ResearchInChina
www.researchinchina.com

Analysis on Xiaomi Auto's Electrification, Connectivity, Intelligence and Sharing, 2024

Aug. 2024

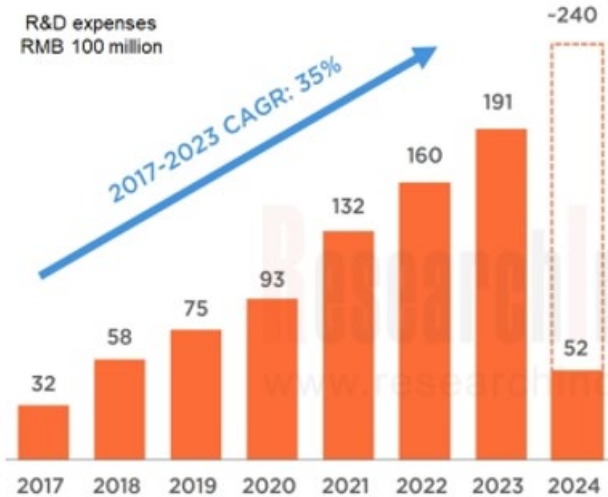# Research on Xiaomi Auto: Xiaomi Auto's strengths and weaknesses

Since the release of SU7, Xiaomi delivered 7,058 units and 8,630 units in April and May, respectively, and more than 10,000 units in both June and July. Xiaomi officially expects to fulfill 110,000 orders in November, which means it needs to achieve the average monthly delivery of 16,000 units in the next four months from August to November.

Xiaomi Auto's first car was a success thanks to its advantages in many aspects, but there are also some shortcomings in its development.

Xiaomi Auto's long-term goal is to "become one of the top five global automakers with 15-20 years of efforts and create a mobile smart space that looks good and is easy to drive, comfortable and safe." Relying on the strengths of Xiaomi Group, Xiaomi Auto has made an initial success in SU7. However, to achieve its long-term goal, Xiaomi Auto still has many problems to overcome.

Strength 1: Sufficient funds, ten times more investment to polish hot-selling products

Compared with other emerging auto brands that need to keep raising funds, Xiaomi Group itself is a listed company with about RMB100 billion in cash. Traditional OEMs generally input 300 to 400 people and RMB1-2 billion in R&D funds to develop a vehicle. Xiaomi put 3,400 engineers and a total R&D funds of RMB10 billion to develop its first car, of which the investment in the key technology intelligent driving was as high as RMB4.7 billion, with the dedicated team size exceeding 1,000 people. By H1 2024, Xiaomi Auto has published about 1,200 Chinese patents/patent fillings, most of which are autonomous driving and vehicle design patents.
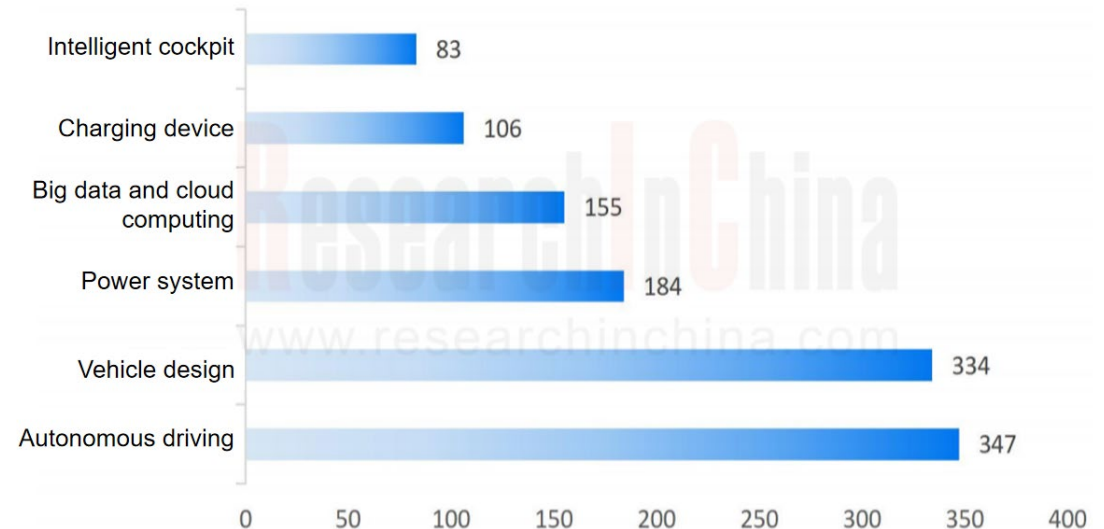
R&D expenses RMB 100 million

2017-2023 CAGR: 35%

Year	Value
2017	32
2018	58
2019	75
2020	93
2021	132
2022	160
2023	191
2024	52 (~240)

R&D expenses increased year-on-year **25.4%**

R&D headcounts **17,000+**

Global patents authorized **39,000+**

Source: Xiaomi 2024Q1 Financial Report

Classification & Quantity of Xiaomi Auto's Patents

Category	Quantity
Intelligent cockpit	83
Charging device	106
Big data and cloud computing	155
Power system	184
Vehicle design	334
Autonomous driving	347

Source: Guangwen Consulting

Strength 2: High brand awareness and a huge fan base

Strength 2: High brand awareness and a huge fan base

Xiaomi has built a fan base by marketing means such as community marketing. As of Q4 2023, the global monthly active users of MIUI have numbered 641 million. Lei Jun's personal Weibo has 24 million fans, far more than other emerging auto brand leaders. Traditional OEM bosses lack influence on Internet.

Xiaomi Group's new retail system enables vehicle sales services. Xiaomi has created a new online and offline integrated retail model. Major online channels are Xiaomi Mall, Xiaomi Youpin (e-commerce platform), Xiaomi Tmall Flagship Store, Xiaomi JD Flagship Store, and offline channels are mainly Xiaomi Home (including direct-sale and franchised) in the core business districts of cities, authorized experience stores/special areas in suburbs and towns, and service outlets. As of April 2024, Xiaomi Group has boasted a total of 12,060 offline stores, including 5,993 Xiaomi Home stores/franchised stores/exclusive stores + 281 Xiaomi Home direct-sale stores + 1,595 service outlets + 4,472 authorized experience stores/special areas.

By the end of July 2024, Xiaomi Auto has opened across China: 30 delivery centers, 102 sales stores, and 58 service outlets.

Strength 3: The people-car-home ecosystem brings convenience to Xiaomi Auto users through integration of information and intelligent applications

In 2022, Xiaomi decided to unify the OS of various devices, involving the software architecture of MIUI, Vela, Mina, and IVI OS. In October 2023, Xiaomi announced HyperOS, a system which is based on the fusion of Android in deep evolution and the self-developed Vela system, rewrites the underlying architecture, and enables dynamic real-time networking of all devices, bringing a new terminal interconnection experience.

AI Brings Better User Experience

"People x Car x Home"

| AI real-time subtitles | AI input method | Xiao'Ai Tongxue text-to-picture | AI photography | AI painting | AI Image enlargement & AI search |

"People x Car x Home"

– Xiaomi Pilot
– Xiaomi Hyper Smart Cabin

"People x Car x Home"

- Xiaomi HyperMind

Strength 4: Excellent marketing and pre-sale activities

Xiaomi is good at using social media and online and offline channels for all-round marketing and promotion. The Xiaomi Auto Launch in December last year and the Xiaomi SU7 Launch in March this year were particularly eye-catching. In these two launches, Xiaomi Auto easily dominated the top trending searches on major social media platforms. According to the statistical report of Zhiwei Data, on the Launch day in December, Xiaomi Auto had more than 350,000 posts and more than 200 hot searches/hashtags on the entire Internet. This launch event had an influence index of up to 80.6, higher than 97% of events and higher than 98% of corporate events. It was really the king of traffic, and even the king of Weibo, Li Auto, could not catch up with it.

Through well-planned launch and online live broadcast, it attracted a mass of viewers. Meanwhile, Xiaomi introduced limited-time offers such as generous gifts for first-day car purchase and exclusive rights for limited-time car ordering, which stimulated consumers' enthusiasm for ordering.

Strength 4: Excellent marketing and pre-sale activities

Strength 4: Excellent marketing and pre-sale activities

Xiaomi is good at using social media and online and offline channels for all-round marketing and promotion. The Xiaomi Auto Launch in December last year and the Xiaomi SU7 Launch in March this year were particularly eye-catching. In these two launches, Xiaomi Auto easily dominated the top trending searches on major social media platforms. According to the statistical report of Zhiwei Data, on the Launch day in December, Xiaomi Auto had more than 350,000 posts and more than 200 hot searches/hashtags on the entire Internet. This launch event had an influence index of up to 80.6, higher than 97% of events and higher than 98% of corporate events. It was really the king of traffic, and even the king of Weibo, Li Auto, could not catch up with it.

Through well-planned launch and online live broadcast, it attracted a mass of viewers. Meanwhile, Xiaomi introduced limited-time offers such as generous gifts for first-day car purchase and exclusive rights for limited-time car ordering, which stimulated consumers' enthusiasm for ordering.

Strength 5: Supply chain integration and manufacturing capabilities

Although Xiaomi is a fresh entrant in the automobile manufacturing industry, it has been able to quickly build a high-quality automobile production system relying on its strong supply chain management and resource integration capabilities, ensuring the timely delivery and stable production supply, thus eliminating consumers' concerns about insufficient supply in the early stages of new product launch.

Shortcoming 1: Insufficient manufacturing experience

Xiaomi has always adopted an asset-light business model, and often relies on external partners in product manufacturing. Yet the manufacturing process of automobiles is far more complicated than consumer electronics, which is a big challenge to Xiaomi. Since its birth, Xiaomi has entrusted mobile phone production to ODMs. Xiaomi is responsible for design and sales, while ODMs take charge of production.

Among emerging carmakers, Li Auto, Xpeng Motors and NIO all chose the OEM/ODM mode to enter the market at the beginning. Under the premise that mobile phones are all produced by ODMs/OEMs, it is undoubtedly a huge challenge for Xiaomi to directly skip to building its own car factory and manufacturing cars.

Shortcoming 2: The threshold for core automotive technology is high, and Xiaomi's automotive R&D expertise is insufficient.

Although Xiaomi has gathered rich experience in intelligent hardware and electronics, automobile manufacturing is a complex system engineering that requires higher technical thresholds and longer technology accumulation. Xiaomi's technical expertise in battery management, vehicle systems, power batteries, and autonomous driving development is relatively insufficient.

Compared with Huawei, Li Auto, NIO, and Tesla, Xiaomi makes underinvestment in EE architecture, automotive basic software, and charging/swapping facilities. Compared with traditional OEMs such as Geely, BYD, and Changan, Xiaomi has insufficient expertise in batteries, hybrids, chassis, and production & manufacturing.

Shortcoming 3: BEV market growth slows down, and need to start from scratch in extended-range models.

Sales data from 2023 to 2024 show that the BEV market has reached a growth bottleneck, and hybrid electric vehicles (especially the extended-range) grew much faster. Xiaomi plans to launch an extended-range SUV in 2026. It has started R&D of extended-range vehicles. After all, it needs to start from scratch and lags behind Li Auto and Huawei for several years. It is not easy to catch up with the two tough rivals.

Shortcoming 4: There are many faults in new cars. Xiaomi still needs to polish software and manufacturing and improve after-sales services.

According to feedback from some we-media (like Leyuan Wangchuang), Xiaomi Auto mainly has following problems since car release:

1. Battery: Many users said that the cruising mileage of cars is quite different from the officially announced, and even some cars had battery failures, thus failing to start normally.
2. Software failures: Problems such as vehicle system halt, inaccurate navigation system, and slow response of voice control affect user experience.??
3. Manufacturing quality: Some car owners reported that there are defects in the vehicle assembly process, such as uneven door gaps, loose interior trims, and abnormal body noise.
4. After-sales services: Faced with frequent quality problems, Xiaomi Auto seems to be overstretched in after-sales services, for example, long time to wait for repair and insufficient supply of accessories.

Table of Content (1)

6 Intelligent Cockpit and Human-car-home Ecosystem

Xiaomi Auto's Intelligent Cockpit System
Xiaomi Auto's Intelligent Cockpit Domain Control Platform
Xiaomi Infotainment System
Xiaomi Human-car-home Eco-Strategy
Xiaomi Cross-end Connection System
Xiaomi Cross-end Connection System Application
Xiaomi Cross-end Connection System Application in Vehicles
Xiaomi SU7 Peripheral Products
Xiaomi Phone-Car Integration Solution: CarWith
Xiaomi Eco-Domain Extension Hardware
Xiaomi Eco-Domain Partners

7 Electrification Layout
CTB Technology
Ten-way Valve Vehicle Thermal Management System
Thermal Management System Patents
Xiaomi HyperEngine

8 Integrated Die Casting and Chassis System

Xiaomi Integrated Die Casting Core Technologies
Xiaomi Integrated Die Casting Technology Solutions and Implementation
Cases
Xiaomi Integrated Die Casting Technology Patents
Xiaomi Chassis System

9 Humanoid Robot
Xiaomi AI Humanoid Robot Layout
Xiaomi AI Humanoid Robot Planning
Xiaomi AI Humanoid Robot Introduction
Xiaomi AI Humanoid Robot Hardware Disassembly
Xiaomi AI Humanoid Robot Software Algorithm

Contact

Beijing Headquarters

TEL: 13718845418
Email: report@researchinchina.com

Website: ResearchInChina

WeChat: Zuosiqiche

Chengdu Branch

TEL: 028-68738514
FAX: 028-86930659

zuosiqiche