EXPRESS PARCEL PACKAGING WASTE RECYCLING PLATFORM

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ABSTRACT

This study aims to start up "Huawei HI Car " Autonomous driving software. Compared with our industry peers, our company has reached the leading level in the field of autonomous driving technology.Through the innovation of solutions, technology and business models, we can provide enterprises and families with safe, convenient and exquisite products and services. The financial and feasibility analysis shows that the annual growth rate of the enterprise is in 2026,15%, 2026-2030 is a high-speed growth period, the growth rate is 1% per year, and the annual growth rate is stable at 19% in 2030.In line with the caution in accounting principles, the valuation is set with a higher discount rate of 25% for cash flow discount. Through the cash flow discount formula, the cash flow from 2021 to 2025 is discounted by 25% to the beginning of 2021.

OVERVIEW

1.1 Company vision

To bring a safer and more efficient travel experience for humans by building safe and reliable autonomous driving technology. Assemble a global team of top talents in the field of intelligent manufacturing, build the world's leading self-driving car products, and become a pioneer in the global intelligent driving field by 2030 as a leading autonomous driving solution provider in China, providing full-stack autonomous driving solutions for domestic and international vehicle manufacturers.

1.2 Project Description

In the past year, operators around the world have launched plans to deploy 5G, which is set to grow faster than ever. According to statistics, it took 10 years for 3G users worldwide to reach a scale of 500 million, and 5 years for 4G; 5G is expected to take just 3 years. This is also the first time in history that the mobile industry has matured simultaneously in terms of system equipment and terminals. While operators are cheering for 5G, they will also face the challenges of increasing network complexity and continued OPEX growth.

To help operators meet these challenges, Huawei has released a series of solutions for "self-driving mobile networks", including the MAE (MBB Automation Engine), a "mobile network brain", and the new BTS5900 base station with enhanced computing power. The new BTS5900 base station with more computing power. The two products achieve optimal operation and maintenance efficiency, resource efficiency, energy efficiency and user experience through hierarchical autonomy and vertical collaboration, helping operators to automate all scenarios, reduce OPEX and accelerate 5G construction.

As the "brain" of the mobile network, MAE is the control engine that automates the wireless network, truly transforming it from element-centric O&M to scenario-centric O&M, and from simple network management to the convergence of network management and control. Based on a cloud-based data platform and powerful network prediction and reasoning capabilities, MAE provides a variety of scenario-based solutions that highly match the workflow of operators' deployment, maintenance and optimisation, and service issuance scenarios, and enables end-to-end closed-loop automation of each process.

INDUSTRY AND MARKET FEASIBILITY ANALYSIS

2.1 Analysis of the current situation

2.1.1 The existing autonomous driving industry

The current development of the automotive industry is mature, electrification, networked, intelligent has become the development trend and trend of the automotive industry, China is speeding up the promotion of the development of intelligent networked vehicles. The country has repeatedly introduced supporting policies and standards to promote the development of the industry, and the current number of smart cars in China exceeds 10 million; to promote the development of smart cars needs to improve the level of smart road infrastructure, and pilot cities develop first to play a leading role.

With the rapid development of smart network technology, the smart car sector is becoming a strategic high ground for a new round of technological revolution and industrial revolution, and China's smart car industry has ushered in a golden period of development, with the number of smart cars in China expected to reach 28 million by 2025.

On the whole, intelligent vehicles are integrated systems that concentrate on the use of computer, modern sensing, information fusion, communication, artificial intelligence and automatic control technologies, combining environmental perception, planning and decision-making, multi-level assisted driving and other functions in one, and are typical high-tech complexes. At present, China's intelligent networked vehicles are at the stage of collaborative intelligent transportation and autonomous driving; after 2025, they will be at the stage of intelligent travel.

PRODUCT ANALYSIS

3.1 Market Positioning

The current autonomous driving can be divided into two categories. One category is the current very hot driverless, more emphasis on the car's autonomous driving to achieve a comfortable driving experience or labor cost savings, typical examples are Baidu and Google's unmanned cars; one category is ADAS (full name Advanced Driver Assistance System, that is, Advanced Assisted Driving System), the history of development has been a long time, as early as ADAS (Advanced Driver Assistance System) has a long history of development, having been introduced to car manufacturers in the 1970s. Both use a variety of sensors installed in the car to collect data and combine it with map data to progress the system's calculations in

order to plan the road and control the vehicle to its intended destination. As people continue to pursue a safe and comfortable driving experience, autonomous driving is the new direction for cars.

However, ADAS can also be seen as a prerequisite for driverless cars, and as ADAS implements more and more functions, progressively driverlessness can be achieved.

3.2 Product advantages

3.2.1 For safety

Safety is at the heart of the autonomous driving functional cloud platform. It is understood that in June this year, Saimu was certified by SOTIF for functional safety, covering the entire product chain, with 15 modules in total. From the long-term scenario management to the core modules for simulation and finally to the modules for evaluation, all have been certified by SOTIF. The purpose of passing SOTIF certification, He Feng admits, is to better serve the whole industry. "Because there are many autonomous driving companies doing algorithm validation, the test certification is indispensable as a very important means to bring autonomous driving to market. If functional safety is required for the product-level parts of the competition, the testing tools will also pass functional safety." He Feng said. It is reported that Saimu has been doing SOTIF functional safety certification since 2017, and it has taken four years since then.

3.2.2 Overcoming testing and validation challenges

The testing and verification of intended functional safety is the most difficult topic to overcome. At present, there is no complete tool chain in China that can do the analysis and verification of expected functional safety. This year, however, Saimu and Huawei have jointly completed the first self-developed tool chain for the analysis of expected functional safety. The whole tool chain is divided into four modules - analysis, scenario set, simulation and reporting.

According to He Feng, the theory of expected functional safety is not complicated, it is to analyse and evaluate a series of hazard factors to expand the known safety scope and minimise the unknown risk. The analysis module focuses on systematic analysis of product definitions from functional and architectural definitions, including but not limited to analysis of personnel misuse, limitations and weaknesses, and response to trigger conditions, before finally doing hazard assessment, safety analysis, mitigation measures, and validation of strategies.

In terms of defining mitigation measures for risks, for example, once there is a risk, what we can determine is the acceptance criteria. For example IMI what is the minimum risk and what do we achieve in the expected safety analysis tool.

In terms of validation strategies, we get the validation strategies we need to validate based on the pre-analysis. We then automatically generate a sensitivity analysis based on the results of the expected functional analysis to get a set of scenarios against the analysis strategy.

After the scenario set was automatically generated, we used the platform to do an automated simulation test. Because our scenario set was fully compatible with the test platform, we were able to test the model, the software, the hardware and the vehicle very smoothly and finally get the expected results for consistency analysis.

3.2.3 Presentation of results

Recently, Huawei and German car manufacturing company Audi officially announced the next step of their cooperation in the field of smart connected vehicles and showcased their advanced technologies with the latest Audi Q7. Saad Metz, Executive Vice President of Audi China, said: "We are committed to the joint development of highly autonomous driving functions and future-proof vehicle-to-infrastructure (V2I) communication technologies. Several practical activities around the world have proven that Audi is already among the technology leaders in the field of highly autonomous driving. The close cooperation will benefit both parties." Wenwei Xu, Director and President of Strategic Marketing at Huawei, said, "Under the trend of intelligent vehicles, Huawei will leverage its leading technology advantages in ICT to jointly innovate with Audi and jointly lead autonomous driving into the fast lane. It is believed that in the near future, consumers will be able to experience safer, more comfortable, convenient and intelligent autonomous driving services." Through the joint efforts of technicians from both Huawei and Audi, the Huawei MDC mobile data centre has been integrated into the Audi Q7 prototype for operation in an urban autonomous driving environment. The car was demonstrated live for the public during HUAWEI CONNECT 2018.

3.3 Competitive advantage

3.3.1 Resource advantages

In terms of revenue, software revenue, hardware integration and development fee revenue are increasing year on year, which shows that we have stable customer resources and can better expand the market and focus on product development in the subsequent development. In addition, according to research by relevant institutions, the market for the autonomous driving industry will be in a period of rapid growth from 2021 to 2030, with a period of stable growth after 2030, and its related customer base will increase steadily based on the development of the industry. As a start-up company, our company has already reached a leading level in various technologies of autonomous driving, and its development in recent years is bound to be influenced by the general market environment, and it will obtain more technology, capital and customer resources due to its leading technology.

3.4.2 Technical advantages

As a startup in the field of autonomous driving, our services to car companies are focused on software/algorithms, intelligent driving computing platforms, sensors, and high precision maps. Compared to our peers in the industry, we have already reached a leading level in various self-driving technologies and have technological advantages that other start-ups do not have. In addition, we have been focusing on investment in technology research and development, and according to the operating data, from 2018 to 2020, the investment in R&D manpower, R&D outsourcing and R&D materials will increase year by year, and according to the relevant forecast, we will increase R&D investment in algorithm and hardware development in the next five years, and we will have certain technological advantages in technology for a period of time.

ENTERPRISE MANAGEMENT SYSTEM

4.1 Company organization

Organizational structure during the start-up phase of the company

They are all from the industry's leading autonomous driving companies and are pioneers in the exploration of smart driving.

CEO: He was the CEO of a leading international autonomous driving company for many years and has extensive management experience. He holds a post-doctorate degree in computer science from a top international university and is also the Dean of its School of Computer Science.

CTO: He has been the chief architect of a leading international autonomous driving company for many years and has accumulated a wealth of experience in unmanned driving. He graduated from a top international polytechnic university and has won several global programming challenges.

CFO: He has worked for a number of international technology companies and financial investment banking institutions, and has extensive experience and contacts in capital operation, investment and financing.

CAMP EFFECTIVENESS STRATEGY

5.1 Marketing Strategy

5.1.1 Product marketing positioning

We are the leader in autonomous driving solutions in China. We use technology to create value for our customers, providing full-stack autonomous driving solutions for vehicle manufacturers, including software/algorithms, intelligent driving computing platforms, sensors, high precision maps and other business directions. Compared to our industry peers, we have reached a leading position in all areas of autonomous driving technology. Through innovation in solutions, technology and business models, we provide safe, convenient and sophisticated products and services for enterprises and families.

In addition, we have developed intelligent driving computing platforms, sensors, high precision maps and other features to provide a safe and enjoyable driving experience for our customers. Using system upgrades allows us to provide additional functionality and continuously improve vehicle performance throughout the vehicle's lifecycle. Our systems will include display interaction systems, advanced navigation and entertainment applications, full coverage in-car voice control systems, remote mobility control, ADAS, autonomous driving, intelligent cockpit, battery management and automatic upgrades.

The current vehicle-related tax breaks in China, as well as the support of certain local governments in China for new types of vehicles, such as quota-free vehicle licence applications and exemptions from traffic restrictions. We believe that our autonomous driving solutions will contribute to a safe and smooth transportation environment and a new transportation system.

5.1.2 Product design

Our focus on user safety has led us to come up with new solutions in vehicle control, comprehensive active and passive safety solutions.

Our ADAS includes five key safety functions: Automatic Emergency Braking, Forward Collision Warning, Intelligent Headlight Control, Lane Departure Warning and Side Vision Assist. Other driver assistance functions are also included, including adaptive cruise control, automatic parking assistance, lane change assistance and lane keeping assistance.

Our ADAS is optimised and adapted to the complex road conditions in China. In autonomous driving mode, real-time traffic information is analysed to automatically select the best route to take, thereby significantly reducing traffic congestion. In addition to this, the use of on-board sensors and camera systems allows the vehicle to sense its surroundings and make rapid adjustments, thus achieving 'zero traffic accidents'. For example, if a pedestrian suddenly appears, it can automatically slow down to a safe speed or stop.

We have also implemented a battery management system that automatically monitors the temperature, power output and other status of the battery pack. We will also look at the design of the battery protection devices when selecting the vehicle manufacturer to work with.

5.2 Business model

5.2.1 Online + offline hybrid model

In terms of sales approach, we will still not abandon direct offline sales. We will bundle our marketing with our partner car manufacturers, placing our marketing most prominently in car dealerships and sending sales engineers offline to promote lasting solutions that reflect the professionalism, safety and sophistication of our products and address customer concerns. Our direct marketing model not only improves economic and operational efficiency, but also provides the most intuitive and quality buying experience that aligns with our values and brand image.

Our flash exhibition will also be opened, focusing on product presentation, service experience and brand awareness. It will be set up in a shopping centre where the target audience is likely to visit, rather than in a central business district or landmark building. Here users will be able to experience the most special driving experience in a simulated vehicle, feel our vehicle controls and intelligent interaction systems, and learn about other special technologies used in the vehicle in our promotional videos.

5.2.2 Building the power of word of mouth

Our marketing efforts are focused on creating word-of-mouth referrals and will therefore market our brand through media, word-of-mouth, events and advertising. Our main marketing objectives are to build brand awareness and loyalty, generate traffic and integrate user input into the product development process.

We have developed high quality videos in-house that detail our product specifications and technology. We fully mobilise a large amount of media coverage and create marketing content on new media and short-form social media platforms, taking advantage of the data-driven nature of short-form social media platforms and pinpointing users through marketing on leading platforms such as ShakeYin and Racer. The popularity, efficiency and interactivity of short-form video allows us to market a wide range of content in a short period of time.

We also publish voluntary testimonials from our users, as well as videos from KOLs and KOCs in the technology, travel and mother and baby product sectors, all of which represent real user experiences and will increase the popularity of our vehicles.

We will also make full use of the Smart Interaction System to convert these traffic users into registered users of our Smart Interaction System. This includes our website, our app and our WeChat.

5.2.3 Digital user archiving

The system automatically models user behaviour, recording and analysing the conversion efficiency of each user from passer-by to registration and to transaction. Through our data analysis, we continually optimise the sources of sales traffic, product presentation and sales processes. At the same time, through user engagement in our online system, we encourage vehicle owners to voluntarily promote our autopilot solutions, generating high-quality crowd promotion and, therefore, a KOL and KOC effect, thereby increasing conversion efficiency and reducing user acquisition costs. After the user has placed an order, we provide the user with guidance on downloading and subsequent upgrades through our sales and service network.

We believe that the optimisation of high quality content and marketing channels, coupled with strong user word-of-mouth referrals and a digital direct marketing system, creates a virtuous cycle of content marketing to sales leads to word-of-mouth referrals, which enables us to achieve consistent brand exposure and attract high quality leads with relatively low marketing spend. By collecting user behaviour and feedback in a closed-loop process, we can improve service quality and efficiency, reduce staff-related and overhead costs and ultimately reduce service costs.

5.3 Financial situation

We have a limited operating history and face significant challenges as a start-up company in the autonomous driving industry. We were founded in 2018 and are currently in the product development phase. We have signed contracts with a number of leading vehicle manufacturers to supply our products and expect to have SOPs in mass production by the end of 2022.

We have no historical basis for this. However, considering our business and prospects as a new entrant to the industry, such as our continued advancement of autonomous driving solutions, such as automated driving in an evolving regulatory environment; we will improve and maintain operational efficiencies, effectively manage our supply chain, adapt to changing market conditions, including technological developments and changes in the competitive environment, and effectively manage our growth. As technology evolves, we may upgrade or adapt our systems and adopt the latest technology. This will require us to invest resources in research and development and to work effectively with our partners on new designs, developing actionable insights from data analysis and user feedback to respond effectively to technological changes, policy and regulatory developments.

We have had negative net cash flow from operations in the past and are not profitable and may continue to be so in the future. net losses of $570 million, $800 million and $1.03 billion in 2018, 2019 and 2020, respectively. However, we have achieved steady growth in operating income of $0.05 billion (2018), $0.07 billion (2019) and $0.10 billion (2020), and

the losses are due to the fact that we are continuing to invest more in research and development in areas such as algorithms and hardware development, but we believe this will bring significant returns in the future.

Our company's business growth is benefiting from the Chinese government's policy of supporting the development of autonomous vehicles and domestically manufactured vehicles at both central and local levels. There will be ample room for the development of autonomous driving solutions. According to research by relevant organisations, the market for the autonomous driving industry is expected to grow rapidly from 2021 to 2030, with a stable growth period after 2030. We also believe that user confidence in self-driving vehicles is critical to the rollout of our vehicles. Our future growth depends on consumer demand for self-driving vehicles. The self-driving car market continues to evolve rapidly, characterised by rapidly changing technology, intense competition, evolving government regulation and industry standards, and changing consumer needs and behaviours, and we are confident that we will have a head start in this market.

The automotive market in China is very competitive. As a local company in China, we have the support of government policies and the people's trust in national brands, so we have more financial, technical, manufacturing, marketing and branding, talent and other resources available to us now and to potential competitors and new market entrants, and may be able to devote greater resources to design, development, manufacturing, marketing and sales support.

FINANCIAL AND FEASIBILITY ANALYSIS

valuation logic

1. Forecast future free cash flow

From the above calculation formula, we can see that the method has two basic input variables: cash flow and discount rate. Therefore, it is necessary to make a reasonable forecast of cash flow before using this method. The actual data for 2018-2020 and the forecast cash flow from 2021-2025 are known, while the company's market is in a rapid growth period from 2021-2030, and shows a stable growth period after 2030.

Assuming that the annual growth rate of the enterprise is in 2026,15%, 2026-2030 is a high-speed growth period, the growth rate is 1% per year, and the annual growth rate is stable at 19% in 2030.Through the known data and the assumed growth rate, the free cash flow from 2026-2030 can be calculated. Because the cash flow after 2030 has a stable growth rate, so the present value of the cash flow after 2030 can be calculated through the annuity present value formula and discount formula.

2. Estimate the discount rate

The industry where the enterprise is located is in the stage of rapid development, with high growth and high returns. For example, the small Ma Zhixing, Wenyuan Zhixing, Waymo and other enterprises in the industry are all overvalued, so we should choose a high discount rate.In line with the caution in accounting principles, the valuation is set with a higher discount rate of 25% for cash flow discount.

3. Calculate the present value of the cash flow by using the discounted cash flow model

Through the cash flow discount formula, the cash flow from 2021 to 2025 is discounted by 25% to the beginning of 2021, and the cash flow after 2030 is discounted to the beginning of 2021 according to the discount rate of 2020, and the discounted present value is added to get the enterprise value.

CONCLUSION

Our operating revenue has achieved a steady growth, 50 million (2018), 70 million Yuan (2019), 100 million yuan (2020), the loss is that we will continue to increase the investment in algorithm, hardware development and other aspects, but we believe that this will bring huge returns in the future.

1) research and development, to further improve the performance and reliability of autonomous driving solutions, it is necessary to increase investment in research and development in algorithm and hardware development,

Purchase additional test vehicles to complete the necessary tests before mass production.

2) Operating capital expenditure According to the known data, it can be found that additional operating capital expenditure is needed in 2021, including inventory increases, payments payable, etc.

3) Capital expenditure from 2020, the capital expenditure begins to increase the amount. As can be seen from the data, it may double every three years, so financing is needed to provide financial support for the subsequent capital expenditure.

4) Cash In addition to the above expenditures, the enterprise shall retain a certain proportion of the cash flow to provide liquidity and provide turnover for the unexpected expenses after the enterprise.