

# An Analysis of Financial Risks Associated with the Diversified Operations of Kangzhi Pharmaceutical

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**Abstract:** *China's pharmaceutical industry has a complex and divergent development path in 2024. The overall market value of human resources was expected to increase from 1,797.7 billion yuan in 2023 to reach at least a new record high with 61 airlines based on order book and manufacturing backlog of Universal Robotics, peaking over the next five years (in arrive year) socio-political context that might following words teaching business contemporary strategies the watershed its European model reflecting domestic U.S public educational institutions system availability creates minimal limited goods significant rise - around additional up to another family adults much hope proportionately Modernization part trillion process word. Driving the globalization of new drugs and devices goes on, including for highly engineered next-gen products such as antibody-drug conjugates (ADCs), In the long term, innovative and biological drugs show promise, but are challenged by a challenging funding environment and high R&D costs. As such, businesses in highly specialized sectors might struggle to diversify their risks and therefore lose out on some of the bright spots for growth. Many firms are now diversifying in order to reduce risks and improve competitiveness. But more often than not, ineffective financial risk management while implementing these strategies may dilute their core operations competitive advantages and increase the financial risks to them. First-mover in diversification among Pharmaceutical sector, Kangzhi Pharmaceutical provides case-specific evidence on how diversified business activities are exposed to financial risk.*

**Keywords:** *Kangzhi Pharmaceutical; Diversification strategies; Financial Risk*

## 1. Introduction

A series of reform efforts have been implemented by the state in recent years, helping to develop China's pharmaceutical industry, resulting also that greater need for medications. This has led to a significant increase in domestic and foreign investments, bringing many new ideas into the field of pharmaceuticals. This influx of investment has increased the number of pharmaceutical companies, the reducing competition in the market<sup>[1]</sup>. At the same time, the pharmaceutical industry needs to embrace evolution in innovation capabilities so that it can stay relevant among many players. Economic indicators of overall growth have slowed down in terms of an average pace after trending higher previously<sup>[2]</sup>. Due to large reforms in the pharmaceutical industry, businesses are discovering what could be their next path for strategic development like expanding more operations<sup>[3]</sup>. These business diversification models trace their origins back to international manufacturers that moved into diversification strategies to counter business risks in challenging market conditions and provide support for external growth<sup>[4]</sup>. However, free-standing diversification has to be directly related to core activities otherwise poor communication between diversified and, some would say more important home base businesses can increase financial seaworthiness risks as broadly demonstrated in recent high profile examples of pre-financial crisis<sup>[5]</sup>.

In recent years, the Chinese government has implemented various reform measures that have benefited the growth of its pharmaceutical industry and increased demand for drugs. The intricate and dynamic industry, coupled with the consequences of the epidemic, has led to a wide array of both local and foreign investments bearing novel concepts for the drug development field. It also means that the Pharmaceutical sector must continue to innovate or they will be unable to stay relevant against so many players. In the midst of large scale restructuring within the pharmaceutical market, companies are seeking out new avenues for future growth — and that includes expansion. That being blamed, diversifying but in ways consistent with the primary business is important or else may escalate danger financially due to friction of balance between different sectors and central operations and in certain

cases, incurring serious monetary mess..

## 2. Literature review

### 2.1 *Multi-Strategy and Diversification in Business*

Diversification strategies describe methods for seeking new markets, perhaps by decreasing dependence on a single sector of business. This often involves expanding into other markets with little to no direct correlation with the core business as a means of enhancing competitiveness and mitigating risks from market fluctuations within their main operating niche.

### 2.2 *Financial Risk in Diversified Enterprises*

Financial risk refers to the chance that a company's financial results will deviate from expected objectives due to factors beyond their control during financial operations. For instance, risks related to capital raising, investment terms and returns, liquidity, or operational issues can arise. Academic research demonstrates that if diversification is executed improperly, the more diverse an agency becomes, the worse its financial risks can be managed, resources become overextended, and control over financial results weakens<sup>[5]</sup>. As a result, solid risk management methods are essential in order to leverage the benefits of diversification while moderating its inherent hazards.

### 2.3 *Synergistic Effect Theory*

Synergistic effects mean that the combined effect of all coordinated efforts in a business will be greater than their simple sum, i.e.,  $1 + 1 > 2$ . This provides a greater opportunity for profitability and market advantage in multi-line organizations by leveraging shared resources, knowledge, and influence across different operations within the company. But to deliver these synergies needed strategic alignment as well as efficient cooperation across business units, enabling synergy is key or we run into financial issues but also our core operations will start to lose their edge<sup>[6]</sup>.

Current literature highlights the complexities of financial risk across different business activities, especially for companies like Kangzhi Pharmaceutical. Diversification offers many potential avenues to hedge risk and drive growth, but also presents new financial challenges as well that must be carefully addressed via strategic planning, financial due diligence, and a strong understanding of core business fundamentals.

## 3. Company introduction

Kangzhi Pharmaceutical is a well-established publicly traded company in China that are specialists when it comes to the health of children. It is the only pharmaceutical company in Hainan listed on the GEM, and also one of China's earliest to launch children's health as a priority industry. Kangzhi Pharmaceutical's main line of business comprises production of liquid for children, as well basic health care products targeted at women and children that also include baby & child well-being. More significantly, Kangzhi pharmaceutical has been establishing the first post-doctoral research center in China's national-level children's health industry, focusing on promoting to a higher level of academic recognition in this field and carrying out relevant scientific studies especially regarding pediatric drugs.

### 3.1 *Motivations for Kangzhi Pharmaceutical's diversified operation*

#### *(1) Disperse industry business risks*

The pharmaceutical industry has seen rapid growth in the recent past. However, the pharmaceutical industry saw an enormous rise in companies through 2019 and into the pandemic year of 2020 with over two hundred thousand new firms established. Based on past data, in 2022 the size of China's pharmaceutical market far exceeded over two trillion yuan and continues to grow annually leading to fierce competition within the industry. Despite this, the pharmaceutical industry has a long payback period, and drug development usually involves several stages. Should the company purely rely on its primary business, Kangzhi Pharmaceutical may encounter sluggish capital recovery and significant operational risks. The business is involved in drug production, but also diversified into pharmaceutical sales, medical and pediatric hospital services, and has expanded its operations to work within the field

of Medical Devices.

### **(2) Seeking New Profit Growth Points**

Drug prices have massively decreased since the pilot state-organized centralized procurement and utilization of drugs in China was launched, along with international pharmaceutical companies flooding into their market from 2019. If Kangzhi Pharmaceutical persists in prioritizing its core manufacturing business exclusively, it might find itself grappling with escalating costs and obstacles to maintaining profitability. In light of this, the company is leveraging its past experience and existing resources to enter fields like medical services, devices, and childcare which offer new avenues for growth. This helps Kangzhi Pharmaceutical utilize the synergies to its maximum as all sectors are meanly interrelated with each other this time. Not only does this strategy improve resource efficiency, but it also enhances the competitiveness of the company as a whole.

### **3.2 Measurement of the diversification degree of Kangzhi Pharmaceutical**

The pharmaceutical industry operates on long payback cycles, and the development of pharmaceutical products typically requires multiple stages. Depending only on core operations, Kangzhi Pharmaceutical might face slow capital recovery and business risks. With its principal manufacturing base set, Kangzhi Pharmaceutical is diversifying into pharmaceutical sales, medical services, and child healthcare while evaluating the medical device sector. The launch of a state-organized pilot program for centralized drug procurement in China in 2019 and entry by foreign pharmaceutical companies has significantly impacted domestic drug prices. Failure to diversify horizontally will mean Kangzhi Pharmaceutical cannot sustain the same low-risk-high-margins model for years and would eventually become costly. From Table 1, it is evident that with its accumulated experience and resources, it has leveraged the development of new profitable growth engines in the field of medical services, medical devices, baby care, etc. Kangzhi Pharmaceutical is a very diversified company because all the divisions are well connected to each other. The operating income of all segments increased, and this strategic approach improved the efficiency of resource use and contributed to the strengthening of the company's overall position.

*Table 1: Revenue of Kangzhi Pharmaceutical by business segment (CNY)*

YEAR	Pharmaceutical manufacturing	Baby and child health care	Medical Services	Medical equipment	Total income
2017	475372700				475372700
2018	533944800	202593200	146206800		882744800
2019	577656200	151450400	279324800		1008431400
2020	463661600	110071000	264154300	56667400	894554300
2021	538293300	99330300	163190300	6178400	806992300
2022	416489000	80584100	0	6812100	503885200

The Herfindahl index is calculated based on the proportion of revenue of each segment in total revenue as follows:

*Table 2: Herfindahl index table of Kangzhi Pharmaceutical 2017-2022*

YEAR	2017	2018	2019	2020	2021	2022
HHI(The Hefendar index)	97.73%	44.60%	42.74%	37.50%	50.10%	70.90%

According to the Table 2, Kangzhi company started diversifying in 2018 and increased its expansion rate significantly over the next three years until it plateaued after 2021. The revenue from both sectors accounted for 39.52% in the area of child and infant health care, as well as medical services alone during 2018/19 with overall income almost doubling from compared to 2017. A chain of this nature suggests that increases to operating income may be, in part, a diversification play. Despite a decrease in revenue from medical devices in 2020 due to their early-stage development, Kangzhi has significantly ramped up its commitment towards diversification.

## **4. Causes of financial risks of Kangzhi Pharmaceutical diversified operation**

### **4.1 Analysis of causes of financing risks**

Kangzhi Pharmaceutical was a traditional pharmaceutical manufacturing company until 2016 and then underwent strategic transformation in diversified development from the year of 2018. In June of

that year, the Group invested RMB320 million in purchasing Guangdong Kangzhi Hospital Management Co., Ltd. (which indirectly owns Kyushu Hospital). In addition, in 2018, Kangzhi Pharmaceutical joined the assisted reproductive medical service. Buying Zhongshan Aixin Daily Necessities Co., Ltd. also marked the firm's entry into daily health care necessities the same year. At this point, after most of its external capital had been depleted, Kangzhi Pharmaceutical was forced to use a large amount of his own money just support his diversification strategies. However, the company has little cash in hand and its annual expenses are far than the usual yearly expenditure, so continuing operations was clearly going to be a challenge. On the one hand, pharmaceutical manufacturing companies in China are subject to high levels of regulation which means that they must maintain a robust pipeline of new products — Beijing Med-Pharm should exercise caution when it selects partners and invests in mergers and acquisitions. Therefore, the pharmaceutical manufacturing sector is not expected to grow rapidly any time soon.

The second is that new entrants need to the product quickly put into the market still a lot of difficulties, one of which is infant and young child health care products sector entry threshold relatively high. Kangzhi Pharmaceutical launched a new business segment of medical equipment in 2020, although the production standard for this industry is high and requires long-term capital investment. Consequently, it is hard to become eligible for the standard of industry in a short period. Further, the different investing sectors of Kangzhi Pharmaceutical need to be funded over time as such quick capital pullout is not practical. The primary internal financial issue that has accumulated over time and led to recent financial distress for the company was simply having so much of Kangzhi Pharmaceutical funds period tied up in these three sectors.

#### 4.2 Analysis of causes of investment risks

Data analysis revealed that the profitability of Kangzhi Pharmaceutical decreased after implementing diversification strategies. This indicates that the company was unable to consistently carry out its fundraising projects as per initial strategy and had difficulty in controlling these initiatives. With Kangzhi Pharmaceutical ramping up its diversification strategies, the company went overseas without sufficient risk management and controls regarding all of these investment initiatives (i.e. risks related to globalization have increased). Comparing the expense ratios over this period will assess whether Kangzhi Pharmaceutical's use of resources is appropriate and if these are able to create positive spillover effects throughout its diversified divisions. The table presents the share of individual costs and expenses against operating revenue in Kangzhi pharmaceutical for 2017 to most recent 2022.

Table 3: Proportion of costs and expenses in operating revenue of Kangzhi Pharmaceutical

Expenses	2017	2018	2019	2020	2021	2022
Cost of sales	17.45%	22.93%	28.53%	30.01%	34.00%	38.52%
administrative expenses	15.54%	14.93%	15.61%	12.88%	11.58%	12.81%
Financial expenses	0.91%	0.92%	1.33%	1.73%	2.15%	3.65%
Research and development expenses	1.42%	2.06%	1.70%	1.94%	1.74%	1.67%

According to the Table 3, notably, between 2018 and 2022 the proportion of sales expense has been edging up over time while R&D spend started from a low amount in 2019. This trend hints at a change in investment reallocation from R&D to sales costs, possibly detrimental over the long run for growth. Management expenses have also decreased since 2018, potentially raising management risks for the organization. In conclusion, the case abstract of Kangzhi Pharmaceutical suggests that their flawed expense and cost model may hinder investment profitability by increasing operational costs.

#### 4.3 Cause analysis of operational risks

Due to the different business types of Kangzhi Pharmaceutical, its business segments have little correlation and no logical distribution for period expenses related to products in production. However, the distribution of costs within Kangzhi Pharmaceutical is not leveled across areas that could benefit from such a partnership. Noteworthy is the increase in sales expenses share since 2018, while R&D saw a notable drop from 2019 to an expected continuation through next year (2022e). The shown tendency demonstrates the redistribution of investments from R&D to sales expenses, which could potentially limit the company's sustainable development in an extended period. Also, management expenses have similarly dropped since 2018 and this could raise the level of potential Management Risk in the firm. In conclusion, the framework of Kangzhi Pharmaceutical cost and expense is neither rational nor effective, which would ultimately drive up operation costs to take sales hit on Investment divisions profitability breaking point.

#### ***4.4 Cause analysis of cash flow risk***

Due to the absence of a robust internal control framework and overall weak oversight across various operations, Kangzhi Pharmaceutical Company lacks independence in its cash management. Kangzhi Pharmaceutical, however, purchased all the equity of Zhongshan Aihu Daily Necessities Co., Ltd. at a price higher than its market value in 2018. The acquisition happened to be a move by the controlling shareholder leveraging his equity relationships for personal gain. Following this acquisition, the net profit Kangzhi Pharmaceutical made off Zhongshan Aihu was significantly lesser than what had been initially promised, causing a prolonged decline in operations and a reduction in their cash flow generation capability. While in contact with Zhongshan Aihu Daily Necessities Co., Ltd., Kangzhi Pharmaceutical raised large sums from the capital market after it went public and experienced a decrease in other aspects of its operations.

### **5. Countermeasures for financial risks of Kangzhi Pharmaceutical diversified operation**

#### ***5.1 Expand financing channels and maintain a reasonable leverage level***

Kangzhi Pharmaceutical needs to enhance the feasibility evaluation of its investment projects, avoid impulsive investments and strengthen prudence in foreign investment strategies. The step of a feasibility study is termed a pesto control measure in global investments. In case the result is negative and the project cannot be outworked, it will save cash flow. Feasibility studies entail the collection of sufficient relevant data, highlighting where full-scale assessments are an absolute necessity as opposed to a simple prudential inward investment view<sup>[7]</sup>. More importantly, capital allocation needs to be re-oriented in a way that can strengthen the analysis of capital structure with close examination and calculations requiring accurate financial fundamentals detailed out. Sound decisions are the result of appropriately applied financial leverage and risk-aware management of financing activities<sup>[8]</sup>. Prudent management of the capital structure can reduce financial risks and enhance organizational financial health<sup>[9]</sup>.

#### ***5.2 Optimize investment and operation decisions to ensure investment effects***

In order for this to be done successfully, whether that means adding new business lines or upsizing existing sectors of the organization, it requires deep knowledge on how national regulations affect market dynamics. This requires a lot of research prior to pledge in Project investments. Especially in the context of growing foreign direct investment, we must first address project risks linked to possible industrial development. You need to thoroughly understand the step change ahead, verify that your enterprise considers this level of risk acceptable and evaluate what its impact might be on continued growth. It also requires to put a suitable strategy and do a feasibility study before drawing any conclusion. As the project is being executed it becomes even more important to control spend and be able explain how we are doing to keep all stakeholders in form. This will allow for immediate creation of revenue, mitigate financial exposure and support cost containment which is then leveraged to ensure maximum return. Lastly, after the project is over, an in-depth analysis should be run to determine which of these projects have potential and which no longer meet the industry's current development needs.

#### ***5.3 Improve operating efficiency and strengthen inventory management***

Understanding national policies and market conditions are key for a project to be smoothly implemented and profitable, whether it is about bringing new business verticals or expanding existing industries. This requires diligent research before investing in any projects. Specifically, when considering the potential for increased foreign investment, analyzing project risks related to prospective industrial expansion is crucial. It is crucial to confirm that the enterprise does not consider the current level of risk intolerable and examine what this might mean for preventing future growth. Another thing is that you should design a strategic plan or feasibility study before creating any decisions. It is important to manage costs and monitor progress very closely during the execution phase of a project while keeping stakeholders informed. This method helps in quick revenue generation, lowering financial risks and improving cost control measures to maximize the return on revenues. And finally, after project completion, a thorough evaluation and assessment should take place to determine which projects are viable and which do not align with the enterprise's present development requirements.

#### 5.4 Strengthen cash flow management

Kangzhi Pharmaceutical aims to enhance cash flow management by improving the efficiency of fund usage and optimizing the use of raised capital. For most challenging, but essential to attract additional funding -- the rate of return on the project must overcome any cash flow deficits that arise from efforts at diversification and expansion. To mitigate the challenges posed by cash flow deficits due to diversification and expansion efforts, the company should focus on boosting the project's return rate, a vital factor for drawing additional investment<sup>[10]</sup>. Therefore, it is very important to create and improve a competent fund management system which will allow simultaneously monitor flow of funds between projects and provide for their reasonable distribution<sup>[11]</sup>. Establishing a thorough process for creating requests and evaluating funds can assist in the formulation of more enlightened strategic planning, smoother resource allocation to address top initiatives, leading to financial benefits<sup>[12]</sup>.

### 6. Research conclusions and prospects

#### 6.1 Research Conclusions

Taking Kangzhi Pharmaceutical as the research object, this paper studies the influencing factors of financial risks caused by diversification growth. It proposes specific recommendations to reduce and manage these financial risks. Based on analyzing the diversified business of Kangzhi Pharmaceutical, a high degree of diversification was shown using the Herfindahl index. Furthermore, we identified multiple severe financial risks including heightened risk of debt repayments due to high cash flow volatility alongside an existing eroding in profitability, misapplication funds raised by the company and an overall significant level of Monetary Risk.

#### 6.2 Deficiencies and Prospects

This study takes the Kangzhi Pharmaceutical as an example and analyzes various factors that have contributed to financial risks related with diversification growth. In this article, we specifically design strategies for hedging and managing these financial risks. For example, we use the Herfindahl index to analyse Kangzhi Pharmaceutical diversified operations, and find that its diversification level is significantly low. We also found a number of important financial risks, such as increased debt repayment risk, large swings in cash flow along with top-line deterioration lackluster upfront utilization — and major concern overall on the company's finances.

### References

- [1] Brigham, E. F., & Ehrhardt, M. C. (2014). *Financial management: Theory & practice (14th ed.)*. South-Western Cengage Learning.
- [2] Gitman, L. J., & Zutter, C. J. (2015). *Principles of managerial finance (14th ed.)*. Pearson Education.
- [3] Ross, S. A., Westerfield, R. W., & Jaffe, J. F. (2016). *Corporate finance (11th ed.)*. McGraw-Hill Education.
- [4] Chen, J. (2021). *Innovation dynamics in the Chinese pharmaceutical industry: Market competition and policy impacts*. *Journal of Pharmaceutical Policy and Practice*, 14(2), 123-135.
- [5] Chen, L., & Liu, Y. (2019). *Strategic diversification in Chinese pharmaceutical companies: A case study of Kangzhi Pharmaceutical*. *Asian Business & Management*, 18(4), 411-429.
- [6] Clark, G. L. (2018). *Investment feasibility analysis: The importance of reliable data and thorough assessment*. *Journal of Financial Analysis and Planning*, 22(3), 211-223.
- [7] Modigliani, F., & Miller, M. H. (1958). *The cost of capital, corporation finance and the theory of investment*. *The American Economic Review*, 48(3), 261-297.
- [8] Myers, S. C. (1984). *The capital structure puzzle*. *The Journal of Finance*, 39(3), 575-592.
- [9] Li, X., Zhang, Y., & Wang, M. (2022). *Capital injection and innovation in China's pharmaceutical sector: Trends and impacts*. *China Economic Review*, 30(6), 95-108.
- [10] Porter, M. E. (1987). *From competitive advantage to corporate strategy*. *Harvard Business Review*, 65(3), 43-59.
- [11] Smith, C. W., & Stulz, R. M. (1985). *The determinants of firms' hedging policies*. *Journal of Financial and Quantitative Analysis*, 20(4), 391-405.
- [12] Wang, H., & Li, Q. (2020). *Financial risks in diversified operations: Insights from the Chinese pharmaceutical industry*. *Journal of Financial Risk Management*, 9(3), 222-239.