

Empirical Analysis of Factors of Company Value Based on Hermes

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Abstract. Company value is the focus of contemporary economic society, and what factors will affect it is also one of the key topics of research. Although scholars from various countries have carried out many studies on the influencing factors of enterprise value, there are still differences and no agreement has been reached. The pursuit of perfect quality, practical simplicity, family tradition in business, and never purposefully catering to trends are the elements that elevate Hermès to the pinnacle of luxury and give its exorbitant price a reasonable market value. The factors influencing the value of a business are extremely complex. Therefore, this study puts forward 10 hypotheses based on the comparative analysis of Hermes and its competitors, and takes 1259 A-share listed companies as samples to collect data, conduct empirical analysis on the data, and explore the influencing factors of enterprise value, in order to obtain a generally applicable conclusion. Research shows that solvency, especially short-term solvency, is one of the impact factors of company value, along with profitability, ownership concentration, R&D investment, the ratio of R&D investment to operating income, and the degree of market monopoly. Hence, it is suggested that enterprises should reasonably control the level of leverage, promote the awareness of innovation, improve profitability, and pay attention to the introduction of talent.

Keywords: Company value; empirical analysis; Hermes.

1. Introduction

With the development of modern enterprise system and economic globalization, as well as the rapid penetration of capital and information market, the significance of corporate value has been paid more and more attention by the society in economic activities. It is widely used in the fields of enterprise management, property rights merger and acquisition, and venture capital. The concept of enterprise value was first proposed in 1958. From the perspective of finance, Modigliani and Miller (1958) defined enterprise value as the market price of the enterprise, which combines the market value of corporate stock with the market value of corporate debt [1]. The occurrence of numerous economic activities and the pursuit of profit make all economic subjects eager to realize the maximization of corporate value. Therefore, it is of great significance to explore what are the influencing factors of enterprise value.

However, there is still no consensus among scholars in this regard. Morin and Jarrell (2001) believe that enterprise value is the direct result of a series of strategic decisions, and the accurate understanding of enterprise strategy and financial management is the key to ensure the improvement of enterprise value [2]. Xian and He (2005) divided the factors affecting enterprise value into direct and indirect parts, the former including profitability, the latter including environmental factors and enterprise internal factors [3]. Wang et al. (2012) summarized the factors influencing enterprise value into four aspects, respectively capital structure, business performance, business strategy and corporate governance structure [4]. From a new perspective, this paper will explore the basic characteristics of

the universal driving factors of enterprise value based on hypothesis and empirical analysis, in order to provide a reference for further study on corporate value and its influencing factors in the future.

This research starts with the study of the corporate value of Hermes, and through empirical analysis, establishes some relevant models to explore the factors influencing the corporate value in a quantitative way. Firstly, this paper makes an incentive study of Hermes, and proposes a preliminary hypothesis of impact factors by comparing with comparable companies in the same industry.

Therefore, while assessing an organization, its value can be evaluated by calculating objective cash flows and other factors like the organization's operating capability, solvency, and profitability.

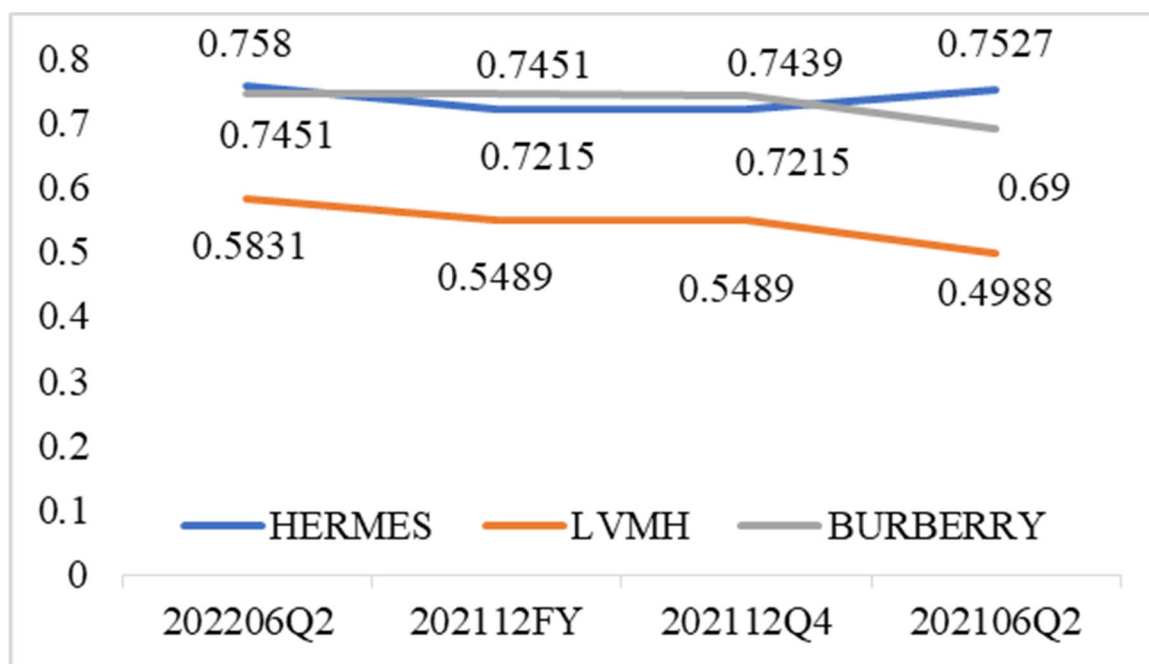


Figure 1 Total Asset Rate

Capacity indicators, as surface factors, are the financial manifestation of an enterprise's operating performance and the external manifestation of its profitability. The more fully utilized an organization's assets are, generally speaking, the more properly fixed assets have been invested in, the more evenly distributed its asset structure is, the better it can utilize the efficiency of its fixed assets, and the more successfully its business operations are conducted [5]. According to the peer group statistics in figure 1, Hermes is on the increase overall and is performing well compared to its rivals, which suggests that the company is able to utilise its resources more effectively, which boosts its profitability. Operating capacity can be observed to have an effect on enterprise value.

The operating margin reflects profitability which is the ratio of an enterprise's operating profit to its operating income. It is a measure of the efficiency of a company's operations and reflects the ability of its managers to make a profit from their operations without taking into account non-operating costs. Figure 2 shows that Hermes' operating profit margin is significantly higher than that of its peers and remains stable, with earnings reflecting the equity of owners and an important source of debt repayment for the business. Dividends to investors are derived from earnings and an increase in profitability drives up the price of a company's shares, thereby increasing the value of shareholders' capital and enhancing corporate value [6].

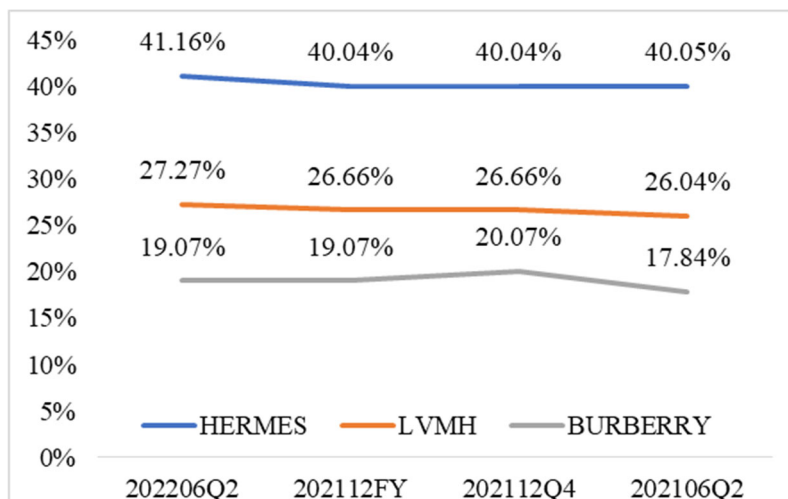


Figure 2 Operating Margin

Solvency refers to an enterprise's ability to repay its debts when due. Under market economic conditions, as an independent economic entity, the strength of an enterprise's solvency directly affects its ability to pay, credit, reputation and financing, and can even affect its ability to operate [7]. The current ratio is the core ratio to measure the short-term solvency of an enterprise. As is shown in figure 3, Hermes' current ratio is significantly higher than its competitors in the same industry. The higher the current ratio is, the stronger the ability of the enterprise to repay its current liabilities and the greater the guarantee that current liabilities will be refunded. The higher the current ratio, the stronger the company's ability to repay its current liabilities, and the greater the guarantee that current liabilities will be repaid. The strength of solvency is related to the company's ability to withstand financial risks, the timing of investment and profitability, and therefore has a profound impact on the value of the company.

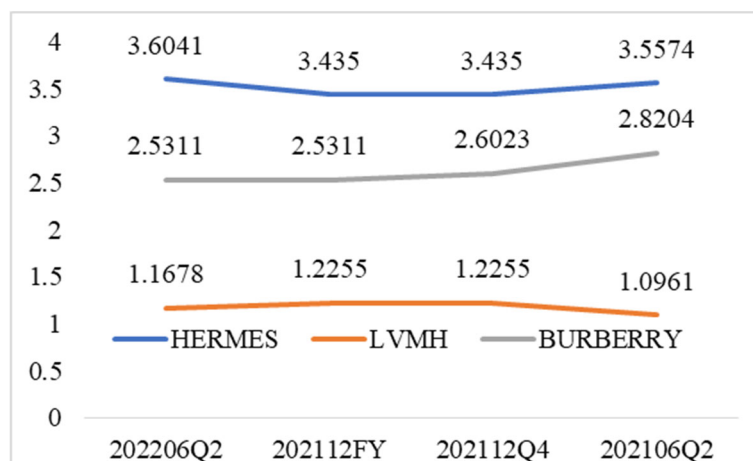


Figure 3 Current Ratio

Development capacity is the source of sustainable development and future value, it is also the basis of survival and profitability. The analysis and evaluation of an enterprise's development capacity have vital practical significance. Development capacity reflects the company's objectives and financial indicators, and is a comprehensive reflection of the company's profitability, operating capacity and solvency.

The growth rate of main business reflects the development of the company's business and growth potential, and the ability to continuously add to a central business income is the basis and the key to survival and development. This indicator is an essential measure of the growth of listed companies. After the financial crisis in 2008, Hermes' revenue growth rate remained stable at around 10%,

indicating steady growth in market and customer development. It has a positive impact on the increase of enterprise value.

Financial leverage is the leverage effect of changes in earnings per ordinary share more significant than changes in EBITDA due to the presence of debt; it is how a company uses debt to adjust its return on equity capital. Whether or not financial leverage has a positive impact on a company depends primarily on whether the company's total asset margin is greater than the level of bank interest rates. According to figure 4, Hermes' level of financial leverage is significantly lower than that of other companies, indicating a lower level of debt, which helps to reduce financial risk, but has the potential to increase the cost of capital. Therefore, when making financing decisions, companies should both avoid financial risks and make reasonable use of financial leverage to keep the ratio of debt capital to equity capital at an appropriate ratio to maximize shareholders' wealth.

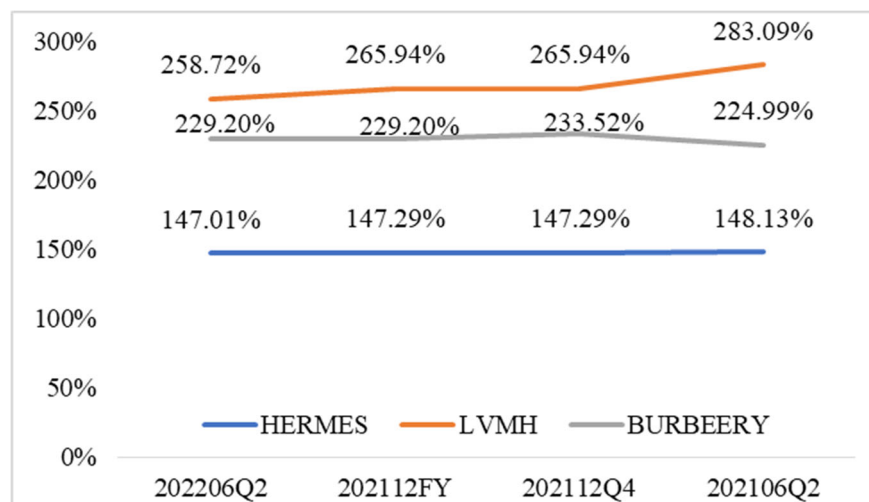


Figure 4 Total Assets to Common Equity

The distribution of shareholders and voting rights of a company can also have an impact on value. Companies with the same future earnings expectations may have very different values depending on the distribution of their shareholders and voting rights. Hermès has a relatively concentrated shareholding. The participants represented 50.2% of the company- with a contractual agreement not to sell any shares for the next 20 years. Through this model of centralization, Hermès defends the family estate and increases the value of the business.

At the same time, changes in the management of a company can have a marked impact on the value of the business. For example, the gender and age of the management staff can lead to a certain amount of subjectivity regarding decisions and even the future direction of the firm, and investors can be wary of choosing shares in the business to invest in and grant loans to the business because they do not know the capabilities, policies and creditworthiness of the new leader, leading to corresponding fluctuations in the value of the business [8].

Secondly, this paper carries on the empirical analysis, in order to obtain the conclusion with universal significance. The research takes A-share companies as samples, and uses STATA as technical support to test each assumption for validity, and then draws the conclusion.

Finally, based on the results of the previous analysis, this study further puts forward several suggestions for enterprises.

2. Methodology

According to the analysis of Hermes before, the authors suppose that solvency, profitability, operation ability, development capacity, the degree of financial risk, ownership concentration, R&D

investment and the degree of market monopoly can be the possible factors of company value, so ten hypotheses have been formulated as follows.

H1: Solvency is the factor of company value.

H2: Short-term solvency impacts more on enterprise value than long-term solvency.

H3: Profitability is the factor of company value.

H4: Operation ability is the factor of company value.

H5: Development capacity is the factor of company value.

H6: The degree of financial risk is the factor of company value.

H7: Ownership concentration is the factor of company value.

H8: R&D investment is the factor of company value.

H9: Ratio of R & D investment to operating income impacts more on company value than R & D personnel ratio.

H10: The degree of market monopoly is the factor of company value.

In order to pilot these hypotheses, suitable variables should be chosen at first.

2.1 variables selection

2.1.1 variable being explained: Tobin's Q value

Tobin's Q value is defined as the ratio of the market value of an asset to its replacement value, which can be used to measure whether an asset is over-valued or not. Since this paper aims at carrying out the factors of company value, company value should be quantified. Yuan Tao (2021), Ying Zhang and Yulu Wu (2021) and many other researchers have used Tobin's Q value to work as a proxy variable of company value, therefore, the authors chose Tobin's Q value to be the variable being explained [9,10].

2.1.2 explanatory variable

All of the related variables have been listed as follows in table 1:

Table 1 Selection and Description of Variables

Variable name	Variable label	Explanation	Unit
tbq	Tobin's Q value	reflect the company value	/
fr	Current ratio	reflect the short-term solvency	/
icr	Interest cover	reflect the long-term solvency	/
alr	Debt assets ratio	reflect the long-term solvency	/
ra	Capital return	Reflect the profitability	/
roa	ROA	Reflect the profitability	/
roe	ROE	Reflect the profitability	/
onpm	Net profit ratio	Reflect the profitability	/
ttc	Total asset rate	Reflect the operation ability	/
tar	ART rate	Reflect the operation ability	/
rst	Inventory turning rate	Reflect the operation ability	/
vla	Current rate	Reflect the operation ability	/
tfa	Fixed asset rate	Reflect the operation ability	/
grta	Total assets grow rate	Reflect the development ability	/
lev	Financial leverage	Reflect the degree of financial risk	/
oc	proportion of the largest shareholder	Reflect the ownership concentration	/
rdq	R & D personnel ratio	Reflect R & D investment	%
rde	Ratio of R & D investment to operating income	Reflect R & D investment	%
li	Stock Lerner index	Reflect the degree of market monopoly	/

This article made an extremely detailed and thorough decision on selecting the variables. Since they need to make deep analysis on the ability of debt paying, they divided it into two parts, choosing current ratio in order to stand for its short-term ability and selecting interest cover as to symbolize its long-term one. In reality, the debt assets ratio which has now been replaced with the interest cover was the one that the authors chose at the beginning, however it has an extremely strong correlation with current ratio, which may lead to a huge heteroscedasticity and perfect collinearity. Such kind of impacts may cause the econometric model totally meaningless, thus the researchers finally substituted the interest cover for debt assets ratio.

Just the same reasons as above, capital return, ROA and ROE are not allowed to be chosen together, so the authors only retained one of them (ROA) at last. In addition, the correlation coefficient between total asset rate and current rate is up to 0.768, so current rate is finally chosen in these two variables.

Therefore, this article chose current ratio, interest cover, ROA, net profit ratio, ART rate, inventory turning rate, current rate, fixed asset rate, total assets grow rate, financial leverage, proportion of the largest shareholder, R&D personnel ratio, ratio of R&D investment to operating income and stock leaner index as the main variables.

The descriptions of these variables are listed as follows in table 2:

Table 2 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
fr	1259	2.145	1.696	.219	20.67
icr	1259	55.767	306.542	1.004	6302.691
roa	1259	.064	.062	.001	.808
onpm	1259	.112	.189	.001	3.843
tar	1259	19.983	106.794	.58	2699.682
rst	1259	37.909	422.257	.062	9940.205
vla	1259	1.411	1.082	.024	14.784
tfa	1259	15.263	102.428	.187	2584.478
lev	1259	1.578	7.699	1	270.994
grta	1259	.271	.413	-.296	4.501
oc	1259	33.623	14.488	2.787	89.991
rdq	1259	15.007	12.321	0	93.04
rde	1259	4.451	3.86	.003	39.18
li	1259	.159	.121	-1.605	.647

2.2 Data collection

This article aims at doing some research on the factors of company value based on the analysis of Hermes. In order to make the research more feasible and reasoned, the authors decided to set 2021 as an example and selected A-shared listed companies in China. The data were mainly from CSMAR data base and a small part of the data was found on the official websites of corresponding public companies.

2.3 Data manipulation

Since all the variables the authors finally chose were indicators which are on the same order of magnitude, no special data processing like logarithmic processing is required. However, some of the data was not accessible, thus some of the A-shared listed companies were excluded because several indicators can't be gained from all kinds of websites for information disclosure. In the end, the researchers collected 1259 A-shared listed companies in China to work as samples.

3. Results

This paper take all the independent variables into consideration in model 1 and after using multiple regression analysis and remove all the insignificant variables, model 2 can be formed. After the aggregation of these two models, table 3 is shown down here.

Table 3. Multiple regression analysis of model 1 and 2

	Model (1)	Model (2)
	tbq	tbq
fr	-0.0447** (0.022)	-0.0544*** (0.020)
icr	-0.0001 (0.000)	
roa	6.8924*** (0.708)	6.2838*** (0.568)
onpm	-0.1463 (0.208)	
tar	-0.0002 (0.000)	
rst	-0.0000 (0.000)	
vla	-0.0472 (0.034)	
tfa	0.0000 (0.000)	
lev	-0.0032 (0.004)	
grta	-0.1264 (0.091)	
oc	-0.0123*** (0.002)	-0.0128*** (0.002)
rdq	0.0129*** (0.003)	0.0133*** (0.003)
rde	0.0372*** (0.012)	0.0392*** (0.012)
li	1.0728*** (0.319)	1.1239*** (0.301)
_cons	1.7287*** (0.123)	1.6499*** (0.105)
N	1259	1259

Note : 1. The '***', '**' and '*' in the table are expressed as significant at 1%, 5% and 10% significant levels, respectively. 2. The () in the table represents the standard error.

From the table above, model 1 can be identified:

According to model one, some results can be carried out about H1~H8 and H10.

Hypothesis one shouldn't be rejected, since the p value of fr is 0.046 which is significant at the five percent level. However, the p value of icr is up to 0.207 which is even insignificant at the twenty percent level, thus fr impacts more on enterprise value than icr which indicates that H2 is correct.

Although onpm is insignificant to tbq, the p value of roa is approximate to 0.000, which is even significant at the one percent level, revealing that roa can influence tbq to a great extent. Thus, hypothesis 3 is right.

However, what young researchers should pay attention to is that none of the indicators reflecting operation ability is significant, which verifies that H4 should be rejected.

H5 is also not a correct hypothesis. The t-statistic for grta is -1.39 and its p-value is up to 0.164 which is insignificant at 15% level, demonstrating that grta doesn't have a great impact on tbq. H6 is rejected because of the same kind of reason that lev is not significant to tbq.

However H7, H8 and H10 are completely correct. All of the four indicators, oc, rdq, rde and li, have rather small p values, which are even significant at 1% level, presenting their great influence on tbq.

After excluding all the variables which are insignificant to tbq, the authors then get the model 2:

Therefore, there is still one hypothesis not verified. In order to demonstrate the correctness of H9, some more detailed models should be established.

Table 4. Multiple regression analysis of model 2, 3, 4 and 5

	Model(3) rdq	Model(2) tbq	Model(4) tbq	Model(5) tbq
rde	2.1302*** (0.067)	0.0392*** (0.012)		0.0666*** (0.009)
fr		-0.0544*** (0.020)	-0.0418** (0.020)	-0.0527*** (0.020)
roa		6.2838*** (0.568)	6.0983*** (0.567)	6.2527*** (0.571)
oc		-0.0128*** (0.002)	-0.0137*** (0.002)	-0.0133*** (0.002)
rdq		0.0133*** (0.003)	0.0205*** (0.003)	
li		1.1239*** (0.301)	1.3210*** (0.297)	1.1474*** (0.303)
_cons	5.5260*** (0.395)	1.6499*** (0.105)	1.7000*** (0.104)	1.7398*** (0.103)
N	1259	1259	1259	1259

Note : 1. The ***, ** and * in the table are expressed as significant at 1%, 5% and 10% significant levels, respectively.
2. The () in the table represents the standard error.

As is summarized in table 4, there's a linear relationship between rde and rdq, thus the authors try to use rde to express rdq. Then they get the model below:

After that, they control rdq and rde respectively to observe each of the impact on tbq.

According to formula (4) and (5), for each additional unit of rdq, tbq will increase by 0.0205, while for each additional unit of rde, tbq will increase by 0.0666. Therefore, rde impacts more on company value than rdq, revealing that H9 is certainly correct.

4. Discussion

Based on the related literature material investigation and practice experience, as well as the analysis of large multinational high-end manufacturing company Hermes, this paper finds that the factors of the enterprise value are solvency, profitability, operation ability, development ability, financial risk, equity concentration, research and development investment, research and development ratio, degree of monopoly market factors in the process of the possible factors. At the same time, the sample data of more than 1200 Chinese A-share listed companies are combined to obtain the following conclusions:

Solvency is one of the influencing factors of enterprise value, and short-term solvency is more important for enterprise value than long-term solvency, which is also the proof of sufficient capital flow of enterprises. At the same time, combined with the data, it can be found that profitability and

operating capacity are the influencing factors of enterprise value. For a company, the ability of sustainable development can also affect the value of the company. In addition, financial risk and ownership concentration will also have a corresponding impact on enterprise value. R&D investment has a cumulative effect on firm value. Because of the long period of research and development, the economy and effect of innovation have a lag [11]. The reaction of capital market to enterprise value is more based on the phased results of enterprise research and development. The proportion of R&D investment has a greater impact on enterprise value than the proportion of R&D personnel. The intensity of R&D investment is highly correlated with the market value of listed enterprises. To some extent, this can reflect the enterprise's investment in future competitive advantage and cash flow. Although it will bring about the decline and reduction of profit margin in the short term, it will still bring about the growth of company value. Finally, the data prove that the degree of market monopoly will also have an impact on firm value.

Therefore, based on the above analysis, this paper puts forward the following suggestions:

First, enterprises should fully evaluate the characteristics of their own industry and development status, as well as reasonably control the level of corporate leverage, and optimize their capital structure by reducing the debt ratio and increasing the proportion of self-owned capital. At the same time, they must be skilled through the capital market, venture capital and other ways to raise funds. Only by making effective use of capital means, such as listing and bond issuance, can the normal business of the company be guaranteed, while providing strong financial support for merger and acquisition, cooperation, and product research and development and laying a foundation for the company's long-term development and sustainable expansion [12].

Second, enterprises should raise their awareness of innovation and increase investment in R&D and innovation. As one of the main means to improve the core competitiveness of enterprises, innovation investment can increase the variety of products, improve product performance and customer loyalty to enterprise products, as well help enterprises expand and stabilize the market.

Third, enterprises should further improve their profitability and provide adequate financial support for research and development. Regardless of the mode of independent research and development or cooperative research and development, enterprises need to invest a lot of money in research and development activities over a long period of time. In order to ensure the smooth development of enterprise R&D activities, enterprises must effectively control the existing costs. Under the background of the fixed costs and increased pressure, marketing expenses become the focus of enterprises [13]. For any enterprise, good profitability can make the capital of the enterprise grow rapidly without relying on external forces. An enterprise with a strong manufacturing capacity will be favored by the capital market and will be able to continuously improve its value.

Forth, enterprises should pay attention to attracting talents to solve the incentive dilemma of R&D personnel. Talent is the foundation and core of R&D and innovation. Every link in the whole process of research and development needs high-quality talents to connect and check. Lacking of talents in any link may lead to the decline of the overall speed, or even the failure of the whole project. Therefore, talent attraction and training is a required course for enterprises to promote R&D strategy. Some researchers should gradually change the trend of marketing dominance and change the traditional positioning of R&D department as expense center. A reasonable incentive mechanism should also be established to clarify the reward methods for R&D achievements. Meanwhile, more attention should be paid to the cooperation with external teams, use external talent resources to solve short-term difficulties, and spend time for the cultivation of their own talents. At present, the more common method is to carry out research and development cooperation in the name of the company to ensure that the labor cost and scientific research results are controllable.

5. Conclusion

Through the research, this paper has obtained the driving factors of corporate value with universal relevance. The first is solvency, especially in the short term, and profitability, which may be due to

the fact that they demonstrate that companies have flexible and abundant cash flows and thus perform better in their business activities. In addition, as an important component of corporate governance structure, ownership structure has an important impact on enterprise value. Concentrated ownership can avoid the adverse selection and moral hazard of managers to some extent, and improve the operation and management of enterprises. Moreover, R&D investment has a cumulative effect on company value, even if it might lead to lower profit margins in the short run. Furthermore, the extent of market monopoly will also affect the enterprise value, which may be because the monopoly enterprise has stronger market competitiveness and market forces.

Therefore, this paper puts forward four suggestions. Firstly, enterprises should rationally control the level of corporate leverage and optimize the capital structure. Secondly, enterprises should raise the awareness of innovation and increase the proportion of investment in R&D within a reasonable range suitable for development. Thirdly, enterprises should continuously strengthen their profitability as a support for further innovation and management. Finally, enterprises should pay attention to the introduction of talents to solve the incentive dilemma of R&D personnel.

By using the numerical analysis, this paper shows how enterprises value influence the commercial environment visually. First, this paper can be used as criteria for both employers and employees. In this way, it can improve their awareness of common goal and motivate workers to work harder and promote company's value and image. Besides that, enterprises can get deeper understanding about their own development. In that case, they can not only protect their intangible assets such as human capital, organization management, operating strategy, enterprise culture, innovation ability and brand in an effective way, but also improve their profit and company's value in the market competition. At last, a company merger really need to consider the enterprises value, so this paper can help them focus on the profitability as well as other financial abilities to make the reasonable decisions.

When it comes to the weakness of this article, the sample data used in this article is the cross-sectional data of 2021. Although it's the latest data the authors could get and information validity could be ensured, it can't reflect the development of the times. Therefore, panel data may be used for further research. In addition, although the researchers have already selected the variables reasonably and reduced the heteroscedasticity as much as possible, the heteroscedasticity still exists. However, the model is tested to be robust, so the authors will continue to work on reducing heteroscedasticity in the future, in order to figure out a more meaningful model for studying the possible factors of company value.

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