

China: the next pioneer in new mobility?

Why digitally enabled mobility is rising so fast in China



Taxi-hailing platforms in China have been in the spotlight recently, with the merger of Kuaidi and Didi totalizing more than 250 million users and launching a chauffeur service that two years ago was only known through Uber outside China. In addition to these impressive figures, a mobility revolution is under way in China, enabled by digitalization and a unique ecosystem.

Wide diversity in mobility offerings is already available

Mobility services help individuals to plan, book or pay for journeys or use of passenger vehicles. A key difference between these services is whether the vehicle is owned or operated by a company (B2B/B2C) or by an individual (P2P).

China has been very quick to develop a comprehensive set of mobility services around taxi-hailing platforms, chauffeur services, ride sharing, car sharing, and P2P car sharing. These are linked mostly to the initiatives of local companies developing business models specific to China – though they are sometimes inspired by models in other markets.

Existing new mobility services in China



Source: Arthur D. Little analysis

Definition of new mobility services

Taxi-hailing platform	<ul style="list-style-type: none"> A mobile application in which users can order (and sometimes pay for) taxis
Chauffeur service	<ul style="list-style-type: none"> A short-distance driving service with a self-employed or company-employed chauffeur
Ride sharing	<ul style="list-style-type: none"> The sharing of a car ride between a driver and passenger(s) with the objective of sharing the ride cost
Car sharing	<ul style="list-style-type: none"> A short-distance lending-of-vehicles service with the option of leaving the car at another location (open-loop) or returning it to the original location (closed-loop)
P2P car sharing	<ul style="list-style-type: none"> A person-to-person lending-of-vehicles service in which car owners make their vehicles available to others

Source: Arthur D. Little analysis

Service that is China specific

New mobility services share similarities with their counterparts from other markets, yet are particular to China.

Chauffeur services

Chauffeur service platforms such as Uber, Didi and Kuaidi are effective on-demand services that benefit from the high urban density of Chinese cities and the large pool of full-time and occasional drivers willing to offer their services. These platforms grew easily, as the market had almost none of the pre-existing

booking platforms that taxi companies had developed in European markets.

Ride sharing

Ride sharing is mostly operated on city-to-city journeys in Europe. In China, the most common rides are intra-city, short-distance routes between central business districts and residential areas, as they address the last-mile issue faced by most Chinese cities. Ride-sharing services are emerging in several cities, with Haha Pinche (哈哈拼车) and Dida Pinche (滴滴拼车), to name a few. Ride sharing is developing to include short-distance, city-to-city journeys (Shanghai to Hangzhou or Ningbo), competing with the high-speed train in coastal areas. These services have proved to be a popular way of absorbing peak demand during public holidays.

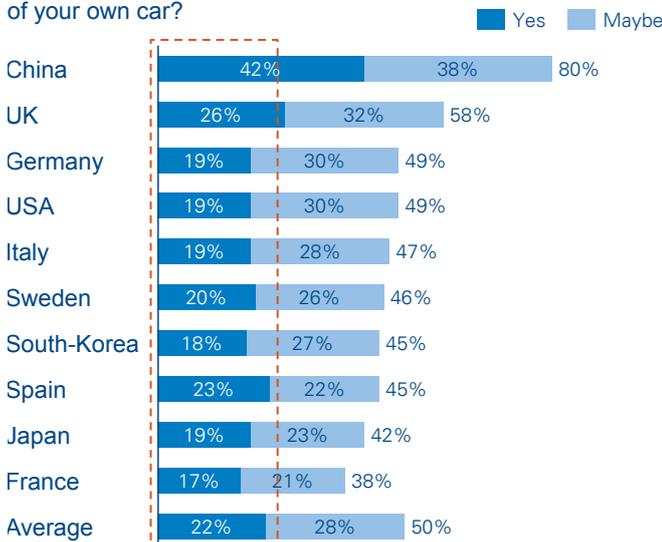
Why China might be the first large-scale market for new mobility

Many factors favor the development of such services in China, ranging from regulation through customer usage to technology penetration.

City restriction to cars in larger cities: In order to address congestion and pollution issues, an increasing number of cities are implementing plate restriction systems and other car limitation policies that make it more difficult and costly for citizens to buy and use cars. In addition, authorities are recognizing new mobility services as ways to encourage more effective car use and limit the increase of private car ownership in cities. For example, the Ministry of Transport is considering encouraging ride sharing, and it is part of draft policy.

Replacement of own car through car sharing

Question: If there were appropriate car sharing and new mobility services would you consider to get rid of your own car?

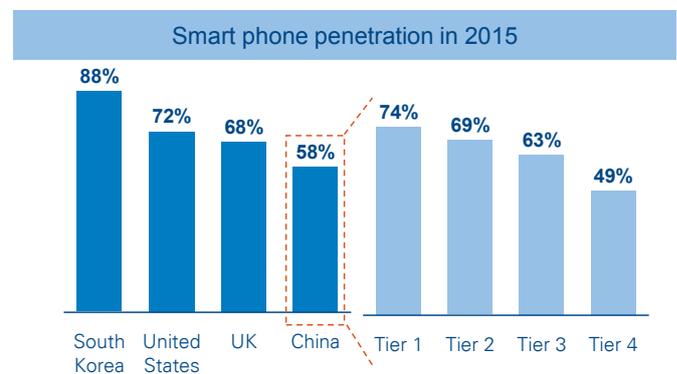


Source: Arthur D. Little analysis¹

¹ Arthur D. Little's survey was conducted with over 6,500 customers worldwide

China's customer mindset is changing in large cities: Urban citizens are open to the usage of these mobility platforms in addition to or as an alternative to car ownership. According to Arthur D. Little's global survey¹, 42% of Chinese citizens would consider getting rid of their own cars, compared to an average of 21% of their European counterparts.

Integrated smartphone and mobile payment solution: The smartphone is not only a way to conveniently book and localize a vehicle; it also enables seamless payment through existing mobile payment platforms (Alipay支付宝, WeChat Pay微信支付). For the Chinese government, it is also a reassuring way of controlling the purposes of the activities and avoid tax evasion.



Source: Pew Research Center

Mobile payment platform

Among the smart phone users, a rising proportion is adopting mobile payment including major platforms such as:

- **Alipay支付宝:**
 - Around 270 mn users
- **Wechat Pay微信支付:**
 - Around 200 mn users

Source: China Internet Network Information Center

China's internet giants in mobility services: Digitalization enriches the service platforms of web giants as much as it leverages their customer bases. There are more than 500 million users of WeChat in China, now the largest social media platform. Users can book taxis or chauffeur services and pay electricity bills through the same application. Mobility is definitely part of the strategy of WeChat, as it also provides location-based services such as restaurant booking and cinema ticketing.

A large talent and finance pool to develop state-of-the art services: As part of their strategies to expand their service portfolios, the same Chinese internet companies are also financing many of the start-ups. For instance, 51 Pinche (51拼车), a ride-sharing service, is backed by Baidu, and Jiewo (接我) is backed by Alibaba.

Regulation and lobby hurdles: As in London, Berlin and Paris, incumbent services such as the state-owned taxi companies and other groups are lobbying to limit or eliminate the reach of

these services. Other roadblocks are the lack of regulation of safety insurance and legal liabilities linked to these services.

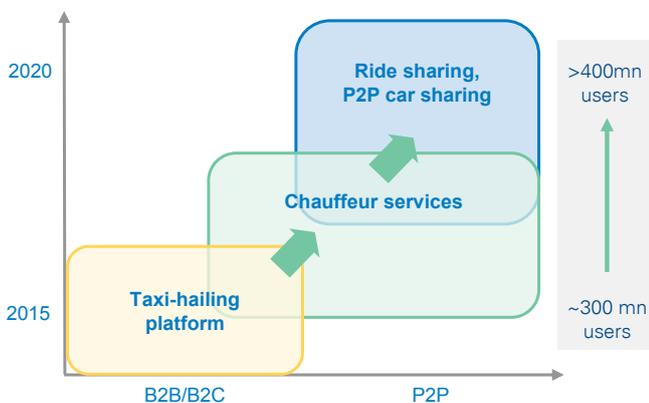
What will be the pace of growth for these services?

Taxi-hailing platform and chauffeur services already count over 200 million users in China, and ride-sharing platforms might follow this trend if service is confirmed and further encouraged by authorities. The main strength of these service models is that they rely on third-party vehicles and have relatively limited upfront investment other than marketing and development of their customer bases.

Car sharing is likely to grow at a less impressive scale. In order to be successful and appealing to individuals, car-sharing operations need large fleets of vehicles and multiple parking spaces that do not require only investment upfront, but also alignment with city stakeholders to find public space to park the cars. In this respect, car sharing offered to corporates (B2B car sharing) might be an easier solution to start with, as its closed-loop service model requires a more reasonable scale of initial investment.

All in all, the new mobility services had around 300 million users at the end of 2015. The user base may top 400 million by 2020.

New mobility service waves of development



Source: Arthur D. Little analysis

Opportunities in the ecosystem

For incumbent mobility providers – OEMs, automotive suppliers, taxi companies, rental and financial services companies – it is critical to take advantage of this fast-growing market:

- New mobility services will account for an increasing proportion of car usage in Chinese cities, redefining the car-usage and -ownership landscape.
- Future vehicle features, including the power train, comfort and telematics, will be designed according to new car usage. Conversely, new mobility services might be early adopters of autonomous-driving technologies.
- New business opportunities are emerging along the way. Ping'an, China's largest insurance group, provides insurance to both drivers and passengers of Didi's chauffeur service, for instance.

Fully understanding this new mobility landscape is essential for companies to position properly as mobility operators, investors, or vehicle, equipment, financing and service providers, and to grasp future mobility-service opportunities.

Arthur D. Little advises mobility service and transportation operators, automotive OEM and suppliers, rental and financial services and investors on entering new mobility services markets.

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