, prepaid card, account-to-account (A2A), and e-wallet transactions. 2) Loan book balance for digital lending includes end-of-year balance for consumer loans (excluding credit card and mortgage) and small/medium enterprise (SME) loans. 3) Assets under management (AUM) for digital wealth includes end-of-year mutual fund AUM balance. 4) Annual premium equivalent (APE) and gross written premium (GWP) for digital insurance includes APE for life insurance and health under life insurance policies and GWP for non-life insurance.
Source: Bain analysis

Private funding declines across all sectors



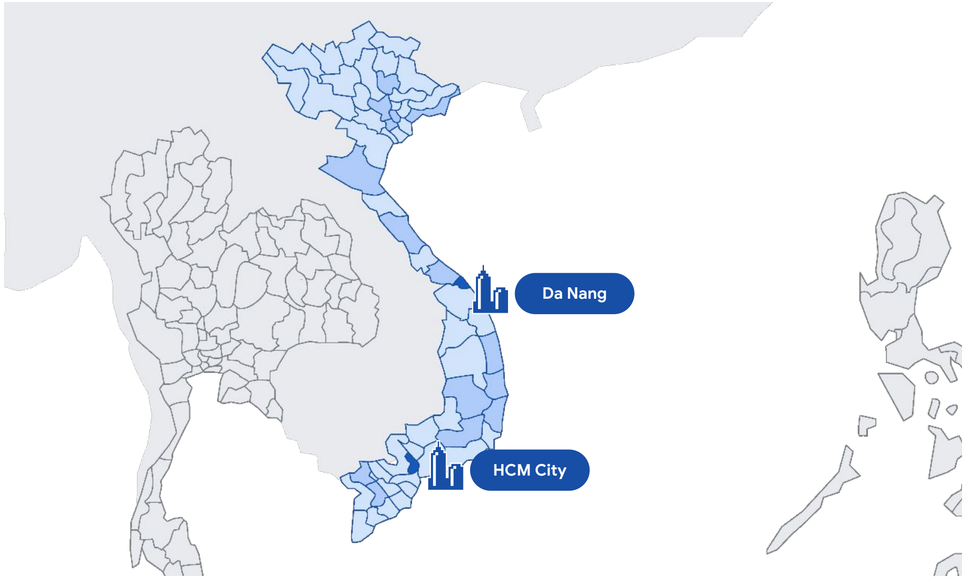
Note: 1) Nascent sectors include new, emerging sectors such as software and services, sustainability technology, Web3, and others.
Source: Bain analysis

Ho Chi Minh City and Da Nang lead in AI interest and demand

AI: Interest and demand[1]

Indexed AI interest per internet capita

0 1



Top industries driving AI search interest[2]

#1 Education

#2 Marketing

#3 Healthcare

Mobile app download share by AI feature

Not to scale

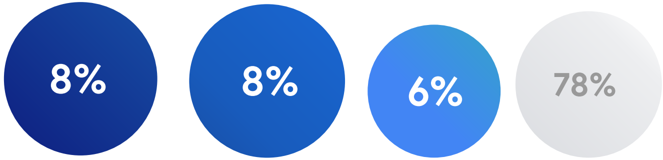


Photo effects

Content creation

Video editing

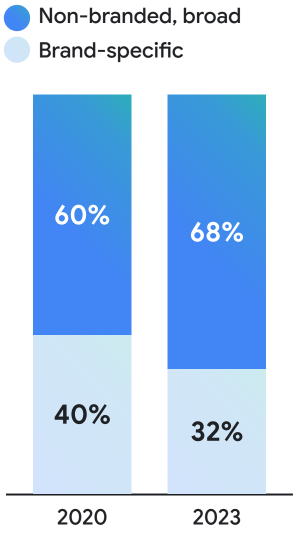
Others

Notes: 1) The AI interest index indicates the level of interest in and demand for AI, calculated based on AI-related search volume, indexed to the relative internet population across the respective markets. Areas that do not meet the minimum search interest thresholds are not included in the analysis. Simplified illustrative maps are not representative of administrative borders and territories for which data is not available. 2) Indexed interest per capita. Top industries driving AI search interest refers to AI-related search topics that are relevant to the respective industries.
Sources: Google internal data, VN, 01-08/2024; Euromonitor, Internet Users by Country, VN, 01-08/2024; data.ai, VN, 01-08/2024

Consumers and creators alike display a strong preference for local language content

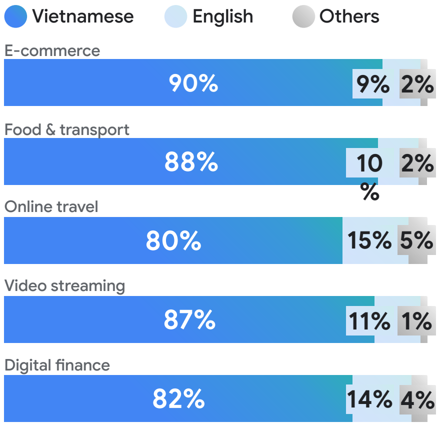
Consumer trends[1]

Category exploration[2]



Local language usage[3]

86%



Creator economy[4]

Brand creators[5]

+5%

2Y CAGR of the number of brands with video channels in consumer categories

Video influencers[6]

+11%

2Y CAGR of the number of video influencers focusing on consumer categories

Uploads

+13%

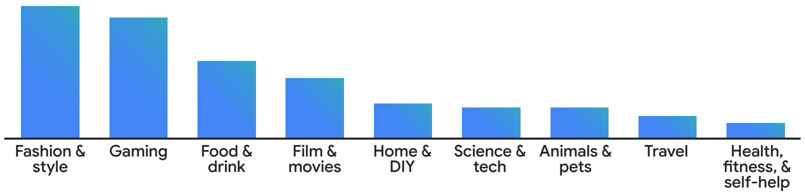
2Y CAGR of the number of video uploads

Language[7]

87%

of video creators create content primarily in Vietnamese

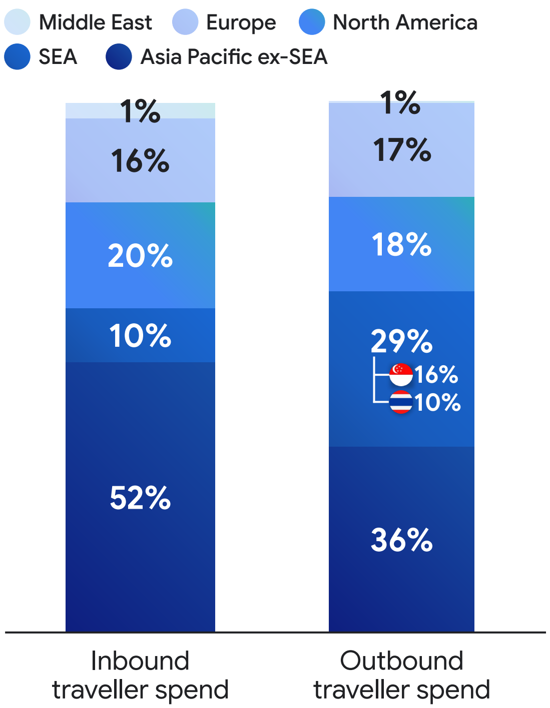
Number of creators by consumer category[7] (Indexed)



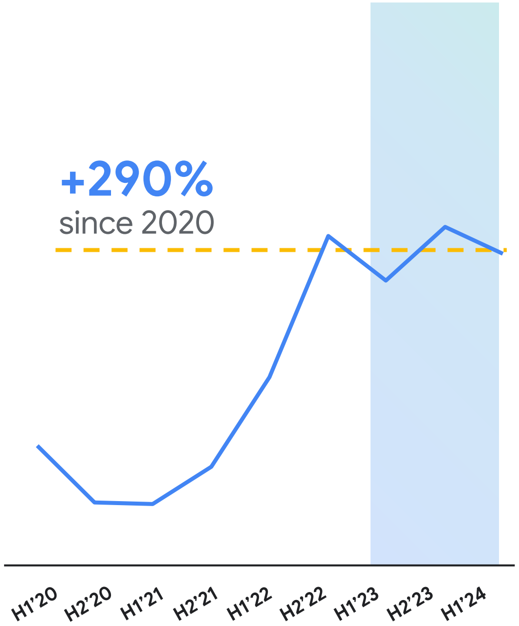
Notes: 1) All data reflect searches across VN, and across digital economy sectors unless otherwise stated. 2) "Category exploration" refers to non-branded searches using broad terms vs brand specific searches, expressed as a percentage of all searches. Data from 01/2020 to 12/2023. 3) "Local language usage" refers to searches in the national language(s), expressed as a percentage of all searches. Data from 01/2023 to 12/2023. 4) Comparisons are between Q2'22 and Q2'24, for creators or influencers with more than 10,000 followers. 5) Brand creators are organisations whose primary line of business is not related to media. 6) Video influencers are video creators who are persons and public figures with significant social presence. 7) As of Q2'24.
Source: 1) Google internal data, VN, 01/2020-12/2023. 4) Tubular, VN, Q2'22 vs Q2'24

APAC visitors account for over half of all travel spending in Vietnam

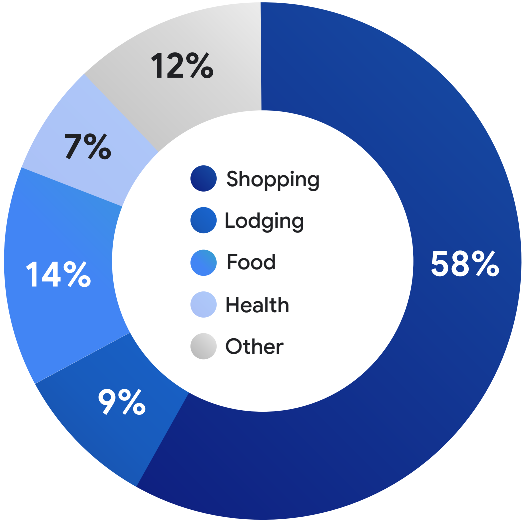
Traveller spend



Outbound traveller spend



Top outbound travel spend categories



Source: Visa, Global, H2'20-H1'24. On this slide, SEA includes KH, BN, and MM in addition to ID, MY, PH, SG, TH, and VN. World regions with low traveller spend have been excluded.

Google TEMASEK BAIN & COMPANY

e-Conomy SEA 2024

Profits on the rise, harnessing SEA's advantage