

Confidential

China's Shared Mobility Industry Independent Market Research

To:  曹操出行
CAO CAO

版权所有© 2025 沙利文。本文件提供的任何内容（包括但不限于数据、文字、图表、图像等）均系沙利文公司独有的高度机密性文件（在报告中另行标明出处者除外）。未经沙利文公司事先书面许可，任何人不得以任何方式擅自复制、再造、传播、出版、引用、改编、汇编本报告内容，若有违反上述约定的行为发生，沙利文公司保留采取法律措施，追究相关人员责任的权利。

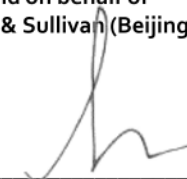
2025 Frost & Sullivan. All the information contained herein (including without limitation data, words, charts and pictures) is the sole property of Frost & Sullivan, treated as highly confidential document, unless otherwise expressly indicated the sources in the report. Should no one copy, reproduce, diffuse, publish, quote, adapt, compile all or any part of the report without the written consent of Frost & Sullivan. In the event of the violation of the above stipulation, Frost & Sullivan reserve the right of lodging claim against the relevant persons for all the losses and damages incurred.

June 2025



Date : 17 June 2025

For and on behalf of
Frost & Sullivan (Beijing) Inc.

A handwritten signature in black ink, appearing to be 'Charles Lau', written over a horizontal line.

Name: Charles Lau
Title: Executive Director

■ The project scope is defined as follows:

Research
Period

- Historical Year: 2019-2023
- Base Year: 2024
- Forecast Year: 2025E-2029E

Geographic
Scope

- China

Target Market

- Overview of China’s Mobility Industry
- Overview of China’s Shared Mobility Industry
- Competitive Landscape

Limitations

■ Source of Information

- Interviews with industry experts and competitors will be conducted on a best-effort basis to collect information for in-depth analysis for this report.
- Frost & Sullivan will not be responsible for any information gaps where Interviewees have refused to disclose confidential data or figures.



- The study took 2024 as the base year for analysis and 2025-2029 for forecast. However, some of the figures of 2024 may not have become available from public statistical sources at the time when we conducted research for this report. Frost & Sullivan will use the latest information available or make projections based on historical trends.

- Under circumstances where information is not available, Frost & Sullivan in-house analysis will be leveraged using appropriate models and indicators to arrive at an estimate.

- Sources of information and data will be clearly stated in the bottom right hand corner on each slide for reference.

Methodology

■ Methodologies

- Frost & Sullivan is an independent global consulting firm, which was founded in 1961 in New York. It offers industry research and market strategies and provides growth consulting and corporate training. Its industry coverage includes automotive and transportation, chemicals, materials and food, commercial aviation, consumer products, energy and power systems, environment and building technologies, healthcare, industrial automation and electronics, industrial and machinery, and technology, media and telecom.
- Frost & Sullivan performed both primary and secondary research, and obtained knowledge, statistics, information and industry insights on the industry trends of the target research markets. Primary research involved interviewing industry insiders such as leading market players, suppliers, customers, and recognized third-party industry associations. Secondary research involved reviewing company reports, independent research reports, and data based on Frost & Sullivan's own research database. Frost & Sullivan has independently verified the information, but the accuracy of the conclusions of its review largely relies on the accuracy of the information collected. Frost & Sullivan's research may be affected by the accuracy of assumptions used and the choice of primary and secondary sources.
- Frost & Sullivan's Market Engineering Forecasting Methodology integrates several forecasting techniques with the Market Engineering Measurement-based System. It relies on the expertise of the analyst team in integrating the critical market elements investigated during the research phase of the project. These elements include:
 - ✓ Expert-opinion forecasting methodology
 - ✓ Integration of market drivers and restraints
 - ✓ Integration with the market challenges
 - ✓ Integration of the Market Engineering Measurement trends
 - ✓ Integration of econometric variables

Table of Content

- 1 Overview of China's Mobility Industry**
- 2 Overview of China's Shared Mobility Industry
- 3 Competitive Landscape










Overview of China's Mobility Industry

Definition and Classification

Definition of Mobility

- Mobility refers to the use of transportation tools for passenger transport and related commercial activities on public roads or railroads (including roads and railroads in urban, inter-urban, and rural areas where machines can operate). It comprises establishments primarily engaged in a variety of passenger transportation activities, using equipment designed for those purposes. These activities are distinguished based on process factors, such as whether routes are scheduled, operate on fixed paths, and are charged on a per-seat or per-vehicle basis. Mobility is not just about having access to one mode of transportation. It is about having transportation options and the quality of those options.

Classification of Mobility

Public Transportation	<ul style="list-style-type: none"> ▪ Public Transportation is a system of transport for passengers by group travel systems available for use by the general public, typically managed on a schedule, operated on established routes, and that charge a posted fee for each trip. Public transport services are usually funded by government subsidies and fares charged to each passenger. Services are normally regulated and possibly subsidized from local or national tax revenue. Public transportation include rail transportation and bus transportation which includes intra-city bus and inter-city bus. 		Bus Transportation
			Rail Transportation
Bike sharing and e-bike sharing	<ul style="list-style-type: none"> ▪ Services where bikes are made available for sharing usage at short-term basis at a price or for free. 		Bike sharing and e-bike sharing
Taxi	<ul style="list-style-type: none"> ▪ Taxi is a type of vehicle for hire with a driver, used by a single passenger or small group of passengers, often for a non-shared ride. Taxi conveys passengers between locations of their own choice. Taxi include traditional taxi and taxi-hailing. 		Taxi
Shared Mobility	<ul style="list-style-type: none"> ▪ Shared mobility that provides convenient access to mobility services without vehicle ownership. 		Ride-Hailing
			Hitch
Private Car	<ul style="list-style-type: none"> ▪ Vehicles assigned for private use, excluding any vehicle licensed to transport fare-paying passengers or licensed to transport merchandise for sale or delivery. 		Private Car

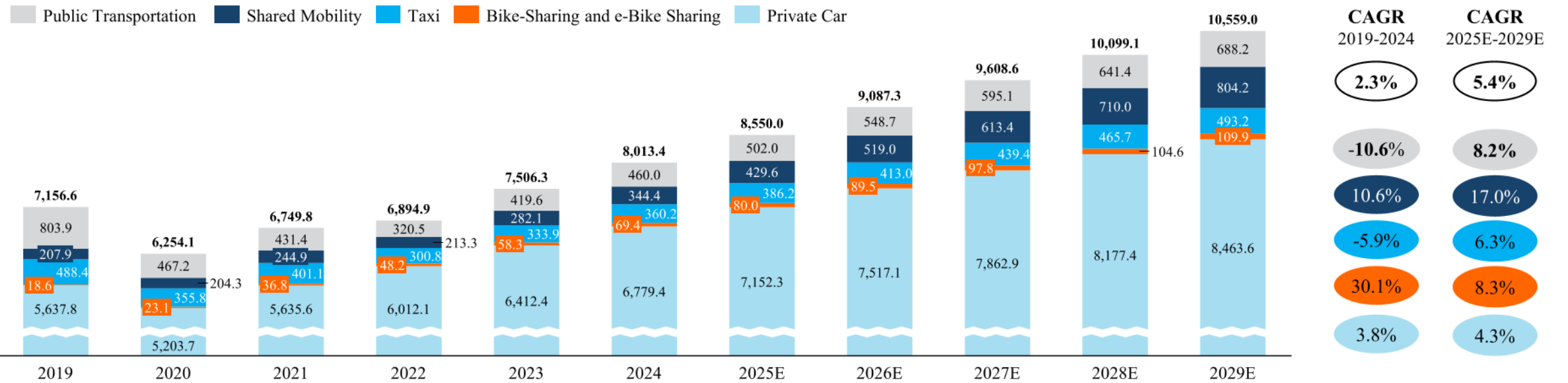
Source: Frost & Sullivan

Overview of China's Mobility Industry

Market Size of Mobility Industry

Market Size of China's Mobility Industry, by GTV

RMB Billion, 2019-2029E



Key Finding

- Mobility is essential to people's daily lives and has a massive business opportunity. As the world's second largest economy with the second largest population and a large number of concentrated and dense cities, China is the world's largest mobility market today with a market size of RMB8.0 trillion in 2024.
- China's mobility industry consists of transportation using different types of vehicles for personal transport, including public transportation such as bus and rail transportation to move masses, traditional taxis for spontaneous one-way trips, shared mobility that provides convenient access to mobility services without vehicle ownership, private vehicles for personal transport that are always available, and modes of transportation such as two-wheelers to meet various mobility needs of consumers at different price points.
- The size of China's mobility market grew from RMB6.9 trillion in 2018 to RMB7.2 trillion in 2019. From 2020 to 2022, due to the COVID-19 pandemic, there was a decrease in consumer demand for mobility, which disturbed the market's growth trajectory. In spite of the negative impact of the COVID-19 pandemic, the size of China's mobility market only slightly decreased from RMB7.2 trillion in 2019 to RMB6.9 trillion in 2022.
- In 2023, as the economy recovered from the impact of the COVID-19 pandemic, China's mobility market made a strong comeback and grew by 8.9% to RMB7.5 trillion from 2022. The market size further increased to RMB8.0 trillion in 2024. From 2025 onwards, driven by increasing consumer demand for mobility in lower-tier cities, a growing consumer preference for BEVs, and reviving business activities. China's mobility market is expected to increase from RMB8.6 trillion in 2025 to RMB10.6 trillion in 2029, representing a CAGR of 5.4%. In particular, shared mobility is expected to enjoy the fastest growth among the different mobility options from 2025 to 2029.

Note: 1) GTV of private car refers to consumer spending on the vehicle purchase, energy cost, insurance, maintenance and parking cost; 2) The market size of private vehicles is calculated by aggregating consumer spending on the vehicle purchase, energy replenishment, insurance, maintenance, and parking.

Source: Frost & Sullivan, the PRC Ministry of Transport, and China Association of Automobile Manufacturers

Table of Content

- 1 Overview of China's Mobility Industry
- 2 Overview of China's Shared Mobility Industry**
- 3 Competitive Landscape



Overview of China's Shared Mobility Industry

Definition and Classification

Definition



- Shared mobility provides users with access to customized trips without vehicle ownership, creating a hybrid between private vehicle ownership and public transportation. By doing so, shared mobility alleviates urban congestion, lowers the cost per kilometer compared with private vehicle ownership, and improves the mobility experience with convenience and efficiency compared with public transportation.
- China's shared mobility consists of ride hailing and hitch. Ride hailing leverages online platforms to match the demand from platform users and the available supply from drivers and vehicles registered on the platforms in real time. Hitch refers to the sharing of journeys in which private vehicle owners share information of their upcoming trips online in advance, allowing others with similar itineraries to join.

Classification



- **Ride-hailing service** (excluding taxi and hitch service) which leverages online platforms to match the demand from platform users and the available supply from drivers and vehicles registered on the platforms in real time.
- Ride-hailing platforms offer services to convey passengers between the location of their choice by reservation through matching ride-hailing cars and drivers. Passengers pay for the ride and drivers get income from orders.



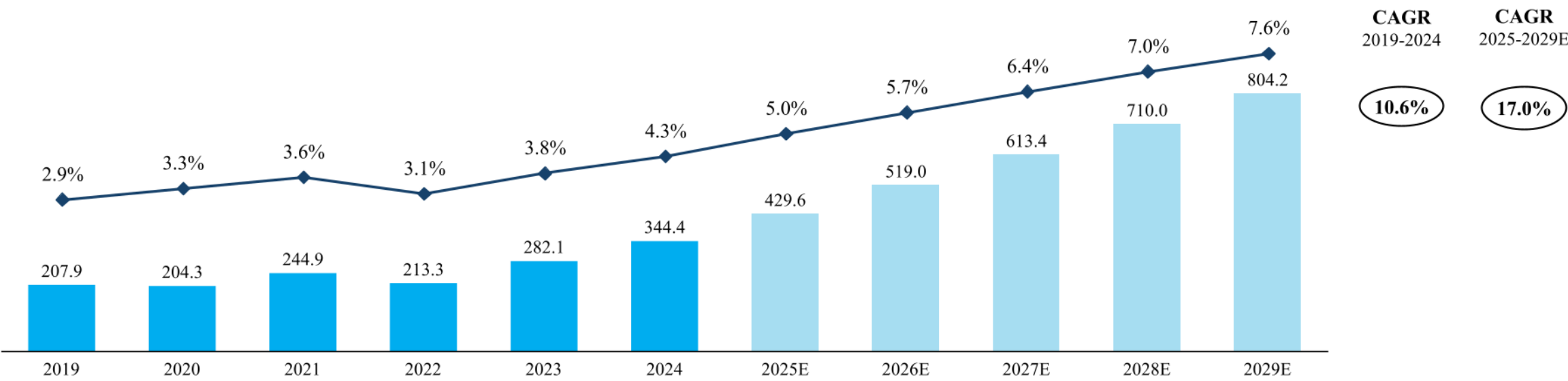
- **Hitch service** (i.e., private car sharing/ride sharing) refers to the sharing of journeys in which private vehicle owners share information of their upcoming trips online in advance, allowing others with similar itineraries to join.
- Hitch is not part of road transport operations. hitch is aimed at developing a sharing economy and improving the efficiency of resource use.

Source: Frost & Sullivan

Overview of China's Shared Mobility Industry

Market Size of Shared Mobility Industry

Market Size of China's Shared Mobility Industry, by GTV
RMB Billion, 2019-2029E



Key Finding

- The rapid development of the shared mobility industry has garnered government support for digital transformation in the traditional taxi sector through various favorable policies. These policies foster the co-development of taxi and ride hailing services and the integration of traditional taxis with online ride-hailing modes, reducing taxi idle driving time, enhancing taxi operating efficiency, and improving passenger experience. Leading shared mobility service providers are integrating traditional taxis into their platforms and promoting taxi online hailing solutions and the traditional taxi industry is looking to upgrade their service offerings. In addition, as part of this co-development between traditional taxis and ride hailing services, taxi companies will need to modernize their fleets. This involves acquiring purpose-built vehicles that are equipped with intelligent features and designed to optimize vehicle TCO and enhance passenger experience. Such taxi fleet replacement process presents significant opportunities for companies specialized in developing these purpose-built vehicles. The convergence of upgraded taxi services and innovative ride hailing services is expected to further stimulate the growth of China's shared mobility industry.
- Although China's shared mobility market already has a massive market size, there is still significant room for growth. From 2025 to 2029, penetration of shared mobility within the broader mobility industry, calculated as the GTV of shared mobility divided by the GTV of mobility for a given period, is expected to increase significantly from 4.3% in 2024 to 7.6% in 2029, driven by increasing consumer demand for value-for-money mobility options and the growing penetration of shared mobility in lower-tier cities. As shared mobility accounts for an increasing share within the broader mobility industry, the size of China's shared mobility market is expected to enjoy substantial growth to RMB804.2 billion in 2029 at a CAGR of 17.0% from 2025, which is comparable to the growth CAGR of 21.1% from 2016 to 2019 before the outbreak of the COVID-19 pandemic.

Source: Frost & Sullivan, the PRC Ministry of Transport, and China Association of Automobile Manufacturers

Overview of China's Shared Mobility Industry

Development Trends

Traffic Decentralization

- Through years of development, China's shared mobility market has transformed from one where a single player dominated the market to one where user traffic is more diversely distributed. Compared with eight years ago when nearly 90% of total number of orders completed for ride hailing was generated by the largest shared mobility service provider in China, user traffic is now more decentralized, with the largest shared mobility service provider contributing to around 70% of total number of orders completed.
- The decentralization of user traffic was partly attributable to the rise of aggregation platforms. Aggregation platforms include mapping and navigation apps and local life service apps, such as Amap (高德), Meituan (美团), Tencent Mobility (腾讯出行), and Baidu Map (百度地图), which integrate user traffic and channel it to mobility service providers. From 2019 to 2024, the proportion of ride hailing orders fulfilled through aggregation platforms increased from 7.0% to 31.0%, and is expected to further grow to 53.9% in 2029.
- The rise of aggregation platforms provided space for emerging mobility service providers to grow, as they can attract and retain users with high qualities of service even without the scale and the network effect enjoyed by the largest player.

Regulatory Enhancement

- The rapid evolution of China's shared mobility market is marked with increasing regulatory requirements in recent years. There are multiple layers of compliance requirements placed on mobility service providers and aggregation platforms regarding the drivers, vehicles, and online platforms that provide shared mobility service.
- Currently, there is no major shared mobility service provider with a 100% compliance rate, as there are numerous practical difficulties for obtaining the requisite permits and licenses. Over time, the competition dynamics in the shared mobility market has shifted from competing over user traffic on the demand side to competing for compliant vehicles and drivers on the supply side.
- The lack of compliant drivers and vehicles partially contributed to the slower growth of the shared mobility market from 2019 to 2024, as mobility service providers bore increasing compliance cost in light of increasing regulatory requirements. As the market starts to gain more compliant drivers and vehicles, the shared mobility market may expand further. Moreover, primarily due to non-compliance and safety issues as well as the impact from COVID-19, hitch has seen limited room for growth in recent years. Ride hailing has become the key driver for growth of the entire shared mobility market.

Source: Frost & Sullivan

Overview of China's Shared Mobility Industry

Features of Mobility Operating Vehicles

Features of Mobility Operating Vehicles

- Mobility operating vehicles include vehicles used in shared mobility and traditional taxi services and are distinct from private vehicles in many aspects. Firstly, mobility operating vehicles tend to depreciate at a much faster rate compared with private vehicles, accelerating the replacement cycle and creating a consistent and growing demand for new vehicles. Secondly, a substantial number of local government authorities in China promulgate compliance standards requiring certain vehicle parameters for mobility operating vehicles, including number of seats, satellite position devices installation, requirement on wheelbase. Consequently, there is an emerging need for mobility operating vehicles that meet these compliance standards, and purpose-built vehicles that were specifically designed to meet such requirements on vehicle parameters imposed by governmental authorities across China are increasingly in demand as they better satisfy these compliance standards. Lastly, there is a recent trend that a significant number of mobility operating vehicles are purchased by businesses (including both shared mobility service providers and taxi service providers) rather than individual persons. In 2024, 85.4% of mobility operating vehicles were purchased by businesses.

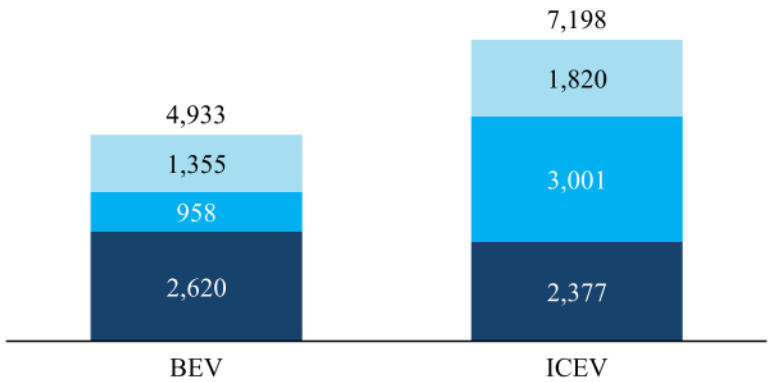
TCO Comparison Among Shared Mobility Operating Vehicles

- In the shared mobility value chain, vehicle TCO is the largest cost component that affects drivers' income and mobility service providers' profitability. In 2024, vehicle TCO accounts for approximately 55% of a driver's average gross income. Reduction in vehicle TCO has become the key to improving drivers' earning potential and mobility service providers' profitability.
- The vehicle TCO consists of (i) its purchase cost or leasing cost, (ii) energy replenishment cost, and (iii) auto servicing cost. Purchase cost or leasing cost is allocated evenly over its service life. Energy replenishment cost measures direct cost associated with refueling, charging, or battery swap. Auto servicing cost includes insurance cost and maintenance and repair cost.
- There are a wide variety of vehicle models used in shared mobility. BEVs generally enjoy a much lower vehicle TCO compared to ICE vehicles. The lower TCO of BEVs is primarily attributable to its lower energy replenishment costs and maintenance costs, as a result of the lower prices of electricity and the simpler body structure of BEVs. However, the purchase cost of BEVs is often higher than that of ICE vehicles because the research and development cost for BEVs is still relatively high. With the continued improvement of battery technology and increasing economics of scale of BEV manufacturers, the average marginal cost for producing a BEVs is expected to continue to decline, translating to further declining purchase cost of BEVs. In addition, BEVs with battery swap capabilities afford drivers with benefits beyond TCO savings, including reduced time needed for energy replenishment and thus greater operating time, and lower initial purchase price accomplished through the separation of vehicles and batteries.
- The diagram on the right sets forth an illustrative comparison of vehicle TCO composition among ICE vehicles, BEVs under the vehicle purchase model, considering multiple most commonly used vehicle models for shared mobility premier services in China in the respective categories.

A Comparison of TCO per Month of Vehicle Types in Shared Mobility

Unit: RMB

- Auto Servicing Cost
- Energy Replenishment Cost
- Purchase Cost or Leasing Cost



Source: Frost & Sullivan, the PRC Ministry of Transport

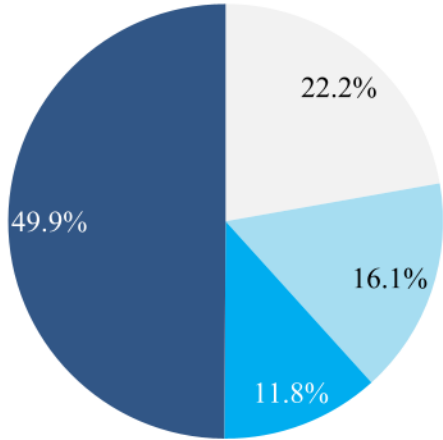
Overview of China's Shared Mobility Industry

Comparative Analysis of Vehicle Models

- The diagram below further sets forth an illustrative breakdown of BEV drivers' gross income by TCO and net income, considering the most commonly used BEV models for shared mobility services in China.

A Breakdown of BEV Drivers' Gross Income by TCO and Net Income in Shared Mobility Industry

- Purchase Cost or Leasing Cost
- Energy Replenishment Cost
- Auto Servicing Cost
- Driver Net Income



- The Company's Maple 80V and CaoCao 60 are considered two of the most cost efficient vehicle models for the shared mobility services. Maple 80V and CaoCao 60 have respective estimated TCO of RMB0.53 per kilometer and RMB0.47 per kilometer, both equipped with battery swap capabilities. The following table further sets forth a TCO comparison of Maple 80V, CaoCao 60, and other typical mobility operating vehicle models.

Comparative Analysis of Vehicle Models

	Maple 80V	CaoCao60	Purpose-Built BEV (Battery Swap)	BEV (Charging)	ICE Vehicle
Range(km)	600,000	600,000	600,000	497,000	560,000
Amortized Monthly Purchase Cost (RMB)	1,629	1,482	2,498	2,742	2,377
Monthly Energy Replenishment Cost (RMB)	976	928	928	987	3,001
Monthly Auto Servicing Cost (RMB)	716	545	1,427	1,284	1,820

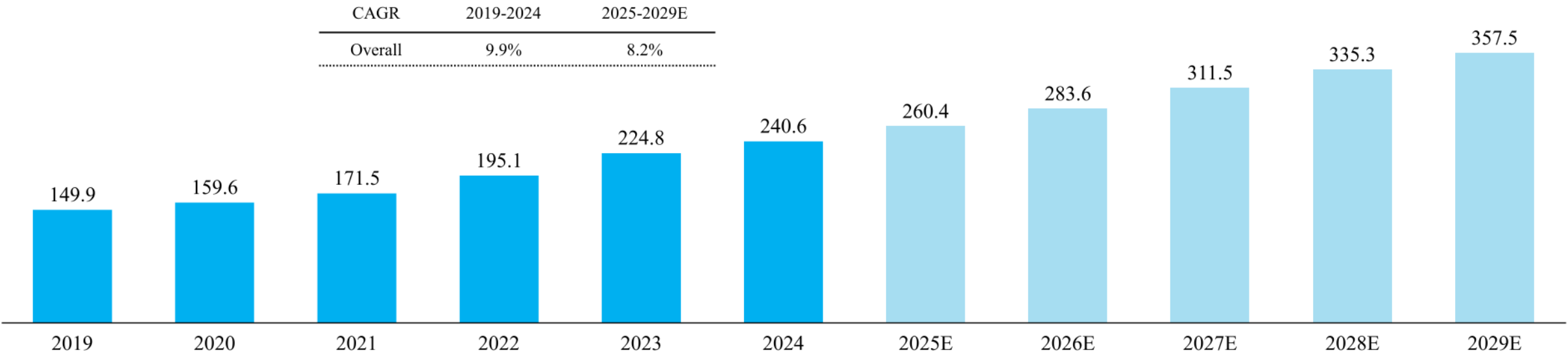
Source: Frost & Sullivan, the PRC Ministry of Transport

Overview of China's Shared Mobility Industry

Market Size of China's Mobility Operating Vehicle Sales

The Market Size of China's Mobility Operating Vehicle Sales

RMB Billion, 2019-2029E



Key Finding

- The mobility operating vehicle sales market has seen a substantial increase in recent years measured by total sales of vehicles used in mobility services, and this upward trajectory is expected to maintain its momentum. The market size of mobility operating vehicle sales grew from RMB149.9 billion in 2019 to RMB240.6 billion in 2024, and are expected to further grow at a CAGR of 8.2% from RMB260.4 billion in 2025 to RMB357.5 billion in 2029.
- A key for success in mobility operating vehicle sales is the opportunity to access to drivers in mobility services, who inherently are potential customers and end-users for such vehicles. For a shared mobility service provider that has a vast pool of drivers in mobility services, this translates to a natural advantage, positioning such shared mobility service provider favorably in the mobility operating vehicle sales market.

*Note: Mobility operating vehicles include vehicles used in shared mobility and traditional taxi services.

Source: Frost & Sullivan, the PRC National Bureau of Statistic, the PRC Ministry of Transport, China Association of Automobile Manufacturers

Overview of China's Shared Mobility Industry

Challenges Analysis (1/2)

For users

The Dilemma to Choose Between Price and Experience

- Currently, express and premier are the two predominant types of service lines in China's current shared mobility market, while users often face the dilemma to choose between price and experience. The lack of good value-for-money options with consistently high-quality and intelligent ride experience remain as the major pain point for users.
- While premier mobility service typically provides superior user experience, its high price results in a low penetration rate in the shared mobility market. Express shared mobility service, on the other hand, currently features a large number of vehicle models of various quality. There are currently more than 200 different express vehicle models employed by the largest shared mobility service provider alone for the provision of express shared mobility service in China. With a wide variety of vehicle models, users may not be assured a consistent ride hailing experience by each ride.

For Shared Mobility Service Providers

High Compliance Cost and Shortage of Compliant Drivers and Vehicles

- Shared mobility service providers also face a high compliance cost and a shortage of compliant drivers and vehicles, as there is increasing regulatory scrutiny on the industry. Average order compliance rate is approximately 69% across the industry in 2024.

Source: Frost & Sullivan

For drivers

High Vehicle TCO and the Lack of Driver-Care Features

- Vehicle TCO accounted for around 55% of a driver's gross income on average. High vehicle TCO hinders drivers from increasing their net income. This situation often results in low driver retention rates on shared mobility service providers, presenting considerable challenges for the industry.
- Amortized monthly purchase cost or monthly leasing cost is the biggest component of a vehicle TCO. Drivers often lack the opportunity to choose a mobility operating vehicle model that offers considerably lower vehicle TCO, thereby restricting their ability to achieve cost efficiency.
- Energy replenishment cost for drivers is considerably high whether they drive ICE vehicles or BEVs. Mobility operating vehicles, which are in operation for long hours, typically need to replenish energy about 1.1 times daily for both types of vehicles. Such replenishment need results in significant gasoline costs for traditional ICE vehicles. Meanwhile, BEVs take much longer time to fully charge as compared to ICE vehicles that only require gas refills. The charging time also translates to low operating efficiency. In addition, although some BEVs have lower energy replenishment cost compared with ICE vehicles, BEVs typically have significantly lower durability, which is a major concern for drivers when selecting a vehicle.
- Another major component of vehicle TCO is the auto servicing cost including insurance and maintenance and repair cost. Insurance cost of a driver represents insurance charges collected by insurance companies and depends on the frequency of car accidents where this car driver bears legal liability for the associated damages and the severity of such accidents. In addition, auto maintenance and repair services typically require significant down-time that cannot be controlled by drivers. Auto servicing shops also typically lack transparency of pricing and service quality guarantee. These factors significantly increase a driver's operating cost.
- In 2024, Chinese shared mobility drivers worked around 10 hours on average in a vehicle each working day. Traditional vehicles typically lack driver-care features that are critical to drivers' health and convenience, including driver seat ventilation, adjustable waist support, driver rest mode, and traffic heatmap to support order in-take.

Source: Frost & Sullivan

Overview of China's Shared Mobility Industry

Key Growth Drivers by Supply Side

1

Purpose-Built Vehicles

- The increasing deployment of purpose-built vehicles is expected to fuel the expansion of China's shared mobility market.
- Vehicles are traditionally designed for the use and enjoyment of their owners. However, vehicles used in shared mobility need to primarily cater to both drivers and passengers. Drivers in shared mobility services view vehicles as tools of production, prioritizing productivity over features designed for the personal enjoyment of private vehicle owners. As a result, traditional vehicles, which often come with high TCO, fail to deliver cost-effectiveness for drivers and a satisfactory experience for passengers, making them unsuitable for shared mobility.
- Purpose-built vehicles, on the other hand, offer significantly lower TCO, enhancing income for drivers and improving profitability for shared mobility service providers. Purpose-built vehicles are tailored to meet the practical needs of drivers and passengers and improve operational efficiency for shared mobility service providers. Purpose-built vehicles typically not only incorporate features to improve experience for drivers and passengers, such as seat heating and extra legroom, but also integrate advanced technologies, such as intelligent cabin features and app connectivity. By focusing on customized features for shared mobility and omitting certain superfluous functions, purpose-built vehicles provide a good value-for money option for drivers and satisfactory ride experience for passengers, driving the growth of the shared mobility industry.

2

Battery Electric Vehicles

- BEVs are poised to play a central role in the future of shared mobility given their cost-effectiveness and environmental friendliness compared with traditional ICE vehicles. The cost per kilometer for a traditional ICE vehicle is RMB1.2 while the cost per kilometer for a BEV is RMB0.8. BEVs are more cost-efficient when it comes to auto servicing. Increasing adoption of BEVs would allow for more room to improve drivers' income, thereby attracting more drivers and improving driver retention. BEVs with battery swap capability can achieve even more vehicle TCO improvements. They can improve drivers' productivity by decreasing the down time needed for charging.
- There has been an accelerated adoption of BEVs in general. The sales volume of BEVs in China increased from 1.0 million vehicles from 2019 to 7.7 million vehicles in 2024, and is forecasted to further increase to 23.6 million vehicles in 2029. By 2029, it is estimated that 61% of all new vehicles sold will be BEVs, as compared to 25% in 2024.
- In 2024, approximately 35% of the vehicles in operation in the shared mobility market are traditional ICE vehicles, while nearly 80% of vehicles that began operation in the shared mobility market in 2024 are BEVs. Leveraging BEVs' significant advantage in energy replenishment cost, it is expected that BEVs will continue to replace ICE vehicles in the future and expect such replacement to occur at an increasing pace.

3

Autonomous Driving

- Over the long run, autonomous driving is expected to drive a structural transformation of China's shared mobility market.
- In the long term, as autonomous driving technology becomes more advanced and widely adopted, rides with autonomous driving technology will also become more economical for consumers. Autonomous driving is also expected to help supply the shared mobility market with more compliant and cost-effective vehicles, elevate user experience, and attract a larger user base.
- Not all mobility service providers with autonomous driving technology can commercialize autonomous driving massively. The successful commercialization of autonomous driving for shared mobility, however, requires more than the development and use of autonomous driving technology on a software level. Deployment of autonomous driving requires the full integration of software technology with vehicle hardware. Only mobility service providers with strong control of vehicles can fully integrate autonomous driving technology onto their platforms and provide large scale services in a commercial setting.

4

Partnership between Shared Mobility Platforms and Aggregation Platforms

- Aggregation platforms serve as a crucial driver of shared mobility market development by enhancing users' travel experiences. The proportion of ride hailing orders fulfilled through aggregation platforms in China increased from 7.0% to 31.0% between 2019 to 2024, and is expected to further grow to 53.9% in 2029. Aggregation platforms integrate resources from multiple shared mobility platforms, optimizing order matching accuracy and efficiency, thereby reducing user wait times and increasing vehicle utilization rates. Specifically, the order response time, defined as the duration from when a user places an order until a driver accepts it, averages about 3 minutes on aggregation platforms compared to around 4 minutes on shared mobility platforms. Furthermore, the passenger wait time, which is the period from when a driver accepts the order until the passenger is picked up, averages about 6 minutes on aggregation platforms, whereas it is approximately 8 minutes on shared mobility platforms. These metrics suggest that aggregation platforms are more efficient in order matching and provide shorter passenger wait times. Meanwhile, cooperation with aggregation platforms helps shared mobility platforms reduce operational costs, expand market share, and improve service quality. Through resource sharing and partnership between shared mobility platforms and aggregation platforms, the shared mobility industry is expected to achieve sustainable growth in the future.

5

Accelerating Issuance of Ride-Hailing Operating Licenses and Permits

- The shared mobility industry is poised for growth as regulatory bodies accelerates the issuance of licenses and permits for ride hailing services. This has boosted employment opportunities, as the development of shared mobility services has created more job opportunities for residents, fostering a flexible employment model in the sector. In recent years, the government authorities have published a number of policies to support the rapid expansion of compliant shared mobility services, and have repeatedly proposed to simplify and optimize the administrative approval process for the licenses and permits for ride hailing services. As a result, there has been a notable uptick in permits issued for drivers and vehicles, with Online Ride Hailing Driver's License growing from 2.9 million in 2020 to 6.6 million in 2023, and Transportation Permits rising from 1.1 million to 2.8 million in the same period, representing a CAGR of 31.5% and 35.6%, respectively. In some cities, particularly first- and second-tier cities, local authorities have implemented dynamic adjustment mechanisms to manage the number of vehicles engaging in online ride hailing services, as a result of which some shared mobility platforms have sought to increase the number of their compliant vehicles through the acquisition of local companies that already owns compliant vehicles. Nonetheless, the overall acceleration in the issuance of licenses and permits has fortified the market's supply side, enhancing compliance, responsiveness and operational efficiency for shared mobility platforms. In particular, improved compliance for shared mobility platforms not only fosters passenger trust and satisfaction but also enables shared mobility platforms to manage risks and uphold quality and safety standards more effectively. With a greater number of compliant drivers and vehicles, shared mobility platforms are expected deliver more stable and efficient services, meeting escalating demand, and propelling industry growth.

Source: Frost & Sullivan

Overview of China's Shared Mobility Industry

Key Growth Drivers by Demand Side

1

Paradigm Shift from Vehicle Ownership to Shared Mobility

- Unlike many developed countries, shared mobility is a more cost-effective option to car ownership in China. For the vast population, the cost of vehicle ownership is much higher than the cost of shared mobility, making shared mobility a preferred method of transportation. In many Chinese cities, cost of vehicle ownership goes far beyond the purchase cost. In particular, many municipal governments across China restrict vehicle ownership or limit driving to certain days of the week to improve traffic and air quality. License plates can only be obtained through a lottery or public bidding system in some first-tier cities in China. Parking lots are in short supply in many cities and parking costs are considerably high. In 2024, the cost per kilometer for using shared mobility service on a typical vehicle is RMB2.7, nearly 40% less than the cost per kilometer of RMB4.5 for owning the car privately. Thus, a good value-for-money shared mobility option could represent a paradigm shift, causing consumers to give up ownership of private vehicles.

2

Penetration into Lower-tier Cities and Reaching a Vast Consumer Base

- The growth of the shared mobility market is accelerated by its widening reach, especially its expansion from tier-one cities to tier-two and lower-tier cities, mainly driven by well-established infrastructure for shared mobility in these cities. This trend highlights the nationwide appeal of shared mobility services and enables shared mobility platforms tap into an extensive consumer base, infusing fresh energy into the market. Lower-tier cities in China have a significant population and are experiencing consistent economic development and urbanization, while transportation options are often limited. As a result, there is a growing demand among residents in lower-tier cities for convenient and efficient mobility options. Shared mobility services, recognized for the adaptability, ease of use, and affordability, are increasingly becoming the preferred mobility option in these cities. In recent years, compliant shared mobility services in most lower-tier cities have grown at a faster rate than the national average. For instance, between 2020 and 2023, the number of Transportation Permits issued in Haikou and Weihai has increased at a CAGR of over 43% and 56%, respectively, which is higher than the national average of 35.6% during the same period. In this context, the trend of booking rides via apps in low-tier cities is rising, which is a testament to the growing preference for personalized and on-demand travel solutions in lower-tier cities. Share mobility platforms are fine-tuning their offerings and pricing models to align with the spending habits of lower-tier cities and are employing localized marketing strategies to draw in more customers.

3

Better User Experience

- The popularity and adoption of shared mobility has significantly increased in recent years. Users can enjoy the convenience of shared mobility, avoiding the stress of driving, with a number of service lines at different price points to cater to their specific needs. With the emergence of multiple players in the market, users are also able to enjoy services at more competitive prices. Over time, the industry has seen increased emphasis on enhancing user experience and delivering good value for money. In particular, mobility service providers have continually improved user experience by enabling users to optimize across preferences over cost, comfort, and timeliness to attract more users to opt for shared mobility, which in turn drives the growth of the industry.

Source: Frost & Sullivan

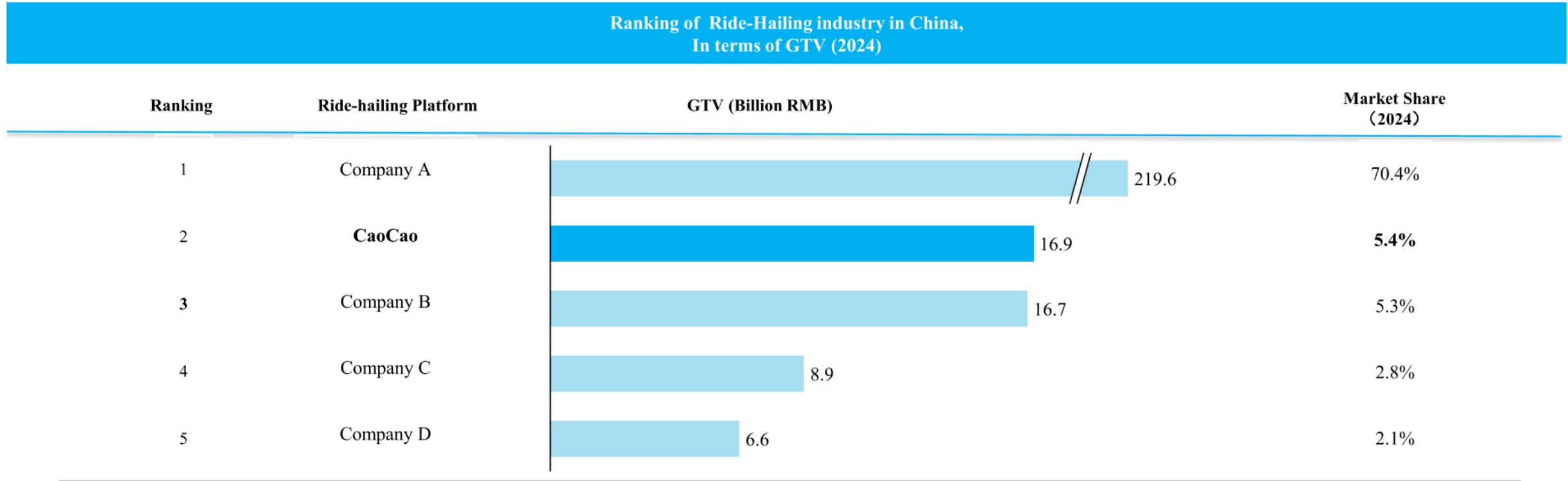
Table of Content

- 1 Overview of China's Mobility Industry
- 2 Overview of China's Shared Mobility Industry
- 3 Competitive Landscape**



Competitive Landscape

Ranking of Ride-Hailing Industry in China



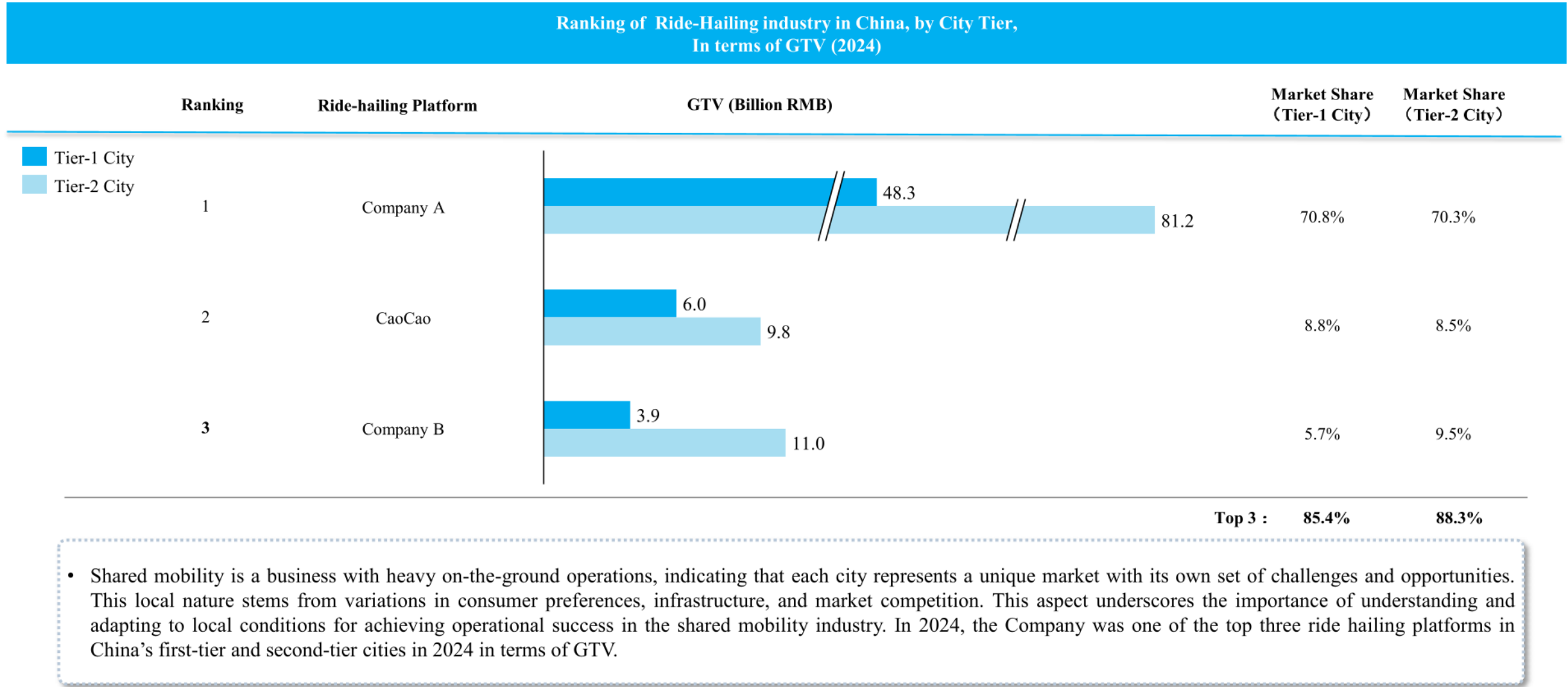
Top 5 : 86.0%

- The shared mobility market is composed of ride hailing and hitch. Ride hailing is the largest sector with significant growth potential, representing around 90% of total shared mobility market size in 2024. The competitive landscape of ride hailing service providers is led by one player in the market with 70.4% market share in terms of GTV in 2024, followed by several major players. The top five players in the market contributed 86.0% market share in terms of GTV in 2024. The Company has been ranked in the top three ride hailing platforms in China in the last three years in terms of GTV.
 - Company A, established in 2012 and headquartered in Beijing, China, is a mobility technology platform. Company A provides ride hailing, taxi online hailing, hitch, driver service, corporate transportation service, bicycle sharing, electric scooter sharing, vehicle care, delivery and payment services in Asia, Latin America and Australia. Company A's American depositary shares have been quoted on OTC Pink.
 - Company B, established in 2019 and headquartered in Nanjing, China, is a shared mobility platform, mainly providing ride hailing services in China. Company B is a private company.
 - Company C, established in 2015 and headquartered in Beijing, China, is a mobility service provider that offers mobility services and serves as a service provider for major online travel agencies (OTAs), airlines, hotels, and other corporate clients in China. Company C is a private company.
 - Company D, established in 2018 and headquartered in Shanghai, China, is a mobility service provider that integrates the resources and technologies of its parent company in China. Company D is a private company.

Source: Frost & Sullivan

Competitive Landscape

Ranking of Ride-Hailing Industry in China, by City Tier



Source: Frost & Sullivan

Table of Content

Appendix



Appendix

1	As the world's second largest economy with the second largest population and a large number of concentrated and dense cities, China is the world's largest mobility market today with a market size of RMB8.0 trillion in 2024.
2	Shared mobility provides users with access to customized trips without vehicle ownership, creating a hybrid between private vehicle ownership and public transportation. By doing so, shared mobility alleviates urban congestion, lowers the cost per kilometer compared with private vehicle ownership, and improves the mobility experience with convenience and efficiency compared with public transportation.
3	China is a market uniquely positioned to benefit from shared mobility. China has a large number of highly populated and dense cities that present challenges to the existing mobility infrastructure and give rise to demand for mobility solution upgrades. For example, many municipal governments across China restrict vehicle ownership or limit driving to certain days of a week to improve traffic and air quality. Parking lots are in short supply in many cities. In addition, along with continued urbanization and consumption upgrade, consumers in China are becoming more demanding in terms of the mobility experience. Furthermore, private vehicles primarily serve for daily work commuting in China and are often left parked for extended periods, leading to a significant waste of resources as the average utilization rate of private vehicles in China is less than 30% in 2024. As a result, shared mobility that features lower cost and increased service quality for consumers, and improved efficiency for society has a massive business opportunity in China.
4	According to Frost & Sullivan, The Group have ranked among the top three ride hailing platforms in China based on GTV in the last three years.
5	The Group have co-developed the Group's purpose-built vehicles and deployed them at scale, with a fleet of over 34,000 purpose-built vehicles across 31 cities as of December 31, 2024 for the use of the Group's affiliated drivers – the largest of its kind in China according to Frost & Sullivan.
6	In 2024, the largest player in the ride hailing sector had 70.4% market share in terms of GTV as it enjoyed significant brand awareness from first-mover advantage and access to a large user base, having established its predecessor entity in 2012 and at one point capturing over 90% of the ride hailing sector's market share in terms of number of orders completed according to Frost & Sullivan.
7	The Group's orders had an accident rate of 45 and 37 accidents per million orders completed in 2023 and 2024, respectively, substantially lower than the industry average of 112 and 101, according to Frost & Sullivan.
8	The Group's purpose-built vehicles achieved a 36.4% lower average TCO compared to typical battery electric vehicles used in shared mobility, according to Frost & Sullivan.
9	In 2024, the IPH generally decreased across the industry due to increased competition and the Group's driver IPH remained higher than other major participants, according to Frost & Sullivan.
10	According to Frost & Sullivan, the industry average order response rate was approximately 70% to 80% during the Track Record Period.
11	According to Frost & Sullivan, a mobility operating vehicle that supports battery swaps generally saves one hour per day for energy replenishment as compared to other mobility operating vehicles that supports charging only, which can translate to approximately RMB700 increased income per month.
12	The average annual insurance cost of a typical mobility operating vehicle is over RMB10,000 per vehicle, according to Frost & Sullivan.

Source: Frost & Sullivan

13	In recent years, there has been an industry-wide trend for shared mobility platforms to enhance their collaboration with aggregation platforms, according to Frost & Sullivan.
14	According to Frost & Sullivan, the compliance data published by the Ministry of Transport is the most reliable and authoritative indicator of compliance levels for ride hailing platforms in China.
15	According to Frost & Sullivan, non-compliance is an industry-wide issue.
16	According to Frost & Sullivan, the respective estimated TCO of Maple 80V and CaoCao 60, shared between the Group and the drivers, amounts to RMB0.53 and RMB0.47 per kilometer.
17	According to Frost & Sullivan, the lower-tier cities mainly located in the southwest, northwest, and eastern parts of China have a large population base.

Source: Frost & Sullivan



北京办公室：

北京市朝阳区建国门外大街1号
国贸写字楼2座24层2401室

电话：86 10 5929 8678
传真：86 10 5929 8680
www.frost.com

上海办公室：

上海市静安区南京西路1717号
会德丰国际广场2504室

电话：86 21 5407 5836
传真：86 21 3209 8500
www.frost.com

香港办公室：

香港中环康乐广场8号
交易广场1期1706室

电话：852 2191 5788
传真：852 2191 7995
www.frost.com

深圳研究院：

深圳市南山区深南大道9676号
大冲商务中心D座14C03室

电话：86 755 3688 9828
传真：86 755 3686 8806
www.frost.com

南京研究院：

南京市江宁区科建路29号
有志大厦7楼

电话：86 25 8509 1226
传真：86 25 8509 1226
www.frost.com

成都办公室：

四川省成都市青羊区西御街3号
领地中心东塔14层

电话：028 63207456
传真：028 63207456
www.frost.com

台北办公室：

台北市信义区松高路9号
统一国际大楼25楼

电话：886 2 7743 0566
传真：856 2 7743 7100
www.frost.com