



Study on the Development Status of China's Major Vehicle Enterprises from 2020 to 2022 Based on Financial Statement Analysis

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Abstract. At present, the development of China's vehicle enterprises is in the key stage of transformation and upgrading, the market competition situation is fierce, despite the impact of the epidemic and a variety of factors, the development of China's vehicle industry in the past three years still maintains a certain growth trend. Financial statements can comprehensively and systematically reveal the business situation of enterprises in a certain period of time, this paper selects and analyses the financial statement data of China's major vehicle enterprises from 2020 to 2022, aiming to understand the competitive situation and operational performance of each enterprise in the market and other development status.

Keywords: OEMs; financial statements; current status of development.

1 Introduction

The country's economy has grown rapidly over the past few decades^[1]. In recent years, the status quo of China's automobile market has shown the continuous growth of the new energy vehicle market, the obvious trend of fuel substitution, the enhancement of the status of independent brands as well as the significant growth of the supply chain and the export market, etc. These trends and changes not only bring more choices and conveniences to the consumers, but also promote the transformation and upgrading of the whole vehicle industry. Various environmental uncertainties, such as market demand, technological advances, policies and regulations, can have a significant impact on the performance of an enterprise's production^[2], this is all accompanied by significant changes in the input and output benefits of vehicle enterprises, and this paper selects data related to the financial statements of China's major vehicle enterprises from 2020 to 2022 for comparative analysis.

2 Data selection

As early in 2011, Loughran et al. were the first to conduct relevant analysis on the annual reports of listed companies^[3]. Based on the "Market Capitalisation of Major Domestic Traditional Vehicle and Dealership Listed Companies in September 2023" released publicly by the Automotive Market Capitalisation Research Group of China Automotive News in September 2023, we have selected the top 15 companies in the order of BYD, Great Wall Motor, SAIC, Changan Automobile, Guangzhou Automobile Group, Geely Automobile, Sailsis, Zhongsheng Holdings, FAW Jiefang, BAIC Blue Valley, Yutong Bus, JAC, Foton Motor, Brilliance China, Beijing Automobile. On this basis, due to the difference in the statistical calibre of the relevant financial statements of Hong Kong stocks and A-shares, part of the data is not easy to obtain, so "Geely Automobile", "Brilliance China" and "Beijing Automobile" are excluded. Because "Zhongsheng Holdings" is a dealer group, it is excluded. This article is based on the financial statements of 11 automotive companies from 2020 to 2022 (data from "<https://www.10jqka.com.cn/>").

This paper selects "operating income"; "cash paid for purchases of goods and services, cash paid to and for employees, selling expenses, administrative expenses, research and development expenses"; "cash paid for the purchase and construction of fixed assets, intangible assets and other long-term assets"; and "total profit" from the financial statements of the above enterprises for comparative analysis.

3 Data comparison

3.1 Operating revenues

The operating revenues of China's major vehicle enterprises from 2020 to 2022 are shown in Figures 1.

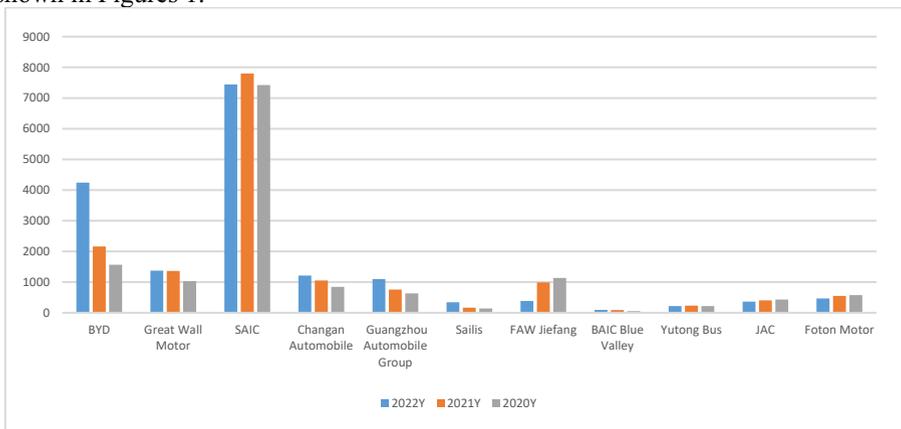


Fig. 1. Operating revenues of major vehicle manufacturers, 2020-2022 (in billions of yuan)

SAIC is far ahead with revenue of over 700 billion yuan. BYD has been developing rapidly in recent years, and its revenue growth rate in 2022 over 2021 is 96.20%. Great Wall Motor, Changan Automobile, Guangzhou Automobile Group revenue scale is comparable, and the three enterprises in 2020 to 2022 revenue growth of different magnitudes, of which, in 2022, Guangzhou Automobile Group revenue growth of 45.37% compared with 2021. Foton Motor, FAW Jiefang, JAC and Yutong Bus have comparable revenue scale, and the revenue of the four enterprises in 2022 compared to 2021 showed a different magnitude of decline, of which, FAW Jiefang's revenue in 2022 decreased by 61.18% compared to 2021. Sailis and BAIC Blue Valley are both vehicle enterprises with new energy vehicles as their core business, of which, Sailis' revenue in 2022 increased by 104.00% compared to 2021.

3.2 Cost expenditure

The cash paid for the purchase of goods and services, cash paid to and for employees, selling expenses, administrative expenses, research and development expenses in the financial statements can directly reflect the cost expenditure of the enterprise in the operation and production. In this paper, the relevant data accounted for the proportion of operating revenue calculation results are listed in Table 1.

Table 1. Ratio of various cost expenditures to operating income of major OEMs, 2020-2022

Year	OEMs	cash paid for purchases of goods and services	cash paid to and for employees	selling expenses	administrative expenses	research and development expenses
2022	BYD	52.08%	12.62%	3.55%	2.36%	4.40%
2021		48.30%	13.31%	2.81%	2.64%	3.70%
2020		44.23%	14.38%	3.23%	2.76%	4.77%
2022	Great Wall Motors	87.87%	9.14%	4.28%	3.56%	4.69%
2021		77.77%	7.25%	3.81%	2.96%	3.29%
2020		87.67%	7.06%	3.97%	2.47%	2.97%
2022	SAIC Motor	61.27%	4.97%	4.06%	3.45%	2.42%
2021		67.51%	5.00%	3.78%	3.09%	2.52%
2020		71.74%	4.95%	3.44%	2.94%	1.80%
2022	Changan Automobile	80.30%	7.58%	4.24%	2.91%	3.56%
2021		85.80%	7.23%	4.42%	3.33%	3.34%
2020		75.05%	7.15%	4.03%	4.93%	3.42%
2022	Guangzhou Automobile Group	104.11%	7.65%	3.84%	3.79%	1.55%
2021		99.79%	9.54%	5.73%	5.20%	1.31%
2020		100.09%	10.07%	5.77%	5.31%	1.55%
2022	Sailis	66.56%	6.65%	14.13%	5.21%	3.85%
2021		84.91%	10.37%	7.66%	6.51%	5.67%
2020		83.08%	9.26%	5.09%	6.24%	5.85%
2022	FAW Jiefang	111.32%	12.44%	3.28%	5.32%	7.55%
2021		62.39%	5.42%	1.78%	2.48%	3.37%

Year	OEMs	cash paid for purchases of goods and services	cash paid to and for employees	selling expenses	administrative expenses	research and development expenses
2020		76.42%	4.57%	2.33%	2.39%	2.50%
2022	BAIC Blue Valley	106.67%	6.76%	20.94%	8.08%	13.13%
2021		90.32%	9.21%	19.22%	9.17%	13.89%
2020		268.10%	20.17%	19.12%	14.19%	18.46%
2022	Yutong Bus	78.04%	12.36%	7.52%	3.88%	7.77%
2021		91.43%	12.73%	7.29%	3.85%	6.72%
2020		91.75%	13.06%	7.16%	3.85%	7.15%
2022	JAC	64.36%	7.49%	3.99%	4.36%	4.20%
2021		40.83%	4.58%	3.57%	4.34%	3.41%
2020		14.57%	2.18%	3.58%	4.17%	3.91%
2022	Foton Motor	58.60%	7.51%	3.85%	3.20%	3.43%
2021		52.08%	7.15%	4.02%	3.41%	3.12%
2020		42.35%	6.58%	4.41%	3.07%	3.18%

3.2.1 Cash paid for goods and services

Guangzhou Automobile Group, FAW Jiefang and BAIC Blue Valley's cash paid for purchasing goods and services accounted for more than 100% of operating income in 2022. The proportion of Great Wall Motor and Changan Automobile is 75%~90%. SAIC's ratio shows a steady downward trend from 2021 to 2022, and the ratio is only 61.27% in 2022. The proportion of Sailis and Yutong Bus has significantly decreased in 2022. The proportion of JAC, Foton and BYD is below 65%. Among them, the proportion of JAC increases by 77.36% from 2020 to 2022.

3.2.2 Cash paid to and for employees

BYD and Yutong Bus's cash paid to and for employees accounted for more than 10% of their operating revenue, but this ratio showed a slow decline from 2020 to 2022. The proportion of Great Wall Motor, Changan Automobile, JAC and Foton Motor shows a rising trend, among which, the proportion of FAW Jiefang increases by 56.42% from 2020 to 2022. This proportion of SAIC is stable at around 5%. The proportion of Sailis and BAIC Blue Valley has a more obvious decline, among which, the proportion of BAIC Blue Valley declines by 66.50% from 2020 to 2022.

3.2.3 Selling, management, R&D expenses

Selling expenses.

Except for Sailis and BAIC Blue Valley, the ratio of selling expenses of operating revenue for most of the OEMs is less than 8%, and except for Yutong Bus and Guangzhou Automobile Group, this ratio is 2% to 5% for 2020~2022 for most of the companies. Yutong Bus this proportion in about 7.5%, and there is a slight increase. Guangzhou Automobile Group this proportion in 2020, 2021 this proportion is around 5.75%,

and reduced to 3.84% in 2022. This percentage of Sailis increases by 177.43% from 2020 to 2022, increasing to 14.13%. This percentage for BAIC Blue Valley is even higher at more than 19 percent.

Management expenses.

BYD's management expenses as a percentage of operating revenue is controlled at less than 3% and has a decreasing trend from 2020 to 2022. This ratio of Great Wall Motor, SAIC, Yutong Bus and Foton Motor is less than 4% from 2020 to 2022; this ratio of Guangzhou Automobile Group also declines from more than 5% to 3.79% in 2022. Changan Automobile's ratio drops by 40.99% from 2020 to 2022, falling to 2.91%. JAC's proportion is between 4% and 4.5%; Sailis' proportion is between 5% and 7%; and FAW Jiefang's proportion grows from less than 2.5% in 2020 and 2021 to 5.32%. The proportion of BAIC Blue Valley is still as high as more than 8 percent in 2022, despite a significant decline.

Research and development expenses.

Guangzhou Automobile Group's research and development expenses accounted for less than 2 percent of operating revenue, and SAIC's ratio was less than 3 percent. BYD, Great Wall Motor, Changan Automobile, JAC and Foton Motor are all below 5%. The ratio of Sailis was reduced to 3.85% from less than 5.5% in 2020 and 2021. FAW Jiefang this proportion increases by 202.76% to 7.55% from 2020 to 2022. This proportion of Yutong Bus is at 6.5% to 8%. This proportion of BAIC Blue Valley is still as high as more than 13 percent in 2022, despite a significant decrease.

3.3 Cash paid for acquisition of fixed assets, intangible assets and other long-term assets

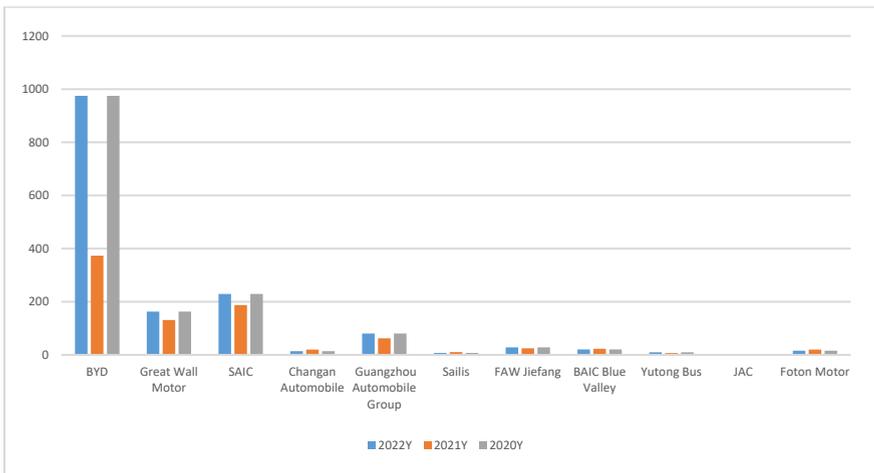


Fig. 2. Formation of asset class investment by major OEMs, 2020-2022 (in billions of yuan)

As shown in Figures 2, the scale of cash paid for acquisition of fixed assets, intangible assets and other long-term assets is more than 10 billion yuan of enterprises are BYD, SAIC, Great Wall Motor, of which, this scale of BYD is far more than the other enterprises, in 2021, 2022 this scale of 97.5 billion yuan, 37.3 billion yuan, respectively, year-on-year growth rate of 217.17%, 160.97%. Guangzhou Automobile Group is in the second echelon with a scale of 6 billion yuan to 8 billion yuan. Among the remaining enterprises, except for JAC, this scale of other enterprises is basically in the range of 1~3 billion yuan, in the third echelon. The size of JAC is less than 300 million yuan.

3.4 Total profit

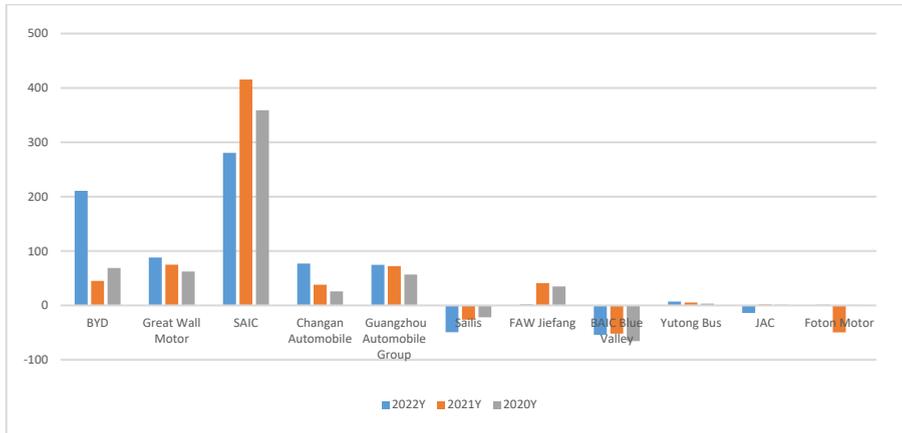


Fig. 3. Total profit of major vehicle manufacturers, 2020-2022 (in billions of yuan)

As shown in Figures 3, SAIC ranked first with total profit of 28.071 billion in 2022, but down 32.45% from 2021. BYD's total profit in 2022 is 21.080 billion yuan, an increase of 366.57% from 2021. Great Wall Motor, Changan Automobile and Guangzhou Automobile Group's total profits are of comparable size and have different degrees of growth in 2021 and 2022. The total profit of Yutong Bus shows a steady growth, with a total profit of more than 700 million yuan in 2022, an increase of 103.55% over 2020. FAW Jiefang's total profit dropped off a cliff in 2022, dropping 95.56% to 186 million compared to 2021. Foton Motor and JAC are in the red for three years cumulatively from 2020 to 2022, and both have two years to complete a smaller total profit. Sailis, BAIC Blue Valley in 2020 ~ 2022 were in a loss making state from 2020 to 2022, BAIC Blue Valley suffered more severe losses than Sailis.

4 Conclusion

Based on the comparative analysis of the previous data, it can be concluded that: BYD, Great Wall Motor, SAIC, Changan Automobile, Guangzhou Automobile Group, five

automobile groups occupy the leading position in China's automobile industry, the automobile industry group management advantage is obvious, of which, SAIC is the leader of China's automobile enterprises, and BYD has developed rapidly in recent years, and continues to accelerate the expansion. JAC, as a domestic veteran automobile group, in 2022 has been a book loss, considering the government subsidies in the impact on the total profit, the actual situation of its operation is worrisome. Saic and BAIC Blue Valley have been losing money for three years, and the situation is not good. Especially BAIC Blue Valley, selling expenses, management expenses, research and development expenses investment are abnormal beyond the industry level. Yutong Bus, as the leader of China's bus industry, unique in China's vehicle enterprises. By the epidemic, real estate cooling impact, in recent years, China's commercial vehicle market downturn, Foton Motor, FAW Jiefang business conditions are not good.

With the intensification of market competition and the continuous changes in the business environment, vehicle enterprises are facing many challenges. This paper gives some suggestions: firstly, vehicle enterprises should carry out effective internal control, so that they can reduce enterprise risk and improve operational efficiency, thus promoting the growth of enterprises^[4]. Secondly, under China's economic system, government intervention has a more significant impact on enterprises^[5], and OEMs should pay close attention to China's automotive industry-related policies and regulations, tax policies, subsidy policies and so on. Third, in addition to focusing on the enterprise itself and government behaviour, with the intensification of market competition and stakeholders' concern for sustainable development, vehicle enterprises should also pay more attention to non-financial performance indicators, which include customer satisfaction, product quality, market share, and innovation capacity^[6], for example, relevant studies have shown a positive correlation between corporate R&D investment and market value growth^[7]. At the same time, the text of each vehicle enterprise related financial data processing results and other data for other researchers to do further thinking.

References

1. Li L, Hu X, Jun Z. Do Chinese Consumer Prefer to Buy Imported Wine? ——the Effect of Country-of-Origin[J].[2023-11-27].
2. Wong C Y, Boon-Itt S, Wong C W Y. The contingency effects of environmental uncertainty on the relationship between supply chain integration and operational performance[J]. *Journal of Operations Management*, 2011, 29(6):604-615.
3. Loughran T, McDonald B. When is a liability not a liability? Textual analysis, dictionaries, and 10—Ks[J]. *The Journal of finance*, 2011, 66(1):35-65
4. Zhang J J. Corporate Governance, Internal Control and the Role of Internal Auditors – A Survey of Chinese Managers[J].[2023-11-27].
5. Hao Y, Lu J. The Impact of Government Intervention on Corporate Investment Allocations and Efficiency: Evidence from China[J].*Financial Management*, 2018, 47.
6. Zhou, X.J. The impact of non-financial performance indicators on the performance of state-owned enterprises [J]. *Journal of Scientific Research Management*, 2018(S1):6.
7. Carrasco-Montegudo, I., and I. Buendia-Martinez. Corporate Social Responsibility: A Crossroad Between Changing Values, Innovation and Internationalisation [J]. *European Journal of International Management*, 2013(3):295-314.

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