

Analysis of the investment value of Motional based on SWOT analysis

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Abstract. With the continuous rise of investment diversification, more and more people invest in enterprises, hence it is more important to analyze the investment value of enterprises. Many enterprises have no investment value analysis. Therefore, the theme of this paper is to analyze the investment value of emotional based on the SWOT model. The research method of this paper is as follows: first, search the information of listed companies which is similar to emotional, and analyze the data. The researchers find Hyundai motor group is a company that is similar to motional's financial and non-financial situation recently. Secondly, collect the financial and non-financial data of Hyundai Motor Group through its annual report and official website, such as balance sheet, cash flow statement, income statement, management team information, and customer group information; Finally, analysis of the existing data of Hyundai Motor Group through the swot model, draw a conclusion about its advantages, disadvantages, trade environment and industry competition. Hence it can get a conclusion about whether Hyundai Motor Group has investment value by summarizing the above aspects. Because of the high similarity in the industry and development between emotional and Hyundai Motor Group, it can draw an analogy whether emotional has investment value. The study finds that Hyundai Motor Group has many advantages; few disadvantages; an excellent trade environment and weak industry competition. Based on the above contents, the research concludes that Hyundai Motor Group has a high investment value. Hence emotion has a high investment value.

Keywords: financial data analysis, corporate investment, annual reports

1. Introduction

In March of 2020, Hyundai Motor Group, one of the world's largest vehicle manufacturers, and Aptiv, one of the industry's most innovative technology providers, formed a joint venture to hasten the creation and widespread distribution of autonomous vehicles that set new standards for performance and safety. [1]. Motional has been at the forefront of autonomous vehicle technology for many years in its various incarnations. The combined strengths of Aptiv's cutting-edge technology and Hyundai's industry-leading vehicle production and research and development provide us a decisive advantage as they work to revolutionize the way people get around [2]. As a result of the pandemic, governments and individuals worldwide are looking for new and improved transportation choices [3]. With Motional, autonomous vehicle technology may be used in a way that does not compromise safety or comfort. Motional is working on and planning to market fully autonomous SAE Level 4 automobiles. By 2022, Motional expects to have its driverless systems and support technology ready for use by robotaxi providers and fleet operators [4].

The word "emotional" combines the concepts of movement and emotion. The name "Motion" is a nod to the company's technological prowess and the forward momentum it has brought to the industry over the years. The term "emotional" alludes to the company's emphasis on the well-being of its customers and the importance it places on providing a secure environment for them to work in [5]. Customers may rest certain that they are traveling in a "Motional" autonomous vehicle that is both environmentally friendly and comfortable for its passengers. [6]. According to Hyundai Motor Group

Executive Vice Chairman Euisun Chung, the company has fueled people's ambitions worldwide for over fifty years [7]. Motional is the cutting edge in transportation, as it ushers in a new era that is secure, easily accessible, and environmentally friendly [8]. With Motional, Hyundai hopes to continue Moto's tradition of being at the forefront of automotive innovation.

The Motional team pioneered the autonomous driving industry by completing the first fully autonomous cross-country drive in the United States, releasing the first robotaxi pilot, and operating the largest public robotaxi fleet in the world. [9]. Aptiv and Hyundai began testing in Las Vegas with the incorporation of Lyft – over the past four years. The testing started as a weeklong pilot in 2018 and has since seen the execution of more than 100,000 passenger trips. The study aimed to see whether the vehicles could handle trips within Las Vegas without any incidents. Throughout the four years, the company monitored the trips and recorded the results from a customer-rating system. When asked to rate their experience, 98% of those who have taken a ride from this fleet have given it the maximum possible score of five stars [10].

Aptiv, a provider of autonomous driving software, and Lyft, a ridesharing startup, hit a crucial benchmark in February 2020: they had completed 100,000 autonomous passenger rides in Las Vegas. The company's expanding network currently covers more than 3,400 venues in Las Vegas. Key destinations served by the firm include the Las Vegas Convention Center and McCarran International Airport. Aptiv's autonomous technology is installed in a fleet of BMW 540s for the program, but each vehicle also has a human safety driver on board. Lyft claims that 98% of their riders rated their experience as excellent or good. Aptiv's self-driving software is already being used in several other projects besides the Lyft agreement. The company presently offers its autonomous driving services in four regions: Las Vegas, Boston, Singapore, and Pittsburgh. Shanghai was revealed as the company's fifth location in the spring of 2019. Aptiv's move to enter the Chinese market is a significant strategic one. By 2040, McKinsey predicts that China will be responsible for more than two-thirds of the global autonomous distance [11].

Therefore, this essay aims to do a SWOT analysis to establish whether or not investing in EQ is a wise financial decision. In this investigation, we took the following approach to our research: Part 2 will detail our data collection and sample analysis, while this paper will discuss structural failure testing in Section 3 and present both the traditional HAR-type models and some new HAR-type models in Section 4, taking into account the distinctive organizational structure, trading volume, and volatility of gold and crude oil futures. In Section 5, an empirical evaluation of the in-sample analyses is provided. Section 7 tests the analyses and predictions for robustness using both in-sample and out-of-sample data. The conclusion is included at the end of the work.

2. Firm description

2.1 Background

Motional is an autonomous joint venture company jointly established by Hyundai Motor Group and automotive supplier APTIV, which attaches importance to the safety and reliability of driverless vehicles and provides consumers with a reassuring driverless experience, aiming at commercializing autonomous vehicles. Motional, which is led by a group of pioneers in the field of driverless technology, has been leading the development of driverless technology in the past few decades and has achieved several major leaps and bounds in the field of driverless technology, including the world's first autonomous driving across the United States, the world's first pilot project of autonomous taxis, the world's most mature public oriented autonomous taxi travel service, etc.

2.2 Financial Position

2.2.1 Assumption

As emotional is an unlisted enterprise, the researchers cannot view the annual report of emotional. After reviewing the industry, development history, correlation degree, technology, and other aspects,

the researchers finally selected Hyundai Motor Group, which is located in the same automobile manufacturing industry as emotional, has a similar development history, is highly related, and is very similar in technology, as a company to replace emotional for data research. In the case of high similarity in many aspects, the researchers believe that the financial data of Hyundai Motor Group can be used as the approximate alternative data of emotional.

2.2.2 Data analysis

As for Hyundai Motor Group, the following information is obtained through the analysis of its annual financial statements.

The growth rate of Hyundai Motor Group's sales in 2021 compared with 2020 is 13.09%, and the trend of sales is increasing; Hyundai Motor Group's net profit margin was 6.77% in 2021 and 2.01% in 2020. The changing trend of net profit margin is increasing.

Through the combined analysis of the trade environment, non-financial data, and financial data of Hyundai Motor Group, this paper draws the following conclusions.

With the gradual reduction of the impact of covid-19 on the world environment, it is reasonable to speculate that Hyundai Motor Group's auto sales and auto sales will increase significantly in the next few years. Since covid-19 in 2020 has had a huge impact on all walks of life, it can be reasonably assumed that consumption in 2021 was a rebound consumption after the impact of the epidemic is getting smaller and smaller. Therefore, in the next three years, the growth rate of Hyundai Motor Group's sales will not exceed or exceed a little of the growth rate of consumption in 2021 compared with 2020. As the higher the sales, the higher the sales growth (with the same growth rate) in the next year will be. Hence it can reasonably speculate that the sales growth will gradually decrease in the next three years. Therefore, the researchers predict that the sales volume and sales growth rate of Hyundai Motor Group in the next three years are: 132900007 (13%) in 2022; 146190008 (10%) in 2023; 156423308 (7%) in 2024.

According to the current environmental policies of various countries, it is reasonable to speculate that the sales volume of electric vehicles of Hyundai Motor Group will gradually increase, and electric vehicles will cause a huge substitution crisis for fuel vehicles. According to the data disclosed by the same type of automobile manufacturing enterprise, the net profit margin of fuel vehicles is about 7%; the net profit margin of electric vehicles is about 15%. When there is no significant change in the total sales volume of cars and when Hyundai Motor Group prefers to sell electric vehicles, it can conclude that the net profit margin of Hyundai Motor Group will rise. As Hyundai Motor Group's electric vehicles will be launched in 2025 completely, it can be reasonably speculated that the net profit margin in 2025 will be the largest growth rate in the next three years. Therefore, the researcher speculates that the net profit growth rate of Hyundai Motor Group in 2022 will be 7.5%, and the net profit amount is 9967500; In 2023, the net profit growth rate will be 8.5%, the net profit amount will be 12426150; In 2024, the net profit growth rate will be 10%, the net profit amount will be 15642330.

3. Hyundai Group financing advice

Hyundai Group is the only one of Korea's top 10 conglomerates that has A circular investment and shareholding relationship. The pattern of affiliate companies is $A \rightarrow B \rightarrow C \rightarrow A$, which allows it to easily increase the number of shareholders while avoiding mutual investment, which is prohibited by law. Hyundai Group is known to have four circular investment loops. They are Kia Motors, Mobis, Hyundai Motor, and Kia Motors. Of course, although this shareholding mode can allow major shareholders to exercise control rights with minority shares, it often damages the interests of other shareholders. For example, when one subsidiary goes bankrupt, a vicious circle will occur, in which other subsidiaries tied to circular shares will collapse one after another. This is why Daewoo Motor went bankrupt quickly after the Asian financial crisis in 1997. With its high market share in Europe and the United States, its sales exceed 150 billion won and its net profit is close to 2 trillion won. In addition, Hyundai Group's research and development speed of hydrogen-powered vehicles are quite amazing, and it has fully grasped the international leading power of hydrogen battery system research

and development. As mentioned above, this article suggests using direct investment to finance, mainly focusing on stock market financing and commercial credit financing.

3.1 Equity financing

With the trend of global warming is more and more obvious, the traditional diesel automobile works have been out of time, the hyundai group it to its advantage, global carbon emissions in 2022 reached 33.884 billion tons (Table 1), up 5.6% year-on-year and the emergence of hydrogen energy can effectively solve the problem of the carbon emissions, it belongs to secondary energy, is non-toxic harmless, High cleanliness, recycling, and other outstanding advantages. Hydrogen vehicles can solve the problem of carbon emission while maximizing the power demand. Hyundai Motor Group has launched the NEXO, a new energy vehicle. The NEXO's compact front cabin cloth includes an air filter system, humidity regulator, and hydrogen fuel cell pack in addition to the power motor. Hydrogen is predicted to account for 18% of global energy demand by 2050, with market size of \$2.5 trillion, according to the International Hydrogen Council, the global authority on Hydrogen energy. To sum up, this paper vigorously promoted NEXO and issued additional shares. Most people wanted to choose sound value investment, so we took NEXO as the target of publicity to win the trust of investors. Table 1. (Global auto sales ranking from January to September).

Table 1. Global auto sales ranking from January to September

Ranking	Company	2020years 1-9month	2021years 1-9month
1	TOYOTA	6,253,975	7,375,705
2	VOLKSWAGEN	6,127,533	6,299,765
3	HYUNDAI KIA	4,363,281	5,032,045
4	STELLANTIS	4,338,255	4,881,153
5	RENUALT NISSAN	4,486,771	4,629,733
6	GENERAL MOTORS	4,658,668	4,500,379

3.2 Commercial credit financing

Hyundai Motor Group is not only focusing on hydrogen-powered vehicles but also on building hydrogen-powered life and society, such as intelligent unmanned vehicles and high-performance sports cars. Car chips, small tire brake calipers, spark plugs, brake pads, etc., modern can be independently produced, but the cost of consumption is also very large. So I think we can cooperate with other company factories and so on carrying on the deferred payment financing way, there will be no shortage of supply chain of the cons, as in 2011, many Japanese auto parts manufacturers face a shortage of funds, the carmaker's parts supply condition deteriorated, in a short time a day almost there will be a \$2 million loss, Therefore, in order to avoid this situation, this paper suggests deferred payment financing mode. First of all, sales can be increased. Through cooperation with large factories, the capacity of parts purchased from outside may be much greater than that of subsidiaries, so it is not necessary to sell and produce 100% of the parts by ourselves. Second is to save the cost, the auto parts, although seemingly insignificant but accumulated is not so easy as we thought, our group will give more money into hydrogen energy or another high amount of production, which can be more than the advantage of the other subsidiary, update the traditional industrial chain, so that can promote the growth of the company's market capitalization can also be better to attract investors.

4. Conclusion

Motional has created an era of safe, convenient, and environmentally friendly new energy so that people can drive safely. In this article, our team mainly analyzed the financial statements and investment suggestions for Hyundai Group, and we found a lot of data to compare Hyundai with other automobile groups and learn from each other's strengths. To sum up, this article can take the hydrogen energy industry as the core for direct investment, mainly for commercial credit financing and stock

financing. Hyundai Motor Group also plans to invest 16.2 trillion won by 2025 in eco-friendly electric products, such as hydrogen fuel and plug-in hybrid models. Therefore, people believe that promoting the hydrogen energy industry is the investment project with the greatest development potential at present. Where the paper made mistakes, the paper group only found the report analysis of 2014 to 21 years. The changes will be different every year, and more room for progress is needed. In the future, the group will continue to pay attention to each car company and deeply understand the latest situation inside.

References

- [1] *Hawkins, Andrew.* (27 January 2021). "Hyundai's autonomous vehicle project with Aptiv will now be called Motional"
- [2] Cision (2020). Introducing Motional: The Hyundai Motor Group and Aptiv Autonomous Driving Joint Venture Unveils New Identity. Introducing Motional: The Hyundai Motor Group and Aptiv Autonomous Driving Joint Venture Unveils New Identity (prnewswire.com)
- [3] Abuelsamid, Sam. (October 24th, 2017). "Delphi Acquires nuTonomy For \$450M, Advancing Push For Automated Driving". Forbes. PARS International Corp.
- [4] S&P Dow Jones Indices. (November 28th, 2017). "Delphi Technologies Set to Join S&P MidCap 400 and Frontier Communications to Join S&P SmallCap 600" (PDF).
- [5] *Bishop, Richard.* (February 22nd, 2021) "Motional Initiates Testing Of Driverless Vehicles In Las Vegas". Forbes. PARS International Corp.
- [6] Frangoul, Amour (September 24, 2019). "Hyundai and Aptiv to set up \$4 billion autonomous driving joint venture". CNBC.
- [7] AP. (n.d). "Company testing fully driverless cars on Las Vegas streets". Houston Chronicle. Hearst Newspapers..
- [8] Brown, Dalvin (February 22nd 2021). To the list of places testing driverless cars, add Las Vegas "To the list of places testing driverless cars, add Las Vegas".
- [9] Stokes, Sherry; Walters, Ken. (August 4th, 2015). "Carnegie Mellon Spinoff Ottomatika Acquired by Delphi". Carnegie Mellon University. Carnegie Mellon University.
- [10] Hawkins, Andrew J. (August 16th, 2022). "Lyft and Motional's all-electric robotaxi service is now live in Las Vegas". The Verge. Retrieved 2022-08-16.
- [11] CBInsights (December 16, 2020). Beyond trendy names like Tesla and Alphabet chasing self-driving cars, a host of auto brands and other tech heavyweights are also investing in autonomous R&D. Autonomous Vehicles & Car Companies | CB Insights