

A Financial Analysis of the Mercedes-Benz Group

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Abstract: This paper will firstly describe the history of Mercedes-Benz, and today's market capitalization and market and product segments, and then perform a series of analyses. Secondly, the article carries out an accounting analysis in terms of revenue recognition, leasing and Intangible assets to ensure the authenticity of the financial reports and related data. After that, this paper compares the data of Mercedes Benz Group with other companies in terms of Liquidity, Leverage, Investment and Profitability. The companies that are compared are BMW, Hyundai and Toyota, which can be seen that Mercedes-Benz has a great advantage in today's world market. Then this paper predicted the future strategy of Mercedes-Benz Group, which will be centered on the shift to luxury products, the development of new energy and the reduction of its own costs. The Mercedes-Benz Group also has a good future because of its good brand effect and innovation ability. Finally, it concludes that the Mercedes-Benz Group's future prospects in the European and American markets are average because of the monetary policy and internal economic situation, while there is still more room for development in the Chinese market.

Keywords: Financial Analysis, Accounting Recognition, Performance Evaluation, Mercedes-Benz Group

1. Introduction

Mercedes-Benz full name is Mercedes-Benz Group AG, formerly known as Daimler AG, Mercedes-Benz in recent years, the main market is divided into three parts, respectively, the European market, the American market and the Chinese market, of which the Chinese market is the largest market of Mercedes-Benz at present, in the automotive industry, the car has a different price point. However, Mercedes-Benz's products priced between 1,000,000, 1,500,000 and 2,000,000 are the hottest ones. In recent years, the market value and product sales volume in Europe and America have been kept in balance, but there is a great increase in the market value in China. Under the development of technology, Mercedes-Benz also vigorously develop new energy vehicles. In the new year, it launched a series of new energy products such as the new pure electric G-class crossover, the new Maybach EQS pure electric SUV, the new generation of EQA and EQB SUV, etc., and captured a large market share.

Analyzing why Mercedes-Benz can capture the market so quickly. Mercedes-Benz's entry into the Chinese market can be divided into 3 different strategies: (1) full localization of manufacturing; (2) full

localization of product design; (3) full localization of marketing. Firstly, Mercedes-Benz introduced a large amount of technology and capital, and formed a large number of joint ventures with domestic factories through asset reorganization, and shared the 8 dozen main models and core components of the Mercedes-Benz series with domestic Mercedes-Benz companies, which also greatly contributed to the price reduction of Mercedes-Benz cars, thus increasing a large number of consumers. Secondly, according to the Chinese preference for long-wheelbase models, Mercedes-Benz has comprehensively carried out long-wheelbase design on its own series of low-end and mid-range models, such as the long-wheelbase A-Class sedan, the long-wheelbase C-Class, the long-wheelbase E-Class as well as the long-wheelbase GLC SUV, which have all become Mercedes-Benz's best-selling models in China. Finally, Mercedes-Benz in China mainly targets the average age of 36. Unlike in the European market, where Mercedes-Benz's main users are the 58-year-olds, Mercedes-Benz's marketing has also been a huge success. This is mainly reflected in the fact that "Mercedes has been one of the most successful car brands using social media to attract customers in China using platforms such as Mercedes has been one of the most successful car brands using social media to attract customers in China using platforms such as Wechat, QQ, Tiktok and Kwai. On the platform Tiktok alone, Mercedes has more than 2.07 million followers" [1].

Mercedes-Benz's huge increase in market value and sales in recent years also comes from the big events in recent years, because of the epidemic marketing, Mercedes-Benz's overall sales are also decreasing, but Mercedes-Benz in the latest conference put forward to reshape the company's product matrix, will be divided into "high-end luxury", "core luxury" and "new generation of luxury" products. However, in the latest press conference, Mercedes-Benz proposed to reshape its product matrix, dividing its products into three major types: "high-end luxury", "core luxury" and "new generation luxury". This indicates that Mercedes-Benz will increase its investment in luxury models. Second, in May 2022, Mercedes-Benz held its 2022 strategic upgrade conference in France. According to the report, Mercedes-Benz plans to increase the share of sales of premium models by about 60% in 2026 compared to 2019, achieve full electrification by 2030, and achieve carbon neutrality in its new car line-up by 2039. This also shows that Mercedes-Benz has also embarked on new energy development for its future plans.

2. Accounting Analysis

The accounting analysis starts with three areas, namely revenue recognition, leasing, and intangible assets.

2.1. Revenue Recognition

Under the principle of revenue recognition, Mercedes-Benz core products, such as a variety of different models, are recognized when the customer gains control and confirms whether or not they are paid for. First, this paper starts by analyzing the inventory in revenue. Dealers can finance their vehicle inventory dealer inventory financing offered by Mercedes-Benz Mobile.

In addition to this, under certain circumstances Mercedes-Benz provides certain credit financing. Income from dealer and customer funding is also recorded as a charge receivable for financial services. Revenue recognition from the sale of vehicles for which the Mercedes-Benz Group enters into repurchase obligations depends on the form of the repurchase agreement. The agreement is generally determined on the basis of the customer's or dealer's economic situation. The most important of these are whether the customer has significant economic activity in the future as well as the difference between the future value of the product and the agreed repurchase price, and finally the historical profitability of the product. These are the elements to be determined in the agreement.

Notwithstanding the minimum resale value guarantee provided by the Mercedes-Benz Group, the customer remains entitled to use the assets directly and derive tangible benefits from them. This arrangement does not limit the customer's autonomy and ability to use the assets. Revenue recognition must take place when there is still residual value until the end of the contract, and the deferral of the revenue provided must be calculated. The Group's agreements generally provide raw materials to the customer first and maintain a right of repurchase, but under the relevant legislation, revenue recognition is not required until control has been transferred. Revenue should then be deferred in certain special cases, such as when the term of the service or product exceeds the statutory period and when there is a maintenance contract. There is also a special case to record future losses, where the expected cost of uncompleted services under a contract exceeds unearned revenue.

Afterwards, a multi-factor arrangement is analyzed, where the group generally allocates revenue earned on the product in proportion to the rationing of the individual factors. Most classically, the allocation is done using a price list. However, there is a special case where the Mercedes-Benz Group does not adjust the amount of the promised consideration to the effect of a significant financing component if the time between the transfer of the promised asset or service to the customer and the payment by the customer is not expected to exceed one year at the beginning of the contract.

Revenues include, in addition to those stated above, revenues from leasing operations. Revenues from leasing operations are recognized on a straight-line basis and also include revenues from sales made after the business has been closed. Revenue from accounts receivable from financial services is recognized using the effective interest method. When recognizing revenue, it also takes into account the impact of interest and, when entering more competitive markets, several factors are often taken into account and certain promotional programmes are given. These programmes include incentive allowances and price reductions, which should also be included in revenue for revenue recognition purposes.

2.2. Leasing

Leasing generally consists of an agreement to exchange the right to use an asset for a specific period of time for consideration or for an equivalent amount, but is not specifically described in the agreement using language, but in the group mainly relates to land and customers.

Leases that are less than 12 months old and have a relatively low value do not have to use leasing recognition and then the costs associated with these leases are recognized on a straight-line basis. Listed as assets, control of equipment and plant are recognized at cost. The main task after that is to recognize the lease liabilities, which include fixed payments, variable lease payments, amounted expected to be payable, the exercise price of purchase options and contractual penalties for the termination of a lease.

2.3. Intangible Assets

Intangible assets are measured at acquisition or manufacturing cost less accumulated amortization. Impairment calculations are mainly performed and are reviewed annually. Firstly, products are generally classified into capitalized and generalized developments. Capitalized development includes both direct and indirect costs and the costs are included in inventory. Capitalized development product life is beyond 10 years while generalized is 3 to 10 years, but the products are sold directly. But with the arrival of new energy sources, the product life cycle changes and thus the amortization incurred is also accounted for.

Also included in the intangible assets are goodwill and the transformation costs of Mercedes-Benz's current development of electric energy vehicles. This will change the share of capitalized development products and change how much is spent. In addition to this, in a business acquisition,

goodwill is the price a company pays over the fair value of identifiable assets and liabilities. Goodwill is shown by presenting it in the balance sheet of the subsidiary.

3. Performance Evaluation

The reason why this section analyzes financial statements in the first place is that financial management is closely related to the operation and management of the enterprise, and the analysis of financial statements provides data support for the enterprise's operation decision-making, through which it can understand the operation of the enterprise in more detail [2].

3.1. Liquidity

First of all, this section will discuss the difference between the liquidity and solvency in terms of current ratio, also known as working capital ratio. Most of the companies' current ratio is generally higher than 1. Then calculating the relevant data and found that except Hyundai, BMW, Mercedes-Benz and Toyota are all higher than 1, as Table 1 shown. Among them, it can find that Mercedes-Benz has the highest value of current ratio, which shows that Mercedes-Benz is in a very good financial situation, with strong ability to realize cash and pay off debts. In addition, this current ratio also shows the amount of a company's current assets. Mercedes-Benzenes has a relatively high current ratio, so it can use more current assets and has enough funds to overcome risks when it encounters them.

Table 1: Liquidity ratios of Benz and its competitors.

Company names	Current ratio	Quick ratio	Cash ratio	NWC to total asset
Benz	1.16	0.87	0.20	0.056
Hyundai	0.786	0.504	0.281	-0.062
BMW	1.092	0.83	0.26	0.032
Toyota	1.104	0.79	0.313	0.104

Next, it will discuss the quick ratio, which is different from the current ratio. When comparing the data, it finds that Mercedes' quick ratio is still at its highest value, while BMW's quick ratio is at its lowest value. Linking the current ratio to the quick ratio, it can be seen that BMW may have a backlog of inventory, resulting in a high current ratio and a low quick ratio, while Mercedes-Benz still maintains good liquidity, regardless of the type of goods. This situation shows that Mercedes-Benz company has a strong management ability for goods and inventory, as well as a timely processing ability.

Then it will discuss about cash ratio. After comparing the data, it found that Mercedes-Benz has a low cash ratio, which shows that Mercedes-Benz may have a strong liquidity, but it is weak in solvency and has some problems in financial structure. In some extremely bad economic circumstances, there are not enough cash to cover the liabilities. And in recent years, Mercedes-Benz has taken some steps to address this phenomenon. Some companies need to speed up the turnover rate of accounts receivable and improve the speed of payment of accounts receivable, so as to ensure the proper cash flow and effectively improve the solvency of listed companies [3].

Finally, it will discuss NWC to total assets. Hyundai's value is negative, which means that Hyundai's liquidity is too low and its financial status is very poor. Toyota has the highest NWC, which means that the company's ability to utilize its capital is weak, which is also a bad sign. While Mercedes Benz's data is moderate, which shows that Mercedes Benz's assets are fully utilized and not wasted.

3.2. Leverage

First, this section will discuss the total debt ratio. From Table 2, it can be seen that Mercedes-Benz has the highest total debt ratio, but the total debt ratio of the four companies as a whole is the highest. However, the total debt ratio of the four companies as a whole is in the lower range. But this also shows that Mercedes-Benz should take measures to reduce its debt. A similar situation occurs in the subsequent debt-equity ratio, where Mercedes-Benz has a higher value, which indicates the same thing.

Table 2: Leverage ratios of Benz and its competitors.

Company names	Total debt ratio	Debt-equity ratio	Long term debt ratio
Benz	0.667	2.00	0.50
Hyundai	0.58	1.38	0.455
BMW	0.45	0.82	0.336
Toyota	0.51	1.04	0.368

Next, it will discuss the long term debt ratio , which is still the highest for Mercedes-Benz. However, the total debt ratio and long term ratio of Mercedes are both at a high value, which indicates that Mercedes does not have a lot of economic activities in the short term, and the overall debt is kept within a qualified range. And This illustrates a situation where Mercedes-Benz is constantly expanding its financial leverage benefits, but ignoring the risks it brings, and it generally divides the risks into two categories: (1)Cash financial risk, that is, the risk that on a given day, cash outflows exceed cash inflows, resulting in the inability to repay the principal and interest of debts at maturity;

(2)Revenue and expenditure financial risk, that is, the risk that the enterprise will not be able to repay the principal and interest of the due debt when the income cannot be offset by the expenditure [4].

3.3. Profitability

Profitability is the ability of a firm to increase the value of its assets or capital. Profitability is mainly related to profit margin, return on asset and return on equity.

Table 3: Profitability ratios of Benz and its competitors.

Company names	Profit margin	Return on assets	Return on equity
Benz	0.098	0.057	0.17
Hyundai	0.056	0.0288	0.0897
BMW	0.132	0.044	0.121
Toyota	0.0671	0.0326	0.0846

Firstly, profit margin is the most widely used data. From Table 3, it can get the highest value for BMW, which shows that BMW has lower costs and other additional losses. The value of Mercedes-Benz is in the middle of the range, which also indicates that Mercedes-Benz has a higher ability to convert assets into profit.

Secondly, it will discuss both ROA and ROE data. Both ROA and ROE of Mercedes Benz are in high position. It shows that the proportion of debt', asset and equity in Mercedes-Benz is within the normal range. It does not appear to be unreasonable. Mercedes-Benz, Hyundai, BMW and Toyota are all in a similar situation, which shows that their financial structure is more reasonable.

3.4. Investment

Finally the most important factor for a company to keep progressing is investment, and in the discussion of investment, it will discuss two main aspects, one is inventory turnover and the other is other data turnover.

Table 4: Investment ratios of Benz and its competitors.

Company names	Inventory turnover	Receivables turnover	NWC turnover	Fixed asset turnover	Total asset turnover
Benz	4.527	18.52	10.37	0.95	0.577
Hyundai	8.46	15.49	-8.97	1.876	0.557
BMW	6.5	3.61	18.32	0.92	0.578
Toyota	7.20	3.074	14.861	0.776	0.50

Firstly, this paper will discuss the inventory turnover. Inventory turnover is used to assess the liquidity of inventory and the reasonableness of the amount of inventory funds occupied, as well as to promote the enterprise to improve the efficiency of the use of funds and enhance the short-term solvency of the enterprise while maintaining the continuity of production and operation. It is a comprehensive indicator to consider the input production, inventory management level and sales recovery ability of an enterprise. However, it concludes from the calculation that the value of Mercedes-Benz is the lowest, which shows that the liquidity of Mercedes-Benz is relatively poor, so Mercedes-Benz can appropriately increase the use of inventory to improve liquidity (see Table 4).

Finally, this paper will discuss the turnover ratio of other data. Some information can be concluded that Mercedes-Benz has less receivable accounts, less fixed asset and more current asset. This also shows that Mercedes Benz has a better use of current assets and also shows that the company is more solvent in the short term. However, this phenomenon also indicates that Mercedes-Benz participates in fewer investment activities, so Mercedes-Benz should increase diversification of its investment operations to expand its income, and in order to accomplish this goal, Mercedes-Benz should do the following. Benz companies should see the differences between all kinds of business income and profit, and should accurately grasp the development trend of all walks of life, and actively open up the road of diversified investment and management development, so as to effectively improve market competitiveness [3].

4. Strategic Forecast

4.1. Thinking in terms of Luxury

The Mercedes Benz Group started with medium priced products, but after the effects of the epidemic Mercedes Benz Cars will be thinking about the future in terms of luxury. In the future of Mercedes Benz Group will be luxury as a standard. And by aiming for a luxury model, the main goal is to attract a new group of customers. The best marketing model is never to form a culture, and the main goal of the Mercedes Benz Group is also to form a culture of luxury. This culture comes from the usual advertising and customer service, most notably Mercedes-Benz will enhance the customer's buying and test-driving experience, as well as provide excellent maintenance and after-sales service, and these behaviors will gain more reliance from customers. In addition, Mercedes-Benz's marketing capabilities are also helping to form a luxury culture, for example, 'Mercedes-Benz has become a brand that many governments often choose in their own concierge receptions, and many national leaders and prestigious people have a high degree of recognition for Mercedes-Benz, and also use

Mercedes-Benz in daily life, so it is more favored in the hearts of many people [5]. But it is a challenge for Mercedes-Benz to convey this idea. Taking Fujian Benz as an example, establish a communication network to improve communication and feedback. Organizational support for corporate culture building also requires the use of possible media to establish internal and external communication networks for corporate culture [6]. This is how Mercedes-Benz communicates luxury thinking.

4.2. Responsible for Power Systems and Digital Experiences

At the latest launch in 2022, the Mercedes-Benz Group has set the goal for the future that the Group will develop a strong focus on energy-efficient vehicles. This has led to significant funding for research into batteries and other core components, most notably in the form of a number of collaborations with companies, such as in the joint venture with Automotive Cells Company SE (ACC) in Europe and with the strategic supplier Envision Automotive Energy Supply Corporation (AESC) in Europe.

In addition to this, Mercedes-Benz has a target date of 2026, but in 2022 Mercedes-Benz will already have launched eight types of electric vehicles and will have seven offline points of sale. Mercedes-Benz Group is also preparing with a large number of partners to add a large number of charging stations in the future. However, Mercedes-Benz should also pay attention to the policies and technological developments in different countries, which should be taken into account during the transformation process. In 2019, the new energy subsidy policy increased the subsidy retreat, paving the way for a complete withdrawal by the end of 2020. Taking new energy passenger car subsidies as an example, the maximum reduction in the amount of bicycle subsidies is more than 50% [7]. Now Mercedes-Benz has also encountered many problems in the field of new energy vehicles. Mercedes-Benz EQ series currently has four models, namely EQA, EQB, EQC and EQS, with a minimum price of 365,800 yuan, and the cumulative global sales in 2021 are only 48,900 units, which is not only behind Tesla's (NASDAQ: TSLA) 936,000 units, but also inferior to NIO (NYSE: NIO, 09866. HK) of 91,000 units [8]. This is also an important factor that will affect Mercedes' future plans. Then, an important factor is the digital experience, which improves the safety and comfort of passengers and users. That's why the Group has launched a specialized operating system that allows for wireless connectivity. If there is a specific point, digital development can help marketing transformation, the specific measures are as follows: the automobile industry needs to establish a marketing platform and establish a comprehensive digital platform centered on customer needs, which no longer simply sells to customers, but becomes a two-way information transmission, and realizes more intelligent marketing management through centralized accumulation of data and digital analysis [9]. These measures can help companies improve their products and increase their impact.

But the most important thing is that the specialized operating system protects the privacy of the customers and gives them more security.

4.3. Lowering Cost Base, Improving Industrial Footprint and Increasing Supply Chain Resilience

Because of the general decline in sales due to the epidemic, Mercedes-Benz has also carried out internal optimizations, most notably by increasing the utilization of the land and reducing the labor costs through wage cuts and mechanization. Mercedes-Benz also increased the exchange of information for better information flow and reduced the extra consumption caused by information exchange problems.

In addition to this, Mercedes-Benz co-operates with a variety of different local companies, thus forming a transnational supply chain, and can increase sales through the local presence and infrastructure of the different companies, the most obvious example being: Daimler and Chrysler

have complementary advantages and strong alliance. In terms of the size of the company directly to the industry's major companies. Mercedes is Germany's largest industrial group. Chrysler is America's third-largest carmaker [10].

To sum up, Mercedes-Benz Group, through its own innovative ability and brand strength, will slowly reduce geographical differences through product localization and transform its products into luxury products in the near future. In addition to this, the cooperation with new energy companies will be increased, thus accelerating the product transformation. Through the brand advantage, the transport and production costs will be reduced and the efficiency of product manufacturing will be improved.

5. Conclusion

Overall, Mercedes-Benz has a good asset structure in general, but the coming of the epidemic era has had a bad impact on the financial situation of Mercedes-Benz Group. In the near future, Europe may keep high inflation rate, so the main market of Mercedes-Benz may aim at China in the future, and Mercedes-Benz series of cars also put forward higher requirements for the profitability of the products, so the products are mainly luxury models. However, in the future, the world will put forward higher requirements for the carbon dioxide emission of automobile products, so Mercedes-Benz will shift the focus of future development to new energy vehicles and new operating systems as well as reduction of emissions through continuous innovation and cooperation with related companies. In addition to this, the Mercedes-Benz Group has increased its focus on the customer by upgrading its systems to improve safety and comfort, as well as providing better pre-sales and after-sales service. Finally, the ultimate goal of a company is always to make a profit, so the Group has also focused on internal costs, introducing a number of new standards, improving the chain and mechanization, and reducing transport and manufacturing costs. Mercedes-Benz Group also pays special attention to its brand strength and goodwill, so all the Group's marketing measures are also aimed at creating a culture that gives customers a better atmosphere and increases its profits. In addition to this Mercedes-Benz has also encountered many external problems that Mercedes-Benz will have to solve in the future. "With its pure driving pleasure and excellent acceleration performance, BMW has won the favor of young Chinese people. In 2019, BMW surpassed Mercedes Benz to become the first luxury car sales brand in the Chinese market with a sales volume of 723,600. In 2020, Audi A6 surpassed Mercedes-Benz GLC to become the domestic luxury car sales champion. Mercedes-Benz has looked for many ways to solve this problem, such as "providing customers with standardized services, Managing customer expectations and Accelerating retail network expansion.

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