Analysis on the Causes and Countermeasures of Business Risks in Health Industry Companies - Based on a Comparative Analysis of Ali Health, United Health Group and Novo Nordisk

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Abstract. The health industry has always been an important part of the global economy. In recent years, with the improvement of people's living standards, people pay more and more attention to health and quality of lives. After an in-depth study of the market, industry and consumer demand, the health industry has shown the following development trends: health management has gradually become mainstream, the nutrition and healthcare market continue to grow, Internet healthcare has become the new normal, and personalised healthcare service has become the new direction. In the background of the health industry tends to be popular in recent years, this paper selects and analyses the financial statements and stock data of three representative companies, namely, Ali Health, United Health Group and Novo Nordisk. Finding that Novo Nordisk has the lowest business risk, United Health Group is in the middle, and Ali Health has the highest business risk, this paper selects Novo Nordisk and Ali Health as the comparative object to draw the conclusions of the study. On the basis of this research, this paper deeply analyses the causes of different degrees of business risks of the three companies and put forward corresponding countermeasures, which will provide profound guidance for the transformation and upgrading of the traditional health industry as well as for the entry of new enterprises into the health industry in the future.

Keywords: Health Industry, Market Risk, Countermeasures.

1 Introduction

With the continuous development of global technology and the continuous changes in the aging population, the role of the health industry in the global economy is becoming increasingly important. This industry is facing sustained growth in demand and challenging opportunities globally, with increasing competition and complexity. At the same time, the impact of technology and social development on the health of so-

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cial groups cannot be ignored. According to the opinions on promoting the development of "Internet plus health care" issued by the General Office of the State Council, the key measure to alleviate medical treatment is to develop Internet health care. However, this development model is struggling in enterprises. It is almost unprofitable [1]. Various difficulties constitute important factors that affect the market risks of various health industry companies. So do the obstacles faced by enterprises in the industry have a direct impact on their business risks? How to scientifically and objectively evaluate the impact of these risks on the future development of enterprises? The exploration of these two issues is of great significance in helping decision-makers, investors, and practitioners better understand the future development trends of the industry. At the same time, it can also promote the innovative development of health services and products, and provide sustainable suggestions for government departments and regulatory agencies.

The purpose of this study is to explore the degree of market risk faced by Alibaba Health, Novo Nordisk, and United Health, as well as the reasons for the different levels of risk faced. At the same time, this article also explores the potential impact of these risk factors on the global health industry, as well as the measures taken by the three companies to resist risk fluctuations. This study adopts research methods such as literature research analysis, comparative analysis, and comprehensive qualitative and quantitative data to select three representative enterprises in the medical industry. Firstly, refine and analyze the annual reports and financial data of each company, and understand the risk factors faced by the three companies. Secondly, compare the risk levels of the three companies and summarize the reasons and their impact on the global market. In order to provide comprehensive analysis and suggestions for the enterprise in the end.

2 Literature Review

Due to the diversification of the economic environment, enterprise types, industries, domestic and foreign experts and scholars have different understandings of the concept of financial risk. Foreign studies mainly enrich the concept of financial risk from a macro perspective or different directions and believe that the financial risk of an enterprise is not only related to the enterprise itself but also related to the impact of the social market economy environment.

In the study of financial risk classification, domestic scholars are good at combining the characteristics or classification standards of different enterprises. In terms of the concept of financial risk, foreign scholars are more inclined to start with the financial situation and decision-making of enterprises themselves.

V L Jasintha believes that financial risk is a social phenomenon. As long as an enterprise exists in the economy, there will be a certain financial risk in the society. He defines financial risk as the risk arising from the flow of value and the handling of production relations during the operation of an enterprise [2].

Zopounidis divides financial risk into two broad categories. One is trade risk, the other is market risk. The former is the risk from business activities, including liquidity risk and credit risk; The latter refers to the possibility of changes in financial position caused by changes in market prices, including commodity risk and interest rate risk [3].

Yu Xuehua defines financial risk as the risk that the final operating results are inconsistent with the expected returns of the enterprise due to the uncertainty of the capital flow path of the enterprise [4].

Zhang Zenglian believes that the occurrence of corporate financial risk is caused by some uncontrollable factors in the financial activities of enterprises, and the difference between the actual and estimated earnings of enterprises will bring problems and losses to the operation and management of enterprises [5].

Sun Maozhu described the concept of financial risk from different definition ranges. In a broad sense, the concept of financial risk refers to all financial activities of an enterprise, such as financing and investment capital, operation, profit distribution, which have a major impact on the survival profit, development of an enterprise [6].

To sum up, first of all, the financial modernization management in foreign countries is earlier than that in China. Furthermore, in the relevant literature and works in foreign countries in recent years, on the one hand, financial risk management is more defined as the result of business risks. Secondly, due to the high political and economic risks in foreign countries, most scholars combine corporate financial risks with national normal and foreign exchange interest rates. Financial risk is also related to financial leverage, especially the financial risk of large capital companies has a great impact on market capital. In addition, the core definition of financial risk is commodity market risk and trade risk. In the 1990s, China introduced modern enterprise management and scientific system financial management, and in recent years, experts in financial risk management have paid attention to it, especially the rapid development of China's economy, and enterprises need to be more standardized in production and operation financial management and improve core competitiveness.

3 Alibaba Health

Alibaba Health is one of the companies invested and controlled by Alibaba Group. It is also the flagship platform of the group in the field of big health. Alibaba Health's business mainly focuses on fields such as pharmaceutical e-commerce, new retail, internet healthcare, consumer healthcare, and smart healthcare. Its advantages in the fields of internet technology and digital technology are very prominent. And its deeply cultivated brand advantages and good resources over the years have also driven the continuous development of the enterprise. Alibaba Health typically builds key bridges between doctors, pharmaceutical companies, and patient users to address supply and demand, creating an integrated online and offline medical and health product service platform to continuously improve user experience. However, based on the calculated commercial risks of the three companies (βA) Alibaba Health has the highest commercial risk. According to research, Alibaba Health, as an internet healthcare company, appears to have sustained growth in revenue, but behind it lies a loss in the business [7]. Firstly, analyze from a data perspective. From Table 1, it can be seen that the equity market value of Alibaba Health is 6.212 billion yuan, which is relatively small compared to some other large pharmaceutical companies. Therefore, this will result in limited funds for the company. It will be difficult to conduct large-scale investments and diversified operations, thereby increasing commercial risks. Secondly, the pharmaceutical industry is currently fiercely competitive. There are multiple competitors in the market. It faces possible government policies and stricter requirements from enterprises, which also increases commercial uncertainty. The calculated WACC value is 11.55%. A higher WACC value means that the company needs to pay a higher cost of capital, which may lower the return on investment. Especially in an economic downturn or fiercely competitive market environment. Therefore, due to market fluctuations and competition, commercial risks will also be higher.

Secondly, analyze from the perspective of products and consumers. Alibaba Health operates a complete set of internet medical services. It includes online consultation, health management, drug delivery, and more. The products and services they provide are diverse, covering a wide range of health and medical fields. Therefore, the commercial risks they face are also more diversified. Because of this, diversified services also correspond to diverse consumer groups. Including ordinary consumers, patients, doctors, pharmacies, etc. Their services cover a wider range of people, from those seeking general health information to those in need of professional medical services. Overall, the commercial risks of Alibaba Health include not only data privacy and technological dependence, but also a broader consumer group. Such a market will be competitive and uncertain.

Table 1. Calculation results of various data for three companies

	United health	Alibaba health	Novo nordisk
Market value of equity	450.8 billion	62.12 billion	439.41 billion
Market value of debt	180.8 billion	5.6 billion	25.7 billion
Leverage and debt-to-equity ratio	48.54%	36.46%	47.50%
Marginal corporate tax rate	25%	25%	25%
Assumptions on expected risk-free rate	3.12%	3.12%	3.12%
Assumptions on market risk premium	8%	8%	3%
Expected cost of equity capital (rE)	0.36	0.41	0.31
Expected cost of debt capital (rD)	0.05	0.02	0.27
Weighted average cost of capital (WACC)	22.77%	11.55%	25.77%
Business risk (βA)	0.28	1.26	0.24
all-equity expected return on assets (rA)	36.56%	13.20%	38.76%

4 United Health

United Health Group is a diversified health and well-being company founded in 1974 with 2022 revenues of $324.2 billion and headquartered in Minnetonka, Minnesota, U.S.A. The company is committed to improving the overall health and well-being of the people it serves and the communities they serve, and enhancing the effectiveness of health systems. In recent years, United Health Group has been ranked among the top 500 on the Fortune U.S. and World lists [8]. (No. 6 on the 2017 Fortune U.S. 500 list. No. 15 on the 2018 Fortune World 500 list. No. 8 on the 2021 Fortune World 500 list. (11th on the 2022 Fortune World 500 list) According to the calculated business risk (βA) of the three companies, United health has a medium business risk. This leads to an examination of the strengths of United health's unique business model.

Firstly, from the perspective of product and consumer, United Health's main businesses include prescription solutions, publishing data, optimal health division, and healthcare services. Operating in all 50 states and internationally, United Health Group provides comprehensive health care services to a wide range of health care providers, including: individual consumers, employers, governments, commercial payers and intermediaries, care providers from physicians to hospitals, pharmaceutical companies and medical device manufacturers. Diverse consumer groups have different consumer needs and psychological expectations. By building a diversified whole industry chain through the self-built model, United Health is a market leader in data collection, product construction, professional standards and medical resources, and is capable of meeting the different needs of customers under the big health industry.

The key to United Health's competitiveness in the market lies in its two different but perfectly integrated business modules: United Health care and Optum. United Health care provides different medical and health insurance services for different consumers, while Optum, as an extension and supplement of the health insurance business, consists mainly of OptumHealth, OptumInsight, and OptumRX. OptumHealth focuses on healthcare services, health management, and healthcare financial services, providing customers with a complete healthcare lifecycle. OptumInsight focuses on data collection and analysis, health information technology support and the development of information systems for the healthcare industry, as well as the modernisation of key information systems to keep pace with market developments. OptumRX, a pharmaceutical services company, provides users with an excellent experience in purchasing medicines by integrating key data from various parties, such as doctor's diagnosis data, medical examination data, and drug dispensing data. The operation of the three subsidiaries cooperates to form a healthy operation industry chain, so as to achieve a win-win situation for all parties and reduce business risks [9].

Secondly, from the existing data for analysis, from Table 1 can be seen, United health's equity market value is 45.08 billion yuan, compared with some other large pharmaceutical companies, United health's equity market value is relatively large, which means that the ability to sustain financing is strong, and more funds can be obtained. The high market capitalisation also helps United health to get good rankings in various authoritative rankings, which will enhance the brand and reputation of the company, and United health will have more funds to merge and acquire small and medium-sized enterprises, so as to obtain the opportunity and space for rapid development [10].

5 Novo Nordisk

Novo Nordisk is the world's leading biopharmaceutical company. It is a world leader in the development and production of insulin for the treatment of diabetes. It was founded in 1923 as a company that produced household and industrial chemicals. Over time, the company began to focus on the pharmaceutical business. In the 1970s, Novo Nordisk entered the medical device market to develop diabetes treatments. Since then, the company has continuously increased its investment in research and development and expanded its business model. Novo Nordisk is headquartered in Denmark and employs 35,000 people worldwide. The company operates in two business areas: the Life Sciences Division and the Life Sciences Products Division. The former is responsible for the development of new drugs and treatments, while the latter focuses on the production and sale of diagnostic products and medical devices. In addition, the company has established more than 200 subsidiaries and representative offices in 80 countries around the world. Novo Nordisk ranked 481 in the "2018 Top 500 World Brands" list released by the World Brand Lab in December 2018; On May 13, 2020, Novo Nordisk was ranked 333rd on the 2020 Forbes Global 2000 List. In May 2021, Novo Nordisk was ranked 260th in the 2021 Forbes Global 2000. On December 9, 2022, Novo Nordisk ranked 44th in the Hurun Global 500 by 2022. For this internationally renowned medical and health enterprise, this paper calculated its business risk (βA) according to its financial statements and compared it with the other two companies, and found that Novo Nordisk's business risk (βA) was the lowest among the three companies, to study the impact of Novo Nordisk's corporate characteristics and operating model on business risk (βA).

First, from the perspective of the product itself and its positioning, Novo Nordisk's product line covers multiple therapeutic areas, including diabetes, oncology, cardiovascular disease, neurology, endocrinology, and hematology. The company has several well-known brands in these fields, such as Rezon, Nuopin, Sugar, Bionic Insulin, and so on. Its main research focuses on the field of obesity, which is already the focus in the field of medicine, and its products have a strong professionalism a fixed market, suitable people, so Novo Nordisk has a stable business. At the same time, in the product itself, Novo Nordisk is committed to innovative development, which brings more obvious competitiveness to the company. Its GLP-1 receptor agonist, Simeaglutide, achieved amazing sales results in the European and American markets in the first half of 2023, with sales of Wegovy (the trade name of Simeaglutide) reaching 62.166 billion Dan (about $9.215 billion), an increase of 363%.

Secondly, from the perspective of corporate strategic decisions, Novo Nordisk itself is an industry giant with a single product and great influence. But Novo Nordisk hasn't made big acquisitions, which has helped keep costs down. In recent years, Novo Nordisk has turned its attention to AI, using it to discover and develop treatments for cardiometabolic diseases such as heart disease, stroke, diabetes. He believes that machine learning has the potential to boost drug discovery and development, especially in the early stages of discovery and development of human data sets that can be used, which will make it possible to better understand the biological mechanism of the target, to seize the market opportunity (see Table 2).

Table 2. Comparison between Novo Nordisk and Ali Health's calculation data results

		2020	2021	2022	2023
Novo Nordisk	Main business cost	20,932,000	23,658,000	28,448,000	31,500,000
	Ending inventory	17,641,000	18,536,000	19,621,000	24,388,000
	Opening inventory	-	17,641,000	18,536,000	19,621,000
	Ending accounts payable	10,570,000	9,360,000	12,528,000	22,678,000
	Initial accounts payable	-	10,570,000	9,360,000	12,528,000
	DPO	-	592.55	541.03	708.64
	Sales revenue	126,946,000	140,800,000	176,954,000	201,325,000
	Accounts receivable	29,152,000	32,184,000	46,799,000	57,505,000
	DSO	83.82	83.43	96.53	104.26
Ali Health	Main business cost	7,365,096	11,901,219	16,469,623	21,061,682
	Ending inventory	1,217,258	1,468,609	1,550,150	2,102,312
	Opening inventory	-	1,217,258	1,468,609	1,550,150
	Ending accounts payable	1,866,000	2,552,000	3,529,000	3,714,000
	Initial accounts payable	-	1,866,000	2,552,000	3,529,000
	DPO	-	265.39	268.21	244.63
	Sales revenue	9,596,476	15,518,468	20,577,616	26,763,016
	Accounts receivable	324,500	313,600	516,000	578,800
	DSO	12.34	7.38	9.15	7.89

6 Conclusion

In conclusion, the main risks of NVO are related to the characteristics of the pharmaceutical industry, including drug development risks, market competition risks and drug safety. Their products are orientated towards diabetic patients and the market is stable but challenging. AliHealth's business risks include data privacy, security risks, and technology dependency. Their services are geared towards a broader range of health consumers in a more competitive and uncertain market.

United health has created a unique and complete closed loop of the health industry by building a whole industry chain through the self-built model, which helps to realise the unity of interests of all link sectors within the health industry chain, and the synergy of all link sectors under the control of the same group is more efficient, with a medium market risk.

Measures that can be taken by enterprises in the process of resisting risk fluctuations include:

(1) Improving service quality in terms of personal services: The provision of healthcare services requires a high degree of professional knowledge and skills, and fluctuations in service quality may affect consumer satisfaction. Consumers may seek alternative healthcare providers if the service is inconsistent or of declining quality. Therefore, companies should improve service quality.

(2) Maintaining innovation: The healthcare industry is highly competitive, involving traditional healthcare providers and other Internet companies. Firms need to continue to provide innovative services that appeal to consumers in order to remain competitive in the market.

(3) Ensure privacy and data security; develop strict security measures; ensure transparent financial reporting; ensure accuracy of health information and compliance monitoring.

(4) Reasonable mergers and acquisitions to gain an advantage in market competition; increase corporate visibility through self-built industry chain, and build domestic and overseas markets, but at the same time, prevent monopoly.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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