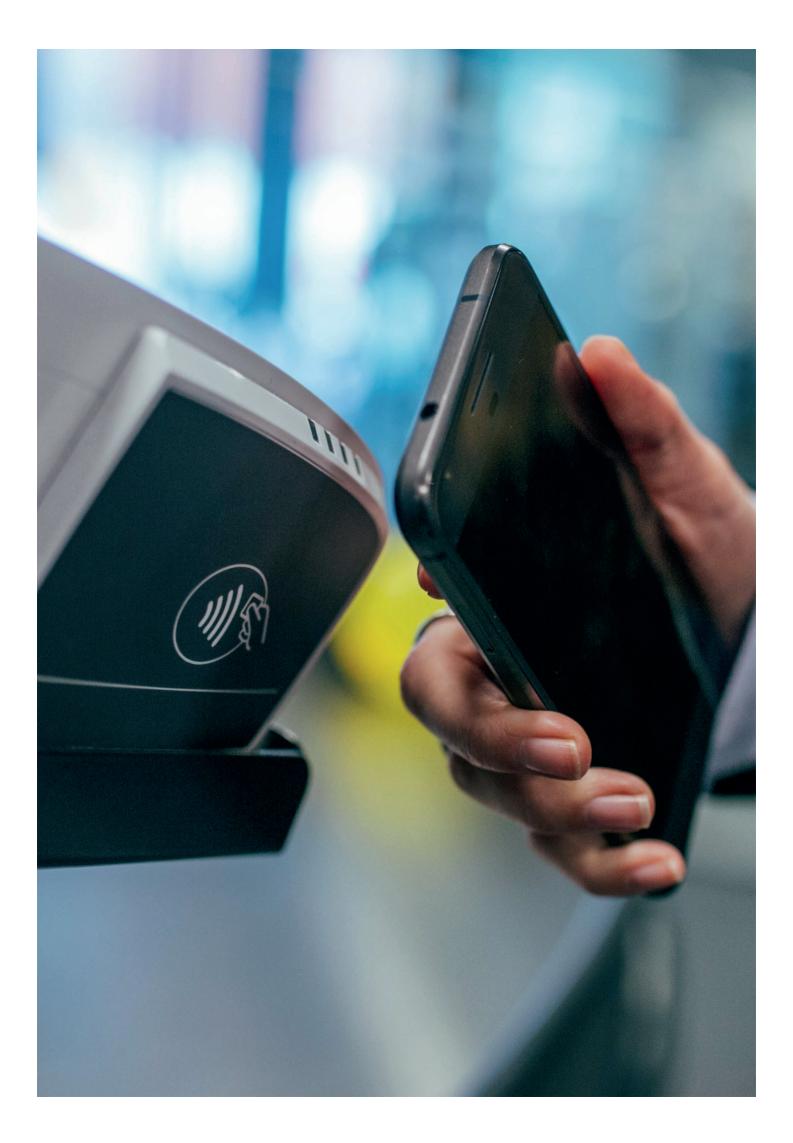


# **MOBILE PAYMENTS IN TRAVEL & TOURISM:** UNLOCKING THE POTENTIAL

MARCH 2019







### **EXECUTIVE SUMMARY**

With 83% of passengers travelling with them, mobile devices are an essential part of the travel journey today. Mobile is well integrated into the modern Travel & Tourism experience: with travellers using apps to arrange a ride to the airport, getting an electronic boarding pass, accessing in-flight entertainment on a mobile device, unlocking their hotel room with a mobile key, looking for what to do and where to eat, and sharing their travel experience on social platforms. In effect, all these travel activities are supported by mobile devices such as a smartphone or tablet and thus create an on-the-go digital self-extension of individual travellers.

More and more travellers are using mobile devices to pay for travel-related services and an increasing number of service providers are implementing mobile payment options to help travellers pay for the travel products and services they use. The swipe-to-book action of mobile payment in making bookings simplifies the payment process particularly as the technical requirements of pulling user data, travel profile, and billing information are done by the payment technologies. For Travel & Tourism service providers, mobile payment benefits from low processing fees and, importantly, the ability remain in contact with travellers throughout their journey, thereby giving the companies the opportunity to build customer engagement and drive higher levels of business growth.

For many travel service providers around the globe, Asia is an extremely important source market. WTTC data shows how South Asia and South-East Asia are the fastest-growing regions for outbound travel globally with forecast growth of 5.8% and 5.1% respectively for each of the ten years to 2028. In particular, China continues to rank as the number one country in outbound travel expenditure. At the same time, as smartphone penetration grows and mobile payment gain ground throughout the world, Asia-Pacific, and notably China, have emerged as clear market leaders. In 2017, the penetration rate for mobile payments among smartphone users in China was 46% - twice the level of North America and 13% more than the global penetration level.

In China and a small number of other countries, mobile payment is establishing itself as the default method of payment. Indeed, over 60% of all global mobile payment users are Chinese and Alipay and WeChat Pay dominate the overseas mobile travel payment market.

To attract Asian consumers, internationally-based travel service providers are finding that adopting mobile payments as a strategy to attract and better serve the travellers is becoming essential. The earlier a travel-related merchant enters the mobile payment field, the more likely it is to achieve an advantageous position in competing for the Asian market.

Despite the growth however, mobile payment services are not perfect, and travellers and merchants express a number of concerns particularly calling for greater reassurances over the security of payments, a need for established regulations and polices, a lack of interoperability between systems and the need to increase consumer understanding about the benefits of mobile pay. These issues will need to be addressed to further the acceptance, implementation and adoption of mobile payment technology at the global level.

Recommendations that would support the wider application of mobile payment in global Travel & Tourism include those for both travel and mobile pay service providers and for policy makers:

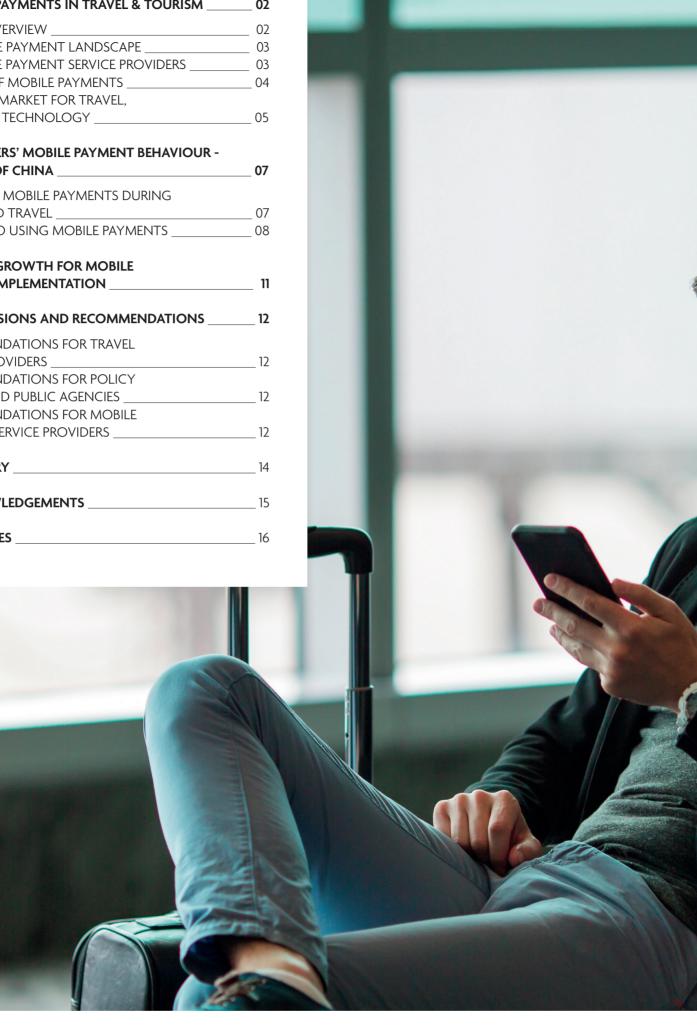
- Travel service providers need to recognise that using mobile payment is being demanded by travellers. It has powerful business service functions and low transaction that may be particularly beneficial for small and micro travel business that proliferate in the sector. Incentives for its use and reliable WiFi would help to increase both use and satisfaction.
- As mobile-pay services are largely bound by individual country markets, an interoperable solution to connect diverse mobile pay systems is needed to resolve both consumer and merchant complexity. This system also requires improved business services to establish infrastructure, and to develop the right employee training so that customer issues and service outages can be resolved in real-time.
- For policy makers and regulators, maximising the opportunities that mobile payment systems can bring to an economy requires regulations to catch up with technology. Moreover, as different countries have different regulatory policies when it comes to mobile-pay, individual traveller expenditure as well as tax, a system that would work best for international travellers would be one where global mobile payment platforms are standardised and interoperable.

While some hesitancy to implementing mobile pay are rightly driven by concerns such as safety and regulations, the lack of mobilepay penetration in many areas around the globe, is often rooted in inertia. A change requires the private sector to lead the efforts to provide education to government, regulatory bodies, the public and merchants not only of the value of mobile-pay but also of its potential risks and issues.

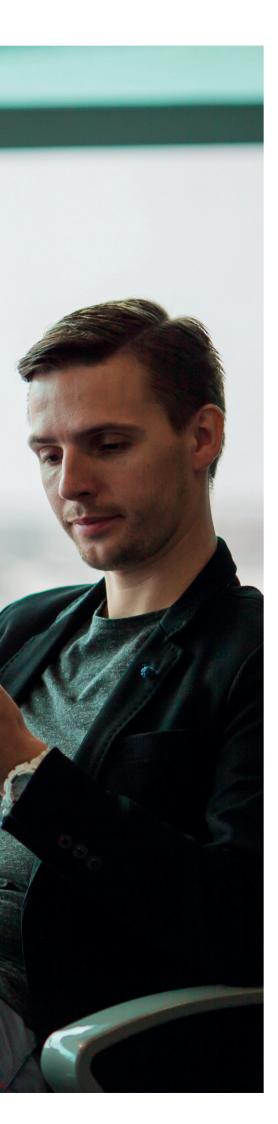
If properly initiated and implemented, Travel & Tourism could be at the front line of adopting mobile payment and pioneer a country's policies and regulations in this area that then permeate through to an entire economy.

### 1. INTRODUCTION

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01



### **1. INTRODUCTION**

With 83% of passengers travelling with them<sup>1</sup>, mobile devices are an essential part of the travel journey today. Mobile is well integrated into the modern Travel & Tourism experience: with travellers using apps to arrange a ride to the airport, getting an electronic boarding pass, accessing in-flight entertainment on a mobile device, unlocking their hotel room with a mobile key, looking for what to do and where to eat, and sharing their travel experience on social platforms. In effect, all these travel activities are supported by mobile devices such as a smartphone or tablet.

As mobile becomes increasingly embedded in the travel experience, mobile payments, in select markets, have revolutionised the way travellers pay for the travel products and services they use. The swipe-to-book action of mobile payment in making bookings simplifies the payment process particularly as the technical requirements of pulling user data, travel profile, and billing information are done by the payment technologies. More importantly, mobile payment allows Travel & Tourism providers to remain in contact with travellers throughout their journey, thereby giving the companies the opportunity to build customer engagement and ultimately drive higher levels of business growth.

In this context, this white paper explores the landscape of mobile payment in Travel & Tourism and identifies challenges and opportunities for Travel & Tourism service providers to capitalise on the trends and growth of mobile payment<sup>2</sup>. It looks to the future in terms of the needs for agile governance and new policymaking in this new area of digital financial transactions.

Given China's leadership in travel-related mobile payment, the paper uses Chinese outbound travel as a case study to illustrate the current use and future trends of mobile payments in the Travel & Tourism sector.

# 2. MOBILE PAYMENTS IN TRAVEL & TOURISM

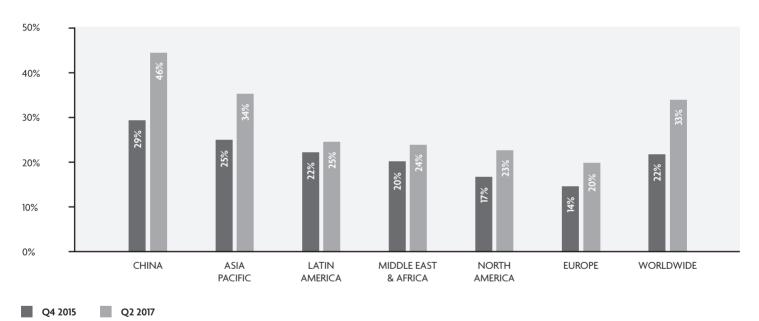
### MARKET OVERVIEW

Mobile payments are payments that are authenticated, authorised and initiated through a mobile device (i.e., smartphones, tablets and wearables)<sup>3</sup>. To connect payment senders and receivers, mobile payments take advantage of various technologies to facilitate the transaction such as SMS, near-field communication (NFC), radio frequency identification (RFID), quick response code (QR code), and Bluetooth low energy (BLE). There are currently a number of key providers in the mobile payment market, including Google Pay (previously Android Pay), Apple Pay, PayPal, Alipay and WeChat Pay.

Mobile devices have quickly become an indispensable part of everyday life and their use is leading to strong and steady growth in mobile payment. The number of in-store mobile payment users in the United States is expected to hit 150 million by the end of 2020, representing 56% of the U.S. general consumer population<sup>4</sup>. Across the world, transactions made by mobile payments accounted for US \$450 billion in 2015, a figure expected to reach US \$2.74 trillion in 2021<sup>5.6</sup>.

As mobile payments gain ground throughout the world, Asia-Pacific and notably China, have emerged as clear market leaders. In effect, according to GlobalWebIndex<sup>7</sup>, the growth in mobile payments mostly comes from the Asia-Pacific region; with 33% of smartphone users employing mobile payments in 2017, amounting to an 11% growth since 2015. In Africa, Europe, Latin America, the Middle East and North America, mobile payment growth ranged from 3% to 6%, while in Asia-Pacific (excluding China) it reached 9%. In 2017, the penetration rate for mobile payments among smartphone users in China was 46% - twice the level of North America and 13% higher than the global average.

**Figure 1.** Internet Users Worldwide Who Have Used Their Mobile Phone to Pay for an Item/Service, by Region/Country, Q4 2015 & Q2 2017 (% of respondents<sup>9</sup>)



Note: Q4 2015 n=51,075; Q2 2017 n=89,029; ages 16-64; in the past month; \*excluding China

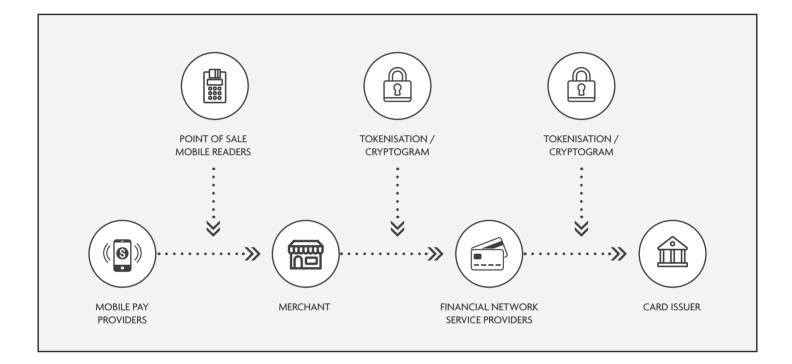
The growth in mobile travel payments is aligned with the boom in mobile payments generally. Mobile payments in U.S. Travel & Tourism exceeded US\$8.7 billion in 2015<sup>10</sup>. The share of Travel & Tourism mobile transactions in the global mobile payments market was around 15.5% in 2016<sup>11</sup>. In the fourth quarter of 2017, mobile bookings accounted for 45% of total bookings from online travel agencies, 39% for smartphone and 6% for tablets. Smartphone bookings have grown by 61% since 2016<sup>12</sup>, not only indicating that the sector has clearly embraced the technology, but that there is further significant opportunity for Travel & Tourism to capitalise on this digital trend.

#### THE MOBILE PAYMENT LANDSCAPE

While consumers' experience with a typical mobile payment process is easy and simple<sup>13</sup>, the suppliers' end of the mobile payment landscape is significantly more complicated. As visualised below, a typical mobile pay transaction flow involves the collaborative efforts of various industry entities, including but not limited to:

- Mobile-pay providers,
- Merchants,
- Financial network service providers,
- Card issuers/Banks,
- Point of sales mobile readers,
- Tokenisation and cryptogram service providers.

Figure 2. Flow of a Typical Mobile Payment Transaction<sup>14,15</sup>



Various players are involved in a typical mobile payment transaction flow meaning that established processes along the flow could be complicated in the context of international travel. As such, when expanding across borders, it is particularly important to ensure smooth collaborative relationships with each of the providers along the supply chain. Particular attention should be paid to the process for handling issues such as refunds and chargebacks.

#### KEY MOBILE PAYMENT SERVICE PROVIDERS

Loosely following existing studies<sup>16</sup>, this report categorises mobile pay service providers into the following four groups which each possess their own unique set of competitive resources.

- 1. Fintech firms, such as Alipay, PayPal Pay and WeChat Pay;
- 2. Device centric mobile-pay service providers, such as Apple Pay, Android Pay and Samsung Pay;
- 3. Financial institution/network-instigated mobile-pay service providers, such as Capital One, Visa Checkout, UnionPay, Masterpass;
- 4. *Merchant-centric mobile solutions,* such as Dunkin Donuts and Starbucks.

#### Table 1. Key Mobile-Pay Service Providers<sup>17</sup>

GROUPS OF MOBILE-PAY SERVICE PROVIDERS	KEY PLAYERS	PAYMENT METHODS	TECHNOLOGY HIGHLIGHT	KEY STRENGTHS AND RESOURCES
Fintech Firms	<ul> <li>Alipay</li> <li>PayPal Pay</li> <li>WeChat Pay</li> </ul>	• QR code payment technology	<ul> <li>Cloud-based services</li> <li>Device-agnostic services</li> </ul>	<ul> <li>Ecommerce and online retailing background</li> <li>Merchant network</li> <li>Expertise in remote mobile transactions</li> <li>Low cost on new customer acquisition (especially those P2P platforms)</li> </ul>
Device centric mobile- pay service providers	• Apple Pay Samsung Pay	<ul> <li>Supports proximity payment</li> <li>Near Field Communication (NFC) or Magnetic Security Transmission (MST)</li> </ul>	<ul> <li>Device-centric services</li> <li>System supports open integration with non-device centric mobile-pay service providers</li> </ul>	<ul> <li>Device-driven market penetration</li> <li>Within brand integration across device products that carry the same system/brand (e.g., Apple watch, IPhone etc.)</li> </ul>
Financial institution/ network-instigated mobile-pay service providers	<ul> <li>Capital One</li> <li>Visa</li> <li>Checkout</li> <li>UnionPay</li> <li>Masterpass</li> </ul>	<ul> <li>Supports both remote and proximity payment</li> <li>Near Field Communication (NFC) or Magnetic Security Transmission (MST)</li> </ul>	<ul> <li>Network instigated, yet</li> <li>System supports open integration with other mobile-pay service providers*</li> </ul>	<ul> <li>No requirement for customer enrollment</li> <li>Existing card-based payment solutions</li> <li>Existing POS infrastructure</li> <li>Existing merchant networks</li> </ul>
Merchant-centric mobile solutions	<ul> <li>Dunkin Donuts</li> <li>Starbucks</li> </ul>	• QR code payment technology	<ul> <li>Customised to the merchant's specific service needs</li> <li>System often supports collaboration and integration with other mobile-pay service providers</li> </ul>	Integration with merchant's other marketing processes such as loyalty rewards programs

#### **BENEFITS OF MOBILE PAYMENTS**

Mobile payments are especially aligned with Travel & Tourism as they support and enable mobility. As one of the few items carried with a traveller throughout their journey, mobile devices are the on-the-go digital self-extension of those individual travellers.

For travellers, making a mobile payment is the last hurdle in the mobile booking experience. For travel service providers, however, it is a step to increase both traveller satisfaction and revenue growth<sup>18</sup>. In fact, travellers are likely to spend more if mobile payment is accepted. Linking the full booking journey through mobile transactions would allow companies to execute individualised traveller engagement strategies via geo-locational targeting methods. Moreover, as customer data accumulates over time, mobile services can help build relationships between service providers and customers; providing personalised offers and rewards as well as more accurate forecast growth trends.

<sup>\*</sup> For instance, UnionPay now has a QR code payment partnership with both WeChat and Alipay

"The Travel & Tourism sector is well-suited for a flexible digital environment and payment processes. You have access to mobile updates at the airport, where you can check your flight details, gate changes, travel alerts, and other pertinent information. On a plane, you can use Wi-Fi to watch a movie or access emails. When you get off the plane, you can connect to local destination details, transportation services, and hotels right away. Location-based applications can connect travellers to nearby services, as well as help send up-sell messages, such as a hotel upgrade, then allow for payment directly from their mobile device using their preferred payment method. Companies can assess consumers by relational tier, status or preference, and they can personalise the offer while consumers are on the go. There is a great engagement, cross-sell/up-sell, and travel safety opportunity for organisations because of the geo-location and other "smart" functions of mobile devices."

#### Robin Ingle, CEO, Ingle International

Mobile payment services provide "all-in-one" business solutions for merchants to connect with individual consumers, push promotions and product information, assess individual consumers' consumption experience, create follow-up surveys and gauge business performance via customisable metrics. For instance, WeChat Pay provides merchants with the option to create an account to connect with customers and announce product news and promotional discounts etc. In addition, WeChat Pay's banner ad services allow merchants to target specific groups of consumers. Alipay allows merchants to keep track of revenue and obtain small loans.

"Everyone is looking to connect with potential customers. Don't think of payment as just a way to get money in. Relevant mobile payment solutions operate on rail and as network that enable you to promote your touristic offering and target your consumers, because what happens before and after the transaction is just as important as the payment itself."

Mathieu Altwegg, Vice President, Innovation Engagement, Asia Pacific, Visa

The perceived ease of use of mobile payments can even create a positive destination image in eyes of certain groups of travellers. In the case of South Africa, propelling mobile acceptability among the destinations' key travel service providers brought about a positive change in the perceived "friendliness" of their destination image among Chinese visitors.

"Ease of access helps make the destination "friendlier" because we accept travellers' preferred payment method adds to a welcoming destination. Through Airport surveys, (we found that) travellers find us more welcoming. We believe that part of this, is thanks to increased ease of access through mobile payment platforms. Mobile-pay service providers such as Alipay and WeChat Pay, are actually helping open this door for us."

#### Bradley Brouwer, President, Asia Pacific, South Africa Tourism

Another reason mobile-pay deserves more attention from travel service providers is that it provides lower fees to business. Mobile service providers' processing fee is typically lower than that of traditional credit card transactions. For instance, both WeChat Pay and Alipay only charge 0.6% per transaction<sup>19</sup>.

#### THE ASIAN MARKET FOR TRAVEL, TOURISM AND TECHNOLOGY

For many travel service providers around the globe, Asia is an extremely important source market. In 2018, China continued to rank as the number one country in outbound travel expenditure<sup>20</sup>. South Asia and South-East Asia are the fastest-growing regions globally with forecast annual growth of outbound travel expenditure for the ten years to 2028 of 5.8% and 5.1% respectively.

Within Asia, countries vary by consumer readiness, merchant readiness, competition fierceness as well as penetration rate of payment alternatives. The table below provides a brief summary of Asian countries' cross-national differences in the mobile field. Compared with other regions, Asian countries are relatively behind on the acceptance of card-based payment mechanisms. The average credit card penetration rate for the U.S., U.K., Canada and Australia was 68.5% in 2017, far above the average credit card penetration rate of the listed Asian countries (with Japan as a notable exception). As such, Asian countries, in comparison with other regions, possess more potential for fast and pervasive mobile penetration. In addition, as shown in the following table, the majority of the listed countries have strong mobile payment service providers.

	POP'N (IN MILLIONS)	POP'N WITH SMARTPHONES (IN MILLIONS)	SMARTPHONES PENETRATION (AS A % OF POPULATION)	CREDIT CARD PENETRATION RATE (AS % OF AGE 15+ POPULATION	MERCHANT READINES (POS TERMINALS AS % OF POPULATION)	DEGREE OF COMPETITION IN THE MOBILE LANDSCAPE	KEY MOBILE PAY PLAYERS
CHINA	1371.1	795.3	58%	21%	1.7%	High	Alipay / WeChat Pay
INDIA	1311.1	300.1	23%	3%	0.2%	High	Paytam / MobileKwik
INDONESIA	257.6	54.1	21%	2%	0.4%	Medium	DOKU Wallet / Cash
JAPAN	127	49.5	39%	68%	1.4%	High	Osaifu Keitai / Android Pay
MALAYSIA	30.3	19.7	65%	21%	1.1%	Medium	Dash / Apple Pay
SINGAPORE	5.6	5.8	104%	49%	1.7%	Low	M2U Pay / CIMB PAY

#### Table 2. The mobile payment Landscape in Select Asian Countries<sup>21,22</sup>

As shown in Table 2, the number of smartphone users in Asian countries, in particular in China and Malaysia and Singapore, is considerably high. Yet, using smartphone penetration rate for developed economies such as the U.S., U.K., Canada and Australia as a reference (average penetration rate for the four countries was 67.9% in year 2018<sup>23</sup>), smartphone penetration rate in Asian countries has higher growth potential. Overall, consumer acceptability of mobile payments is high and rising in these markets. In certain countries, such as China, mobile payment is establishing itself as the default method of payment<sup>24</sup>. To attract the Asian consumers, internationally-based travel service providers are finding that adopting mobile payments as a strategy to attract and better serve the Asian travellers is becoming essential. The earlier a travel-related merchant enters the mobile-payment field, the more likely it is to achieve an advantageous position in competing for the Asian market.

"If you want to target Chinese business, you need to have their QR codes from them i.e. (mobile-pay service providers such as Alipay and WeChat Pay) for you to be able to accept their money as payment tender."

Bradley Brouwer, President, Asia Pacific, South Africa Tourism

### 3. TRAVELLERS' MOBILE PAYMENT BEHAVIOUR - THE CASE OF CHINA

China has leapfrogged the world when it comes to mobile payments. Currently, 61.2% of the global mobile payment users are Chinese<sup>25</sup>, with transactions made through mobile payment in China totalling over US\$12.8 trillion in 2017<sup>26</sup>. According to data collected for this report by Temple University's China U.S. Travel Monitor Program (see Endnote 2), 97% of the Chinese respondents sampled, confirmed they have used mobile payment during domestic and/or international travel. As the world's biggest spender in outbound travel<sup>27</sup> and largest mobile payment market<sup>28</sup>, China is leading this payment behaviour trend among global travellers.

#### THE USE OF MOBILE PAYMENT DURING OUTBOUND TRAVEL

Despite being at the forefront of mobile payment use, for Chinese outbound travellers<sup>29</sup>, cash is still the most prevalent payment method, used by 77% of Chinese outbound travellers, followed by credit cards (69%) and mobile payment (44%).

In terms of platforms, Alipay and WeChat Pay have dominated the overseas mobile travel payment market. Drawing from their most recent overseas trip during which travellers have used mobile payment, 90% of the Chinese outbound travellers used Alipay and 66% used WeChat Pay – the two main Chinese-based payment platforms for their travel-related transactions. Notably, this indicates that most Chinese travellers used more than one mobile payment platform during overseas travel.

#### SURVEY QUESTION (N=287)

Which of the following mobile payment channels did you use for payment in your most recent outbound travel? (Please select all that apply)

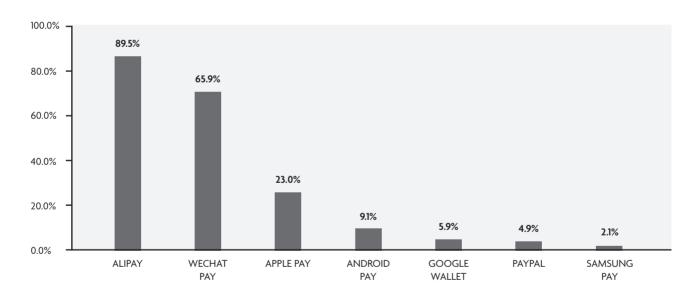


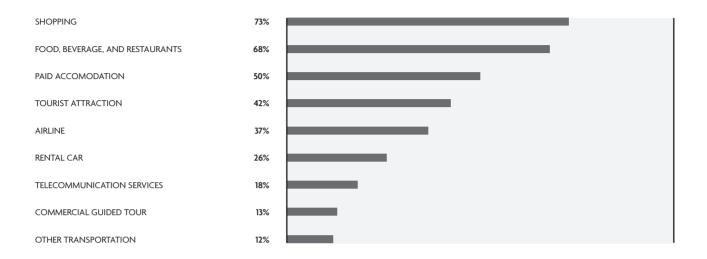
Figure 4 – Mobile Payment Platforms Used in Outbound Travel

For Chinese outbound travellers, shopping and dining are the two most common types of travel services paid by mobile payment, followed by accommodation, tourist attraction and flight. Nearly three-quarters of travellers (73%) who used mobile payment during an overseas trip used it to pay for shopping, and 68% used mobile payment for food, beverage and restaurants.

#### SURVEY QUESTION (N=287)

Which of the following categories of services did you pay via mobile payment at the destination country/countries in your most recent outbound travel? (Please select all that apply)

Figure 5 – Use of Mobile Payments for Travel Services



Convenience, speed and security are the drivers for the adoption of mobile payments. For Chinese travellers using mobile payment overseas, particularly, the top reasons are convenience (67%), quicker checkout (61%), no need to exchange foreign currency (46%), security (43%), no need to bring a wallet while travelling (38%), and access to coupons/rewards/ discounts (22%).

However, when respondents were asked to share their worst experience with mobile payment during overseas travel, 29% complained that mobile payment was not accepted by some merchants and a further 29% noted the lack of or poor WiFi leading to mobile payment failure or slowdown. With Mainland China moving towards a "cashless society" and mobile payment options becoming ubiquitous, Chinese travellers expect merchants in international destinations to provide a similar level of payment ease.

Travellers' with lower level of English proficiency were generally less satisfied with their mobile payment experience overseas. Some respondents to the "Monitor program" survey found it difficult to communicate in the local language when paying through mobile payment, which often led to confusion and frustration.

#### BARRIERS TO MOBILE PAYMENT IN OUTBOUND TRAVEL

Just over half (56%) of Chinese outbound travellers have never used mobile payment while traveling however, indicating there are still some barriers. Among the non-users<sup>30</sup>, the most common reasons for not using mobile payment during outbound travel were that not enough merchants overseas accept mobile payments (49%), security concerns (35%), and being accustomed to other payment methods such as cash and credit cards (34%).

#### SURVEY QUESTION (N=366)

What were the reasons for NOT using mobile payment during your outbound travel? (Please select all that apply)

Figure 6 – Reasons for NOT using mobile payments for overseas travel

NOT ENOUGH MERCHANTS OVERSEAS ACCEPT MOBILE PAYMENT	48.6%
SECURITY CONCERNS	34.7%
USED TO PAYING WITH CASH OR CREDIT CARDS	33.6%
DIDN'T KNOW I CANUSE MOBILE PAYMENT OVERSEAS	24.9%
NO DISCOUNT FOR MOBILE PAYMENTS	10.4%
DIFFICULT OR TIME-CONSUMING TO SET UP OR USE MOBILE PAYMENT	9.6%
DON'T REALLY UNDERSTAND ALL THE DIFFERENT MOBILE PAYMENT APPS	9.0%
DON'T NEED TO MAKE ANY PAYMENTS	4.9%
DON'T TRUST THE TECHNOLOGY	2.5%
DON'T SEE ANY BENEFITS FROM USING MOBILE PAYMENTS	1.9%
MY DEVICE DOES NOT SUPPORT MOBILE PAYMENT FUNCTION	0.3%

Security is both a motivation and a constraint to using mobile payment during overseas travel. Some argued that mobile payment is more secure than traditional payment methods due to mobile payment security features such as biometric authentication and tokenisation. Others, however, suggest that mobile payment is prone to security risks due to the use of public WiFi, lost or stolen devices and phishing<sup>31</sup>. While misconceptions about mobile payment security do exist among travellers, understanding the security issues related to mobile payment is essential for Travel & Tourism businesses to be proactive and prepared<sup>32</sup>.

The speed and convenience of mobile payment are as appealing to users as to non-users. Chinese travellers who have never used mobile payment overseas were most interested in the mobile payment benefits of not needing to bring cash/ cards (64%), not needing to exchange foreign currencies (64%), quick checkout (63%), better security (58%), and saving costs of purchases (52%). Emphasising these features in mobile payment promotional materials will be of most interest to travellers.

#### SURVEY QUESTION (N=366)

Which of the following features will interest you to know more about using mobile payment during outbound travel? (Please select all that apply)

Figure 7 – Appealing features of mobile payments

NO NEED TO BRING CASH / CREDIT CARDS / PHYSICAL WALLET	63.9%	
FASTER CHECKOUT	63.7%	
NO NEED TO EXCHANGE FOREIGN CURRENCIES	63.4%	
BETTER SECURITY	58.2%	
SAVING COSTS	52.2%	
DIGITAL RECEIPTS	31.4%	
ALLOWING MOBILE ORDER	28.4%	

Offering discounts on purchase, priority check out and customized coupons/deals are incentives which are likely to attract Chinese travellers to try mobile payment when travelling.

SURVEY QUESTION (N=366) Which of the following promotion activities will most lil overseas? (Please select all that apply)	ely drive
DISCOUNTS ON PURCHASE	66.9%
PRIORITY CHECK	45.6%
CUSTOMIZED COUPONS / DEALS / DISCOUNTS BASED ON PURCHASE HISTORY	41.5%
LUCKY DRAW ENTRY AFTER A QUALIFIED TRANSACTION	32.8%
EXTRA REWARD POINTS IN YOUR CURRENT LOYALTY PROGRAMME	28.4%
SIGN-UP BONUS	26.8%
REFERRAL REWARD FOR YOU FRIENDS / FAMILY IF YOU SIGN UP	13.7%

### 4. FUTURE GROWTH FOR MOBILE PAYMENT IMPLEMENTATION

With the continued spread of smartphones and other mobile devices, the Travel & Tourism sector believes that the adoption of contactless payment technologies and the increased use of in-app payments is the future of payment.

Nevertheless, mobile-pay services are not perfect yet, and the expressed concerns for mobile-pay implementation will need to be addressed to further the acceptance of this technology at the global level.

The most commonly expressed concern is **payment security**. "Mobile payment networks often do a good job of user and payment verification, leading to lower fraud rates for companies" stated Toan Tran-Phu, Senior Product Owner at Agoda Services. And, although Mathieu Altwegg from Visa suggested, "new technology has enabled strong authentication methods such as one-time passwords and biometrics", travel service providers are still concerned about issues such as privacy leak and payment fraud.

Given that multiple parties are involved in a typical mobile-pay transaction flow, travel service providers are particularly concerned on how to prevent security issues from occurring and how to resolve the problems that do occur efficiently and effectively.

**Regulations and policies** are another area of concern. WTTC Members interviewed for this study mentioned that mobile payment is an area where technology development is a lot faster than the development of regulations and policies. The lack of regulations and policies with mobile-pay implies that, in case of incidents and conflicts, the involving stakeholders may face complications in getting the issues resolved. From time to time, policy changes can affect travel service providers' mobile-related operational costs. Moreover, different countries have different regulatory policies when it comes to mobile-pay, individual traveller expenditure as well as tax. All of this could result in additional complexity and difficulty or reluctance in implementing standardised global mobile payment systems across the Travel & Tourism sector.

Lack of interoperable mobile-pay solutions result in user complexity for both consumers and merchants. To use a particular mobilepay service, consumers need to download a new app, learn a new system and sometimes complete a new set of enrolment procedures. This could result in difficulty for international travellers. Similarly, on the merchant end, too many terminals or QR code options that cater for international tourists could result in operational complexity, which would be another reason for merchants to hold back from adopting mobile-pay.

"Consumers don't want to have to download a new app or learn a new system every time they cross a geographic border. Similarly, merchants want a single software that can enable all their payment options, not a series of terminals and QR stickers congesting their counters. Meaningful growth in mobile payments will come from designing solutions with global applicability in mind."

Mathieu Altwegg, Vice President, Innovation Engagement, Asia Pacific, Visa

Last, but most important, some Travel & Tourism sector leaders expressed their concern that **there is still a lack of understanding regarding mobile payment** particularly among individual travel operators, small restaurants and independent travel retailers. Not all travel service providers understand the benefits of mobile-pay. Moving forward, further education and promotion efforts need to be taken to enable mass adoption of mobile-pay in the global Travel & Tourism sector.

### 5. CONCLUSIONS AND RECOMMENDATIONS

The mobile payments market in Travel & Tourism is growing. More and more travellers are using mobile devices to pay for travel-related services and an increasing number of service providers are implementing mobile payment options. This growth is being driven by the convenience, ease, speed and simplicity favoured by both travellers and service providers. For service providers, the additional value of mobile payment lies in low processing fees, the ability to engage travellers throughout the travel experience, and the capability to track business performance.

Still, both travellers and service providers have concerns which could hinder universal mobile payment adoption. Notably, travellers worry about payment security and prefer a larger merchant coverage. Meanwhile, service providers attribute the limited merchant coverage to the lack of established regulations and global mobile-pay solutions.

If properly initiated and implemented, Travel & Tourism could be at the front line of adopting mobile payment and pioneer a country's policies and regulations in this area that then permeate through to an entire economy. A number of recommendations can therefore be put forward for service providers and policy makers in regards of the wider application of mobile payment.

#### **RECOMMENDATIONS FOR TRAVEL SERVICE PROVIDERS**

Paying for travel services and products via mobile payment is no longer a novelty, but is being demanded by travellers. Given mobilepay's low transaction fee and its powerful business service functions, mobile-pay services may be particularly beneficial for small and micro travel business such as independent tour guides and sharing economy merchants such as customer-to-customer accommodation and transportation service providers.

In encouraging its use among travellers, offering monetary incentives such as discounts, deals, and coupons could be an effective callto-action.

Reliable WiFi to facilitate the mobile payment process and communication in travellers' native language are key to user satisfaction. Accepting mobile payments therefore also requires a free and reliable WiFi connection for travellers and mobile payment signs in multiple languages.

### RECOMMENDATIONS FOR POLICYMAKERS AND PUBLIC AGENCIES

Changes in policies and regulations regarding mobile payment would inevitably influence the operation within Travel & Tourism. As regulations catch up with the development of technology, it is important for the sector's practitioners to voice their operational needs as well as travellers' consumption needs along the policy-making process.

Of particular importance for maximising the opportunities that mobile payment systems can bring to an economy, is the need for regulators to support the technologies and simple software solutions that are interoperable across countries and payment platforms.

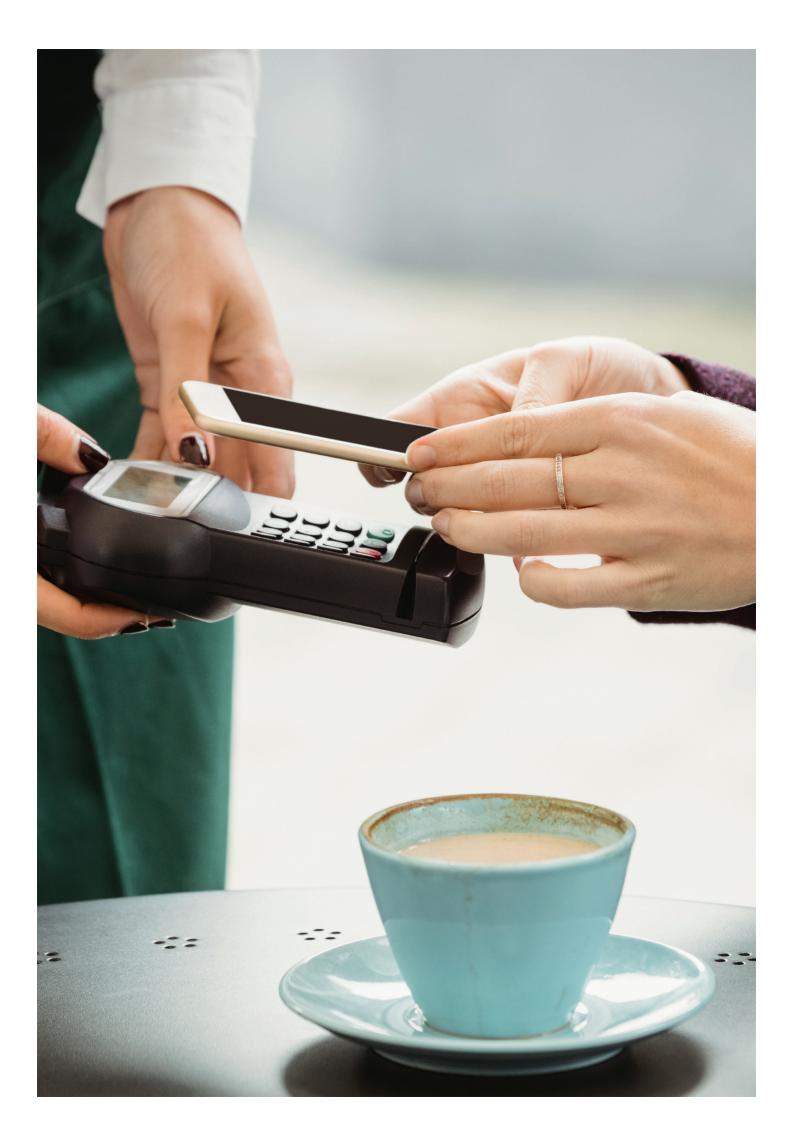
As a 'gatekeeper' of tourism businesses within a destination, destination marketing organisations do play an important role in both public and merchant education and promotion. South African Tourism, for instance, has taken the lead to support travel service providers in their destination network, by working with banks and payment platforms to help push for the mobile development in the destination and to help negotiate mobile-pay services, merchant sign-up as well as follow-up merchant services through various platforms.

While some hesitancy to implementing mobile payment are rightly driven by concerns such as safety and regulations, the lack of mobile-pay penetration in many areas around the globe, is often rooted in inertia. A change requires the private sector to lead the efforts to provide education to government, regulatory bodies, the public and merchants of the value of mobile payment, recognising, acknowledging and developing solutions of its potential risks and issues.

#### RECOMMENDATIONS FOR MOBILE PAYMENT SERVICE PROVIDERS

A growing concern in the mobile-pay field revolves around the lack of interoperability. Mobile-pay services are largely bound by geolocation markets, where almost every country has its own set of major mobile-pay service providers. An interoperable solution to connect diverse mobile-pay systems is needed to resolve both consumer and merchant complexity.

Travel merchants, especially those which are located in a different nation than that of the mobile-pay service provider also require extra attention and business services. Such assistance may be in the form of establishing infrastructure or developing employee training. In addition, as payment issues emerge at individual travel service encounters, mobile payment providers need to provide real-time customer services to avoid the occurrence of service failures.



# 6. GLOSSARY

**Mobile payment:** any payments that are authenticated, authorised and initiated through a mobile device (i.e., smartphones, tablets and wearables)

**Near-field communication (NFC):** a technology that use wireless radio communication to exchange data between devices a few centimetres apart.

**Radio frequency identification (RFID):** a technology used electromagnetic fields to automatically identify and track tags attached to objects so as to facilitate a contactless payment.

**Quick response code (QR code):** a transitional technology featured by one or two-dimensional barcodes consisting of a matrix of black and white dots. QR codes contain key payment and invoice information when used for transaction purposes.

**Bluetooth low energy (BLE):** a wireless technology that allows smartphones located near a BLE transmitter to be identified automatically to make payment.

**Magnetic Secure Transmission (MST):** a technology that emits a magnetic signal that mimics the magnetic strip on a traditional payment card (e.g., credit card).

**Tokenisation:** a process of protecting sensitive data (such as payment information) by replacing it with an algorithmically generated number called a token.

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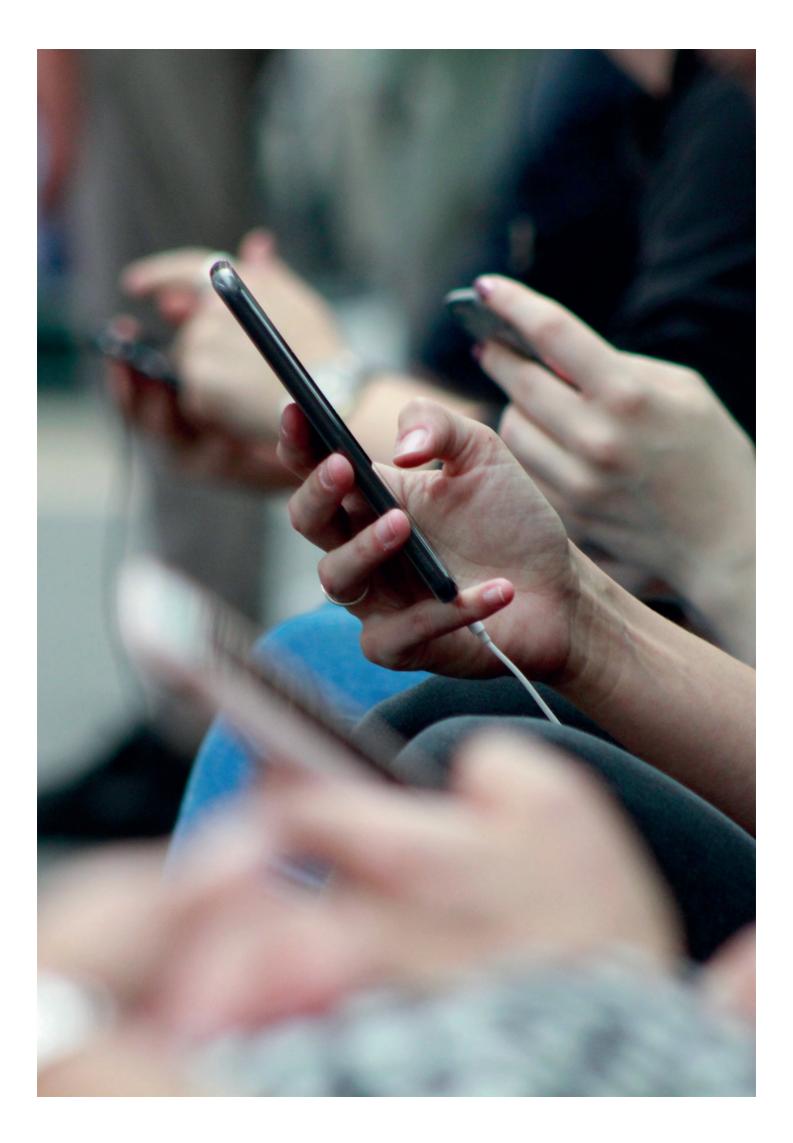
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- "Nonusers" refers to the respondents in the "Monitor Program" who have taken at least one leisure trip outside Mainland China, Hong Kong SAR, China, Macau SAR, China, and Taiwan, China in their lifetime but have never used mobile payment when travel outside Mainland China, Hong Kong SAR, China,
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Indeed, in a case study prepared by students of the National University of Singapore, "A Hangzhou Story: The Development of China's Mobile Payment Revo lution" the fact that integrated mobile applications like Alipay and WeChat Pay are able to track users' movements in every aspect of their daily life, including chatting history, utility bill payment, parking records, online shopping preferences etc. was thought to be a significant concern. In particular that powerful tech companies are allowed to collect such a big volume of personal data. (https://lkyspp.nus.edu.sg/docs/default-source/case-studies/a-hangzhou-story. pdf?sfvrsn=2bb6690a\_2)





#### About The World Travel & Tourism Council

The World Travel & Tourism Council is the global authority on the economic and social contribution of Travel & Tourism.

The World Travel & Tourism Council (WTTC) is the global authority on the economic and social contribution of Travel & Tourism. It promotes sustainable growth for the sector, working with governments and international institutions to create jobs, to drive exports and to generate prosperity.

Members are the Chairs, Presidents and Chief Executives of the world's leading, private sector Travel & Tourism businesses. These Members bring specialist knowledge to guide government policy and decision-making, rasing awareness of the importance of the sector as an economic generator of wealth.



#### About the U.S.-Asia Center for Tourism & Hospitality Research

The U.S.-Asia Center for Tourism & Hospitality Research at Temple University ("the Center") aspires to be a leading brain trust that advances the development of the U.S. and Asian tourism and hospitality industries, education, and research. With the mission of advancing the industry through high-quality scholarship, the Center conducts cutting-edge multidisciplinary research and consultancy specific to tourism, hospitality, and related industries. It aims to establish and enhance connections between government, industry, and other organisations in the tourism and hospitality areas. Selected partners include the World Travel and Tourism Council, Destination Canada, National Tour Association, Longwoods International, TripAdvisor, and numerous state and city DMOs.

With deep roots in the city of Philadelphia, the Center's exciting and energetic team is uniquely positioned to build bridges between academics and practitioners as well as East and West. Members of the Center are tourism and hospitality faculty with national and international recognition who hail from broad disciplinary and industry backgrounds. Equipped with state-of-the-art and well-rounded methodological skills, the team is capable of conducting a wide range of research tasks including literature review and quantitative and qualitative studies using econometric analysis, artificial neural network analysis, big data analytics, etc.





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