

# Tuhu Car (9690 HK)

## A one-stop auto service ecosystem

As a leader in O2O auto service, Tuhu is expected to surf on the growing industry tailwinds, with in-depth control over workshops, franchisee-friendly ecosystem and strong supply chain. We expect its rev to grow at 20% CAGR in FY23-25E, driven by stores expansion, higher efficiency, monetization diversification and technological enhancement. Auto maintenance would be the key mid-term driver, while NEV initiatives and other services would unlock longer-term TAM. We initiate BUY with DCF-based TP of HK\$50.1, for its resilient growth and clear margin expansion.

- An O2O auto service leader with one-stop & fully-digitalized ecosystem.**  
 Tuhu ranked 1<sup>st</sup> among all automotive service providers in China in terms of no. of stores as of 31 Dec 2022, and ranked 3<sup>rd</sup> in terms of automotive service revenue in 2022, according to China Insights Consultancy (CIC). With Tuhu's store network and trusted brand, we forecast its rev to surge at 20% CAGR in FY23-25E, backed by store expansion and monetization diversification.
- Bullish on flywheel effects with industry tailwinds and stores expansion.**  
 We expect Tuhu to surf on the industry tailwinds, with China's automotive service mkt size in terms of GMV growing at 9% CAGR in 2023-27E, according to CIC. Tuhu excels itself with in-depth control over workshops, franchisee-friendly ecosystem and strong supply chain capabilities. We are bullish on its workshops expansion and orders upside, and expect its workshops/orders to grow at 21%/23% CAGR in FY23-25E. After the disruptions from lockdown in FY22, we see high visibility for Tuhu to show V-shaped recovery after China's reopening. Tuhu can further enhance its monetization with richer offerings (expanding service spectrum with private label products). Auto maintenance would be the key mid-term driver, while NEV initiatives and other services (e.g. car detailing) would unlock longer-term TAM.
- Clear margin improvement with more private label products and operating leverage.** We are confident that Tuhu will show a narrowing loss and expect it to achieve adj. NP breakeven in FY23E. GPM may pick up to 26.7% in FY25E from 19.7% in FY22, thanks to 1) more private label products; 2) higher rev mix of auto maintenance (with higher GPM), and 3) scale effect with higher bargaining power on pricing. Meanwhile, we expect its opex ratio to decline with efficiency improvement and enhanced brand awareness.
- Initiate with BUY.** We set our DCF-based TP at **HK\$50.1** (implying **2.8x** FY24E P/S). The implied PS multiple is largely in line with global automotive services peers, not demanding.

### Earnings Summary

(YE 31 Dec)	FY21A	FY22A	FY23E	FY24E	FY25E
Revenue (RMB mn)	11,724	11,547	13,517	16,305	19,402
YoY growth (%)	33.9	(1.5)	17.1	20.6	19.0
Adj. net income (RMB mn)	(1,264)	(552)	203	753	1,396
EPS (RMB)	NA	NA	0.25	0.92	1.69
YoY growth (%)	NA	NA	NA	272	85
Consensus EPS (RMB)	NA	NA	NA	NA	NA
P/E (x)	NA	NA	121	33	18
P/S (x)	2.1	2.1	1.8	1.5	1.3
Net gearing (%)	Net cash	Net cash	Net cash	Net cash	Net cash

Source: Company data, CMBIGM estimates

**BUY (Initiation)**

Target Price **HK\$50.1**  
 Up/Downside **+41.5%**  
 Current Price **HK\$35.4**

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### Stock Data

Mkt Cap (HK\$ mn)	26,458
Avg 3 mths t/o (HK\$ mn)	36.32
52w High/Low (HK\$)	32.0/24.9
Total Issued Shares (mn)	819

Source: Bloomberg

### Shareholding Structure

JOY Capital	8.58%
Ubiquity	5.22%
Max Hope	4.78%

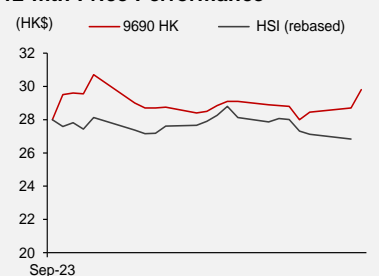
Source: Annual Report 2022

### Share Performance

	Absolute	Relative
1-mth	2.5%	5.4%
3-mth	N.A.	N.A.
6-mth	N.A.	N.A.

Source: Bloomberg

### 12-mth Price Performance



Source: Bloomberg

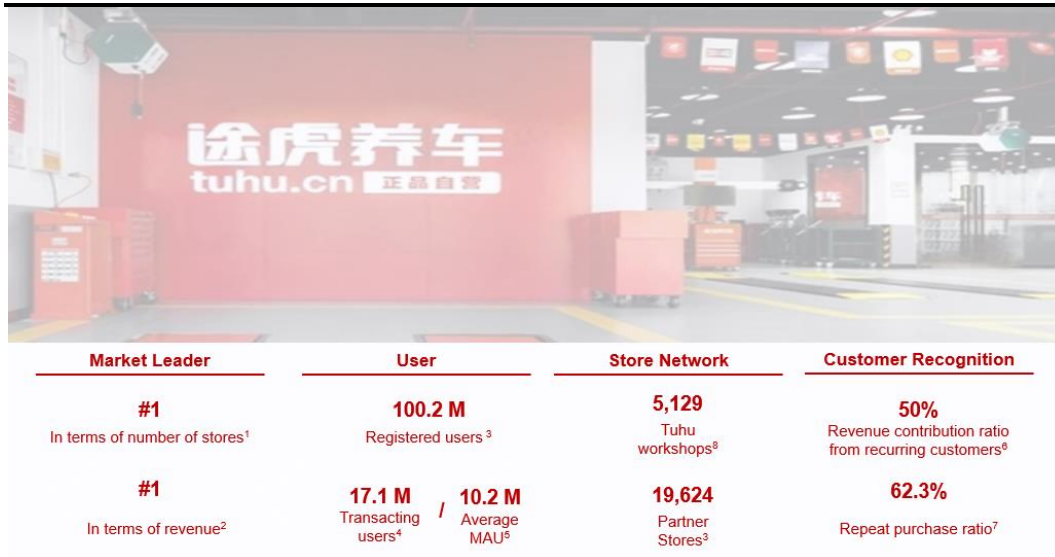
**Auditor: ERNST & YOUNG**

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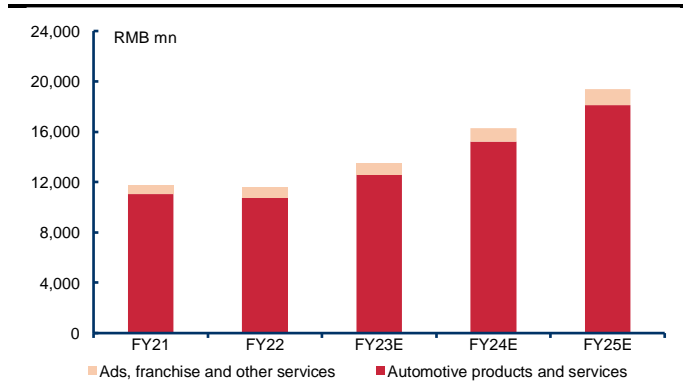
## Focus charts

Figure 1: Overview of Tuhu's business



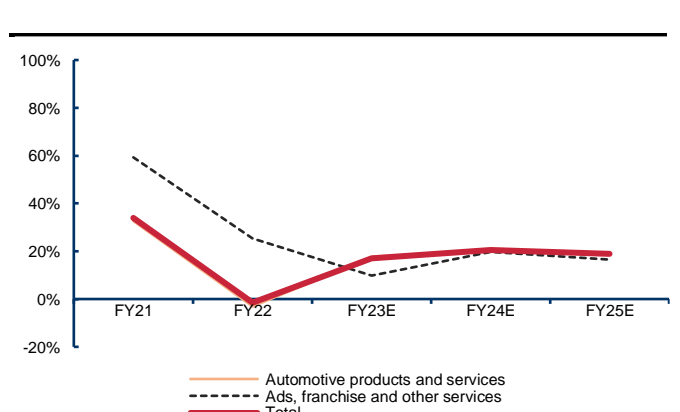
Source: Company data, CIC; Note: refer to Figure 6

Figure 2: Rev growth estimates, with 20% FY23-25E CAGR



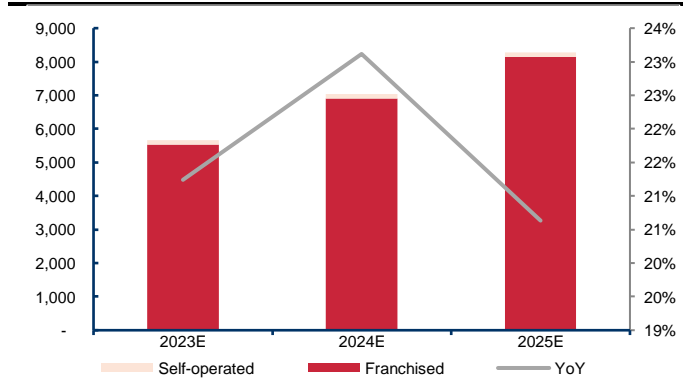
Source: Company data, CMBIGM estimates

Figure 3: Rev YoY growth of sub segments



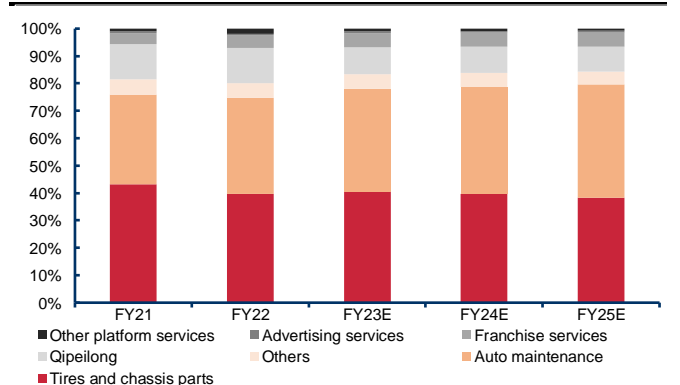
Source: Company data, CMBIGM estimates

Figure 4: No. of Tuhu workshops growth estimates



Source: Company data, CMBIGM estimates

Figure 5: Revenue breakdown



Source: Company data, CMBIGM estimates

## Company Overview

### A leading platform for automotive services in China

Established in 2011, Tuhu has been a leading integrated online and offline platform for automotive services in China. It is the largest car owner community and the leading independent automotive service brand in China, in terms of the number of automotive service stores operated as of 31 Dec 2022, according to CIC.

**Figure 6: Tuhu's business overview**



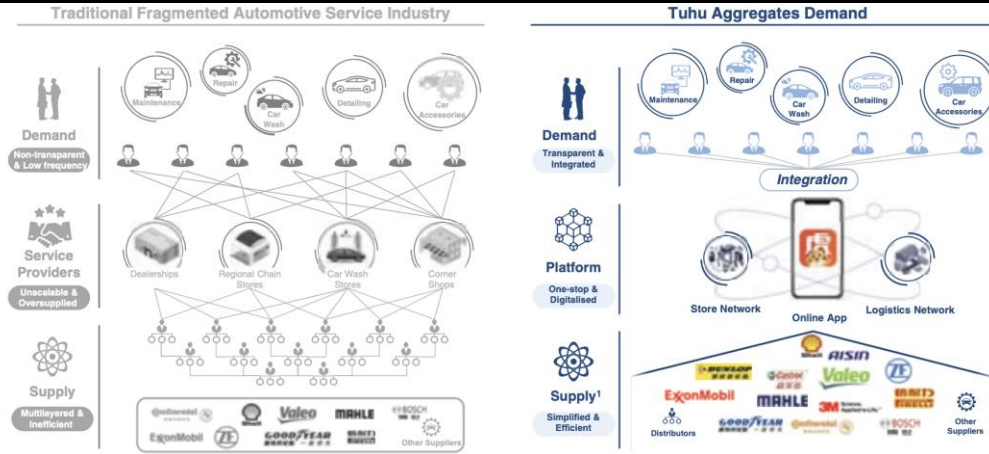
Source: Company data, CIC, CMBIGM

Notes: 1) Among all automotive providers in China as of 31 Dec 2022. 2) Annual automotive service revenue among IAM in China as of 31 Dec 2022. 3) By 31 Mar 2023. 4) The last twelve months by 31 Mar 2023. 5) The average MAU for mobile apps in 3M23. 6) In the twelve months ended 31 Mar 2023. Revenue contribution ratio equals revenue from the recurring customers divided by the revenue from automotive products and services to individual end customers. 7) In Mar 2023, the "repeat purchase ratio" for any period is the percentage of customers who contributed to be active and paid for at least one order through Tuhu's platform (excl Qipeilong) during the twelve-month period among all customers who completed order at any Tuhu workshops during such period. 8) In 1H23.

As of 31 Mar 2023, Tuhu has been the leading integrated O2O for automotive service in terms of the number of stores, with 17.1mn transacting users in the twelve months ended 31 Mar 2023 and 10.2mn average MAU in 3M23. In 1H23, there were 5,129 Tuhu workshops on the platform.

As the leading player in China, Tuhu aims to transform the industry value chain and overall benefits of all industry participants. Customers can enjoy high-quality services and attractive pricing for authentic automotive products on its platform. Its purpose-built digitalized industry solutions optimize each key step of the entire supply and services chain, from merchandise sourcing, inventory management, and fulfillment management to service rendering, resulting in high customer loyalty to the platform.

**Figure 7: Summary of Tuhu’s industry know-how**



Source: Company data, CMBIGM

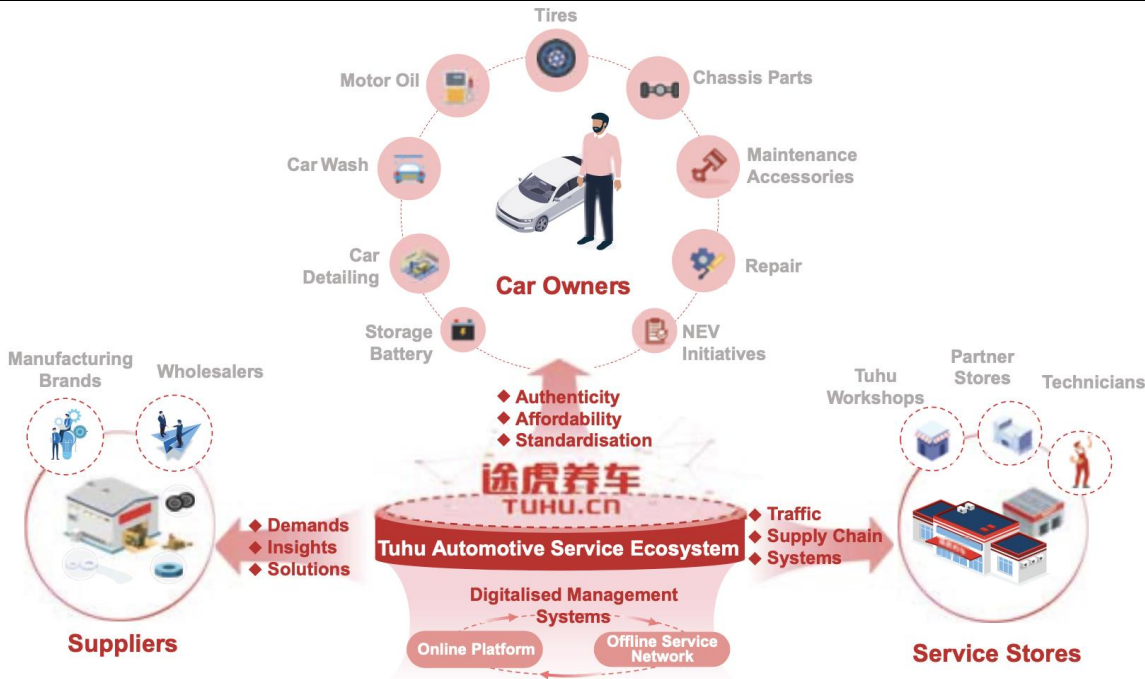
Note: 1) Company logos represent third-party auto parts suppliers with whom Tuhu has entered into contractual relationships. Auto parts suppliers on Tuhu platform consist of manufacturing brands and wholesalers of various auto parts and equipment.

**Vibrant service ecosystem and trusted brand to build a high barrier**

Tuhu serves most of the passenger vehicle models sold in China, fulfilling the full spectrum of automotive service demands from tires and chassis parts replacement to auto maintenance, repair, detailing, and so forth. By aggregating sporadic automotive service demands into one platform, customer engagement significantly increased as compared to the traditional offline automotive service model that is highly dependent on localized service demands.

After over 10 years of operation, Tuhu has become a well-trusted brand in the automotive service industry with great customer loyalty, and it is widely recognized for trustworthy products and services. Per CIC Report, Tuhu is the most renowned independent automotive service brand in China, with repeat purchase ratio of 62.3% in Mar 2023 and revenue contribution ratio from recurring customers of 50% in the twelve months as of 31 Mar 2023.

**Figure 8: Tuhu's automotive service ecosystem**



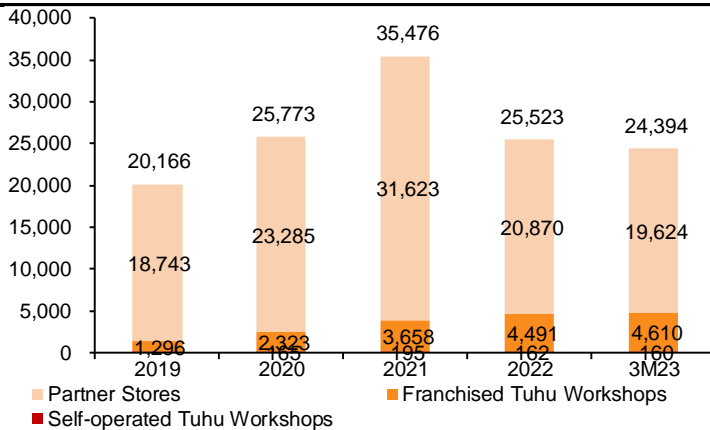
Source: Company data, CMBIGM

**Light asset franchise model operation through proprietary system control**

The sustainable and scalable business model is backed by rapid network expansion. As of 31 Mar 2023, the store network consisted of 24,394 service stores in China, with 4,770 Tuhu workshops and 19,624 partner stores, covering the majority of prefecture-level cities. Tuhu will continue to capture opportunities in tier 2 and below cities and counties in China and improve market penetration.

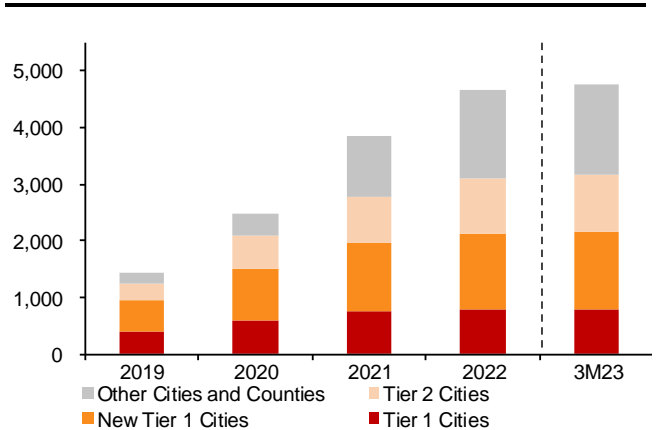
Partner stores enable Tuhu to quickly and effectively expand its store network in an asset-light manner to expand service capacity and serve customers in regions where the penetration is limited. Unlike Tuhu workshops, partner stores are not operated by Tuhu, but their operators have access to the store management systems and are required to follow service protocol to ensure high-quality services.

**Figure 9: No. of stores by store types**



Source: Company data, CMBIGM

**Figure 10: No. of Tuhu workshops by locations**



Source: Company data, CMBIGM

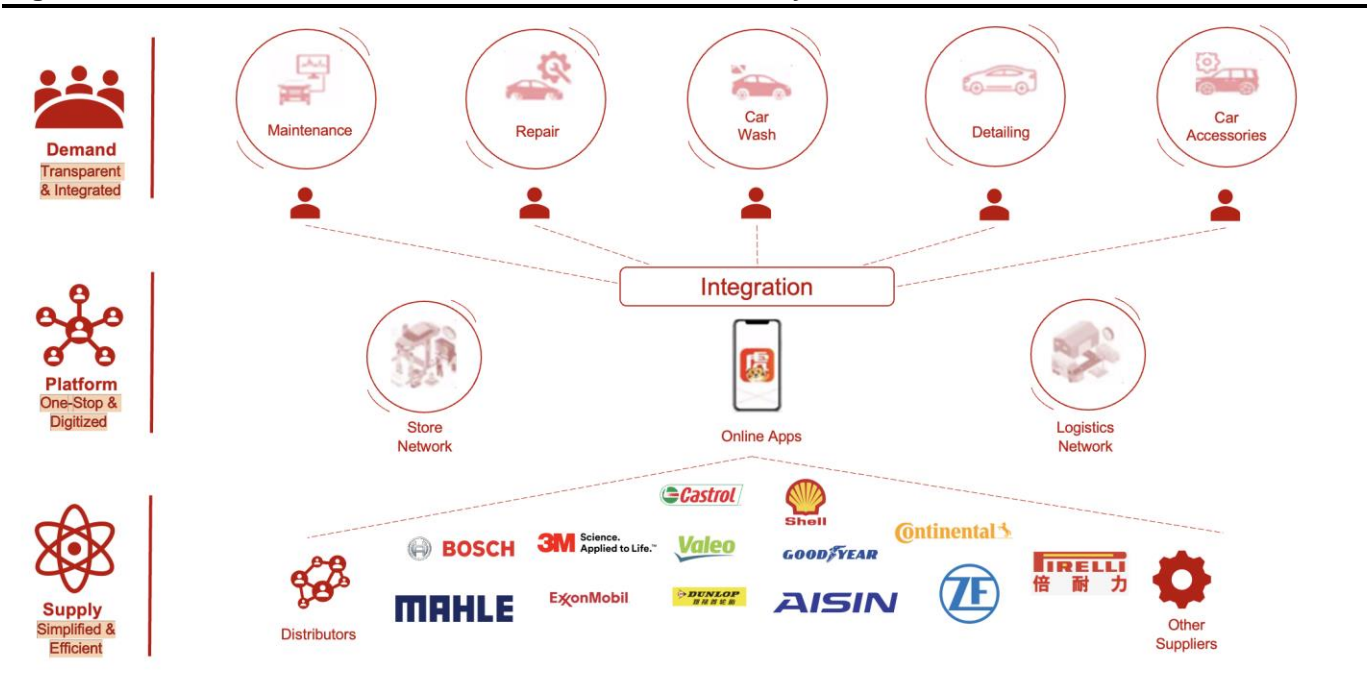
## Backed by powerful partners with long-standing relationships

Tuhu maintains strong and long-standing relationships with a diverse base of suppliers, including manufacturing brands and wholesalers of various auto parts and equipment, to ensure market competitiveness and reliable supply chain.

Tuhu has become the largest business partner in China with several major international auto parts and motor oil brands, attributable to close cooperation with major international brands through multiple models, such as direct procurement, and exclusive distribution arrangements.

To meet various demands of customers, Tuhu also works with selected suppliers to jointly develop its private label products and procures low-frequency auto parts from certified wholesalers.

**Figure 11: Innovative business model to transform the industry value chain**

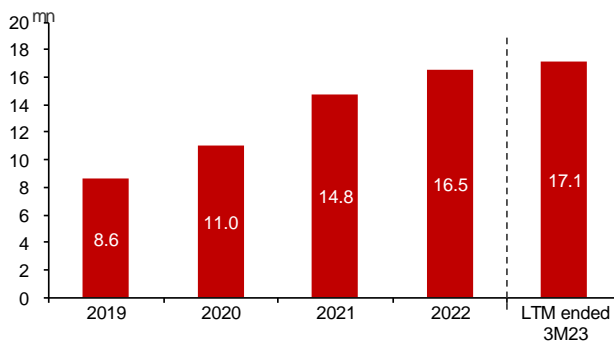


Source: Company data, CMBIGM

## Robust workshops and financial growth

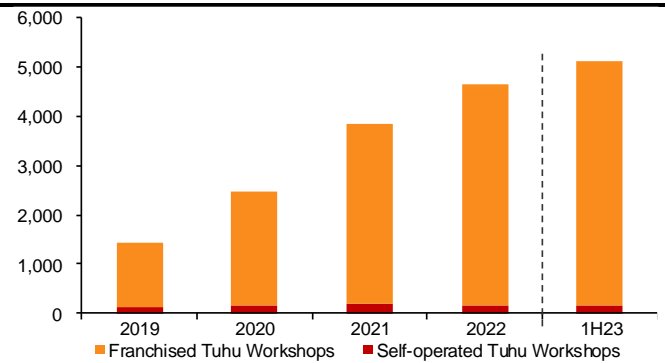
Tuhu has built massive user base with stores network expansion. Its transacting users grew at FY20-22 CAGR of 22.5%, and no. of Tuhu workshops climbed 21% YoY in 2022 followed by 19.5% YoY increase in 1H23. As such, it bore fruit with solid rev at 14.9% CAGR in FY20-22. In 1H23, no. of Tuhu workshops/franchised workshops +19.5%/+20.8% YoY. We expect strong topline momentum to continue, driven by workshops expansion along with order growth.

**Figure 12: Number of transacting users**



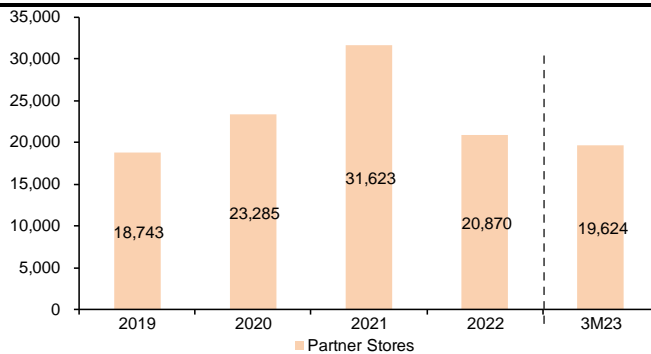
Source: Company data, CMBIGM

**Figure 13: No. of Tuhu workshops by workshop types**



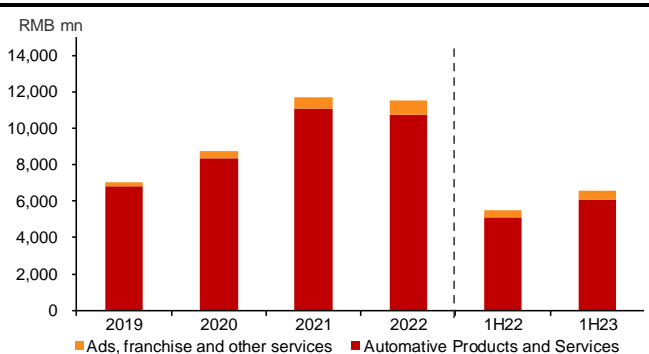
Source: Company data, CMBIGM

**Figure 14: Number of partner shops**



Source: Company data, CMBIGM

**Figure 15: Revenue growth of Tuhu by service types**



Source: Company data, CMBIGM



## Investment Summary

### Bullish on flywheel effects with industry tailwinds and stores expansion

#### Surfing on the resilient auto service tailwinds

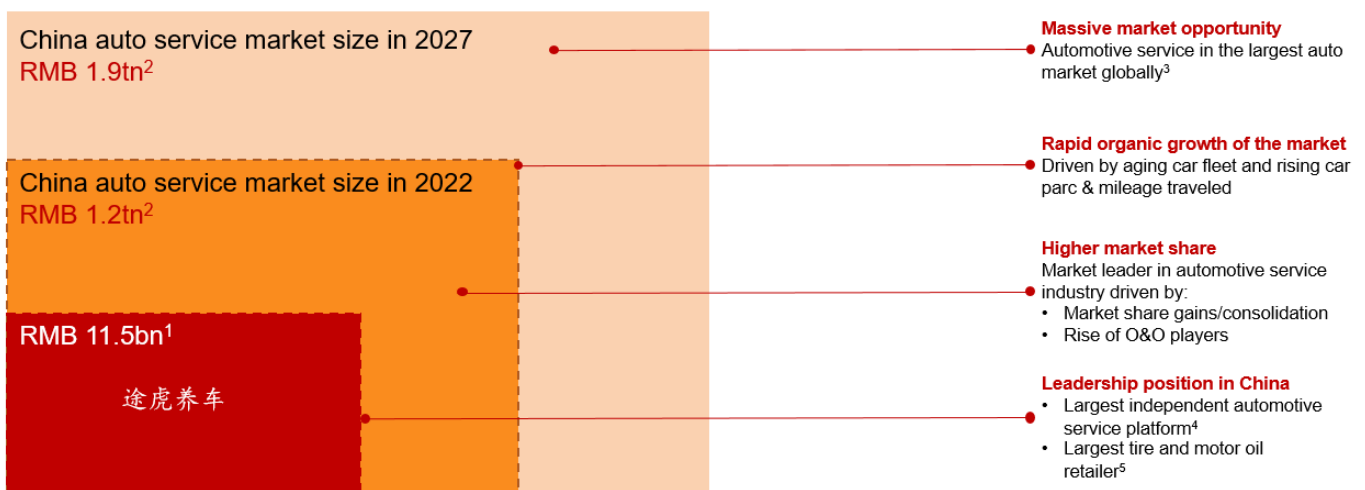
We are bullish on China’s auto service tailwinds, driven by aging car fleet and rising car parc & mileage traveled. According to CIC Report, China’s automotive service market reached RMB1.2tn in 2022, and is expected to grow up to RMB1.9tn by 2027E (at 9.0% CAGR in 2023-27E).

Although China has become the largest automotive market in the world in terms of ownership with 273.6mn car parc in 2022, China’s passenger vehicle ownership penetration was only 18.4% in 2021 (largely below 76.5% of the US), suggesting ample growth potential. Growing mileage travelled would lead to automotive wear and tear. It reached 1.7tn miles in 2020 (below 2.5tn miles in the US), and expected to grow to 2.7tn miles by 2025. From the perspective of vehicle’s typical lifestyle, China is reaching a tipping point of auto service demand, as the average vehicle age in China was 6.2 years in 2022 (expenditure on automotive service starts to increase significantly after 6 years).

Compared to authorized dealership, IAMs are expected to gain share in the long run, backed by its reasonable price, strong network and higher efficiency with less standardized products. According to CIC, market size of IAM automotive service in terms of GMV is expected to grow at 13.7% CAGR in 2023-27E, accounting for 58% share in 2027E (vs. 46% in 2022).

As the largest automotive service stores network in China, we expect Tuhu to continuously surf on the industry tailwinds, in such recession-resilient market with huge opportunities. On top of that, we expect Tuhu to unlock its TAM (e.g., NEV initiatives, car detailing), with innovative business model, strong partnership and service spectrum expansion.

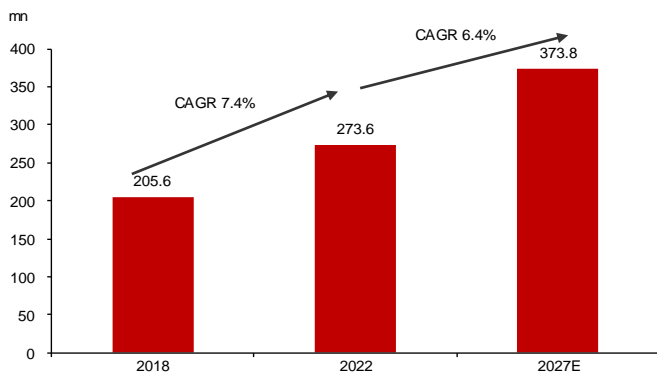
**Figure 16: Large China automotive service market with huge potential**



Source: Company data, CMBIGM

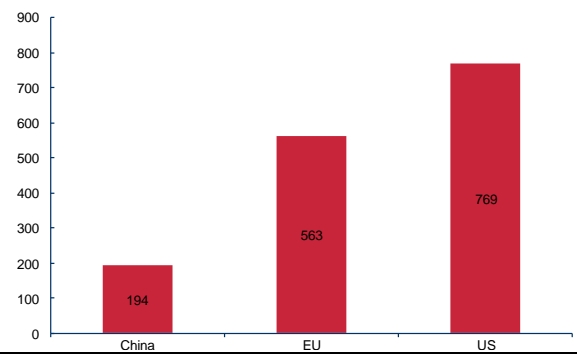
Note: 1. In terms of revenue in 2022; 2. Not including auto insurance, auto leasing, auto refueling or recharging, and used car market; 3. China became the largest automotive market in the world in terms of passenger car ownership as of the end of 2022; 4. In terms of both automotive services revenue in 2022 and number of automotive service stores operated as of 31 Dec 2022; 5. In terms of sales volume in 2022.

**Figure 17: Car parc of passenger vehicle in China**



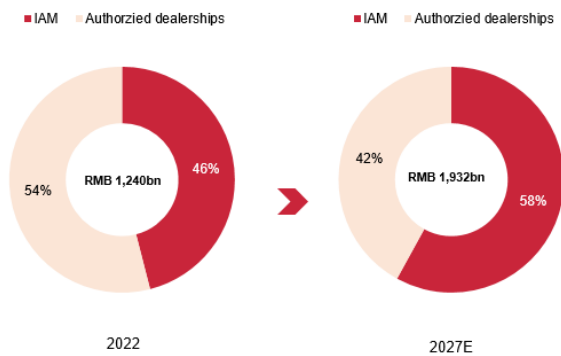
Source: China Passenger Car Association, CIC, CMBIGM

**Figure 18: Passenger car parc per thousand capita (2022)**



Source: CIC, CMBIGM

**Figure 19: Breakdown of China automotive services market in terms of GMV by channel**



Auto service channels	2018-22 CAGR	2023-27E CAGR
IAM	18.6%	13.7%
Authorized dealerships	4.7%	3.7%

Source: CIC, CMBIGM

**Ample room for store expansion, with penetration in low-tier cities**

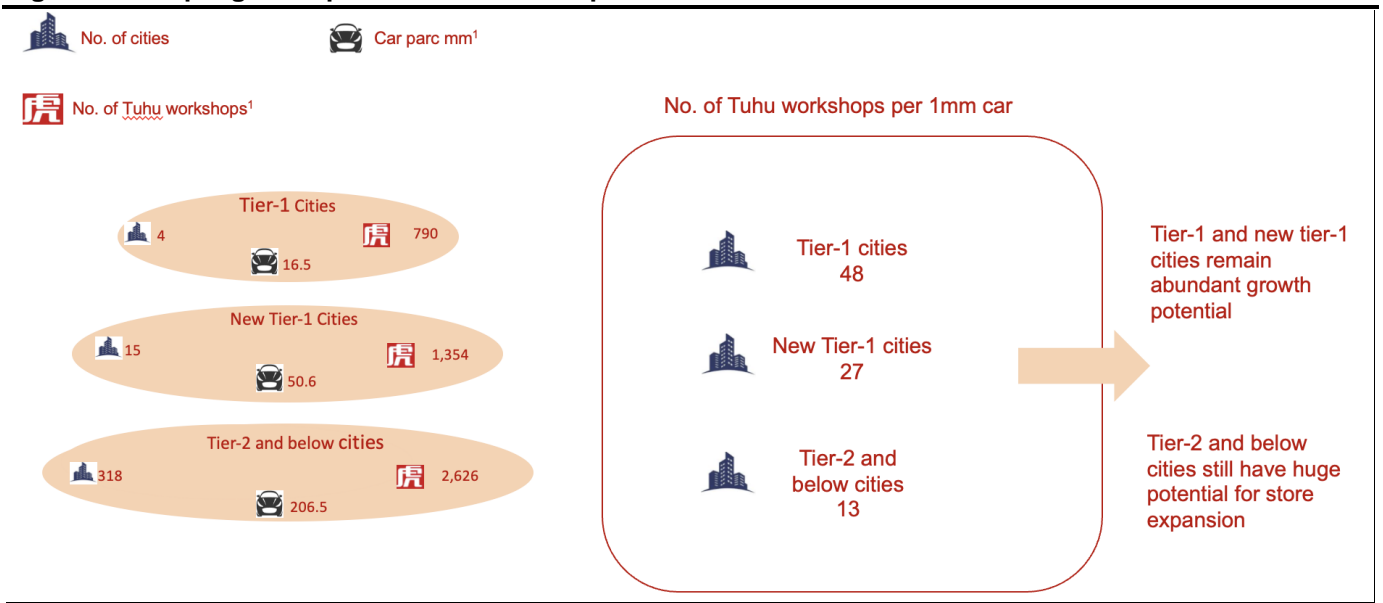
We think there is still ample room for Tuhu’s store to expand, as store density in lower-tier cities is still far below tier-1 cities. For instance, as of 31 Mar 2023, no. of Tuhu workshops per 1mn car was 13 in tier-2 and below cities, largely below 48 in tier-1 cities, while for car parc mm, tier-2 and below cities is 12.5 times than tier-1, according to CIC.

By leveraging its highly replicated model, we expect Tuhu to bear fruit through penetrating into lower-tier cities and gaining share in existing markets. We expect Tuhu to expand its workshops to over 8,000 stores by 2025E (implying 1.0% market share), in which 84% of net adds will come from tier 2 and below cities.

We see initial success for Tuhu to operate highly saleable model in high-tier cities with sizable vehicle flow. With in-depth control over workshops (e.g. selection, operation, supply chain), we expect Tuhu would achieve rapid network expansion in an asset-light business model, and improve its UE in the long run.







Among stores expansion, franchised workshops would be the future strategic focus, given its asset-light model, diversified monetization and healthy UE visibility. Franchising allows Tuhu to leverage the resources and expertise of local entrepreneurs, facilitating faster market penetration. We are positive on its profitability from 1P sales backed by its supply chain advantage. Self-operated stores would mainly conduct trainings and trials for new initiatives.

**Figure 20: Ample growth potential for store expansion in tier-2 and below cities**



Source: Company data, CIC, CMBIGM  
Note: As of 31 Mar 2023.

**Figure 21: Tuhu's geographical expansion strategy**

	 # of stores by city tiers (by 31 <sup>st</sup> Dec 2022)	 Target (# of stores, by 2025)	 Market size <sup>2</sup> (# of stores, as of Dec 31,2022)	 Implied market share <sup>1</sup>	
 Capture opportunities in lower-tiered cities in China	Tier 1 Cities	786	865	42,751	2.0%
	New Tier 1 cities	1,328	1,845	142,114	1.3%
 Improve market penetration in cities we have a presence	Tier 2 cities	987	1,768	147,795	1.2%
	Other cities & countries	1,552	3,801	529,660	0.7%
	<b>Total</b>	<b>4,653</b>	<b>8,280</b>	<b>862,320</b>	<b>1.0%</b>

Source: Company data, CIC, CMBIGM estimates

Note: 1. Calculated as Tuhu's target in 2025 divided by market size as of 31 Dec 2022; 2. Including IAM stores that provide products/services such as auto repair, car detailing, car washing, etc.

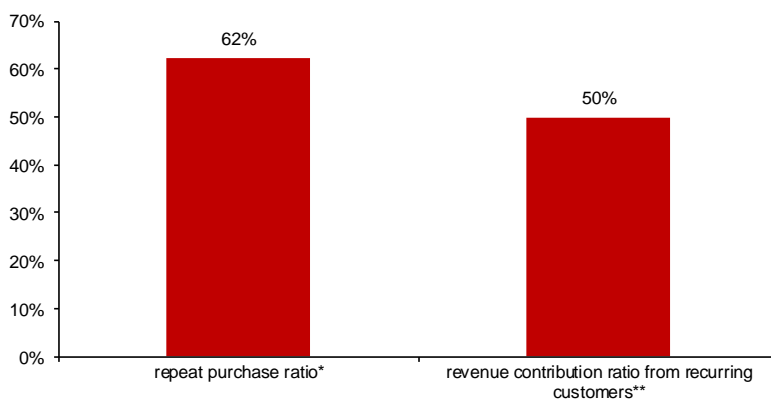
### Leveraging network effects by rich service matrix and trusted brand

Tuhu's rich service matrix and strong control create a vibrant ecosystem to help it achieve effective coverage, and attract & retain users. Apart from flexible store types, Tuhu has strong control over the operations, including site selection, supply chain, store operation, technician management and S&M. Tuhu also offers diversified product & services for ecosystem participants, including Shell, Pirelli, etc. As the largest tire and motor oil retailer in terms of sales volume in China in 2021, Tuhu's abundant service offerings and brands cooperation would support it to enhance customer experience with attractive pricing, and further drive network effect in the expansion phase.

Tuhu can leverage its trusted brand with great customer loyalty, to achieve effective & comprehensive expansion. In Mar 2023, Tuhu's repeat purchase ratio was 62.3% and revenue contribution ratio from recurring customers was 50% in the twelve months ended 31 Mar 2023, backed by its great customer experience, broad selection of reliable and authentic products and technology-enhanced convenience.

As more users, store and suppliers engaged, they fuel a virtuous cycle of operation enhancement and further form a high barrier for market entry. Broader store coverage would approach more customers, while higher customer engagement enhances Tuhu's digitalization with diversified offering and more competitive pricing, and generate solid rev growth. Strong sales would in turn help it to cooperate with more partners and accelerate growth in the expansion phase, as well as reinforce customers' trust.

### Figure 22: Tuhu's trusted brand with strong customer loyalty



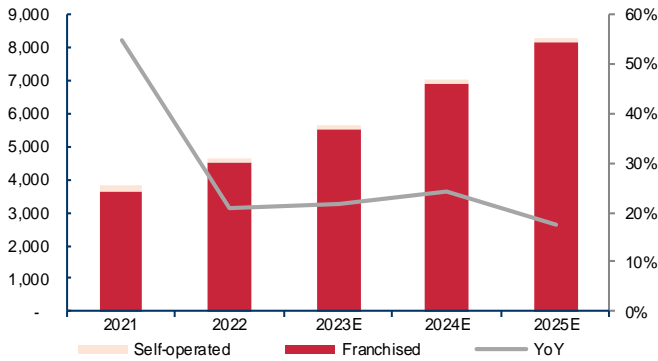
Source: Company data, CMBIGM

Note: \* in 31 Mar 2023; \*\*Twelve Months ended 31 Mar 2023

**Expect workshops/orders to grow at 21%/23% CAGR in FY23-25E.**

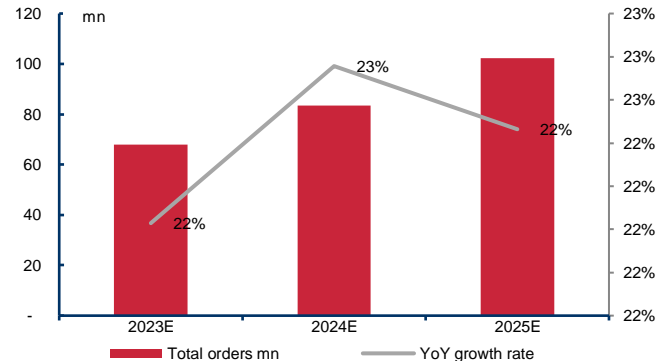
We are bullish on its orders upside with workshops expansion, and expect its workshops/orders up to 8,280/102mn in FY25E, at 21%/23% CAGR in FY23-25E. We expect orders per workshop to be diluted by workshop expansion and epidemic resurgence, but would gradually pick up with rising orders from new workshops. Moreover, orders per workshop in lower-tier cities should be similar to that of top-tier cities but at a lower price, in our view.

**Figure 23: Tuhu workshops growth estimates**



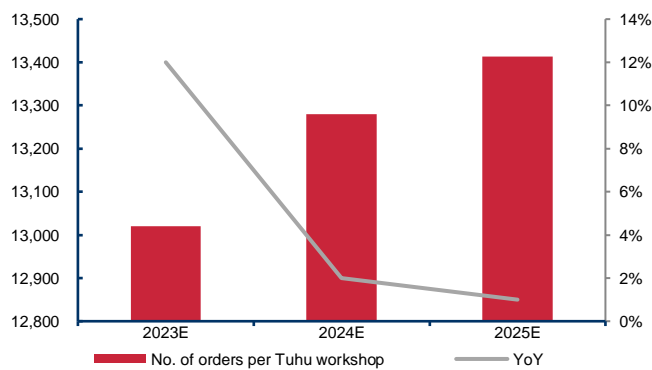
Source: Company data, CMBIGM estimates

**Figure 24: Orders estimates**



Source: CMBIGM estimates

**Figure 25: Orders per Tuhu workshop estimates**



Source: CMBIGM estimates

## Supply chain & technology makes the difference

### Distinguishing itself with franchisee-friendly ecosystem

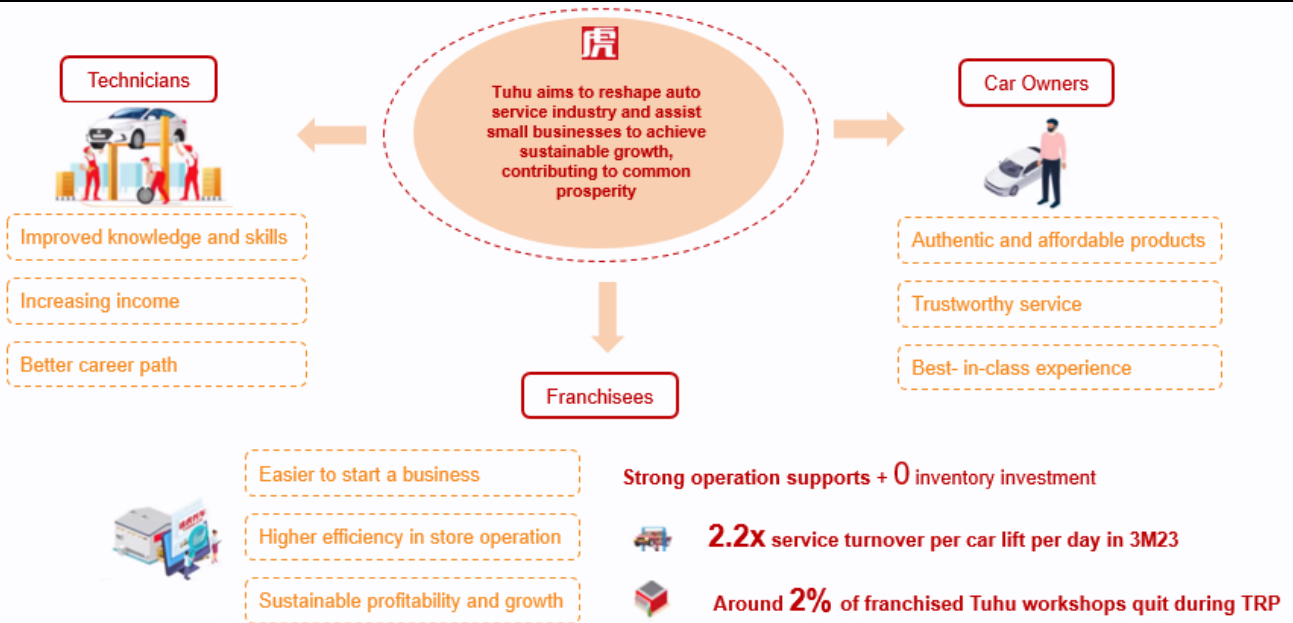
Tuhu aims to reshape the auto service industry and assist SMEs to achieve sustainable growth, contributing to common prosperity.

Tuhu has built a franchisee-friendly ecosystem and implemented a series of measures to support franchisees and develop their businesses, such as dynamically adjusting the profit-sharing level according to the specific situation of franchisees, and organizing trainings and nationwide networking activities for franchisees.

For franchisees, Tuhu offers easier access to start a business, with higher efficiency in store operation (0 inventory investment; 2.2x service turnover per car lift per day in the end of 3M23, higher than the industry average of ~1.1x as of 31 Dec 2022) and sustainable profitability. Around 2% of franchised workshops quit during TRP. As of 31 Mar 2023, 39.9% of franchisees had opened two or more stores with Tuhu.

For technicians, they can harvest improved knowledge and skills, increasing income, and better career path. Car owners can get authentic and affordable products, trustworthy service and experience from Tuhu. As such, Tuhu promotes overall benefits of all industry participants.

**Figure 26: Tuhu’s franchisee-friendly ecosystem**



Source: Company data, CMBIGM

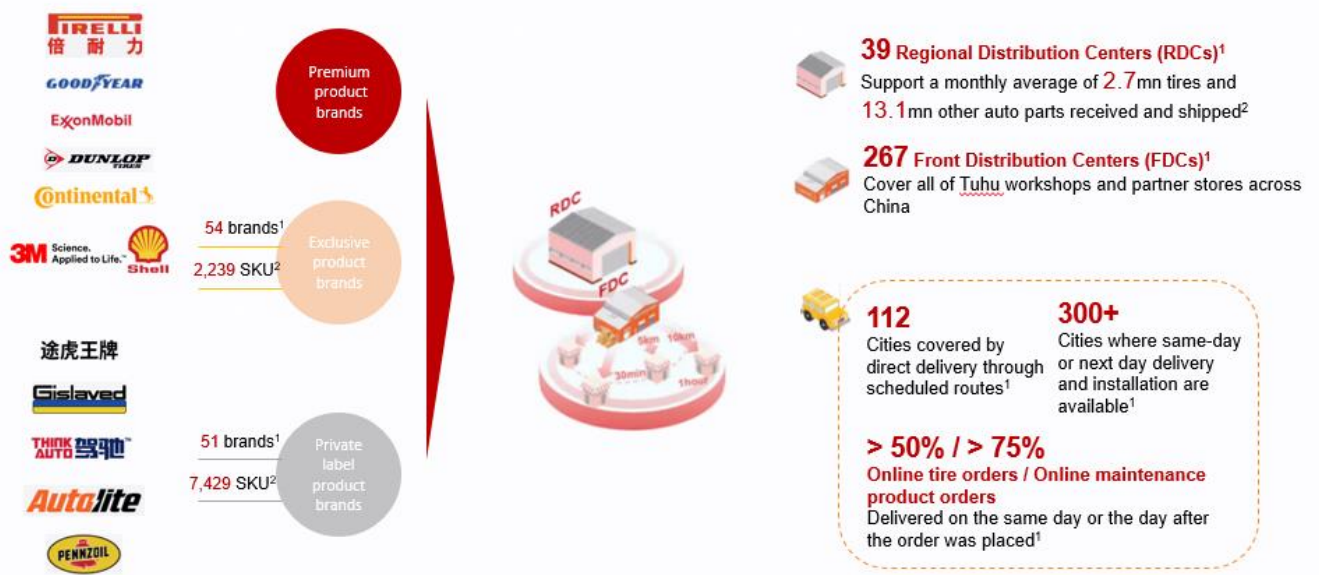
**In-depth control over supply chain and workshops to build a high barrier**

Tuhu built strong supply chain capabilities via long-standing relationships with brands and extensive fulfillment infrastructure. Apart from premium brands, it cooperated with 51 exclusive product brands (2,239 SKUs, transacted through its platform over the last twelve months) and developed 51 private label product brands (7,429 SKUs, transacted through its platform over the last twelve months) as of 31 Mar 2023. Tuhu became the largest business partner for several major international auto parts and motor oil brands in China. Exclusive brands and private label brands development would cater to the specific needs of diversified customers, and enhance margin in the long run.

A flexible and extensive fulfillment infrastructure is critical to the success of Tuhu. As of 31 Mar 2023, Tuhu operated 39 RDCs and 267 FDCs, supporting monthly average of 2.7mn tires and 13.1mn other auto parts received and shipped. Also, in 3M23, over 50%/ 75% of online tire orders/maintenance product orders were delivered on the same day or the day after the order was placed.

The in-depth control over workshop helps Tuhu to build a high barrier, with fully-digitalized and on-demand automotive service experience. It conducts strict guideline and management on its store selection, store operation, supply chain and technical management. For instance, there are detailed criteria for location selection through a disciplined, data-driven process (e.g. illustrative heat map analysis).

**Figure 27: Tuhu’s strong supply chain capabilities**



Source: Company data, CMBIGM

Note: 1. As of 31 Mar 2023. 2. Transacted through its platform over the last twelve months ended 31 Mar 2023



**Leveraging proprietary technology to reinforce digital operation and improve efficiency**

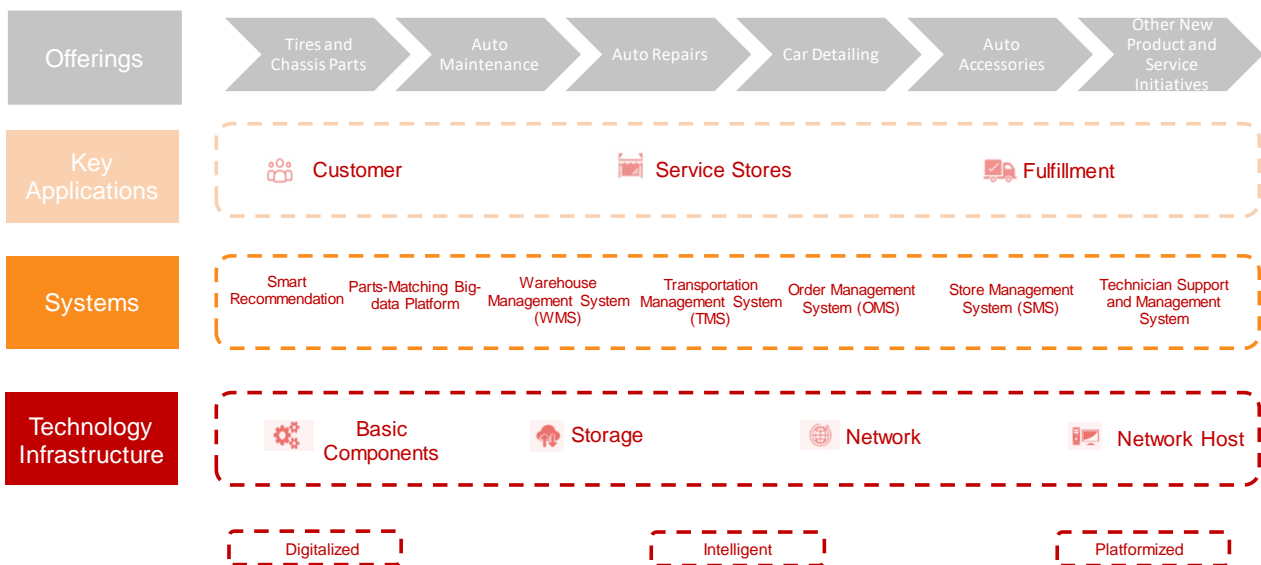
Empowered by its AI and big-data analytics capabilities, Tuhu’s proprietary algorithms help it make informed decisions, providing real-time data analytics to optimise operational efficiency and empower the digitalization of supply chain.

**Smart Recommendation:** Based on data accumulated and proprietary algorithms, Tuhu’s *Smart Recommendation* enables customers to effortlessly find products and services they desire. As of Mar 2023, Tuhu had more than 9,000 multi-dimensional data features, and its AI algorithm model currently covers over 45 core scenarios. As an increasing number of customers use its online interfaces (e.g. *Tuhu Automotive Service (途虎养车)* app and *Weixin Mini Programme*), generating increasing behaviour data, its AI algorithm is also learning and improving its accuracy and efficiency.

**Full suite of auto service technical support systems:** Tuhu has developed a comprehensive auto service technical support system that includes parts-matching big-data platform, warehouse management system, transportation management system, store management system and technician support and management system. This system supports the supply chain digitalisation, and is coordinated and synchronised by its intelligent algorithms to enable centralised decision-making in areas such as store management, inventory planning and supply chain network optimisation.

With continuous investments in technology, we expect to see better targeting and more convenient solutions from Tuhu, which further improve its margin outlook.

**Figure 28:Tuhu’s highly proprietary technologies**

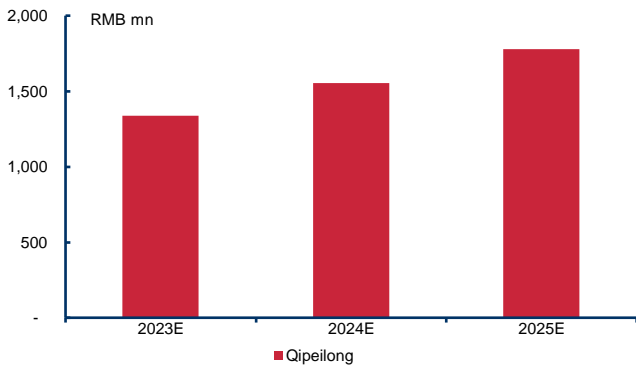


Source: Company data, CMBIGM

**Expect Qipeilong to grow at 15% CAGR in FY23-25E**

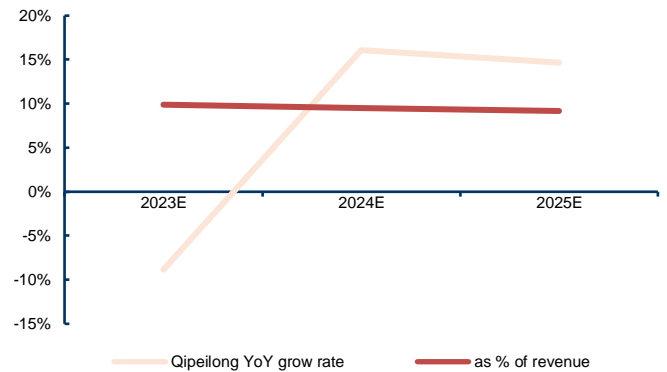
Tuhu provides auto parts trading services and supplies inventories through Qipeilong, an auto part trading platform to connect third-party auto part suppliers with automotive service providers, including stores within and outside of its store network. We are positive on the growth of Qipeilong, with 15% CAGR in FY23-25E, and expect it to account for 9%-10% of total revenue in FY23-25E, driven by the increasing workshops it covers, categories expansion, as well as introduction of third-party services in the near future. Even though Qipeilong’s rev declined 3.2% YoY in FY22 followed by another 12.1% YoY decline in 1H23, mainly due to shrinking regional wholesale business with low margin and efficiency enhancement by closing some housewares, we expect it to gradually pick up in the future with higher orders density and FDC usage.

**Figure 29: Qipeilong’s revenue**



Source: Company data, CMBIGM estimates

**Figure 30: Qipeilong’s YoY rev growth and rev mix**



Source: Company data, CMBIGM estimates

## Diversifying monetization to unlock its TAM

To diversify its monetization and enhance profitability, Tuhu introduces exclusive products and private label products with higher margin to improve its profitability. Apart from traditional tires and chassis parts, we expect auto maintenance as a mid-term driver. To meet diversified needs, Tuhu will continue to improve capabilities in other services, including car detailing, quick repair and collision repair. Tuhu is exploring NEV opportunities (vehicle sales and aftersales services), cooperating with notable NEV brands, such as Leapmotor and BAIC Arcfox. Although it would take time to see meaningful rev contribution, we expect the emerging NEV industry to be an important opportunity in the long run.

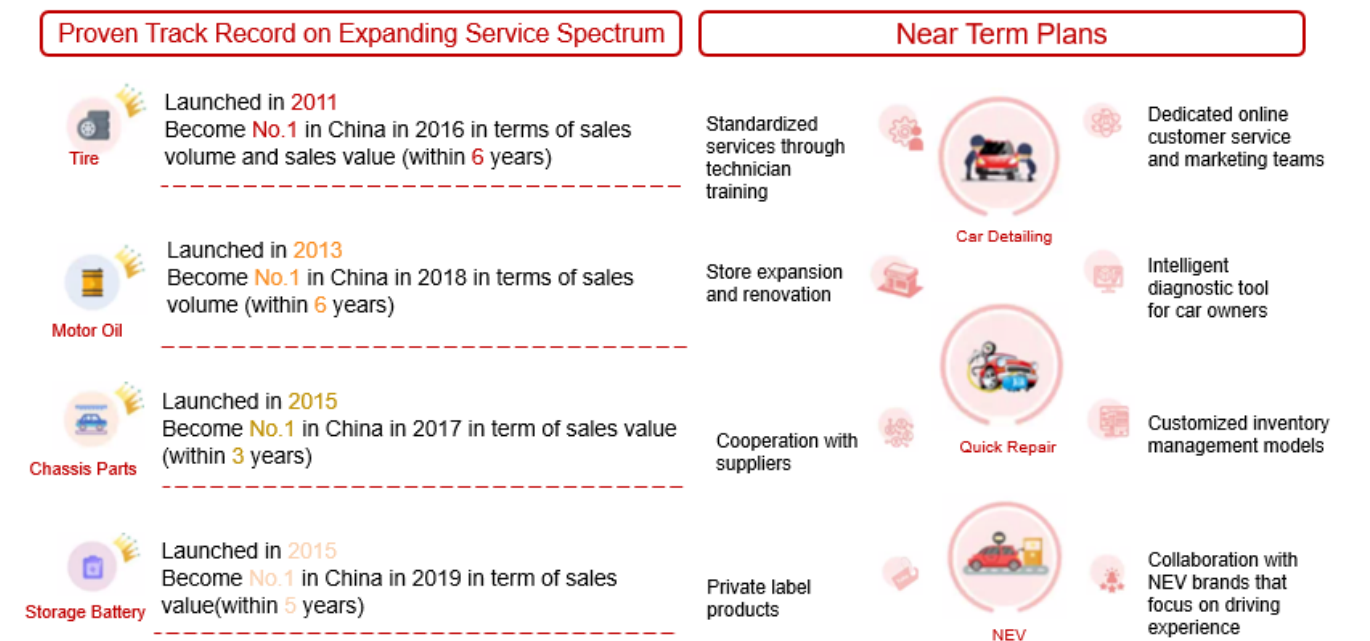
### Expanding auto service spectrum to diversify its monetization

Tuhu offers a diversified and expanding catalogue of products and services, including tires and chassis parts, auto maintenance, auto repairs, car detailing, and auto accessories. On the platform, customers can choose auto products for over 52,000 car models from 264 makes according to CIC, including private label products and exclusive products.

Tuhu introduces exclusive products, expands product offerings and optimizes its product portfolio by introducing private label products, comprising proprietary brands and third-party products for which Tuhu exclusively manages the manufacturing, distribution, and sales in China. These private label products and exclusive products with higher margin enable Tuhu to improve profitability.

As of 31 Mar 2023, Tuhu had launched 51 private label product brands covering 7,429 SKUs transacted through its platform over the last twelve months, and 54 exclusive product brands covering 2,239 SKUs transacted through its platform over the last twelve months, ranging from tires and chassis parts to auto maintenance products etc.

**Figure 31: Tuhu’s service spectrum expansion**

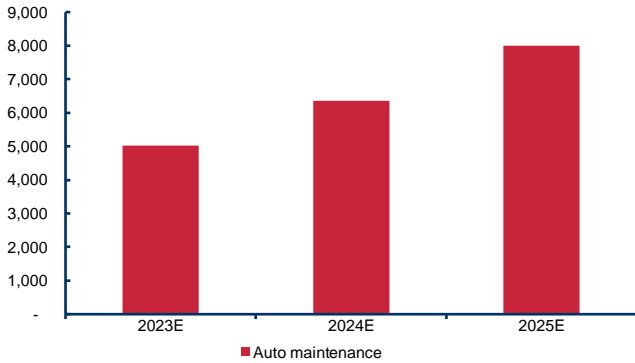


Source: Company data, CMBIGM

**Expect auto maintenance to grow at 26% CAGR in FY23E-25E**

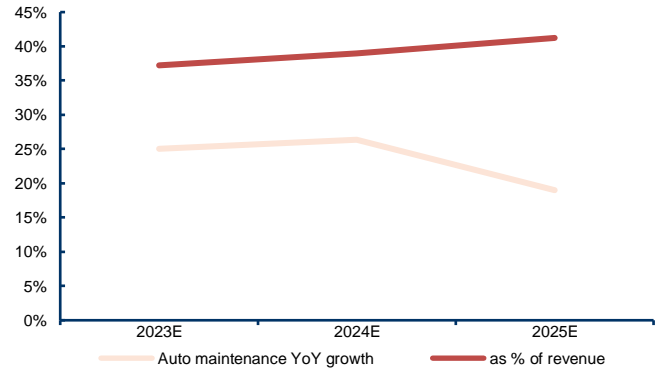
Auto maintenance is one of the fast-growing businesses to drive topline growth and lift GPM. In 1H23, auto maintenance achieved 25.9% YoY growth, in which the sales volume of motor oil products increased by 29% YoY, driven by the post-COVID-19 recovery and network expansion along with growing customer base. We forecast this segment to surge at 26% CAGR in FY23E-25E, accounting for 41% of total rev in FY25E (vs. 35% in FY22), attributable to more sales on private label products, which have lower ASP but higher GPM. As Tuhu continues to expand into lower-tier cities, the price range of private label products will be more suitable to the customer demand.

**Figure 32: Auto maintenance’s revenue estimates**



Source: Company data, CMBIGM estimates

**Figure 33: Auto maintenance rev growth and rev mix**



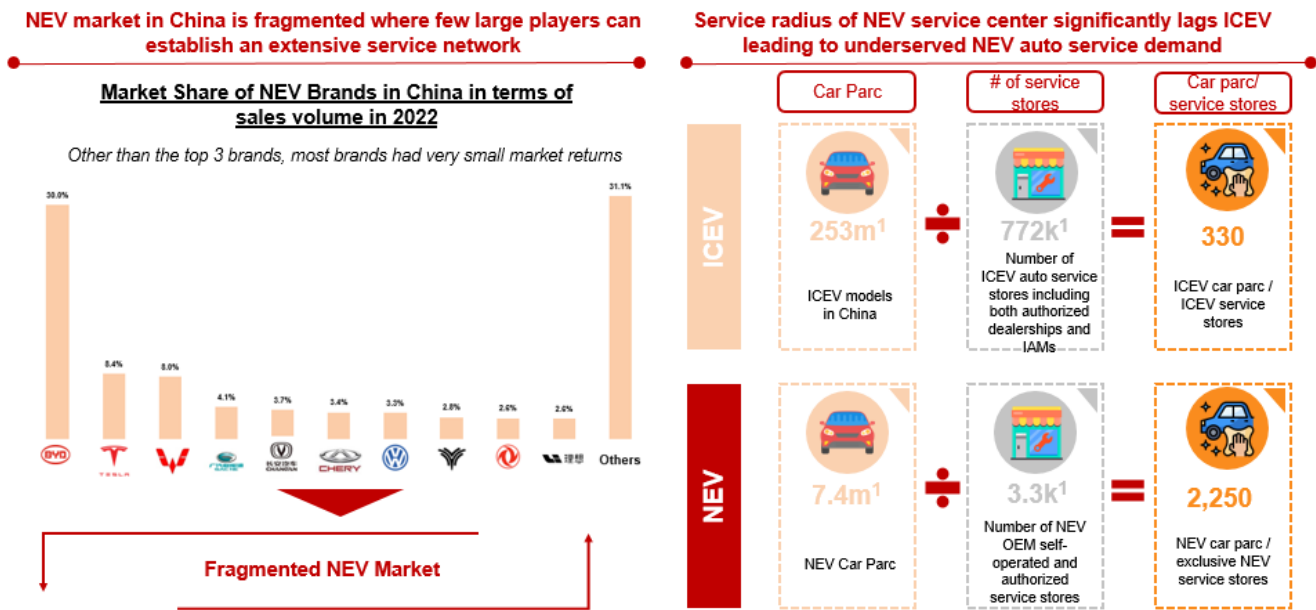
Source: Company data, CMBIGM estimates

**NEV: new opportunities from NEV development**

We believe the automotive service market for NEV is still at an early stage, given: 1) the market is fragmented where few large players can establish an extensive service network, and 2) the service radius of NEV service centre significantly lags ICEV leading to underserved NEV auto service demand.

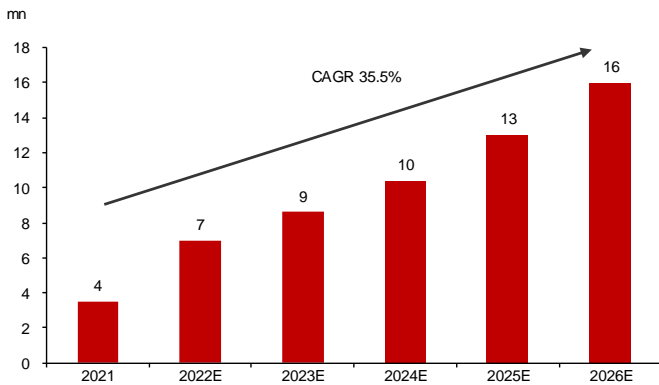
The market potential will be unlocked by NEV development and deeper penetration. The NEV sales volume is expected to grow significantly to 22.1mn by 2027E at CAGR of 27.6% in 2022-27E, while NEV penetration of total passenger car parc is expected to remain low at 20.5% in 2027E (vs. 4.6% in 2022), according to IDC.

**Figure 34: Automotive service market for NEV is still at early stage**



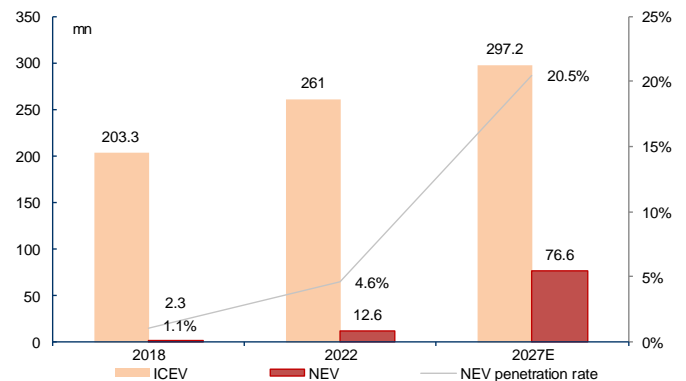
Source: National Bureau of Statistics of China, China Automobile Dealers Association, QiChaCha, China insight Consultancy  
Note: Date as of 31 Dec 2021

**Figure 35: The potential for NEV sales volume in China by 2026E**



Source: IDC, CMBIGM

**Figure 36: The potential for NEV penetration of passenger car parc in China by 2027E**



Source: CIC, CMBIGM

NEV’s development will bring new market opportunities for the auto service market. Among NEVs, PHEVs require maintenance of both engine and battery as they use both as the power system, while BEVs require less maintenance work on its power systems compared to ICEVs as BEVs fully replace the internal combustion engine with the battery power system.

**Figure 37: Comparison of maintenance and repair services for NEV and ICEV**

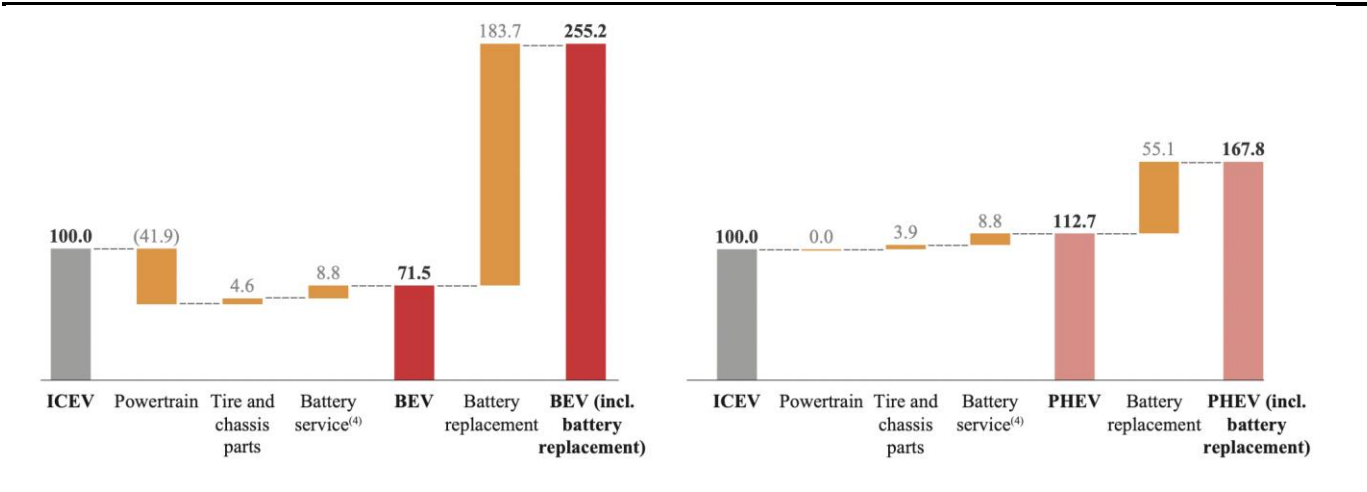
Categories		Battery capacity test and servicing	Electrical system replacement	Motor oil change	Oil/fuel/air filter replacement	Spark plug replacement	Brake callipers replacement	Chassis maintenance	Tire replacement	Other wearing parts
NEV	BEV	✓	✓	×	×	×	✓	✓	✓	✓
	PHEV	✓	✓	✓	✓	✓	✓	✓	✓	✓
ICEV	ICEV	×	×	✓	✓	✓	✓	✓	✓	✓

Source: CIC, Company data, CMBIGM

Compared to ICEVs, other than maintenance for engine, PHEVs require additional maintenance services for battery power system including battery capacity test and servicing and electrical system replacement. Therefore, the annualized expenditure on regular maintenance and repair for a PHEV is approximately 13% higher than that for an ICEV, per CIC Report.

Unlike ICEVs and PHEVs, BEVs do not require maintenance and repair services for the engine, such as motor oil change, filter replacement, and spark plug replacement. However, 1) the average weight of a BEV is usually higher than that of an ICEV, leading to more wear and tear of tires and the suspension, 2) given battery packs account for 30- 40% of BOM costs, it is expected that additional services (battery inspection, balancing, and testing, etc.) will be created, and 3) the life-cycle of battery packs in NEV is around eight years, after which the battery packs may need to be replaced by specialized tools and expertise.

**Figure 38: Comparison of annualized expenditure on regular maintenance and repair services over the entire lifecycle of a vehicle by ICEV/PHEV/BEV (Assume the annualized expenditure for an ICEV to be 100)**

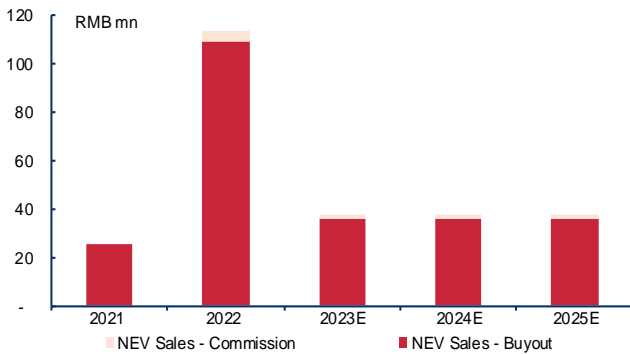


Source: CIC, Company data, CMBIGM

Tuhu is well-positioned to capture NEV opportunities, backed by its OEM partnership, workshops upgrade and technician training. In Aug 2021, Tuhu entered into a strategic partnership with Leapmotor to offer automotive services, including maintenance and car detailing. In 2021, Tuhu entered into another strategic cooperation framework agreement with BAIC Arcfox, to jointly build a one-stop full-service aftermarket service ecosystem that offers a full range of automotive services to NEV owners.

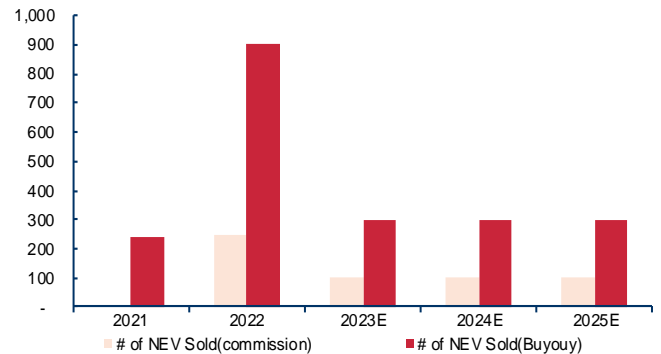
Short-term revenue contribution from NEV might be relatively low, but we are positive on its long-term potential. Based on our conservative estimates, we expect its NEV-related revenue to contribute 0.2% of total revenue in FY25E, backed by around 300 vehicle sale a year mostly through buyout model.

**Figure 39: Revenue mix of NEV-related sales**



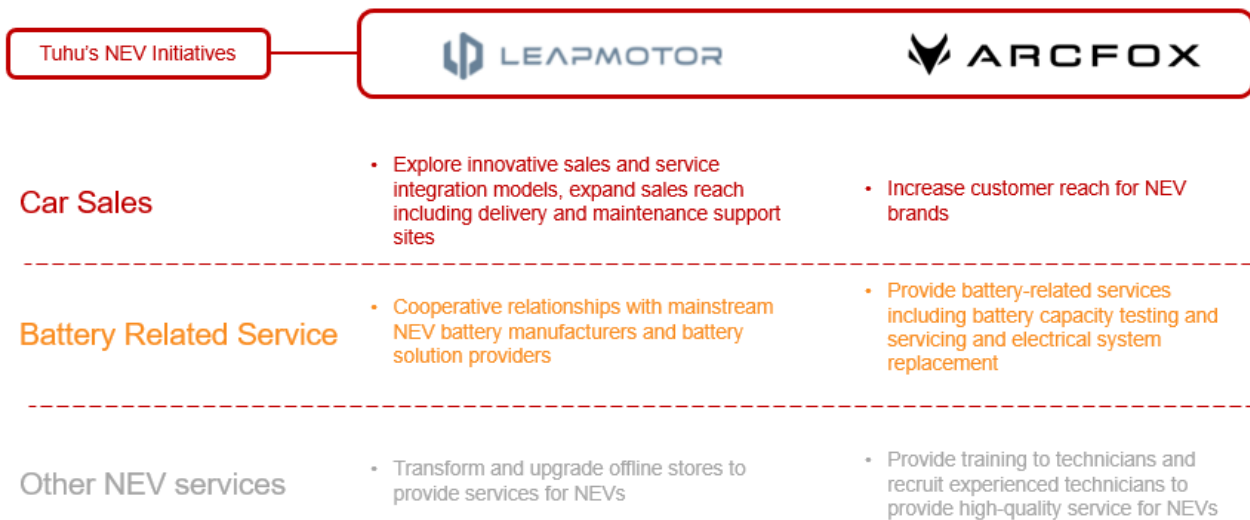
Source: CMBIGM estimates

**Figure 40: No. of NEV-related sales**



Source: CMBIGM estimates

**Figure 41: Tuhu's NEV initiatives**



Source: Company data, CMBIGM

## Industry Analysis

### Large China automotive service market with huge potential

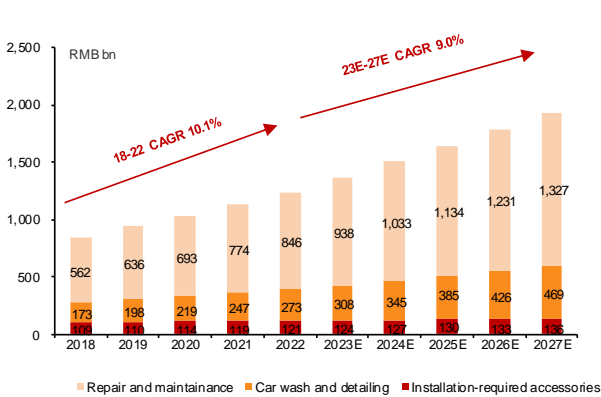
According to CIC, China has become the largest automotive market in the world in terms of total passenger car parc, with 273.6.4mn car parc in 2022. However, as of 31 Dec 2022, China’s passenger car parc was only 194 per thousand capita, lower than that of the US (769) and EU (563), indicating substantial growth upside. Per CIC Report, China has achieved the high new vehicle sales globally. China’s passenger car parc is expected to reach 373.8mn in 2027E.

In addition, aged vehicles require more automotive services. According to CIC, the average vehicle age in China has increased from 4.9 years in 2018 to 6.2 years in 2022, and by 2027, the average age is expected to reach 8.0 years, vs.12.5 years in the US and 12.6 years in the EU, indicating huge potential in China’s automotive service market that provides maintenance service for aged vehicles.

**Market size.** Driven by the large and continually increasing car parc as well as the aging fleet, China’s automotive service market (GMV) grew at 10.1% CAGR in 2018-22. Per CIC Report, China’s automotive service market size (GMV) was RMB1,239.8bn in 2022 and is expected to reach RMB1,931.9bn in 2027E, with a CAGR of 9.3%.

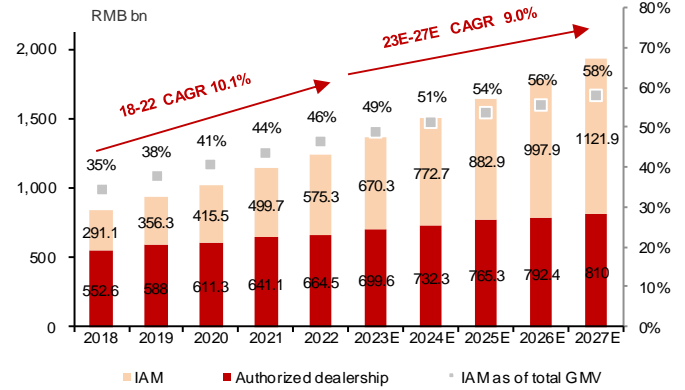
**IAM stores.** Attributable to the expiration of the warranty (3 years after the new sales), car owners will be more likely to choose IAM stores, instead of authorized dealerships, for more convenient location choices and affordable services. In 2022, authorized dealerships/IAM stores accounted for 53.6%/46.4% of China’s automotive service market GMV. In 2027E, IAM stores are expected to represent 58.1% of GMV in China, per CIC Report.

**Figure 42: Market size of automotive service market in terms of GMV, by service type, 2018-27E**



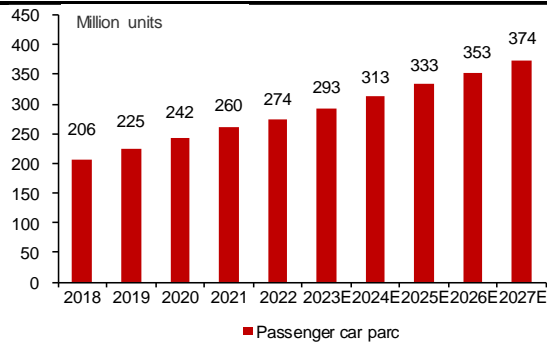
Source: CIC, Company data, CMBIGM

**Figure 43: Market size of automotive service market in terms of GMV, by channel, 2018-27E**

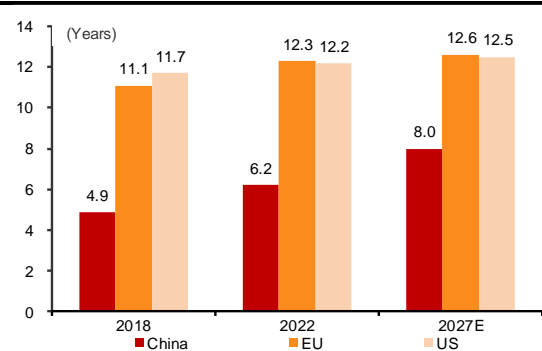


Source: CIC, Company data, CMBIGM



**Figure 44: Car parc of passenger vehicle, China, 2018-27E**

Source: CIC, Company data, CMBIGM

**Figure 45: Average vehicle age of passenger car by geography, 2018-2027E**

Source: CIC, Company data, CMBIGM

## Competitive landscape of China's automotive service market

Among all automotive service providers in China, Tuhu ranked first in terms of number of stores as of 31 Dec 2022. Among IAM stores in China, it ranked first in terms of both the number of stores and annual automotive service revenue (among IAM stores in China's automotive service market) in 2022.

**Figure 46: Ranking of all automotive service providers in terms of number of stores**

Ranking(1)	Automotive service providers	Positioning	Number of stores(2) as of 31 Dec 2020	Number of stores(2) as of 31 Dec 2021	Number of stores(2) as of 30 Dec 2022
1	TUHU	Intergrated O&O automotive service provider	2,488	3,853	4,653
2	Shell Helix Auto Care(3)	Traditional IAM	~2,000	~2,800	~4,000
3	Tmall Auto Care(4)	Intergrated O&O automotive service provider	~550	~1,800	~2,000
4	Tyreplus(5)	Traditional IAM	~1,600	~1,700	~1,600
5	Autoyong(6)	Traditional IAM	~1,200	~1,500	~1,500
6	JD Auto Care(7)	Intergrated O&O automotive service provider	~1,200	~1,480	~850

Source: CIC, Company data, CMBIGM

Note: (1) In terms of number of stores. Data of the non-listed companies in this table was estimated by CIC based on expert interviews, industry public articles and other reputable third party's sources. (2) Including self-operated stores and franchised stores. (3) Shell Helix Auto Care belongs to a public multinational energy and petrochemical company and provides automotive fuel and motor oil in China and adopts franchise model providing automotive services. (4) Tmall Auto Care is an integrated O&O automotive service provider launched in late 2019 and adopts a franchise model. (5) Tyreplus is an automotive service provider established in 2008 and adopts a franchise model. (6) Autoyong is an automotive service provider established in 2015 and adopts a franchise model. (7) JD Auto Care is an integrated O&O automotive service provider launched in 2018 and adopts a franchise model.

**Figure 47: Ranking of all automotive service providers in China, in terms of automotive service rev in 2022**

Ranking(1)	Automotive service providers	Positioning	Automotive service revenue(3) in 2022 (RMB bn)	Market share(4)
1	Zhongsheng Group (00881.HK)	Authorized dealership	24.6	2.0%
2	China Grand Auto (600297.SH)	Authorized dealership	~14.2	1.1%
3	TUHU	Intergrated O&O automotive service provider	11.5	0.9%
4	Yongda Auto (03669.HK)	Authorized dealership	~10.1	0.8%
5	LSH Auto China(2)	Authorized dealership	~10.0	0.8%

Source: CIC, Company data, CMBIGM

Note: (1) In terms of automotive service revenue in 2022 (including authorised dealerships and IAM). Data of the non-listed companies in this table was estimated by CIC based on expert interviews, industry public articles and other reputable third party's sources. (2) A privately owned auto dealership group, establishing its automotive business in mainland in 1993. (3) Revenue from automotive services includes auto maintenance and repair, car wash and detailing, installation-required accessories and excludes auto finance and insurance. (4) Automotive service revenue as % of the total automotive service market in China in 2022.

**Figure 48: Ranking of IAM stores in China's automotive service market in terms of automotive service revenue in 2022**

Ranking(1)	IAM stores	Positioning	Automotive service revenue in 2022 (RMB bn)	Market share(2)
1	TUHU	Intergrated O&O automotive service provider	11.5	0.9%
2	Shell Helix Auto Care	Traditional IAM	~3.2	0.3%
3	Tyreplus	Traditional IAM	~2.3	0.2%
4	Tmall Auto Care	Intergrated O&O automotive service provider	~1.6	0.1%
5	JD Auto Care	Intergrated O&O automotive service provider	~1.3	0.1%

Source: CIC, Company data, CMBIGM

Note: (1) In terms of automotive service revenue in 2022. Data of the non-listed companies in this table was estimated by CIC based on expert interviews, industry public articles and other reputable third party's sources. (2) Automotive service revenue as % of the total automotive service market in China in 2022

## Industry pain points: Fragmented and insufficient value chain

Despite the enormous growth potential, there are various challenges in China's automotive service market:

### Pain points of car owners: undersupplied and unscalable

**Undersupply of quality service stores.** Automotive service providers that offer convenient, trustworthy, and affordable products and services are limited. Car owners may suffer from a long period of time for service completion or a premium for products from those stores that may lack skilled technicians to address the specific car problems.

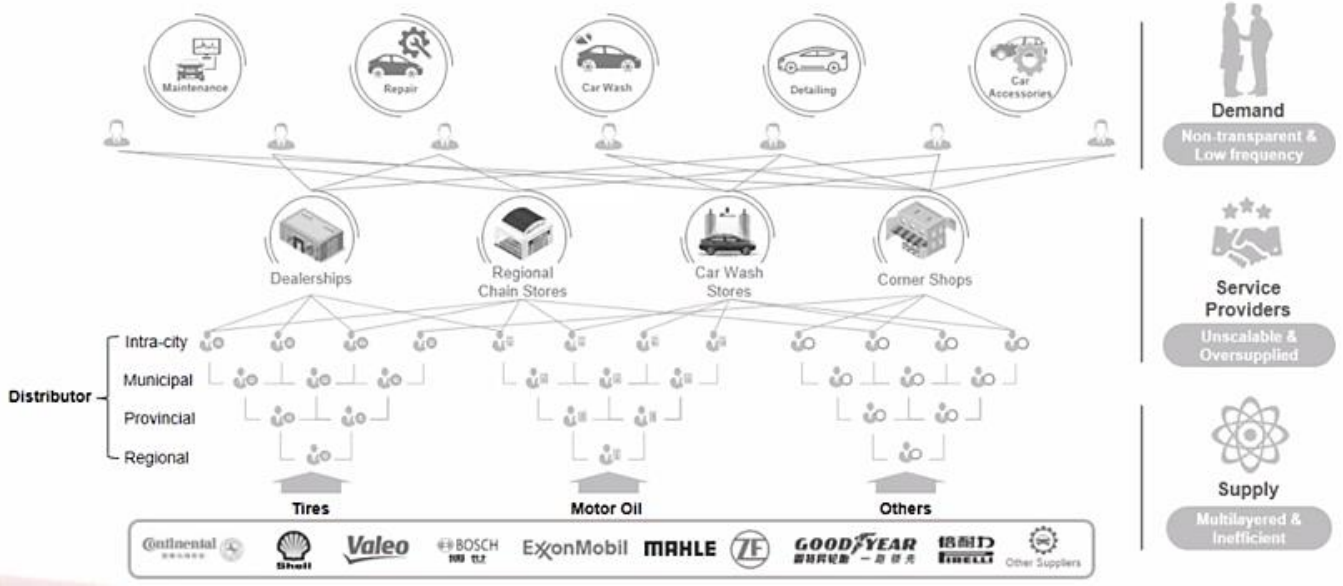
**Limited-service coverage.** Authorized dealerships could only offer limited services subject to a single OEM at a price premium. Moreover, authorized dealerships are sparsely distributed, especially in tier 2 and below cities, making the service process more inconvenient for car owners.

### Pain points related to the supply chain: multi-layered and inefficient

**Multi-layered distribution network combined with information asymmetry.** A multi-layered and inefficient distribution network leads to opaque pricing, inauthentic products, and numerous unmet customer needs, with massive SKUs and numerous automotive service stores nationwide. Given the distance to customers, manufacturers may not receive the most accurate picture on demand of their products.

**Insufficient supply in lower-tier cities.** With increasing level of disposable income, consumption upgrade, and extension of highway network, there is an increasing demand for standardized and quality automotive services in lower tier cities. Specifically, the authorized dealership stores are often sparsely located in lower-tier cities which make them less accessible for car owners, while the small local IAMs suffer from certain players' offering of counterfeit products and subpar services.

**Figure 49: Pain points of China’s automotive service market**



Source: Company data, CMBIGM

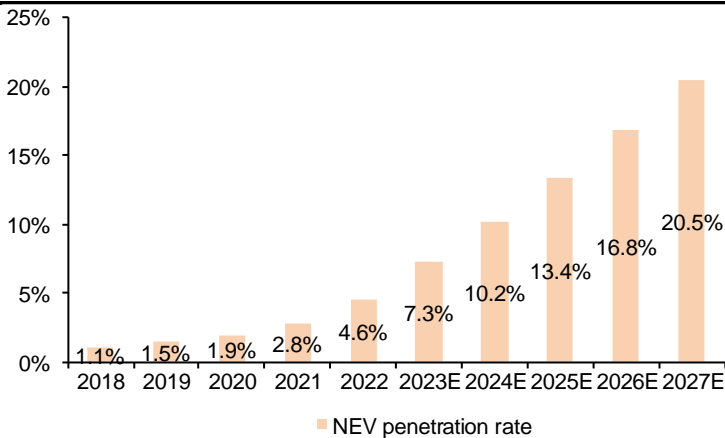
**NEV trends in the automotive service market in China**

In 2022, the sales volume of NEVs passenger vehicle in China has reached 6.5mn (vs. 3.3mn in 2021). According to the CIC Report, penetration rate of NEV passenger vehicle in total sales of new passenger vehicle is expected to continue to rise in the forthcoming years.

**Traditional OEMs** with NEV brands tend to revamp some of their existing authorized dealership stores into NEV service stores and collaborate with leading IAM stores with a nationwide network and high level of service standardization to further enhance their service capabilities.

**Emerging NEV brands** may collaborate with or fully outsource their automotive services to leading IAM stores to ensure service quality and customer experience, which provides a unique opportunity for leading IAM stores in the backdrop of the NEV trend.

**Figure 50: NEV penetration rate in passenger car parc, China, 2018-2027E**



Source: CIC, CMBIGM estimates

## Financial Analysis

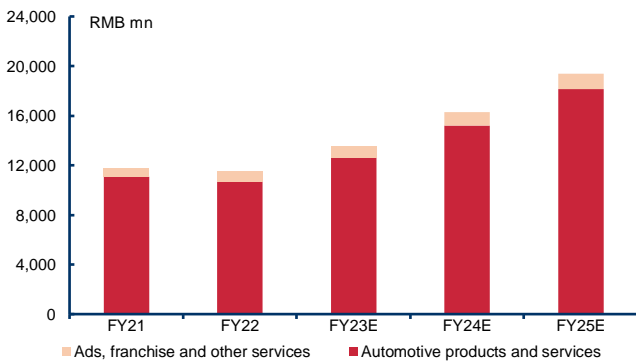
### Revenue breakdown

We forecast Tuhu’s rev +17%/+21%/+19% YoY in FY23/24/25E, in which automotive products and services have been the major contributors. After China’s reopening, we believe Tuhu is well-positioned to capture mobility rebound ahead.

**Automotive products and services are expected to grow at 20% CAGR in FY23-25E in our view**, backed by increasing orders with workshops expansion and deeper penetration into low-tier cities. By segment, we expect tires and chassis parts/auto maintenance/Qipeilong to grow at 16%/26%/15% CAGR in FY23-25E. Auto maintenance business would be the key driver ahead, with higher revenue mix. Tuhu will continue to expand other service offerings (e.g. car detailing, quick repair), with revenue at 12% CAGR in FY23-25E.

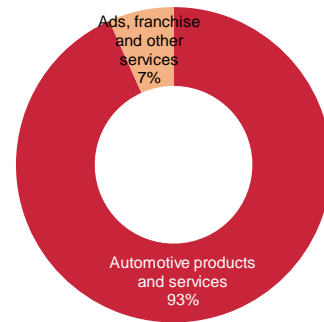
**Advertising, franchise and other services is expected to grow at 18% CAGR in FY23-25E.** Driven by franchise expansion and NEV sales, we expect revenue from platform services to account for 6-7% in FY23-25E. NEV would be a potential longer-term driver, but it should take some time to see meaningful contribution.

**Figure 51: 20% revenue CAGR in FY23-25E**



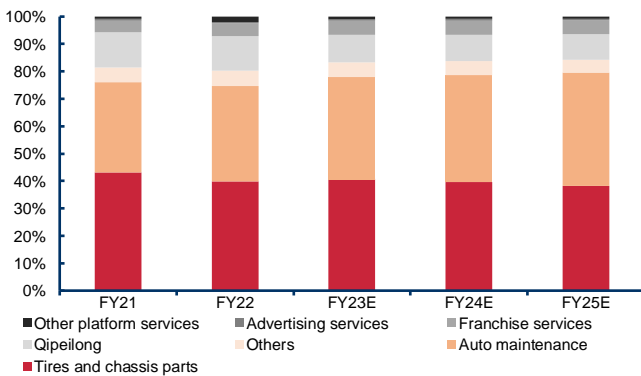
Source: Company data, CMBIGM estimates

**Figure 52: FY23E revenue breakdown**



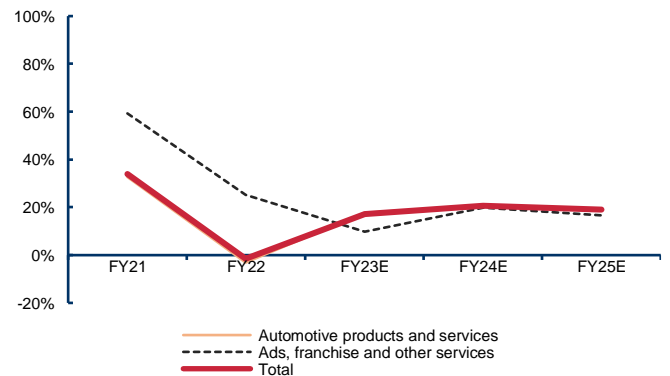
Source: CMBIGM estimates

**Figure 53: Revenue breakdown**



Source: Company data, CMBIGM estimates

**Figure 54: Revenue YoY growth of sub segments**



Source: Company data, CMBIGM estimates

**Figure 55: Revenue driver estimates**

<b>Revenue (RMB mn, Dec-YE)</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23E</b>	<b>FY24E</b>	<b>FY25E</b>
<b>Automotive products and services</b>	<b>11,066</b>	<b>10,723</b>	<b>12,612</b>	<b>15,221</b>	<b>18,139</b>
Tires and chassis parts	5,064	4,592	5,501	6,469	7,432
Auto maintenance	3,842	4,025	5,031	6,358	8,000
Others	646	639	743	842	927
Qipeilong	1,515	1,466	1,337	1,552	1,780
<b>Ads, franchise and other services</b>	<b>658</b>	<b>824</b>	<b>905</b>	<b>1,084</b>	<b>1,264</b>
Franchise services	474	550	692	848	1,008
Advertising services	84	59	77	92	106
Other platform services	100	215	136	144	149
<b>Total</b>	<b>11,724</b>	<b>11,547</b>	<b>13,517</b>	<b>16,305</b>	<b>19,402</b>
<b>% YoY</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23E</b>	<b>FY24E</b>	<b>FY25E</b>
<b>Automotive products and services</b>	<b>33%</b>	<b>-3%</b>	<b>18%</b>	<b>21%</b>	<b>19%</b>
Tires and chassis parts	21%	-9%	20%	18%	15%
Auto maintenance	47%	5%	25%	26%	26%
Others	15%	-1%	16%	13%	10%
Qipeilong	58%	-3%	-9%	16%	15%
<b>Ads, franchise and other services</b>	<b>59%</b>	<b>25%</b>	<b>10%</b>	<b>20%</b>	<b>17%</b>
Franchise services	58%	16%	26%	23%	19%
Advertising services	15%	-29%	30%	20%	15%
Other platform services	153%	115%	-37%	6%	4%
<b>Total</b>	<b>34%</b>	<b>-2%</b>	<b>17%</b>	<b>21%</b>	<b>19%</b>
<b>% of rev</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23E</b>	<b>FY24E</b>	<b>FY25E</b>
<b>Automotive products and services</b>	<b>94%</b>	<b>93%</b>	<b>93%</b>	<b>93%</b>	<b>93%</b>
Tires and chassis parts	43%	40%	41%	40%	38%
Auto maintenance	33%	35%	37%	39%	41%
Other automotive products and services	6%	6%	5%	5%	5%
Qipeilong	13%	13%	10%	10%	9%
<b>Ads, franchise and other services</b>	<b>6%</b>	<b>7%</b>	<b>7%</b>	<b>7%</b>	<b>7%</b>
Franchise services	4%	5%	5%	5%	5%
Advertising services	1%	1%	1%	1%	1%
Other platform services	1%	2%	1%	1%	1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Company data, CMBIGM estimates

## Income Statement

**We expect Tuhu to achieve breakeven in FY23E, with better margin outlook in the long run.**

GPM was estimated to pick up to 26.7% in FY25E from 19.7% in FY22, thanks to 1) more exclusive products and private label products; 2) higher revenue mix of auto maintenance, Qipeilong and platform services (Ads, franchise and other services) with higher GPM, and 3) scale effect with higher bargaining power on pricing and more favorable terms from suppliers.

Meanwhile, we expect its OPM to improve to 7.1% in FY25E from -6.6% in FY22, attributable to efficiency improvement, enhanced brand awareness and broadened store network.

FY22 saw short-term headwinds from lockdown disruptions, but we believe Tuhu would rebound as the topline would showcase V-shaped recovery after China's reopening. We reiterate our confidence in its narrowing loss and expect it to achieve adj. NP breakeven in FY23E (with adj. NP at RMB203mn).

**Figure 56: Income statement**

RMB mn, Dec-YE	FY21	FY22	FY23E	FY24E	FY25E
<b>Net revenue</b>	<b>11,724</b>	<b>11,547</b>	<b>13,517</b>	<b>16,305</b>	<b>19,402</b>
Cost of revenue	(9,854)	(9,277)	(10,345)	(12,140)	(14,223)
<b>Gross profit</b>	<b>1,870</b>	<b>2,270</b>	<b>3,172</b>	<b>4,165</b>	<b>5,179</b>
Selling and distribution expenses	(1,681)	(1,542)	(1,738)	(2,079)	(2,350)
Administrative expenses	(351)	(399)	(372)	(375)	(388)
R&D expenses	(620)	(621)	(588)	(620)	(660)
O&S expenses	(654)	(627)	(541)	(546)	(563)
<b>Operating (loss)/profit</b>	<b>(1,314)</b>	<b>(764)</b>	<b>92</b>	<b>707</b>	<b>1,383</b>
<b>(Loss)/profit before income tax</b>	<b>(5,810)</b>	<b>(2,108)</b>	<b>99</b>	<b>728</b>	<b>1,417</b>
Income (expense)/credit	(35)	(31)	(5)	(73)	(142)
<b>(Loss)/profit for the year</b>	<b>(5,845)</b>	<b>(2,138)</b>	<b>94</b>	<b>655</b>	<b>1,276</b>
<b>Adj. net (loss)/profit*</b>	<b>(1,264)</b>	<b>(552)</b>	<b>203</b>	<b>753</b>	<b>1,396</b>
<b>Margin Analysis</b>					
Gross margin	16.0%	19.7%	23.5%	25.5%	26.7%
Operating margin	-11.2%	-6.6%	0.7%	4.3%	7.1%
Adj. net (loss)/profit margin*	-10.8%	-4.8%	1.5%	4.6%	7.2%
<b>Growth Analysis</b>					
Revenue	34%	-2%	17%	21%	19%
Gross profit	73%	21%	40%	31%	24%
Operating profit	NA	NA	NA	NA	96%
Adj. net (loss)/profit*	NA	NA	NA	272%	85%

Source: Company data, CMBIGM estimates

\*Non-IFRS measure

## Balance Sheet

### Healthy balance sheet with net cash position in FY23/24/25E

According to our estimates of profit before taxation and change in working capital, Tuhu has strong operating cash inflow in supporting CAPEX in the next three years. Therefore, we believe Tuhu can stay in net cash position in FY23/24/25E. We expect Tuhu to hold RMB5.3bn/RMB6.8bn/RMB8.4bn cash and cash equivalent as of 31 Dec 23/24/25E.

**Figure 57: Balance sheet**

RMB mn, Dec-YE	FY21	FY22	FY23E	FY24E	FY25E
<b>Non-current assets</b>	<b>2,086</b>	<b>2,108</b>	<b>2,186</b>	<b>2,595</b>	<b>2,792</b>
Property, plant and equipment	539	671	1,157	1,569	1,769
Right-of-use assets	518	468	468	468	468
Intangible assets	79	86	83	79	76
Others	950	884	479	479	479
<b>Current assets</b>	<b>7,746</b>	<b>6,906</b>	<b>8,426</b>	<b>10,078</b>	<b>12,658</b>
Cash and bank balances	4,970	4,707	5,332	6,799	8,387
Prepayments	539	456	621	728	853
Financial assets at fair value through profit or loss	320	26	26	26	26
Trade receivables	203	174	419	296	555
Others	1,714	1,543	2,029	2,229	2,837
<b>Current liabilities</b>	<b>5,743</b>	<b>5,572</b>	<b>6,163</b>	<b>7,266</b>	<b>8,400</b>
Accounts payables	3,240	3,119	3,740	4,576	5,400
Other payables and accruals	1,464	1,566	1,537	1,803	2,113
Contract liabilities	559	653	653	653	653
Lease liabilities	148	137	137	137	137
Others	332	97	97	97	97
<b>Non-current liabilities</b>	<b>19,454</b>	<b>22,398</b>	<b>22,398</b>	<b>22,398</b>	<b>22,398</b>
Convertible redeemable preferred shares	18,609	21,726	21,726	21,726	21,726
Others	844	672	672	672	672
<b>Shareholders' equity</b>	<b>(15,367)</b>	<b>(18,957)</b>	<b>(17,949)</b>	<b>(16,992)</b>	<b>(15,348)</b>
<b>Total Equity</b>	<b>(15,364)</b>	<b>(18,957)</b>	<b>(17,949)</b>	<b>(16,992)</b>	<b>(15,348)</b>

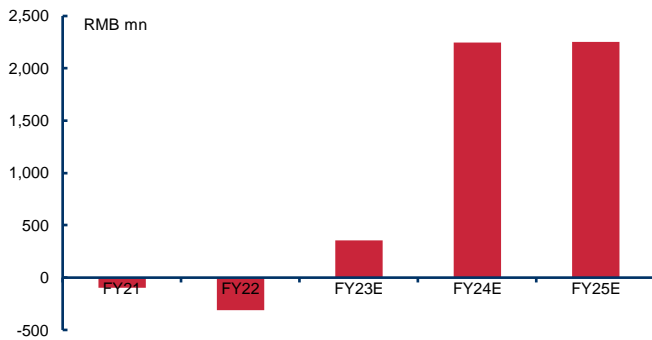
Source: Company data, CMBIGM estimates

## Cash Flow and Working Capital

### Strong operating cash flow

Given its solid store expansion, resilient growth and margin improvement, we expect Tuhu to deliver strong operating cash inflow ahead and record RMB359mn/RMB2.2bn/RMB2.3bn of operating cash inflow in FY23/24/25E, respectively.

**Figure 58: Operating cash flow projections**



Source: Company data, CMBIGM estimates

**Figure 59: Cash flow and working capital analysis**

RMB mn, Dec-YE	FY21	FY22	FY23	FY24E	FY24E
<b>Cash Flow</b>					
<b>Operating cash flow</b>	<b>(99)</b>	<b>(312)</b>	<b>359</b>	<b>2,248</b>	<b>2,251</b>
CAPEX	(410)	(297)	(744)	(782)	(663)
Others*	(508)	779	0	0	0
<b>Investing cash flow</b>	<b>(918)</b>	<b>481</b>	<b>(744)</b>	<b>(782)</b>	<b>(663)</b>
Proceeds from IPO	0	0	1,010	0	0
Others**	1,408	936	0	0	0
<b>Financing cash flow</b>	<b>1,408</b>	<b>936</b>	<b>1,010</b>	<b>0</b>	<b>0</b>
<b>Cash at period end</b>	<b>1,472</b>	<b>2,687</b>	<b>3,311</b>	<b>4,778</b>	<b>6,366</b>

Source: Company data, CMBIGM estimates

\*Others = Investing cash flow – CAPEX

\*\*Others = Financing cash flow – Proceeds from IPO



## Valuation

### (1) DCF-based analysis yields TP at HK\$50.1

We use DCF valuation as our primary valuation method, since it is suitable to apply DCF valuation to O2O companies with healthy cash flow in the long run. Assuming a WACC of 14.9% and a terminal growth rate of 3%, our estimated TP is **HK\$50.1**, representing **2.8x** FY24E P/S (or **2.4x** FY24E EV/Sales).

Figure 60: DCF valuation

DCF valuation (RMB mn)										
	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	92	707	1,383	2,214	3,056	3,985	4,954	5,918	6,839	7,691
Tax	(5)	(73)	(142)	(340)	(489)	(638)	(793)	(947)	(1,094)	(1,231)
D&A	404	470	525	567	595	625	656	689	724	760
Working capital changes	(305)	918	142	846	888	933	980	1,029	1,080	1,134
CAPEX	(744)	(782)	(663)	(828)	(869)	(913)	(959)	(1,006)	(1,057)	(1,110)
<b>FCF</b>	<b>(557)</b>	<b>1,240</b>	<b>1,246</b>	<b>2,460</b>	<b>3,181</b>	<b>3,993</b>	<b>4,839</b>	<b>5,682</b>	<b>6,492</b>	<b>7,244</b>
FCF Growth	NA	NA	NA	97%	29%	25%	21%	17%	14%	12%
Terminal Value										62,852
<b>PV (FCF+ Terminal Value)</b>	<b>(485)</b>	<b>940</b>	<b>822</b>	<b>1,413</b>	<b>1,827</b>	<b>1,996</b>	<b>2,106</b>	<b>2,153</b>	<b>2,141</b>	<b>20,126</b>

Assumptions	
<b>WACC</b>	<b>14.9%</b>
Tax rate	15.0%
Risk free rate	3.6%
Beta	1.2
Market risk return	13.0%
Debt/Assets	0.0%
<b>Terminal growth rate</b>	<b>3.0%</b>
<b>Debt value</b>	<b>0</b>

Equity Value		WACC				
		13%	14%	15%	16%	17%
<b>PV</b>	<b>33,039</b>					
minus: Net cash	(5,133)					
minus: Minority Interest	0					
Equity Value	38,172					
FX	0.93					
<b>TP (HK\$) based on DCF</b>	<b>50.1</b>					

		WACC				
		13%	14%	15%	16%	17%
<b>Growth</b>	1.5%	56.4	51.1	47.2	42.8	39.5
	2.0%	57.8	52.2	48.1	43.5	40.1
	2.5%	59.4	53.4	49.0	44.3	40.7
	3.0%	61.1	54.7	<b>50.1</b>	45.1	41.4
	3.5%	63.0	56.2	51.3	46.0	42.1
	4.0%	65.1	57.8	52.5	47.0	42.9
	4.5%	67.4	59.5	53.9	48.0	43.7

Source: Company data, Bloomberg, CMBIGM estimates

## (2) SOTP valuation and peers comparison

Given its diversified monetization, we also use SOTP valuation for crosschecking. We applied FY24E EV/sales multiple (2.0x/2.5x) for its comprehensive automotive products and services/platform services. Our SOTP-based TP was HK\$50.3.

We selected four group comps for peer comparison, in which automotive service /e-commerce/other verticals/consumer trade at 2.6x/1.8x/2.9x/2.6x FY24E P/S on average. For automotive products and services, we applied 2.0x EV/sales, based on 20% discount of automotive services multiple. For advertising, franchise and other services, we assigned 2.5x EV/sales, in line with ecommerce & other verticals multiple. From the prospective of business model, we think three global automotive services companies (O'Reilly, AutoZone and Valvoline) would be the most comparable one. Our TP-implied multiple of 2.8x FY24E P/S is largely in line with industrial average of global peers, which is not demanding. Compared to peers, we think Tuhu exceeded itself for 1) high barrier with unique franchisee-friendly ecosystem; and 2) 20% FY23-25E rev CAGR with clear margin expansion.

To better value its long-term profitability, we also use forward discounted valuation (P/E multiple) for crosschecking. We assume its longer-term adj. NPM at 10% (below mid-teens of O'Reilly and AutoZone), and assign 25x FY24E P/E to FY24E net profit with stabilized margin, yielding TP of HK\$53.5.

**Figure 61: SOTP valuation**

Business (RMB mn)	'24E Rev	Multiple	Methodology	Value
Automotive products and services	15,221	2.0x	EV/Sales	30,442
Ads, franchise and other services	1,084	2.5x	EV/Sales	2,711
<b>Enterprise Value</b>				<b>33,152</b>
(+) Net Cash				5,133
<b>Equity Value</b>				<b>38,285</b>
FX				0.93
<b>Valuation (HK\$ mn)</b>				<b>41,167</b>
<b>TP (HK\$) based on SOTP</b>				<b>50.3</b>

Source: CMBIGM estimates

Figure 62: Peers' valuation

Company	Ticker	Mkt cap (USD mn)	Currency	Price	CMBI Rating	CMBI TP	PE			PS			FY23-25 EPS
							FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	CAGR
<b>Tuhu Car</b>	<b>9690 HK</b>	<b>3,655</b>	<b>HKD</b>	<b>32</b>	<b>BUY</b>	<b>50</b>	<b>121.0</b>	<b>33.0</b>	<b>18.0</b>	<b>1.8</b>	<b>1.5</b>	<b>1.3</b>	<b>163%</b>
<b>Automotive service</b>													
O'Reilly	ORLY US	52,721	USD	875	NR	NA	22.8	21.4	20.2	3.4	3.2	3.0	11%
AutoZone	AZO US	43,079	USD	2,436	NR	NA	16.2	15.7	14.9	2.3	2.2	2.1	10%
Valvoline	VVV US	4,142	USD	30	NR	NA	21.3	18.2	15.7	2.9	2.5	2.2	28%
Autohome	ATHM US	3,366	USD	27	NR	NA	11.8	11.4	10.7	3.4	3.3	3.1	5%
Average							20.1	18.5	16.9	2.8	2.6	2.4	17%
<b>E-commerce</b>													
Meituan	3690 HK	86,928	HKD	109	BUY	172	29.6	19.2	12.7	2.3	1.9	1.6	49%
JD.com	JD US	39,476	USD	25	BUY	63	8.9	7.8	6.8	0.3	0.2	0.2	13%
Alibaba	BABA US	206,094	USD	81	BUY	157	8.8	8.3	7.4	1.6	1.4	1.3	12%
Pinduoduo	PDD US	135,909	USD	107	BUY	109	19.0	14.6	11.4	4.9	3.8	3.1	27%
Average							12.3	12.5	9.6	2.3	1.8	1.6	17%
<b>Other verticals</b>													
Beike	BEKE US	19,171	USD	15	BUY	25	17.4	15.4	13.1	1.9	1.6	1.5	12%
Kanzhun	BZ US	6,756	USD	15	NR	NA	32.8	23.2	17.1	8.5	6.5	5.2	34%
Trip	TCOM US	22,318	USD	35	BUY	45	16.4	14.2	12.2	3.7	3.1	2.7	15%
Tongcheng	780 HK	4,226	HKD	15	BUY	25	14.6	12.0	10.1	2.7	2.2	1.9	21%
JD Health	6618 HK	13,539	HKD	33	NR	NA	30.0	23.7	18.7	1.9	1.5	1.3	28%
H World	HTHT US	11,648	USD	37	NR	NA	22.8	19.9	17.0	4.0	3.7	3.4	16%
Full Truck Alliance	YMM US	7,375	USD	7	NR	NA	21.4	16.7	12.5	6.6	5.3	4.3	32%
Average							18.5	17.9	13.7	3.4	2.9	2.5	18%
<b>Consumer</b>													
MINISO	MNSO US	8,501	USD	27	NR	NA	26.0	21.7	18.7	4.2	3.6	3.1	16%
Yum China	YUMC US	21,898	USD	53	NR	NA	24.3	20.1	17.3	2.0	1.7	1.5	19%
Haidilao	6862 HK	13,852	HKD	19	NR	NA	22.9	19.8	17.2	2.4	2.1	1.9	15%
Pop Mart	9992 HK	3,973	HKD	23	NR	NA	26.9	21.0	16.8	4.7	3.8	3.1	27%
Average							25.0	20.6	17.5	3.3	2.8	2.4	19%
<b>Average</b>							<b>19.3</b>	<b>17.4</b>	<b>14.4</b>	<b>2.9</b>	<b>2.6</b>	<b>2.2</b>	<b>18%</b>

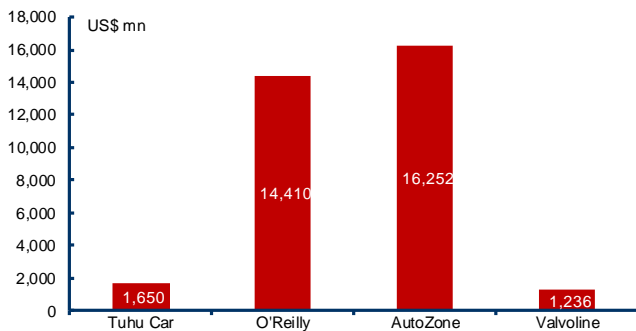
Source: Bloomberg, CMBIGM estimates, by 23 Aug 2023

Figure 63: Financial metrics of Tuhu and global automotive peers in FY22

US\$ mn	Tuhu Car	O'Reilly	AutoZone	Valvoline
Ticker	N/A	ORLY US	AZO US	VVV US
Revenue	1,650	14,410	16,252	1,236
Gross profit	324	7,382	8,473	476
Gross margin	20%	51%	52%	39%
Adj. net profit	(79)	2,173	2,430	132
Adj. net margin	-5%	15%	15%	11%

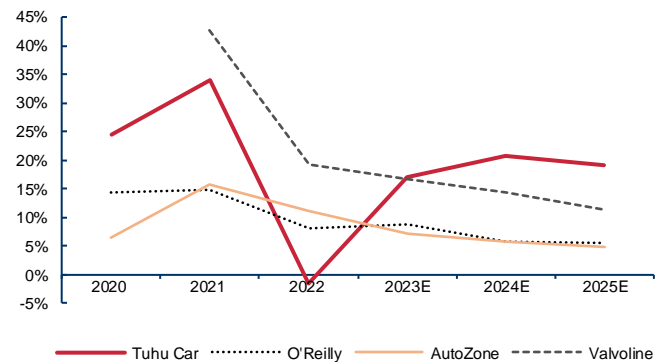
Source: Bloomberg, Company data, CMBIGM

Figure 64: FY22 rev comparison



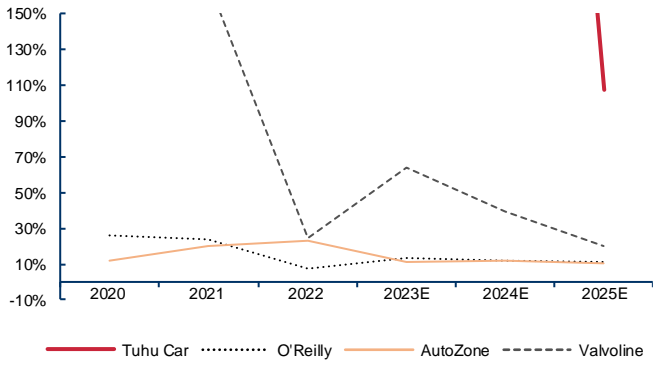
Source: Bloomberg, Company data, CMBIGM

Figure 65: Revenue growth comparison



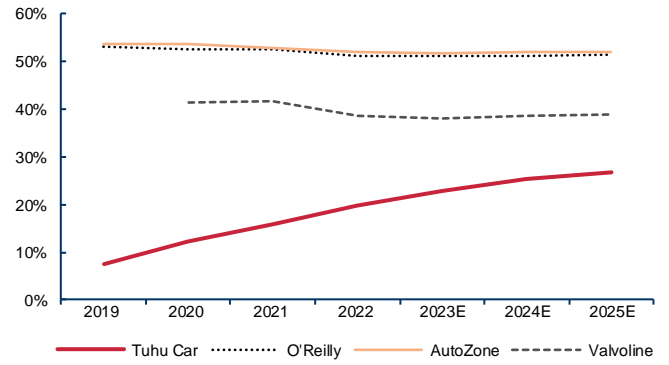
Source: Bloomberg, Company data, CMBIGM estimates

**Figure 66: Earnings growth comparison**



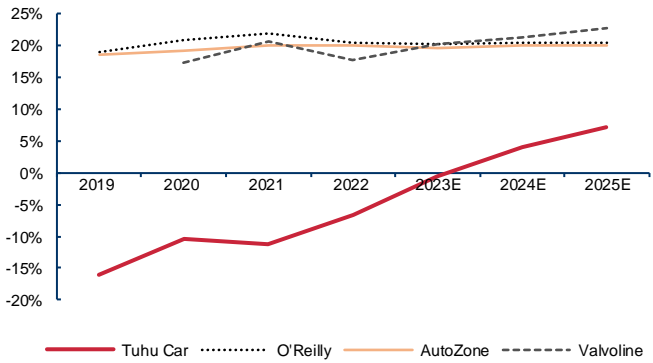
Source: Bloomberg  
Notes: Tuhu was not included, for it is estimated to achieve breakeven in FY24E

**Figure 67: GPM comparison**



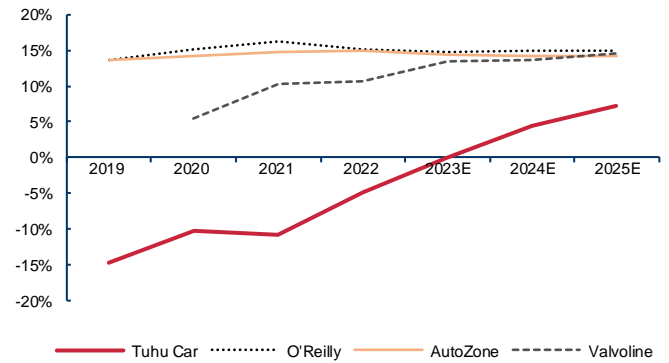
Source: Bloomberg, Company data, CMBIGM estimates

**Figure 68: OPM comparison**



Source: Bloomberg, Company data, CMBIGM estimates

**Figure 69: Adj. NPM comparison**



Source: Bloomberg, Company data, CMBIGM estimates

## Key Investment Risks

### The number and age of vehicles in the car parc

Automotive services are benefited from post-sales warranties offered by OEMs. However, the demand for automotive services is probably reduced, once vehicles of a certain age (typically older than three years) may no longer be under the OEMs' warranties and tend to need more maintenance and repairs than newer vehicles.

### Technological advancement

Advanced technology in vehicle parts may increase its useful life and lower the need for car repair and maintenance. New advanced technologies such as sensors, back-up cameras and autonomous driving vehicles may reduce collisions and reduce demand for repairs and maintenance. The prevalence of new energy vehicles (NEV) may also change customer needs and negatively affect Tuhu's business. As NEVs are not equipped with any internal combustion engine and exhaust system, traditional maintenance services such as oil and filter change may not be applicable to Tuhu's service scope.

### Intense competition

Tuhu may face stronger competition from new market players. Current and potential competitors include (i) authorized dealership stores, (ii) E-commerce platforms tapping into the automotive service market, (iii) traditional equipment manufacturers and (iv) franchised independent repair shops. These competitors may offer more economical prices and services than Tuhu to grasp market share. As Tuhu ventures into the NEV sector, Tuhu may face another competitions from NEV manufacturers who further develop own service network to gain control of customer touchpoints and to create synergies with their businesses.

### Unable to retain franchise or partner store operators

Tuhu relies on new franchisees and partner stores to offer services to customers, and relies on the network to execute its expansion plan in tier 2 and below cities. Tuhu's infrastructure, traffic, commercial and technology support, and operational insights are the main attractions to these stores. However, franchisees and partner store operators may also choose competitors, if competitors offer superior services or lower charges to these stores and business partners, or acquires them to form strategic alliances.

### Risks relating to the warehousing and logistics

Tuhu's operation may involve the storage of hazardous chemicals used for car repair or maintenance. Tuhu may fail to meet the regulatory requirement for hazardous chemicals and subject to fine and disruption of operations. Tuhu also relies on 3<sup>rd</sup>-party logistic services when it comes to deliveries of hazardous chemicals. But the quality of services is beyond Tuhu's control and leads to damaged, lost or destroyed products. The 3<sup>rd</sup> party logistic providers may also fail to obtain legal permits and get penalized by authorities.

### Changes in commute patterns

Customers may choose public transportation over private transportation, which will reduce the usage of vehicles. Vehicle parts are less likely to wear out, and thus lower the demand for automotive services, be it car washing, repair or maintenance.

### Business impact from the COVID-19 outbreak

COVID-19 restrictive measures may disrupt Tuhu's store and office operations and reduce customers' need for repair and maintenance services. Large-scale restrictive measures may be imposed by authorities for controlling highly transmissible COVID-19 variants like Delta and Omicron, such as lockdown, prohibition of large gatherings and various travel restrictions.

## Appendix 1: Regulations

### Regulations on commercial franchising

Administrative Measures for the Filing of Commercial Franchisees (《商业特许经营备案管理办法》) was enacted on 12 Dec 2011 and took effect on 1 Feb 2012. It sets forth in detail the procedures and documents required for filing franchise agreement. Within 15 days after executing the first franchise agreement, the franchisor shall file with the Ministry of Commerce or its local counterparts for record.

If there occurs any change to the franchisor's business registration, business resources and store network, the franchisor shall apply to the Ministry of Commerce for alteration within 30 days after the occurrence of such change. Within the first quarter of each year, the franchisor shall report the execution, revocation, termination, and renewal of the franchise agreements occurring in the previous year to the Ministry of Commerce or its local government body counterparts.

### Regulations on online trading and e-commerce

The SCNPC enacted the E-Commerce Law of the PRC (《中华人民共和国电子商务法》) on 31 Aug 2018. The legal framework for China's E-Commerce business was established. Obligations and possible legal consequences due to activities on the E-commerce platform were clarified. E-commerce platform operators are required to (i) take necessary actions or report to relevant competent governmental authorities when such operators notice any illegal production or services provided by merchants on the e-commerce platforms; (ii) verify the identity of the business operators on the platforms; (iii) provide identity and tax related information of merchants to local branches of SAMR and tax bureaus; and (iv) archive goods and service information and transaction information on the e-commerce platform.

All operating activities for product sales and services provision via the internet are regulated by the Measures for the Supervision and Administration of Online Transactions (《网络交易监督管理办法》), which took effect on 1 May 2021. The Online Transaction Measures regulates e-commerce platform, online social networking and online live streaming to protect consumer rights and information protection etc. Further restriction was imposed on e-commerce platform in terms of verification and registration of trading parties' identity. The law helped further consolidated the inspection and monitoring of information on the goods sold or services provided on the platform.

### Regulations on Internet information security and privacy protection

The Several Provisions on Regulation of Automobile Data Security (for Trial Implementation) (《汽车数据安全若干规定(试行)》), enacted on 16 Aug 2021 and became effective on 1 Oct 2021, regulated the processing on automobile data. When important data (e.g., personal information) are processed during the use, operation, or maintenance of automobiles, the automotive processor is obligated to submit a risk assessment report to the cyberspace administration. The report includes how the important data processing activities are carried out. The safety management status of the important data has to be reported annually and submitted to the cyberspace administration.

The Measures for Cybersecurity Review (《网络安全审查办法》) was jointly revised by authorities and took effect on 15 Feb 2022. It required platform operators with >1 million users' personal information to apply for a cybersecurity review and file reports to the

Cybersecurity Review Office (网络安全审查办公室), before they seek listing status in foreign countries. The law also required any data processing activities that may affect national security shall also be subject to the cybersecurity review.

On 20 Aug 2021, the SCNPC promulgated the Law of Personal Information Protection of PRC(《中华人民共和国个人信息保护法》), or the Personal Information Protection Law, which became effective on 1 Nov 2021. Pursuant to the Personal Information Protection Law, the processing of personal information includes the collection, storage, use, processing, transmission, provision, disclosure, deletion, etc. of personal information, and before processing personal information, personal information processors should truthfully, accurately and completely inform individuals of the following matters in a conspicuous manner and in clear and easy-to-understand language: (i) the name and contact information of the personal information processor; (ii) purpose of processing personal information, processing method, type of personal information processed, and retention period; (iii) methods and procedures for individuals to exercise their rights under this law; and (iv) other matters that should be notified as required by laws and administrative regulations.

### **Regulations on competition and anti-monopoly**

The PRC Anti-Monopoly Law (《中华人民共和国反垄断法》) became effective on 1 Aug 2008 and provided the regulatory framework to, prohibit monopolistic agreements, abuse of a dominant market position and concentration of businesses that may have the effect to eliminate or restrict competition.

Pursuant to the Anti-Monopoly Law, a business operator that possesses a dominant market position is prohibited from abusing its dominant market position, including conducting the following acts: (i) selling commodities at unfairly high prices or buying commodities at unfairly low prices; (ii) without justifiable reasons, selling commodities at prices below cost; (iii) without justifiable reasons, refusing to enter into transactions with their trading counterparts; (iv) without justifiable reasons, allowing trading counterparts to make transactions exclusively with itself or with the business operators designated by it; (v) without justifiable reasons, tying commodities or imposing unreasonable trading conditions to transactions; (vi) without justifiable reasons, applying differential prices and other transaction terms among their trading counterparts who are on an equal footing; and (vii) other acts determined as abuse of dominant market position by the relevant governmental authorities.

## Appendix 2: Company Background

**Figure 70: Key milestones**

Year	Event
2011	TUHU.CN commenced operation.
2012	Set up a logistics centre in Shanghai to help facilitate delivery service in Jiangsu and Shanghai regions.
2014	Commenced operation of Tuhu Automotive Service (途虎养车) app with the provision of more than 30 types of automotive services.
2016	Launched its first Tuhu Workshop and established integrated online and offline business model. Adopted an asset-light franchise model.
2018	Formed strategic partnerships with Exxon Mobil, Bridgestone and Giti Tire.
2019	Formed strategic partnerships with BOSCH and Chaoyang. Implemented "Unique Parts Code" system to track goods within the store. Deployed proprietary AI technology for customised recommendation on its app.
2020	Ranked first in terms of number of service stores among all automotive service providers in China.
2021	Number of Tuhu Workshops in China grew to over 3,000. Partnered with NEV brands and key suppliers of NEV brands to provide dedicated services addressing the NEV market.

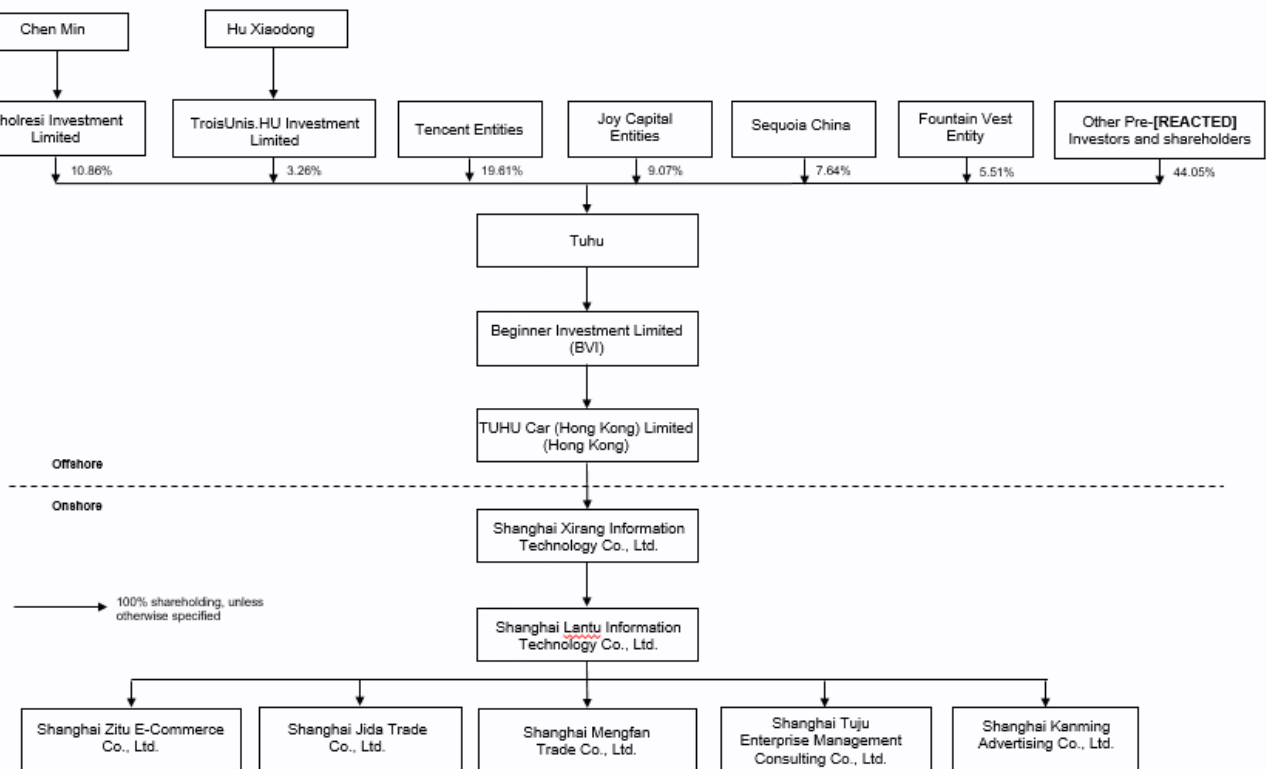
Source: Company data, CMBIGM

**Figure 71: Management profile**

Function	Number of employees	QoQ	% of total
Store Management	487	-5.4%	11%
Warehouse and Supply Chain	189	-4.5%	4%
Operations and Supporting	2,033	-6.9%	44%
Selling and Marketing	659	-4.9%	14%
Research and Development	830	-12.8%	18%
General and Administrative	374	-10.7%	8%
<b>Total</b>	<b>4,572</b>	<b>-7.8%</b>	<b>100%</b>

Source: Company data, CMBIGM, as of 31 Mar 2023

**Figure 72: Current corporate structure**



Source: Company data, CMBIGM



**Figure 73: Management profile**

Name	Age	Position	Roles and Responsibilities	Date of Joining the Group	Date of Appointment as Director
Chen Min (陈敏)	41	Co-founder, Chairman of the Board, Chief Executive Officer and Executive Director	Overall strategic planning, day-to-day business operation and management	Oct 2011	Jul 2019
Hu Xiaodong (胡晓东)	51	Co-founder, President and Executive Director	Overall strategic planning with a focus on research and development	Oct 2011	Oct 2019
Yao Leiwen (姚磊文)	40	Non-executive Director	Provide professional advice, opinion, and guidance to its Board	Aug 2018	Oct 2019
Yan Huiping (颜惠萍)	56	Independent non-executive Director	Supervising and providing independent judgement to its Board	[•]	[•]
Feng Wei (奉玮)	43	Independent non-executive Director	Supervising and providing independent judgement to its Board	[•]	[•]
Wang Jingbo (王静波)	41	Independent non-executive Director	Supervising and providing independent judgement to its Board	[•]	[•]

Source: Company data, CMBIGM

## Financial Summary

### Income statement

YE 31 Dec (RMB mn)	FY21A	FY22A	FY23E	FY24E	FY25E
<b>Revenue</b>	11,724	11,547	13,517	16,305	19,402
Automotive products and services	11,066	10,723	12,612	15,221	18,139
Ads, franchise and other services	658	824	905	1,084	1,264
<b>COGS</b>	(9,854)	(9,277)	(10,345)	(12,140)	(14,223)
<b>Gross profit</b>	1,870	2,270	3,172	4,165	5,179
S&M	(1,681)	(1,542)	(1,738)	(2,079)	(2,350)
Admin.Exp.	(351)	(399)	(372)	(375)	(388)
R&D	(620)	(621)	(588)	(620)	(660)
O&S	(654)	(627)	(541)	(546)	(563)
<b>Operating profit</b>	(1,314)	(764)	92	707	1,383
Finance income, net	(2)	29	7	21	34
<b>Pre-tax Income</b>	(5,810)	(2,108)	99	728	1,417
Income Tax	(35)	(31)	(5)	(73)	(142)
Net profit	(5,845)	(2,138)	94	655	1,276
<b>Adj. net profit/(loss)***</b>	(1,264)	(552)	203	753	1,396

### Cash flow summary

YE 31 Dec (RMB mn)	FY21A	FY22A	FY23E	FY24E	FY25E
<b>PBT</b>	(5,810)	(2,108)	99	728	1,417
D&A	305	364	404	470	525
Change in WC	771	(197)	(305)	918	142
<b>Operating CF</b>	(99)	(312)	359	2,248	2,251
Capex	(410)	(297)	(744)	(782)	(663)
Purchase of investments	(3,358)	(3,585)	-	-	-
Others	2,850	4,364	-	-	-
<b>Investing CF</b>	(918)	481	(744)	(782)	(663)
Equity raised	-	-	1,010	-	-
Change of Debts	(1,768)	(265)	-	-	-
Cash from preferred shares	2,636	-	-	-	-
Others	540	1,201	-	-	-
<b>Financing CF</b>	1,408	936	1,010	-	-
<b>Net change in cash</b>	391	1,105	625	1,466	1,588
Cash (beg of yr)	1,165	1,472	2,686	3,311	4,778
FX	(84)	109	-	-	-
<b>Cash (end of yr)</b>	1,472	2,687	3,311	4,778	6,366

### Balance sheet

YE 31 Dec (RMB mn)	FY21A	FY22A	FY23E	FY24E	FY25E
<b>Non-current assets</b>	2,086	2,108	2,186	2,595	2,792
PP&E	539	671	1,157	1,569	1,769
Right-of-use assets	518	468	468	468	468
Intangible assets	79	86	83	79	76
Others	950	884	479	479	479
<b>Current assets</b>	7,746	6,906	8,426	10,078	12,658
Cash and bank balances	4,970	4,707	5,332	6,799	8,387
Prepayments	539	456	621	728	853
Financial assets at fair value through profit or loss	320	26	26	26	26
Trade receivables	203	174	419	296	555
Others	1,714	1,543	2,029	2,229	2,837
<b>Current liabilities</b>	5,743	5,572	6,163	7,266	8,400
Accounts payables	3,240	3,119	3,740	4,576	5,400
Other payables and accruals	1,464	1,566	1,537	1,803	2,113
Contract liabilities	559	653	653	653	653
Lease liabilities	148	137	137	137	137
Others	332	97	97	97	97
<b>Non-current liabilities</b>	19,454	22,398	22,398	22,398	22,398
Convertible redeemable preferred shares	18,609	21,726	21,726	21,726	21,726
Others	844	672	672	672	672
Shareholders' equity	(15,367)	(18,957)	(17,949)	(16,992)	(15,348)
<b>Total equity</b>	(15,364)	(18,957)	(17,949)	(16,992)	(15,348)

### Key ratios

YE 31 Dec	FY21A	FY22A	FY23E	FY24E	FY25E
<b>Sales mix (%)</b>					
Automotive products and services	94.4	92.9	93.3	93.4	93.5
Ads, franchise and other services	5.6	7.1	6.7	6.6	6.5
<b>Total</b>	100.0	100.0	100.0	100.0	100.0
<b>Growth rate (%)</b>					
Revenue	33.9	(1.5)	17.1	20.6	19.0
Gross profit	73.2	21.4	39.7	31.3	24.4
Adj. EBITDA***	NA	NA	NA	120.2	55.6
Adj. net profit/(loss) ***	NA	NA	NA	NA	85.3
<b>P&amp;L ratios (%)</b>					
Operating margin	(11.2)	(6.6)	0.7	4.3	7.1
Pre-tax margin	(49.6)	(18.3)	0.7	4.5	7.3
Adj. net margin	(10.8)	(4.8)	1.5	4.6	7.2
Effective tax rate	0.6	1.5	(5.0)	(10.0)	(10.0)
<b>Returns (%)</b>					
ROE*	NA	NA	NA	NA	NA
ROA**	(12.9)	(6.1)	1.9	5.9	9.0

Source: Company data, CMBIGM estimates

Note:

\* ROE is calculated by dividing a company's net income by its total equity.

\*\* ROA is calculated by dividing a company's net income by its total assets.

\*\*\* In non-IFRS measure.

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