

Introduction

The State of Travel and Mobility Tech in Asia

For the better part of the past decade, Asia has been the innovation powerhouse of the global Travel and Mobility Tech sector.

More than half of the global venture capital (VC) funding in the sector has flown into startups in the region since 2010, giving rise to some of the most valuable unicorns in the world, such as DiDi or Traveloka.

This report digs deeper into why investors have been so bullish on Asia and traces the early days of the Asian Travel and Mobility Tech sector, as well as its drivers for growth.

As Asia is not a homogenous continent, we also break it into three distinct regions and zoom into the specific trends across Greater China, Southeast Asia, and India.

COVID-19: The Turning Point in 2020

The global COVID-19 outbreak has been one of the worst pandemics in modern history, causing the travel and mobility industry to come to a standstill.

Asia, particularly Greater China, was the first region to

be grappled by the virus, but also the first region to see recovery. We believe Asia can be exemplary of what the future might look like in other regions of the world several months from now, thereby providing a possible path forward.

This is why a big part of the report focuses on the impact of COVID-19 on Asia and how the Asian Travel and Mobility Tech ecosystem has responded to the pandemic, including the sectors and startups that have proven to be most crisis-resilient.

The main takeaway: In many regards, 2020 and the COVID-19 pandemic have paralyzed the travel and mobility sector. The resulting uncertainty and the continued restrictions due to lockdowns, visa limitations, and travel bans are the major factors behind why investors have become so prudent – as reflected in a major drop in VC activity across the region, both in terms of deal count (-43%) and funding value (-42%).

Post-Crisis: The Time For Innovation Is Now

It turns out, that the mobility segment has proven to be more resilient than the travel section. With recovery underway in Asia and both domestic life and consumer behavior slowly returning to relatively normal levels, investors are continuing their support of the mobility sector, particularly as transportation providers (e.g. ride-hailers, e-bikes, and electric vehicle manufacturers) were prompt to expand their businesses to other verticals such as contactless travel or last-mile delivery.

Stronger headwinds persist in the travel segment that suffers an expected VC funding drop of up to 70% in 2020. Travel will certainly take more time to recover.

The good news is that also existing travel players were eager to pivot their business models. Wellfunded late-stage travel startups and incumbent travel providers have been adaptive to new regulations and changing consumer behaviors as they experiment with new services and products.

What This Report Offers

The purpose of this report is to highlight and simplify all these major key developments and trends in the Asian Travel and Mobility Tech sector, from its early days to the game-changing year of 2020. We also pinpoint emerging trends and predict disruptive changes in the years to come.



Outlook

Travel and Mobility Tech in Asia Beyond 2020

COVID-19 has affected the Travel and Mobility Tech sector unlike anything we have ever seen before. As the pandemic continues to spread around the world, we want to shed light onto the major directions we see in Asia beyond 2020.



Our Three Guiding Convictions

No. 1

We truly believe that travel is not dead. Many surveys, including our own, illustrated that people around the globe are eager to resume travel as soon as bans are lifted. The reason is simple: people's thirst for travel is universal. We are social creatures, and we want to meet face-to-face.

No. 2

We do not believe that the pandemic has substantially changed the travel and mobility dynamics but rather accelerated existing trends by many years, such as digital acceleration, market consolidation, and elevated traveler service expectations.

No. 3

We expect that Travel and Mobility Tech players will play an even more substantial role in redefining the sector going forward. New startups with a mobilefirst spirit will leapfrog and design products and services addressing new consumer behaviors – and Asia will be first to witness it.

Predictions

5 Bets In The Asian Markets

Bet No. 1

Strong Incumbents

Asia's digital travel and mobility incumbents, like Trip.com or Grab, will shape the short to mid-term industry dynamics with even more new digital innovations. Startups will struggle to keep up until the funding environment picks up again.

Bet No. 4

Face-to-Face Interaction

Despite the fact that remote work and virtual conferences have become globally ubiquitous, faceto-face interaction will retain its cultural relevance in Asia, particularly in the context of business meetings, resulting in a faster recovery in corporate travel compared to other parts of the world.

Bet No. 2

Industry Convergence

Expanding collaborations and partnerships both vertically and horizontally along the travel journey will be the key in a cash-strapped sector. Collaborations such as those between Trip.com and AirAsia are just the beginning.

Bet No. 3

Digital Acceleration

New ways of digital engagement and product bundling will arise to entice and build trust with travelers, such as live streaming, ecommerce, and innovative pricing models evident in Chinese OTAs like Fliggy.

Bet No. 5

Governmental Role

Recovery in travel will be highly dependent on regulatory changes. Governments across Asia, especially in Greater China, will continue to support the travel industry on the financial and regulatory front, much more so than in other regions around the world.

Table of Contents

2010-2019

p.06-20

- 1. Asia is the powerhouse of Travel and Mobility Tech
 - Asia dominantly shapes the world's Travel and Mobility Tech funding dynamics, featuring a three-phased growth story
 - Mobility startups in Asia are much more heavily invested than travel startups
 - Within Asia, Greater China's funding hype cools down, whereas Southeast Asia and India see exponential growth in Travel and Mobility Tech

2. The pandemic forces travel and mobility players to pivot

p.21-30

2020

- COVID-19 dampens VC investment in Travel and Mobility Tech across Asia to lowest levels since 2015
- Startup investors continue to invest in mobility startups, as many of them adapted by expanding into other verticals with success
- Travel startups face strong headwinds to raise funding due to uncertainty and the outlook of the overall travel recovery

Beyond 2020

p.31-42

3. Asia adapting to new arising traveler needs

- Asia completely shifts to domestic tourism, as outbound travel remains mostly shut down to avoid new virus outbreaks
- Asian travel tech players are proactively preparing for new arising travel behaviors by adopting digital solutions and services
- Collaboration among travel tech players and governments is the key to tide through the crisis

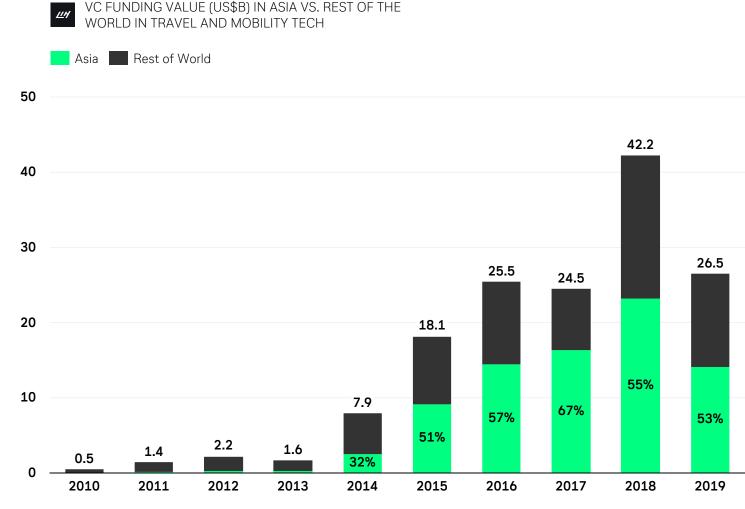
2010-2019

Asia is the powerhouse of Travel and Mobility Tech

TAXI



Asia has been critical in fueling the global Travel and Mobility Tech startup ecosystem



Betting on Asia

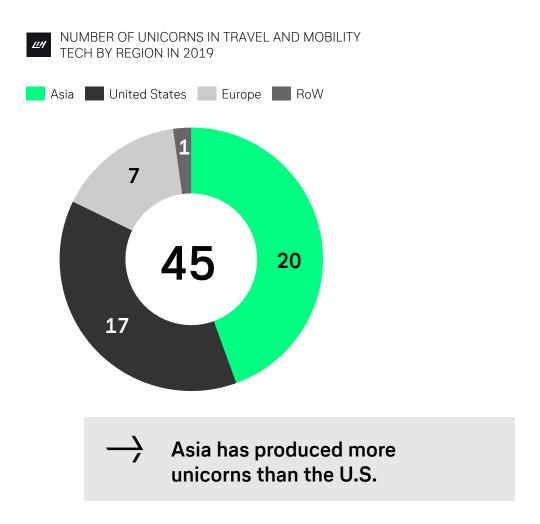
Venture capitalists worldwide poured a whopping 150B+ USD into Travel and Mobility Tech startups from 2010 to 2019, amounting to 8% of total VC funding across all verticals.

The sector had its inflection point in 2014 as the shared mobility and hospitality sector started gaining greater traction in the U.S. At the same time, startups began to emerge in Asia as well.

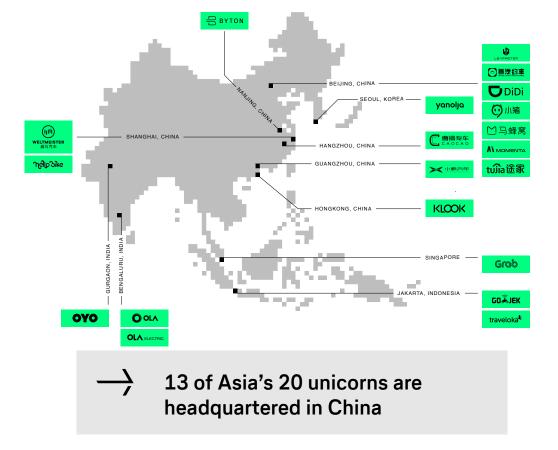
Since 2015, Travel and Mobility Tech startups have experienced fast growth in Asia, bagging at least 50% of global VC funding every year.

The funding value reached its peak in 2018, both in Asia as well as in the rest of the world, mainly driven by the record-high funding rounds for ride-hailing startups. This was succeeded by a cooling period in 2019, with funding returning to 2016 and 2017 levels.





OVERVIEW OF ASIA'S PRIVATE COMPANIES IN TRAVEL AND MOBILITY TECH VALUED AT US\$1B+ IN 2019



Investors have placed much bigger bets on mobility than travel startups in Asia

VC FUNDING VALUE (US\$B) IN 6 MOST-FUNDED SECTORS IN TRAVEL

AND MOBILITY TECH ACROSS ASIA FROM 2010 TO 2019

2010-2014 2015-2019 Mobility Travel x25 x526 x307 x4 x25 x8 1.64 40.66 0.03 7.88 0.74 3.63 0.14 3.56 0.17 1.45 0.03 16.01 Micromobility **Ride-Hailing** Autonomous / **Travel Search** Hotel and Alternative **Electric Vehicles** & Book Hospitality Housing

All about tech-heavy mobility

In Asia, money has primarily flown into the mobility segment of Travel and Mobility Tech. Almost 41B USD alone went into ride-hailing between 2015-2019, a sum bigger than all other top subsectors combined.

The value of money invested in the mobility sector is remarkable, but so is the growth of funding between 2015-2019 vs. 2010-2014. New technology-driven sectors that emerged post-2014, such as electric vehicles (EV) and micromobility (e.g. shared bikes and e-scooters), have seen growth factors of 526x and 307x respectively.

Comparatively, startups in the Asian travel tech segment, including online travel searching and booking as well as travel rentals, have received less funding. Investment in hotel and hospitality has grown by 25x, the fastest among top travel sectors.

Propelled by VC backing, mobility startups became unicorns much faster than travel startups

NUMBER OF YEARS (ROUNDED) BY ASIAN STARTUPS TO BECOME UNICORNS IN TRAVEL AND MOBILITY TECH



Later but faster

The disproportionate VC bets on mobility are reflected in the fact that 13 out of 20 unicorns in Asia are mobility startups. Despite being founded later than travel unicorns for the most part, these mobility startups have grown into unicorns within a much shorter time span – mostly up to 4 years vs. a minimum of 4 years for travel startups.

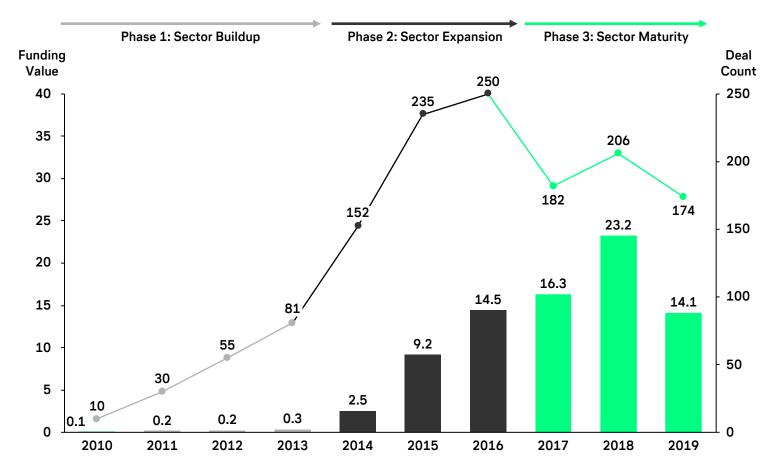
Several factors explain the strong conviction of VCs in Mobility:

- Frequency of usage is high for ride-hailing and micromobility companies as services cater to everyday mobility needs, resulting in more service engagement and potential to pan out into new verticals, as can be seen with Grab or DiDi
- New technologies tend to attract more VC money and also require larger investment sums as is the case with EV and autonomous vehicle startups

Travel and Mobility Tech's VC funding activity in Asia has been a three-phased growth story

ЩН

VC FUNDING VALUE (US\$B) AND DEAL COUNT (#) IN TRAVEL AND MOBILITY TECH IN ASIA



The sector evolution

Phase 1 Buildup: Riding the waves of mobile internet, online hotel and tour booking startups offering mobile experiences were securing investments in small ticket sizes. The mobility startup sector was just being established.

Phase 2 Expansion: The mobility sector grew across categories ranging from ride-hailing and micromobility to autonomous and electric vehicles. With sizable funding, phase 2 witnessed an emergence of category leaders in mobility startups, particularly in China.

Phase 3 Maturity: VC investment was maturing with fewer but bigger deals at later stages. The 2018 peak in funding size and volume gave rise to 7 new unicorns in China and other emerging markets, including Southeast Asia and India, where VC funding value surged. The funding frenzy was followed by a drop in deal size and volume in 2019.

Deep Dive: On average, each growth phase was 3-4 years long

2010 2011 2012

Phase 1: Sector Buildup



2017 2018 2019 Phase 3: Sector Maturity

Travel startups gaining traction

2013

Two-thirds of VC investments in Travel and Mobility Tech startups in Asia went into travel booking startups for hotels, tour packages, and tickets for tourist attractions.

Late-stage VC investors were eyeing this sector and made investments in several Online Travel Agencies (OTAs), including Tuniu in China and Cleartrip in India.

Following the founding of Uber in the U.S., ridehailing startups in Asia also came to life in this phase.

Ola was founded in 2010 in India, followed by DiDi Chuxing in China and Grab in Malaysia in 2012 (HQ moved to Singapore in 2014).

China's 3-pronged mobility boom

China was mainly driving the growth in Phase 2, fueled by three categories of mobility startups.

- **Ride-hailing:** DiDi became a clear category leader after merging with local #2 player, Kuaidi, and acquiring Uber China's assets while backed by prominent investors, including Softbank, Tencent, and Alibaba.
- **Electric vehicles:** In the wake of the government's sustainability call, EVs were favorably subsidized. A new wave of EV startups (Weltmeister, Li Auto, Xpeng) secured investment as they combined classic manufacturing and mobile experiences.
- **Micromobility:** Shared bikes scaled exponentially across China, and competition intensified (mainly between Mobike and Ofo) by binge-spending on user acquisition.

Consolidation in China and growth in the rest of Asia

After the collapse of Ofo, the micromobility sector reshuffled with consolidations led by top industry players or corporations, e.g. Mobike, which was acquired by Meituan (lifestyle commerce super app).

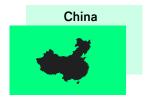
While micromobility started to see profitability, lossmaking EVs were still deep in investment in R&D.

Concurrently, investors who were heavily invested in China turned to Southeast Asia and India for new growth opportunities, spurring the rise of ride-hailing (Grab, Gojek, Ola) and travel/hotel booking (Traveloka, OYO) unicorns in the region.

Overall, median deal sizes continued to surge as investors focused on more mature grown-ups.

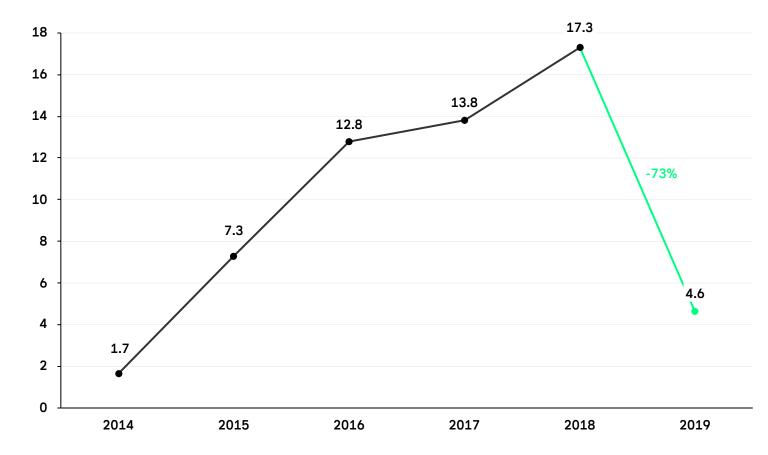
ЩН

Asia experienced a massive drop in VC funding in 2019 due to "VC winter" in China



VC FUNDING VALUE (US\$B) IN TRAVEL AND MOBILITY TECH IN GREATER CHINA

ЩН



China's funding drought

After the vast and rapidly growing investment amounts in China, 2019 witnessed a drastic 73% drop from the previous year, a decrease of nearly 13B USD in absolute funding value. The significant drop could be attributed to cautious investor sentiments amidst a "VC winter" across sectors in China, a phase where VC investment activity was relatively dormant.

Four drivers behind the VC winter explain the drop specific to Travel and Mobility Tech:

- Tightening regulatory rules drying up VC powder
- Less appealing exits dampening investor sentiment
- Sino-U.S. tension lessening U.S. stakes in China
- The shifting innovation cycle

Deep Dive: Four drivers explain China's drastic 73% funding decrease in 2019



No. 1

Tightening regulatory rules drying up VC powder

New regulatory rules have impacted the availability of new dry powder since 2019. The rules specified limitations on banks to channel capital into high-risk equity investment through asset management facilities, who were historically responsible for financing a big chunk of the VC market in China. According to Zero2ipo, the number of fundraising funds dropped by 25% in 2019 vs. 2018.

No. 3

Sino-U.S. tension lessening U.S. stakes in China

According to Rhodium Group, the rising trade war between China and the U.S. negatively impacted startup funding, resulting in a shrinking volume of U.S. VC investment in China (17.4B USD in 2018 vs. 4B USD in 2019, a 6-year low). In addition, U.S. regulators' increasing scrutiny on Chinese companies facing IPOs added difficulty to listing (a previously popular and ideal option for Chinese tech startups to exit), worrying investors looking at exits.

No. 2

Less appealing exits dampening investor sentiment

The poor stock price performance of Chinese tech companies that are listed in the U.S., such as Nio and Xiaomi, caused concerns among investors, especially later-stage investors who focus on pre-IPO or growth equity. The IPO failure of WeWork added another layer of caution that made investors prudent in funding startups with less convincing unit economics or proven business models leading to profitability.

No. 4

The shifting innovation cycle

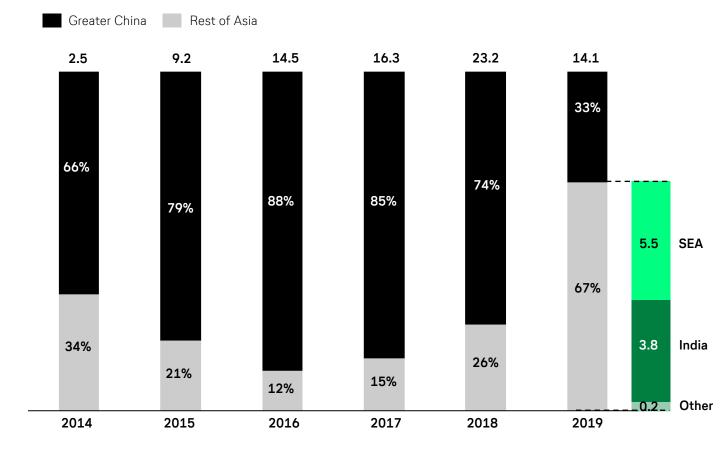
As several subsectors of Travel and Mobility Tech mature with clear category leaders dominating the market, VCs are deploying money for the next big things, e.g. deep tech including 5G, artificial intelligence, smart manufacturing, etc. Those focus areas could be well echoed by the New Infrastructure Plan issued by the National People's Congress in China. Such plans have historically represented the country's key focus, thus shaping VC investment in China.

ЩН

BY REGION IN ASIA

While China struggles, the "Rest of Asia", in particular Southeast Asia and India, are taking over

VC FUNDING VALUE (US\$B) IN TRAVEL AND MOBILITY TECH





Massive capital inflow

While the winter drought was looming in China, Travel and Mobility Tech startups in the Rest of Asia bagged 9.5B USD in 2019, an increase of 61% vs. 2018.

Since 2017, VC funding value for the Rest of Asia has been increasing, along with the total share of the funding value. In fact, 2019 marks the first time that the Rest of Asia has taken center stage as the most funded region in Asia in both absolute and relative terms.

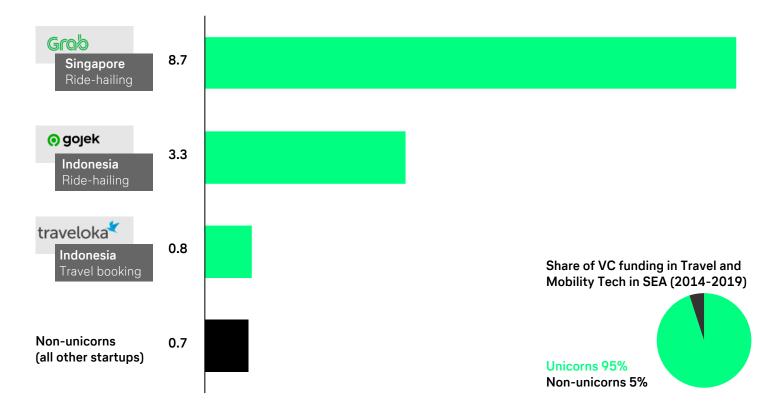
Most of the 9.5B USD of 2019 went to startups in Southeast Asia (SEA) and India.

Both regions share success factors, including a high proportion of digitally literate populations and a fast accumulation of discretionary income. The specificity of each market is explained in the following.

Recent boom in Southeast Asia's Travel and Mobility Tech sector has been fueled by investments in local unicorns



VC FUNDING VALUE (US\$B) IN TRAVEL AND MOBILITY TECH STARTUPS FROM SEA BETWEEN 2014 TO 2019





Local unicorns win big

Between 2014 to 2019, VC funding in SEA is largely shaped by three unicorns: Grab, Gojek, and Traveloka. They are responsible for 95% of total funding, a majority of which took place in the past two years as China was experiencing a VC drought.

The success of these unicorns cannot only be attributed to SEA's large population with high digital penetration and burgeoning middle class, but also to the adoption of the mobile-only "super app" strategy that targets a large base of users by tying them to varying services within one app.

This strategy convinced investors to pour in an overwhelming share of funding, which enabled the unicorns to grow their own unicorns within - for example, Gopay, the fintech arm of Gojek, has itself become a unicorn.

Deep Dive: Grab, the SEA-based ride-hailing unicorn, has become a regional leader via its "super app" strategy

Grab's "super app" strategy

A "super app" is an all-in-one mobile app that offers users a wide range of services and offerings within a single app.

Grab is a mobility app that started as a taxi-hailing service.

Through in-house incubation, acquisitions, and partnerships, Grab has since expanded into other verticals beyond mobility and has become a super app that entails mobile e-payment, food delivery, travel booking and planning as well as video streaming, and more.

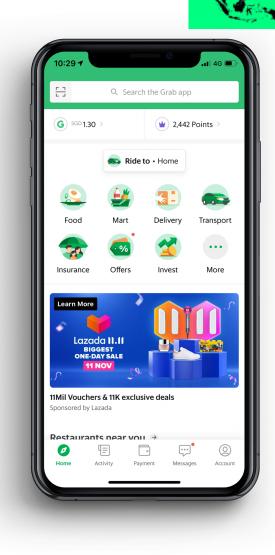
The e-payment capability is the backbone of Grab's super app strategy. By enabling mobile payment, transactional businesses are encouraged to build up their presence on the Grab app enabling the unbanked population in SEA to have easier access to financial services.

The origin of "super apps"

The concept is not new in Asia. The success of Grab's "super app" strategy can be traced back to China's WeChat, arguably the first "super app" in Asia, which evolved from a messaging app to an all-around lifestyle app.

The idea of creating an "ecosystem" in order to become more competitive and user-friendly makes sense for businesses:

- As a "super app" aggregates more services, the app will become the go-to platform for users, thus fending off competitors who cannot offer a full range of services
- For apps looking to diversify businesses, building new revenue streams under one "super app" vs. a standalone app could greatly decrease user acquisition costs and improve user experience

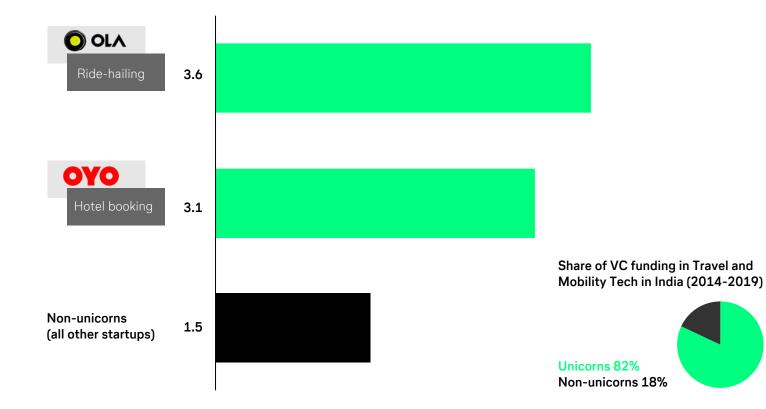


Southeast Asia

Funding in India has been on the rise with a lot of money going into a couple of unicorn bets



VC FUNDING VALUE (US\$B) IN TRAVEL AND MOBILITY TECH STARTUPS FROM INDIA BETWEEN 2014 TO 2019





Global ambitions

Like SEA, India saw its unicorns – Ola and OYO – secure most of the funding in the Travel and Mobility Tech sector (82% from 2014 to 2019).

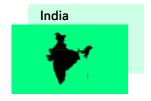
However, unlike the regional presence of unicorns in SEA, OYO and Ola have become truly global companies.

For instance, OYO has become the world's third largest hotel chain by number of properties and operates in 80+ countries as of 2019. Since 2018, Ola has expanded its ride-hailing business to overseas markets, including the UK and Australia, where its local rival, Uber, also operates.

Global investors like Softbank (reportedly the biggest backer for the two unicorns with an investment of at least 1.5B USD) and a number of Chinese investors are attracted to India due to its sheer size of internet user base (639m¹, second only to China) and yieldgenerating VC exits (e.g. Flipkart sold to Walmart for 16B USD in 2018).

ЩН

Deep Dive: India could become the next big Travel and Mobility **Tech battlefield**

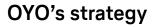


ЩН ACROSS CATEGORIES Lodging Consumption Transport excl. air Air 136 CAGR +89% 15% 11% 94 15% 48% 10% 72 15% 47% 15% 4% 50% 19% 22% 22% 21% 20% 13% 2018 2021E 2015

Travel spending in India is \rightarrow expected to grow robustly. Spending on air travel is the main growth driver due to improved connectivity and affordability.

ESTIMATED TRAVELER SPENDING (IN US\$B) IN INDIA

Deep Dive: OYO, India's Travel and Mobility Tech unicorn, has delivered on its global expansion plans



Within six years since founding, OYO has become the world's third largest hotel network in terms of room counts in 2019 (behind only Hilton Hotels and Marriot International).

OYO empowers small to mid-size budget hotels with a combination of design, hospitality and operational expertise, and rebrands them under OYO's umbrella brand, resulting in higher occupancies and yields.

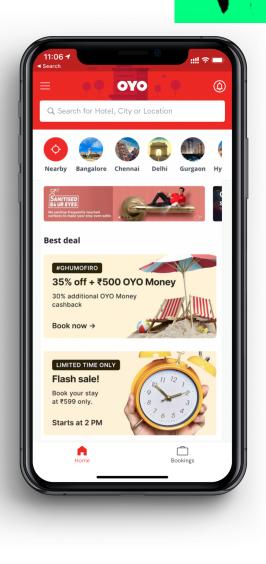
After setting out in India, OYO has expanded into multiple other markets with its franchise model, including China, U.S., UK, Mexico, Brasil, Japan, Indonesia and many more countries.

Unique business model

OYO is a platform in the budget hotel segment that connects hotels and travelers and makes revenue by taking a cut on the bookings made from its platform.

With its asset-light model, OYO revamps unbranded budget hotels to a consistent standard, funnels user traffic and manages the entire hotel operations from booking to inventory, while guaranteeing hotel owners a certain level of revenue.

To the traveler, OYO promises simplicity, affordability and a consistent level of service standard.



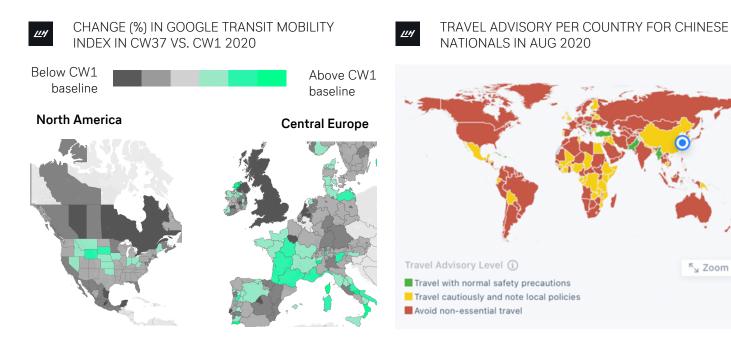
India

2020

The pandemic forces travel and mobility players to pivot

COVID-19 has caused a sudden halt in travel and mobility on a global scale

Low mobility activity



To limit the spread of COVID-19, governments around the world advised citizens to stay and work from home and only go out for essentials, resulting in a sharp decrease in people's mobility.

Countries issued restrictive travel advisories to citizens and closed borders to incoming travelers, fearing imported COVID-19 cases. As of November 2020, travel advisories in most countries still prevail.

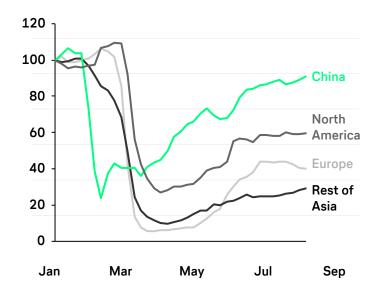
^ĸ_> Zoom

Universal travel bans

International travel bans prevented people from flying, resulting in a dramatic drop in international passenger numbers. China is seeing the most robust recovery, however, this is largely driven by domestic flights only.

Prolonged travel limitations

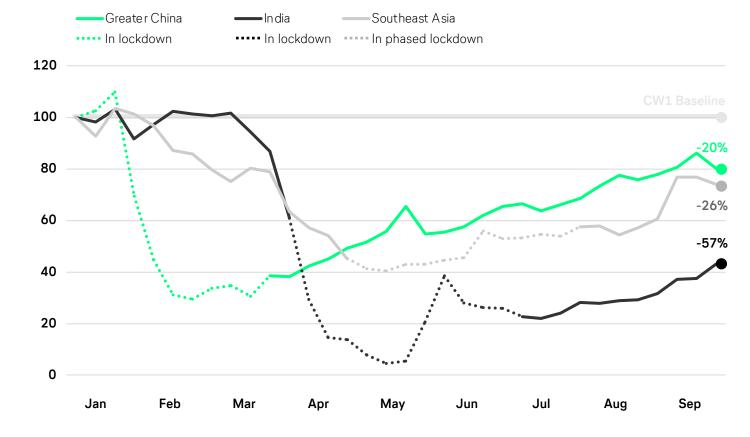
INDEXED NUMBER OF FLIGHT DEPARTURES <u>114</u> BY REGION AS OF SEP 2020



Asia was the world's first region to experience the severe impact of the pandemic on the travel and mobility sector

ЩН

WEEKLY DOWNLOADS OF TOP APPS IN TRAVEL AND MOBILITY TECH¹ IN GREATER CHINA, SEA AND INDIA, INDEXED TO CW1 BASELINE IN 2020



Road to recovery

Asia was the first region to experience the impact of COVID-19, but it is also the first region to recover gradually from the pandemic.

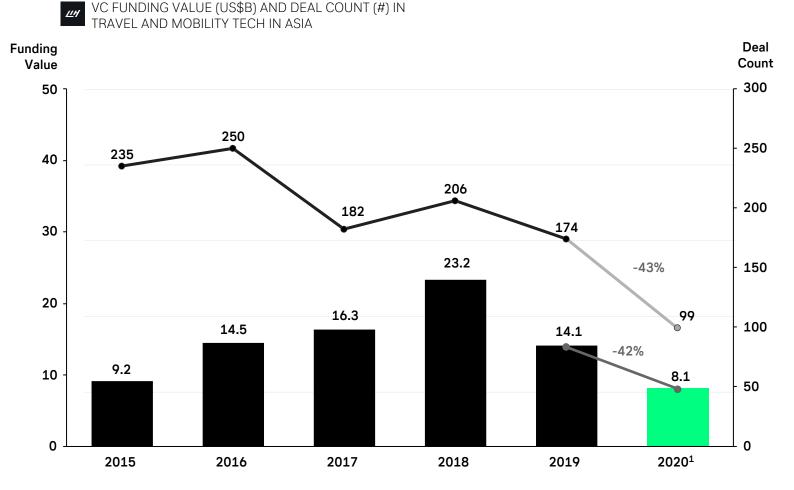
COVID-19 first hit China in early January. China's nationwide lockdown caused a sudden drop in travel demand, as proxied by our Travel and Mobility App Download Index. Such measures helped to successfully manage the spread in early March. resulting in the lockdown being lifted and travel bouncing back - albeit domestically. As of today, China is the fastest recovering country in terms of travel.

SEA reported its first cases around the same time as China. The index trended down less drastically due to effective outbreak responses across the region. The index has rebounded back to 74% vs. CW1.

The situation in India looks more worrisome. After three lockdown extensions, daily confirmed cases have kept on climbing. The worsening situation in the country has greatly dampened the demand for travel, and the index is down 43% from pre-pandemic levels.

23 ¹Top Travel and Mobility Tech apps include OTAs, airlines, ride-hailing, micromobility, railway apps Sources: Lufthansa Innovation Hub, TNMT.com, App Annie

Travel and Mobility Tech VC investments in Asia expected to hit dramatic low in 2020



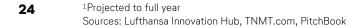
Prudent investor sentiment

The pandemic-led uncertainty in the outlook of Travel and Mobility Tech has further dampened investments in the sector.

In 2020, both total VC investment value and the number of deals in Travel and Mobility Tech in Asia are projected to drop by more than 40%, the lowest since 2015.

The year started out with cautious investor sentiment amid several high-profile flops, e.g. WeWork's failed IPO and OYO's massive job cuts. As a result, VC investors began focusing on startups with arguably more sustainable business models and healthy financials.

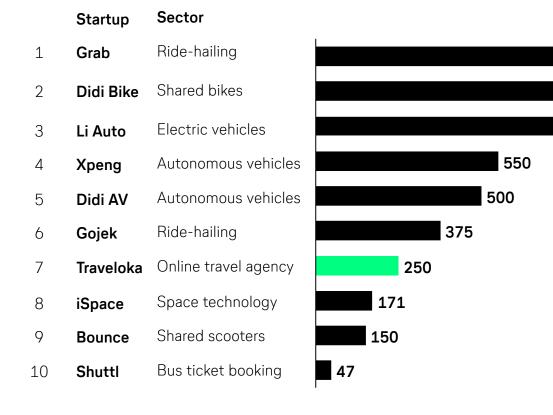
The prudent investor sentiment was exacerbated by COVID-19. The volatility of newly arising COVID-19 cases and the uncertainty of the travel outlook, coupled with the prioritization of existing portfolios resulted in a new low in deal activity in Travel and Mobility Tech.



Mobility startups dominate the list of most-funded startups in 2020

VC FUNDING VALUE (US\$M) IN 10 MOST-FUNDED STARTUPS IN TRAVEL AND MOBILITY TECH IN ASIA IN 2020*

Travel Mobility



Pre-pandemic patterns

1.086

1.000

800

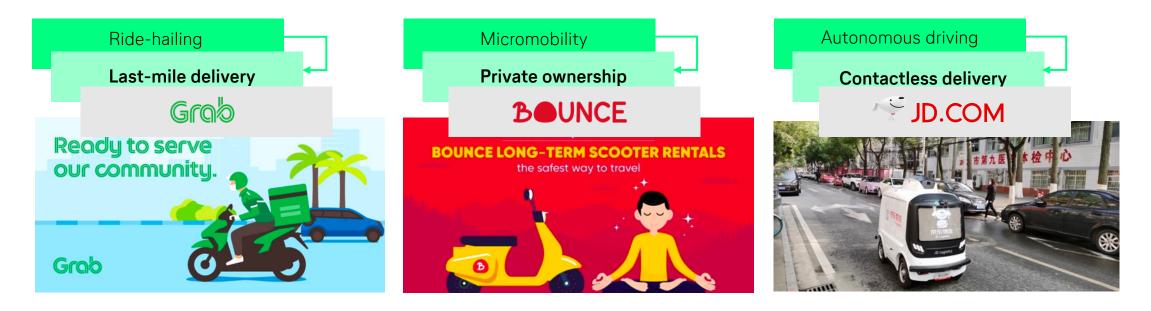
Mobility startups have received much more investment than travel startups during the pandemic.

Among the top 10 startups that raised the most money in Travel and Mobility Tech in Asia as of August 2020, 9 out of 10 are mobility startups – mostly ground transportation companies including ride-hailers, EVs, and on-demand micromobility providers. Traveloka, the only travel startup in the list, raised a down round at a 17% lower valuation.

Investment in Mobility is not only numerous, but also great in value. The ride-hailing unicorn, Grab, and the bike-sharing arm of DiDi still managed to raise billions of dollars during the pandemic.

This continued confidence in Mobility is due in part to the capital intensity of the business models of mobility startups (either technology-driven or operations-driven). But mobility startups also received funding because they are capable of adapting and pivoting their business, as well as finding new pockets of value.

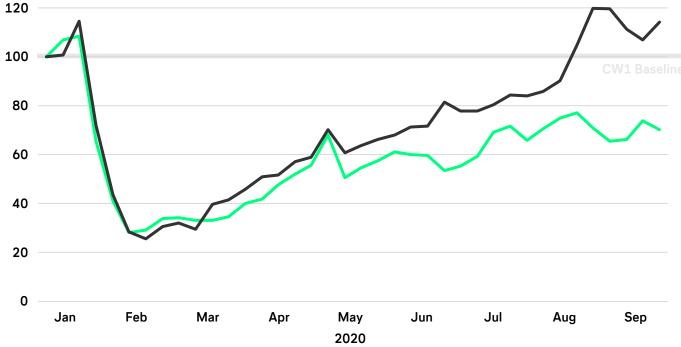
Many mobility offerings have successfully pivoted to crisis-relevant customer needs



With prevalent citywide lockdowns, the demand for ride-hailing plummeted whereas the need for food delivery surged. As a super app that owns a wide range of services including both mobility and delivery, Grab moved 149k GrabCar and GrabBike drivers to food and goods delivery to bridge the gap created by rapidly changing user needs. While cycling was deemed a safer option for commuting compared to "crowded" public transportation during the pandemic, bike sharing services also posed safety concerns regarding possible transmission through other users. To combat this, Bounce, the Indian scooter startup, reassured users by introducing a long-term bike rental plan for up to 60 days. COVID-19 has been a real-life test for autonomous driving technology to amplify the contactless component in a trip. JD.com – the Chinese e-commerce giant – deployed unmanned vehicles on the 600-meter route between one designated hospital and its fulfillment station in Wuhan, so as to maintain deliveries while minimizing risk of transmission.

Travel startups are faced with a lengthier recovery due to prolonged and strict travel restrictions

WEEKLY NUMBER OF APP DOWNLOAD OF TRAVEL VS. MOBILITY COMPANIES¹ IN GREATER CHINA, INDEXED TO CW1 BASELINE Travel — Mobility 140



Evidence from China

The number of travel and mobility app downloads indicates that travel companies are recovering slower than mobility services in China, a market with the longest recovery phase to date.

Mobility app downloads bounced back fast as people first started to move around locally and then domestically following lifted restrictions in movement. As of September, the download index for mobility in China stands above the pre-crisis level in CW1.

However, travel apps are lagging in recovery – significantly rending lower than the CW1 baseline due to strict and prolonged government restrictions on the travel sector, including limitations on the number of tourists at attractions, and most importantly, the stringent ban on cross-border leisure travel.

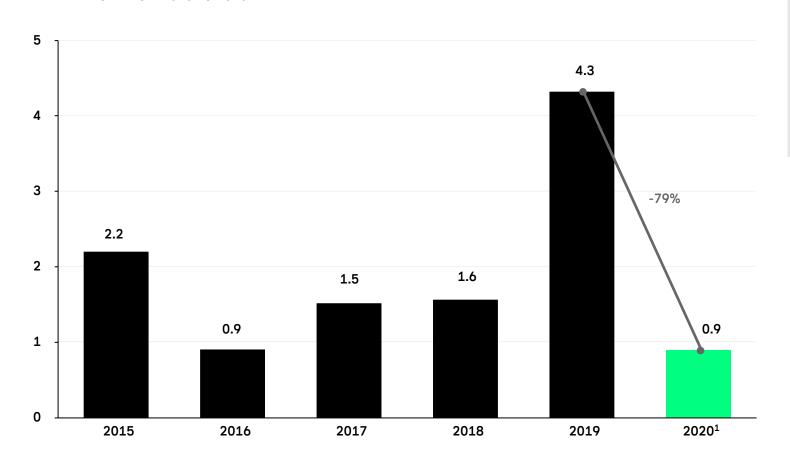
In addition, people are naturally more cautious of taking trips than taking rides, leading to a slower overall recovery in travel.

27

¹Travel companies include travel book & search, travel inspiration, hotel and alternative housing, tour & activities companies; mobility companies include micromobility, flight, railway and car rental companies; excluded are Chinese super apps that have booking features for travel and mobility services, e.g. Alipay, WeChat, Meituan-Dianping, etc. Sources: Lufthansa Innovation Hub, TNMT.com, App Annie



VC FUNDING VALUE (US\$B) IN TRAVEL STARTUPS IN ASIA FROM 2015 TO 2020

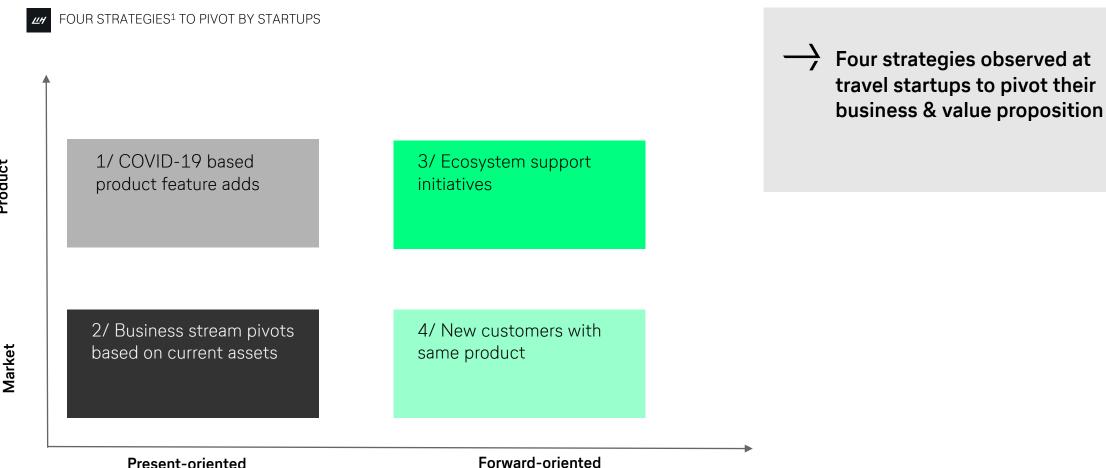


VC investments in travel startups dropped below 1 billion USD for first time since 2016

28 ¹Projected to full year Sources: Lufthansa Innovation Hub, TNMT.com, PitchBook

ЩН

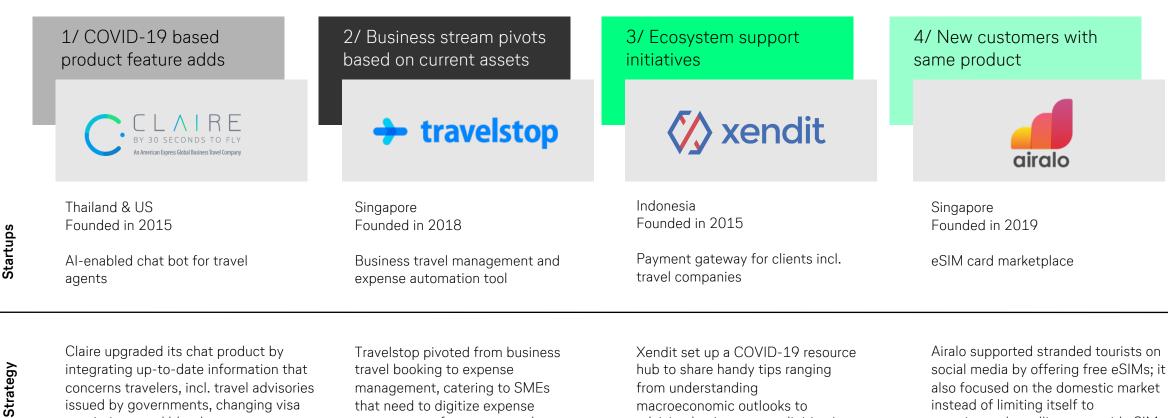
In the wake of heightened difficulty in securing funding, travel startups make necessary pivots to survive



¹Insights from a joint study between Golden Gate Ventures and Lufthansa Innovation Hub: "How SEA travel startups are adapting to survive COVID-19" Sources: Lufthansa Innovation Hub, TNMT.com

<u>IIH</u>

Deep dive into the strategy matrix¹



instead of limiting itself to vacationers by selling postpaid eSIMs.

concerns travelers, incl. travel advisories issued by governments, changing visa restrictions, and blood type.

management, catering to SMEs that need to digitize expense management for remote work.

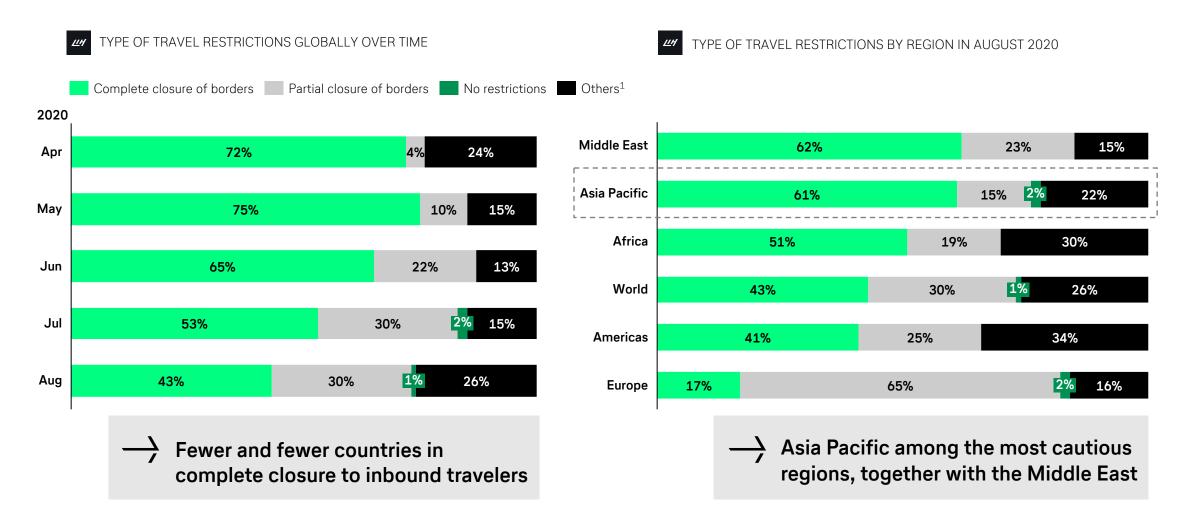
from understanding macroeconomic outlooks to advising businesses on digitization.

¹Insights from a joint study between Golden Gate Ventures and Lufthansa Innovation Hub: "How SEA travel startups are adapting to survive COVID-19" 30 Sources: Lufthansa Innovation Hub, TNMT.com, Press Research

Beyond 2020

Asia adapting to new arising traveler needs

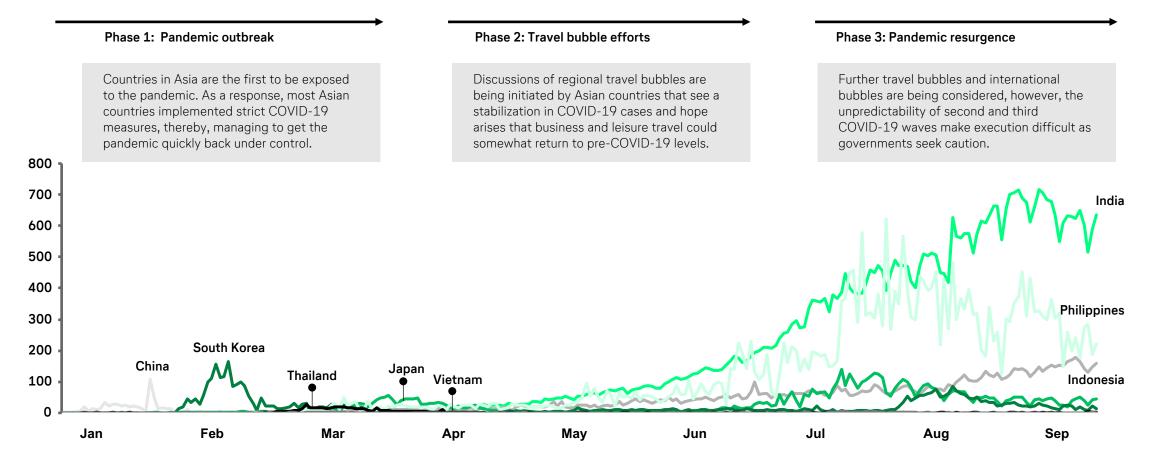
Countries across the globe are starting to ease travel restrictions, but Asia remains strict



ЦН

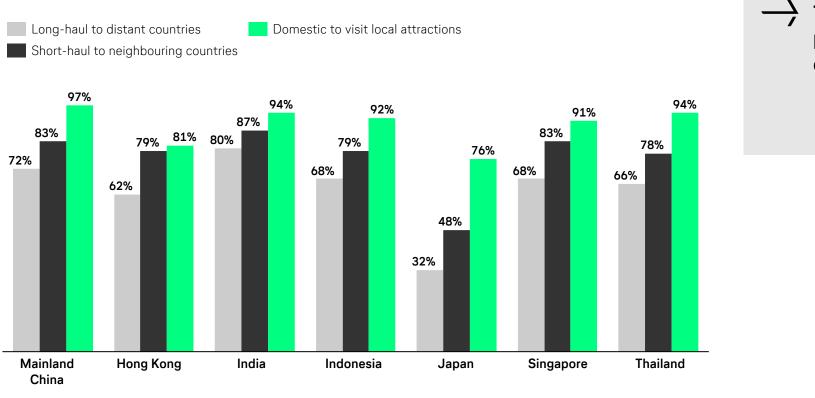
A well-managed pandemic in Asia raised hope for regional travel but failed to materialize due to a resurgence of cases

NUMBER OF DAILY CONFIRMED COVID-19 CASES PER 10 MILLION PEOPLE IN SELECTED COUNTRIES AND REGIONS ACROSS ASIA



Travelers in Asia shift focus to domestic tourism

SHARE OF TRAVELERS WILLING TO TRAVEL IN SELECTED ASIAN



Travelers across Asia prefer domestic travel over overseas trips

ЩН

ЩН

COUNTRIES AND REGIONS



Governments across Asia support their local travel industries

DOMESTIC TOURISM STIMULUS INITIATIVES IN SELECTED ASIAN COUNTRIES

Country	Scale	Initiatives	
China	Зx	 3x tax-free spending allowance Increase of annual tax-free spending allowance for citizens who visit the off-shore duty free island of Hainan by 3x (to up to US\$14k max) 	
Japan	US\$12.5B	 "Go to Travel" campaign From Jul to Aug: 35% discount on travel expenses From September onwards: coupons worth 50% of travel cost 	
Thailand	US\$781M	 "We Travel Together" campaign Subside 40% of hotel rates and flight fare Cover partial travel cost for health workers 	
Singapore	US\$269M ¹	 "SingapoRediscovers" campaign Vouchers worth S\$100 for all Singaporeans to use at local tourist attractions 	

Asian countries introduce stimulus plans to revitalize domestic tourism

35¹Amount combines SingapoRediscovers initial (S\$45M) and follow-up campaigns (S\$320M)
Sources: Lufthansa Innovation Hub, TNMT.com, Press Research

Deep dive: Singapore backs travel sector with financial and regulatory assistance, as well as co-creation

Singapore support initiatives

Startup Grants

Singapore to set up Startup SG Founder Program offering grants up to S\$150M to spur innovation and entrepreneurship

Salary Support

Companies in aerospace, aviation, and tourism sectors to get 50% support for wages until March 2021

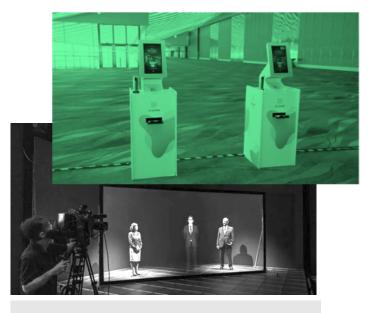
Easing Restrictions

Singapore actively proposing "Green Lane" initiative to countries with similar COVID-19 situations to allow essential business travel

Example: Singapore pilots hybrid MICE event combining digital and physical

As of September 2020, the Singapore Tourism Board (STB) is accepting applications for holding MICE events for up to 250 participants. To transcend physical limits, STB is pilot-testing hybrid event formats that combine physical and virtual components to improve scale of participation.

- Virtual: Broadcast studio to enable panel discussions by panelists who are either onsite or "beamed" live
- Physical: Automated registration kiosks to ensure a safely-distanced sign-up process
- Organization: COVID-19 related outbreak emergency mechanism that requires participants' health monitoring for 14 days after events, to trace contact and inform participants in case of transmission



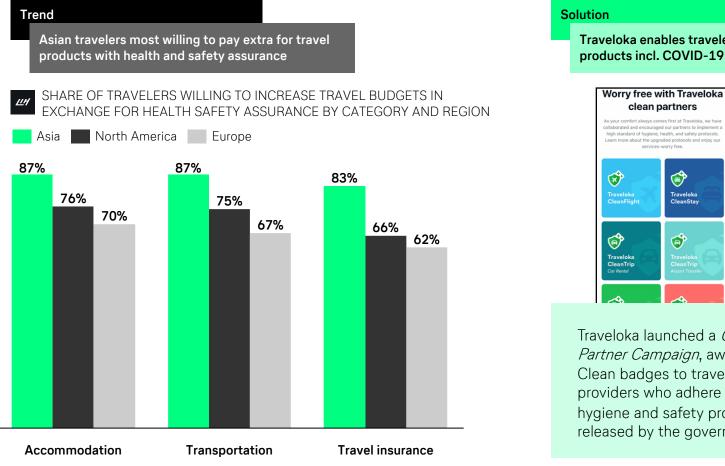




Asian airlines introduce flat-rate flight passes to lock in ticket sales and to increase user stickiness

Trend Majority of Asian travelers tend to book less in advance due to uncertainty	Solution China Eastern innovates flight ticket sa that allow unlimited flight booking for l		中國東方航空 CHINA EASTERN
SHARE OF ASIAN TRAVELERS TO BOOK FLIGHT TICKETS LESS OR MORE IN ADVANCE OR SAME AS BEFORE COVID-19	v1.0 Weekend Pass	v2.0 Weekday Pass	v3.0 Region Pass (Western & Southern CN)
Less in advance Same as before More in advance	周赤随山 7 ¥3322		安全 定 进 两 个 領 环
39%	 Unlimited, weekend Eco class within mainland CN ~US\$488 Valid until end of 2020 	 Unlimited <8am or >8pm, Mon-Fr Eco class within mainla ~US\$507 Valid until end of 06/20. 	nd CN destinations at ~US\$670 • Southern China for urban

OTAs update product offerings with health and hygiene focus to ease safety concerns during travel



Traveloka enables travelers to select hygiene-focused travel products incl. COVID-19 tests



ļ			

Traveloka launched a *Clean* Partner Campaign, awarding Clean badges to travel providers who adhere to hygiene and safety protocols released by the government.

٢

Ô

Traveloka CleanStay



COVID-19 Test

public can book and schedule rapid COVID-19 tests with partnered clinics and hospitals on Traveloka's mobile app.

Trend

39

Travel providers equip travelers with COVID-19 information and in-trip safety measures to build confidence

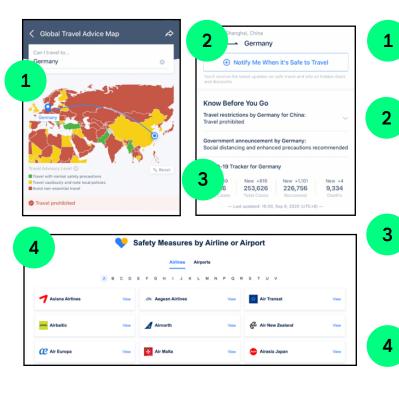
AVERAGE SCORE OF IMPORTANCE BY FACTOR TO DECIDE WHERE TO TRAVEL TO ON A SCALE FROM 1 TO 5 (5 BEING MOST IMPORTANT) CV-19 case numbers in 4.6 destinations Travel restrictions to 4.4 destinations Travel advisories by 4.3 the government Mutual recognition 3.9 of health code or immunity passport Recommendations 3.3 by family and friends Recommendations 3.2 by influencers

Asian travelers find COVID-19 related information

decisive for travel planning

Solution

Trip.com sets up a one-stop-information hub on its app to inform travelers of travel possibilities and restrictions



Trip.com

Interactive map to visualize countries with travel restrictions

Subscription to updates on travel restrictions and deals in searched destinations via email and push notifications

Up-to-date confirmed COVID-19 case numbers and restrictions required by the government in destination country

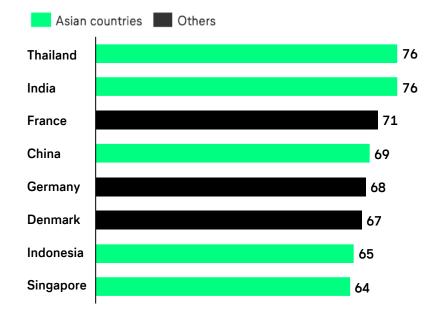
Safety measures by airlines and airports

OTAs livestream to offer promotions to keep domestically-bound travelers excited about travel

Trend

Asian countries dominate the list of countries that are most confident about travel again

TRAVEL CONFIDENCE SCORE IN TOP 8 COUNTRIES WITH HIGHEST WILLINGNESS TO TRAVEL, SURVEY RESULTS AS OF JUL 2020



Solution

Virtual tourism through livestreaming becomes vital for Chinese travel providers to sell and engage in China and Southeast Asia



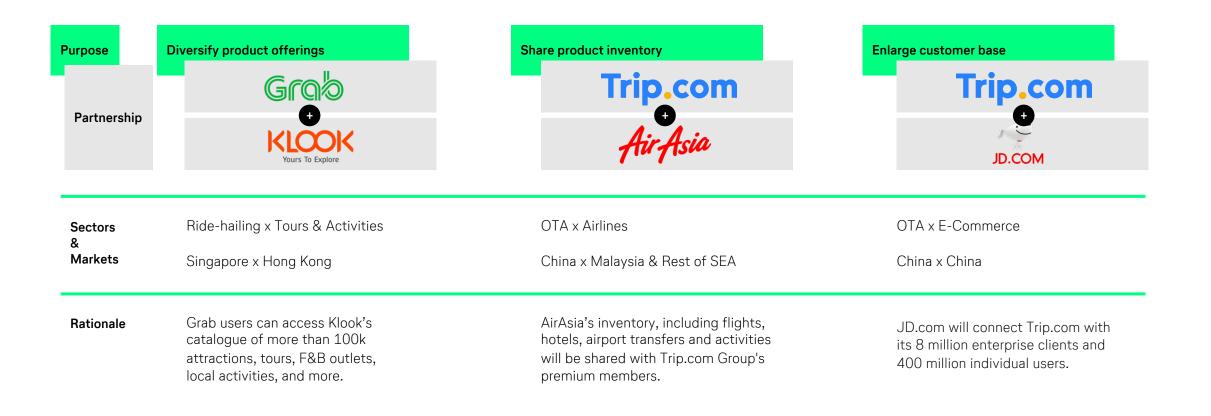
Serbia	France	Finland	Germany	UK
云游欧洲	云游欧洲	云游欧洲	一方版和	言游欧洲
	Contraction of Contraction			
官方旅游局 ~ 带你玩塞尔维亚	官方旅游局 一一带你玩法国	官方旅游局 带你玩芬兰	官方旅游局	官方旅游局 带你玩英国
	ANK 141424 30-41 30			ARKE AFTER (0-12 0)

Trip.com

James Liang, the executive chairman of Trip.com Group, has traveled and livestreamed once a week to pre-sell travel products in China. As of July, 15 livestreams covering 1/3 of Chinese provinces had amassed 40M views and sold 88.5M USD worth of travel products. Since July, Trip.com has started to livestream in Southeast Asia.



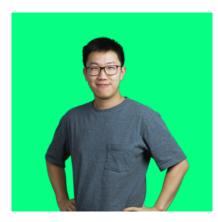
Five Europe-based tourism boards livestreamed on Fliggy, the travel unit of Alibaba, to engage Chinese tourists by allowing viewers to visit attractions that are off limits even to local visitors. COVID-19 has led to stronger collaboration among travel players across sectors and markets within Asia





the end.

Credits & Contact



Xiaowei Zhang

Analyst Research & Intelligence at Lufthansa Innovation Hub Asia

Reach out at:

xiaowei.zhang@lh-innovationhub.com



Christine Wang

Head of Business Development at Lufthansa Innovation Hub Asia

Reach out at:

christine.wang@lh-innovationhub.com



Lennart Dobravsky

Director Research & Intelligence at Lufthansa Innovation Hub

Reach out at:

lennart.dobravsky@lh-innovationhub.com



Marco Zifaro

Graphic Designer at Lufthansa Innovation Hub

Reach out at:

marco.zifaro@lh-innovationhub.com



ЦН



Visit TNMT.com and sign up for our bi-weekly newsletter

ТМЛТ The industry deep dive into Travel and Mobility Tech



This content is for general information purposes only and should not be used as a substitute for consultation with professional advisors. Data is current as of August 31, 2020. The Lufthansa Innovation Hub and TNMT.com have taken responsible steps to ensure that the information contained in the report has been obtained from reliable sources. However, neither the Lufthansa Innovation Hub nor TNMT.com can warrant the ultimate accuracy and completeness of the data obtained in this manner. Results are updated periodically. Therefore, all data is subject to change at any time.

© 2020 Lufthansa Innovation Hub. All rights reserved. Please see <u>TNMT.com</u> for further details.