

A Comprehensive Analysis of Hengrui

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ABSTRACT

China has one of the largest pharmaceutical markets in the world. However, few studies have focused on domestic Chinese pharmaceutical companies. This paper evaluates the corporate operations of Hengrui by analyzing them at various levels. Hengrui has been in a good financial position and growing steadily for the past few years. However, Hengrui needs to improve its research capabilities to ensure its long-term competitiveness in the Chinese and international pharmaceutical markets.

Keywords: *Pharmaceutical Industry, Hengrui Pharmaceutical, Financial Analysis*

1. INTRODUCTION

The medical industry plays an increasingly important role in society. As the public foundation of the industry, it supports the development of the industry and affects people's livelihood. Jiangsu Hengrui Pharmaceutical Co., Ltd., founded in 1997, is committed to the R & D, production and sales of anti-tumor drugs, surgical drugs, cardiovascular drugs and anti-infective drugs. In 2000, the company began to be listed on the Shanghai Stock Exchange. Since its listing in 2000, the share price has increased nearly 60 times. At present, Hengrui medicine is one of the largest production bases of cancer drugs, surgical drugs and contrast agents in China. Hengrui medical is committed to scientific and technological innovation convergence and global international development under regulation^[1]. On the one hand, take into account the domestic and foreign sales of generic drugs and innovative drugs to form a cash flow inflow. On the other hand, 10% of the operating revenue is invested in the R & D of innovative drugs in the fields of tumor, anesthesia, angiography and cardiovascular. Hengrui medical has realized the production and sales of more than 10 kinds of reagents in European and American markets. At the same time, it is also a well-known pharmaceutical production and supplier in China.

By the end of 2020, the assets of Hengrui medical had reached 34729589900 yuan, an increase of 142%

compared with December 31, 2016. The revenue reached 27734598700 yuan, an increase of 150% over December 31, 2016. The net profit reached 6308893100 yuan, an increase of 139% compared with December 31, 2016.

Hengrui Medical has advanced technology maturity and huge market potential, so its development can be used as a benchmark enterprise in the whole Chinese medical industry and can be used to explore the development prospect and degree of the same medical enterprise. Therefore, this report considers to analyze the profitability, liquidity, solvency, operation and growth ability of a future Hengrui medical enterprise in combination with the actual development of the enterprise. It is helpful for investors to understand its future prospects, which can provide a glimpse of the heights that the Chinese pharmaceutical industry can reach in the future. However, there are no studies that focus on the strategic and financial analysis of Hengrui. The purpose of this paper is to analyse different aspects of Hengrui to provide investors with information and suggestion.

2. STRUCTURE

This paper consists of three main parts.

2.1 Prospect Analysis

The prospect analysis part of this report mainly

analyzes the profitability, liquidity, solvency, operation ability and growth ability in combination with the development of the enterprise's industry.

2.2 Accounting Analysis

This part takes the financial statements of the last five years as a starting point, and by examining the accounting information, the results of the analysis are then obtained. Through the accounting analysis, the data mainly based on the accounting statements are screened, cleaned, organized and judged in a certain way, so that the business information reflected in these accounting data can be better interpreted and thus assist the enterprise to make better decisions.

2.3 Financial Ratio Analysis

After analyzing the accounting information in the previous section, this section mainly calculates the financial ratios to analyze the profitability, solvency, operational capability and development capability, and then forecast the prospect development of Hengrui.

3. PROSPECT ANALYSIS

3.1 Profitability Analysis

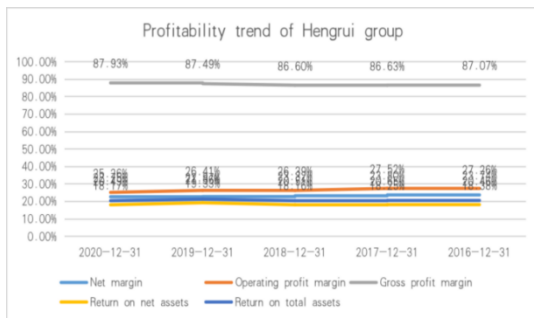


Figure 1 Profitability trend of Hengrui group

Figure 1 describes the profitability of Hengrui group from 2016 to 2020. These indicators include return on total assets, return on net assets, gross profit margin on sales, operating profit margin and net profit margin. Obviously, the profitability of Hengrui group remained relatively stable as a whole, and no major fluctuations occurred in all trend lines. It is expected that in the short-term future, Hengrui medical will still be able to maintain this stable profitability without major fluctuations. However, based on long-term considerations, the future development of the pharmaceutical industry is affected by demographic and economic factors, policy factors, industry norms and the development of science and technology. First of all, the population factor is a factor that directly affects the pharmaceutical industry. With the continuous development of social economy, the intensification of population aging and environmental pollution, people's demand for medicine and medical

services increases. Also, from the research done by Tripathy in 2020, China accounts for 40% of global API production. China has huge growth opportunities in the pharmaceutical market. With increasing government spending on healthcare R&D and collaboration between international and domestic pharmaceutical companies, China offers huge opportunities for new innovations and technologies [7].

3.2 Liquidity Analysis

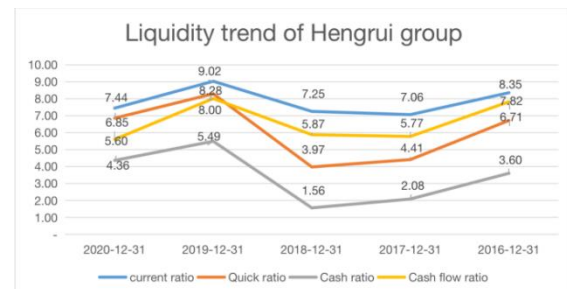


Figure 2 Liquidity trend of Hengrui group

In Fred Weston's research on liquidity ratio of firms, he claims that the liquidity ratio is a ratio that illustrates the company's ability to meet short-term debts [4]. It can be seen from Figure 2 that the overall liquidity of Hengrui group is in a good state from 2016 to 2020. Even the lowest cash flow ratio of the group is 1.56. The average current ratio and quick ratio of Hengrui medical in 2016-2020 are 7.82 and 6.04. Generally speaking, the current ratio reaches 1.2-1.5, indicating that the liquidity of the group is relatively good. Overall, Hengrui medical has good short-term liquidity and low liquidity risk.

The pharmaceutical industry is closely regulated by the state, so it has a strong professional relationship with the pharmaceutical industry. Technological innovation in the pharmaceutical industry has also prompted enterprises to increase investment in drug R & D [2]. The government has improved the medical level and sanitary conditions of residents, and the price restrictions imposed by the bidding policy have increased the diagnosis and treatment capacity of hospitals and promoted the listing speed of new drugs. Higher regulation of the pharmaceutical industry also has an impact on the demand and supply of the pharmaceutical industry, such as the improvement of pharmaceutical production quality requirements and the standardization of drug sales model.

From the above short-term liquidity, there is no liquidity risk in Hengrui medical's medicine. In other words, the group does not give full play to the role of liquid assets. Therefore, a more reasonable suggestion is to fully estimate the funds required for short-term liquidity, and invest the remaining liquid assets in the scientific and technological innovation and R & D of the enterprise, so as to improve the operating efficiency and operating results of the group.

3.3 Solvency

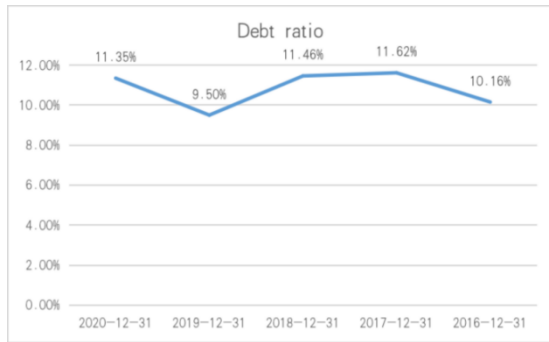


Figure 3 Solvency

From the debt ratio of Hengrui medical, we can see that the debt ratio of enterprises is relatively low. From 2016 to 2020, the average corporate debt ratio was 10.82%. This low debt ratio shows that the capital of the group mainly comes from equity. This low debt ratio indicates that the group's capital is mainly derived from equity financing. As the business is relatively stable, the debt ratio will continue to be low as long as there are no significant changes in the external environment in the future.

However, it is noteworthy that in the future, under the new industry supervision, the international competition will be strengthened. Although there is still a large market in the domestic pharmaceutical market, it still needs to be considered that with the improvement of the dynamic adjustment mechanism of the medical insurance catalogue and the acceleration of the approval of foreign varieties into China, the drug coverage of domestic patients will be gradually expanded, which will promote the expenditure of medical expenses, especially the further promotion of medical insurance cost control. It is inevitable to intensify the competition in the industry, which will promote more investment and capital investment of Hengrui medical. Therefore, the financing channel relying solely on equity may be too single, and more branch businesses will urge Hengrui medical to combine equity financing and debt financing, which will be more conducive to the future development of the enterprise.

3.4 Operation

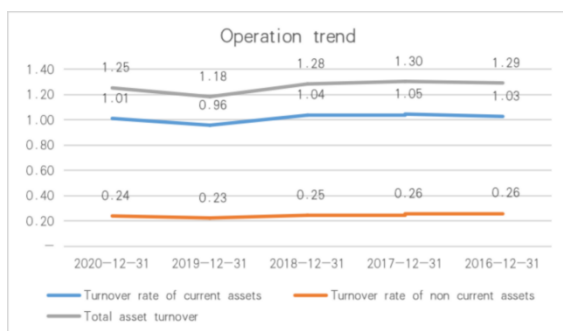


Figure 4 Operation trend

From the perspective of asset efficiency of Hengrui medical, the overall asset turnover efficiency of the enterprise remains relatively stable, especially the turnover rate of non current assets. The turnover rate of current assets and total assets decreased slightly in 2019, but there was little fluctuation in other years. This stable trend is consistent with the profitability of the group. When there is no significant change in the operation of the enterprise, it is expected that the asset turnover efficiency will not change

3.5 Growth

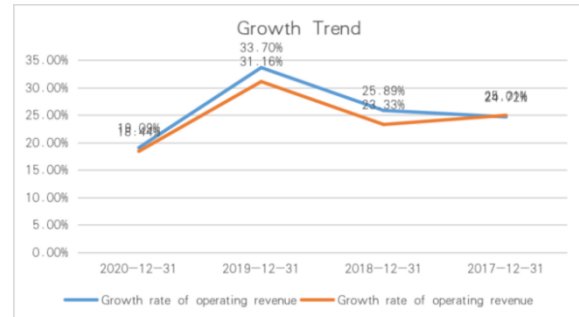


Figure 5 Growth trend

The growth and change of Hengrui medical sales and net profit have the same trend from 2016 to 2020. The maximum growth of revenue and profit is in 2019, in which revenue increases by 33.7% and net profit increases by 31.16%. However, this growth rate will not increase in 2020. According to the growth of medical demand in the future market, it is expected that the sales revenue and net profit can continue to grow, but this growth proportion will decline. The main business income of Hengrui medical comes from the three major businesses of anti-tumor, anesthesia and contrast agent. The major revenue in 2019 increased significantly, mainly due to the breakthrough of cancer drugs and contributed to the company's sales revenue.

Hengrui medical has good future expectations, but at the same time, the enterprise has certain business risks. The company carries out the R & D of innovative drugs. The R & D process has the characteristics of long time, large investment and high risk, which adds more uncertainty to the R & D process. If the research and development is successful, it will bring huge returns to the enterprise. However, if there is any mistake or failure in the R & D process, the enterprise will face large sunk costs or investment losses. In addition, after the completion of new drug research and development, patents will be granted. The patent market is generally 20 years, but there will be imitation drugs in the market at the same time. If the enterprise does not recover its investment within a certain period, generic drugs will greatly weaken the future profitability of the enterprise.

With the development of economy, people's health problems are becoming more and more important. The

state has also issued many policies to supervise the production and marketing of drugs. And these regulatory policies are becoming more and more stringent. This urges enterprises to carry out higher production quality management and production cost investment. At the same time, the increase of government intervention in the industry will have an impact on the profitability of enterprises.

With the development of economy, people's health problems are becoming more and more important. The state has also issued many policies to supervise the production and marketing of drugs. And these regulatory policies are becoming more and more stringent. This urges enterprises to carry out higher production quality management and production cost investment^[9]. At the same time, the increase of government intervention in the industry will have an impact on the profitability of enterprises^[10]. The pharmaceutical industry market also has a relatively broad market, and its future development is immeasurable^[3]. Of course, the development of the pharmaceutical industry is still affected by the external environment.

4. ACCOUNTING ANALYSIS

4.1 Balance Sheet Analysis

Table 1 A short summary of financial position from 2016-2020

	2016-12-31	2017-12-31	2018-12-31	2019-12-31	2020-12-31
Total asset	1,433,005.87	1,803,938.48	2,236,122.96	2,755,647.55	3,472,958.99
Fixed asset	167,689.07	199,793.56	232,876.56	254,197.31	328,017.37
Intangible asset	28,471.57	27,925.55	27,268.24	34,976.15	34,125.29
Total liability	145,566.68	209,617.00	256,349.11	261,894.79	394,258.80
Total equity	1,287,439.18	1,594,321.48	1,979,773.85	2,493,752.76	3,078,700.19

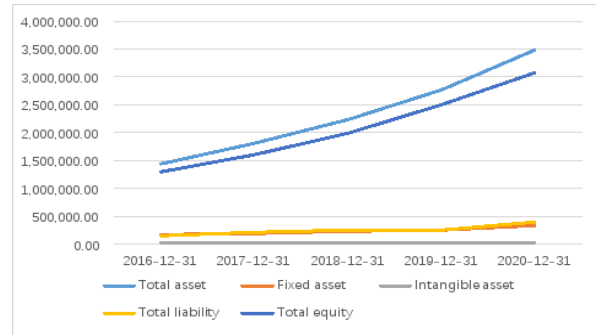


Figure 6 Trends in financial position from 2016-2020

Figure 6 is a summary of Hengrui's balance sheet for the five-year period 2016-2020. Figure 7 illustrates the changes in Hengrui's financial position over the five-year period.

Hengrui's overall asset size is showing a steady upward trend, while maintaining a very low growth rate of liabilities. In the past five years, Hengrui's liabilities increased by 248,692.12 RMB, while assets increased by 2,039,953.12 RMB, which is 8.2 times of the increase of liabilities. This indicates that Hengrui is still accelerating its expansion. However, during the process of asset expansion, the growth rate of liabilities is much lower than that of assets.

However, as a company involved in both production and R&D, Hengrui's production capacity and research results should also be taken into consideration. However, Hengrui's intangible assets have barely improved significantly in the last five years. In percentage terms, even in 2016, they represent only 2% of the total assets, and only 1% by 2020. Considering that Hengrui's business is dominated by generics, the slow growth rate on R&D does not currently affect Hengrui's good financial position. Fixed assets, mainly PPE, have been growing steadily every year despite their modest magnitude

4.2 Income Statement Analysis

Figure 8 and 9 shows the main items of the income statement disclosed by Hengrui from 2016 to 2020, showing the profitability of the period. From this table, we can see that its operating profit has been steadily increasing, and accordingly, the operating cost has been increasing at a similar rate, while the company's gross profit has been maintained at around 27%.

Table 2 A short summary income statement from 2016-2020

	2016	2017	2018	2019	2020
Revenue	1,109,372.41	1,383,562.94	1,741,790.11	2,328,857.66	2,773,459.87
Operating	808,41	1,022,3	1,323,	1,765,7	2,128,2

ting cost	3.83	59.97	434.16	94.86	04.63
Operating profit	302,43	380,78	459,66	614,96	700,70
Total profit	301,31	375,91	449,90	605,57	689,54
Net profit	263,41	329,29	406,11	532,64	630,88

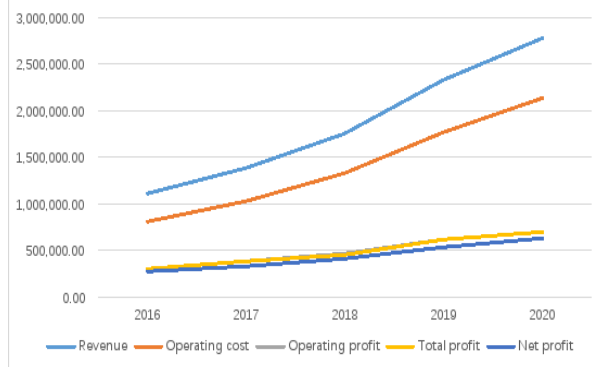


Figure 7 Trends in income and expense from 2016-2020

In terms of products, Hengrui's product composition has changed significantly over the past five years. As of 2016, the company's main revenue was derived entirely from the sale of pharmaceuticals, consisting of injectables, tablets and active pharmaceutical ingredients. But by 2017, there was a complete shift in the products sold by Hengrui, including but not limited to contrast agents, antineoplastic products and anaesthesia products. Among them, antineoplastic products accounted for the largest share of the main business revenue and the fastest growth rate.

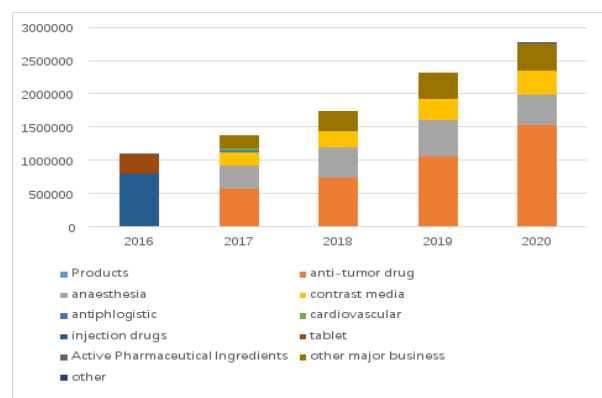


Figure 8 Revenue distribution between different products from 2016-2020

From the perspective of geographical distribution, although internationalization is one of Hengrui's strategies. However, over 95% of Hengrui's annual main business revenue in the past five years came from the

local market, i.e. China

Table 3 Revenue distribution between different products from 2016-2020

Region	2016	2017	2018	2019	2020
Chinese mainland	1,064,402	1,318,742	1,675,073	2,261,507	2,685,484
Foreign countries	43,193	63,665	65,091	63,173	75,785

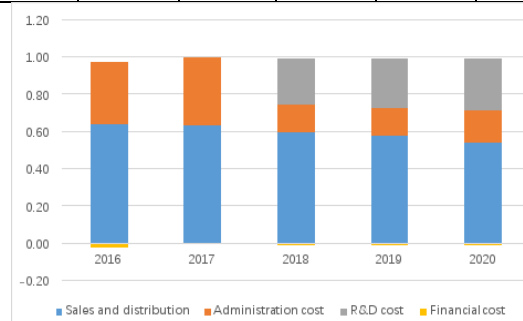


Figure 9 Expense distribution from 2016-2020

As operating profit increases, expenses will change as well. The expense profile also reflects how Hengrui has changed over the past few years. Among the four major expenses, selling expenses have been the most significant and the largest share of Hengrui's expenses. Because of Hengrui's low amount of debt, finance costs have always been a very small part of expenses, even if they were only 2% in the most notable year. It is worth noting that Hengrui did not have any R&D expenses until 2018. However, ever since R&D expenses appeared, the amount has been second only to sales expenses. It is also after 2018 that Hengrui's revenue started to grow at a much higher rate

4.3 Cash Flow Analysis

Figure 13 shows the main items of Hengrui's consolidated cash flow statement, the net cash flow from operating activities of the company is positive between 2016 and 2020. The cash flow used for investing activities is negative in the first four years of this five-year period and turns into profit in 2020. Based on the previous analysis of the changes in items such as total assets in the balance sheet and expenses in the income statement, it is known that the company is in an expansion period and is still buying a lot of assets, as well as investing in research and development, and long-term investments are increasing.

Table 4 Summary of cash flows from 2016-2020

Types of cashflow	2016	2017	2018	2019	2020
cash inflow from operating activities	1,326,075.11	1,437,757.92	1,741,946.00	2,360,639.74	2,453,656.18
cash outflow from operating activities	1,066,812.27	1,183,019.37	1,464,524.73	1,978,956.45	2,110,462.70
cash inflow from investing activities	426.73	360,855.45	914,568.24	2,718,572.92	2,999,022.70
cash outflow from investing activities	265,385.80	698,411.77	1,200,119.20	2,913,116.97	2,819,239.82
cash inflow from financing activities	1,421.16	53,699.66	13,392.87	9,701.31	132,029.23
cash outflow from financing activities	20,910.21	31,745.56	50,232.01	81,552.16	102,910.40

The net cash flow from the operating activities of the enterprise is relatively stable. Compared to the company's operating income it can be seen that in four of the last five years, the ratio of income to operating cash inflows was above 80%. Only in 2020, there was a shortfall of -319,803.7. This indicates that only a very small portion of the company's operating income is completed on credit, which on the one hand gives the company a very low risk of bad debts, and on the other hand, due to sufficient cash flow, the company is not forced to need to solve its corporate liquidity problems by increasing its debt. In 2020, a significant increase in net cash flow for investment purposes due to increased investment returns will, in turn, make it possible to maintain the current low leverage profile. Net cash outlays from financing activities have been low, typically below 5% of operating cash inflows over the past five years. In short, Hengrui's cash flow is very healthy.

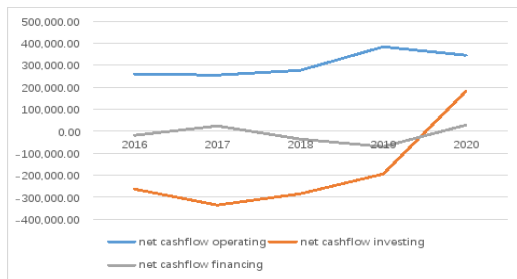


Figure 10 Changes in net cash flows from different activities

5. FINANCIAL RATIO ANALYSIS

5.1 Profitability Ratios

Table 5 Summary of Profitability Ratios from 2016-2020

Year	Net Profit Margin	Operating Profit Ratio	Gross Profit Margin
2020	0.227	0.252	0.233
2019	0.228	0.264	0.242
2018	0.233	0.263	0.240
2017	0.238	0.275	0.261
2016	0.237	0.273	0.271

From the data above, it's clear that the profitability ratios for Hengrui stay at a constant level from 2016 to 2020. The net profit margin represents how much profits can each yuan sale bring to the firm; according to Alexandri, profit margin is the firm's ability to generate profits compared to sales achieved^[5]. The operating profit ratio represents how much profits can each yuan of revenue bring to the firm. The gross profit margin represents the ratio of gross profit and sale revenue. As China's leading pharmaceutical firm and drug research and development firm, Hengrui has deep cooperation with China's health care system, to provide the effective drug at the same time reduce the price of the drug to meet the market demand, so as to gain a big share of market. Also, Hengrui's focus on generic drugs, which means their investments on researching new drug are low. Generic drugs are made since it was proved that the drug is effective, so these drug will have good sales. These are the reason why Hengrui can keeps its profitability.

5.2 Asset Management Ratios

Table 6 Summary of Asset Management Ratios from 2016-2020

Year	Inventory Turnover	Current Asset Turnover	Total Assets Turnover
2020	5.792	1.101	0.891
2019	6.464	1.153	0.933
2018	5.701	1.107	0.862
2017	6.102	1.070	0.855

From the data above, the current asset turnover and total assets turnover keeps at a constant level, the inventory turnover has some fluctuation but the difference are not that large. The inventory turn over represents the turnover speed of inventory which reflects firms cashability. The current asset turnover can implies firms' efficiency of using current assets. The total assets turnover is an index to evaluate the management all firm assets. Based on the above three data, we find that Hengrui has outstanding cashability, that may be due to the high demand for its products in China, which indicates that the drugs produced by Hengrui have a good

sales quantity to achieve the ability to realize assets. Moreover, its Current assets turnover and Total assets Turnover showed Hengrui's good asset management and strong sales ability.

5.3 Debt Ratios

Table 7 Summary of Debt Ratios from 2016-2020

Years	Debt Asset Ratio	Equity Ratio	Debt to Tangible Assets Ratio
2020	0.114	0.128	0.128
2019	0.095	0.105	0.106
2018	0.115	0.129	0.131
2017	0.116	0.131	0.134
2016	0.102	0.113	0.116

Debt asset ratio represents the ratio between firm's liability and asset. Equity ratio represents the ratio between firm's total liability and shareholder equity. The debt to tangible assets ration represents the ratio between firm's total liability and net tangible assets. From the data above, we found that both three ratios stay at a low and steady level from 2016 to 2019. Hengrui's debt asset ratio stay between 0.102 to 0.114 which is low, also, the equity ratio stay between 0.105 to 0.131, these two ratios implies that Hengrui has good long-term solvency; for the capital structure, Hengrui has low financial risk result from the debt asset ratio. Since its the leading pharmaceutical firm in China, low financial risk can ensure the normal operation in the long term to stabilize its market share. From the debt to tangible asset ratio, it stays between 0.106 to 0.134, this low ratio also reflects that Hengrui is has good long-term solvency.

5.4 Liquidity Ratio

Table 8 Summary of Liquidity Ratios from 2016-2020

Year	Current Ratio	Quick Ratio
2020	7.437	6.966
2019	9.023	8.373
2018	7.246	6.832
2017	7.056	6.671
2016	8.347	7.881

The current ratio represents ratio between firms liquid assets and liquid liabilities. The quick ratio is the ratio between quick assets and liquid liabilities. From the data above, the current ratio of Hengrui reaches 7:1 to 9:1, also the quick ratio reaches 6:1 to 8:1, these two ratio are outstanding high, this implies Hengrui has good cashability and excellent short-term solvency. Although the high current ratio and quick ratio may implies Hengrui may have inventory backlog or holding to much

cash, based on other ratio above, the cashability and management on assets attest the low probability that Hengrui has these problem.

6. CONCLUSION

As the leading pharmaceutical firm in China, Hengrui maintained a steady growth trend. From the different analysis result above, Hengrui is able to keep this trend, increasing population and pollution enhance people's need for medical service. Generic drug is what Hengrui focusing on, this means Hengrui's investment on research and development stays at low rate comparing to it's assets. When research is no longer a big part of a drug firm's spending, its capital structure will be made up more of assets; From the analysis, combined with data analysis, Hengrui has good asset liquidity and solvency. As a pharmaceutical company, its core competitiveness should not always be the production of generic drugs, but should make changes under the existing conditions, and gradually shift the company's focus to research, so as to maintain its competitiveness in China and the world. At present, the disadvantages of lack of drug research have not been shown, because its generic drugs have good effects and it has formed deep cooperation with China's medical insurance system, so that its drug supply can well meet the needs of patients. On the premise of good sales ability, strong asset management ability to ensure the cash ability of Hengrui. Hengrui's current financial risk is extremely low, partly because its capital structure is largely made up of assets. On the other hand, only a small part of the company's business revenue is completed through credit, and currently, Hengrui has sufficient cash flow, which indicates that Hengrui has the ability to change the focus of the company in both the long term and the short term. In general, Both the asset management ability and the sales ability of Hengrui remain at a strong level, and in 2017, hengrui's changed product group did not have an impact on the company's profitability and growth; Combined with the analysis in this paper, The growth of Hengrui will continue in the long run. Hengrui intends to increase its expenditure on drug research now. Although it will experience the pain period of company expenditure; however, according to the research from Weiss, R&d investment has a positive impact on both short-term profits and long-term corporate value. Therefore, in order to maximize the long-term value of the company, it seems that pharmaceutical companies should allocate more resources to R&D^[6].

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