Analysis of Yihai Kerry's Hedging Value

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Abstract. After conducting a SWOT analysis of Yihai Kerry, this paper analyzes the causes of its 2020 hedging failure in terms of its personnel management, hedging system, and strategic positioning respectively. Several scenarios are reasonably hypothesized based on the analysis before, the pursuit of personal performance influenced the trading mentality of the company's traders, while the company's oscillating decision between profitability and hedging made the hedging system and positioning of Yihai Kerry unclear, and under the influence of multiple factors, it suffered huge losses in the volatile futures market. This paper also proposes corresponding solutions to these problems. The research suggests that Yihai Kerry should sort out its own investment philosophy, establish an effective risk management system with clear strategic positioning and trading objectives, introduce and train professional quantitative researchers and traders, develop trading strategies based on the company's own characteristics, and reasonably use options and futures instruments to help the company better risk management.

Keywords: Hedging failure; Risk management; Trading decision; Future trade.

1. Introduction

1.1 Background

The main business of Yihai Kerry is animal and vegetable oils and oils, oilseeds, and their by-products and deep processed products. The company's edible oil product "Arowana" is widely favored by consumers. Arowana has developed and listed Arowana corn oil, sunflower oil, peanut oil, rice oil, camellia oleifera seed oil, sesame oil, so there is a great demand for raw materials for agricultural products such as soybeans.

Soybeans are one of the most important agricultural products, the exuberant market demand makes China's soybean consumption much greater than the production volume, and soybean imports increase year by year. However, due to the limited arable land in China and the larger sown area of grain crops such as rice, wheat and corn, the current consumption of soybeans in China mainly depends on imports. Affected by the international situation such as COVID-19, Sino-US trade friction, and the Russian-Ukrainian war, the price of soybeans has been fluctuating, so in order to control the cost of raw materials, Yihai Kerry needs to carry out a series of hedging transactions for agricultural raw material futures.

1.2 Related research

Wu found that after years of cultivation, oil and oil industry enterprises are relatively mature in the use of futures tools, and the futures spot market has been deeply integrated. Market participants believe that the listing of rapeseed oil and peanut options marks the full coverage of risk management tools for major domestic oil and oil varieties, which will provide more comprehensive financial tools and hedging schemes for enterprises in the food and peanut industry chain to avoid risks, and further improve enterprise risk management operations [1]. Wang analysis the function developing of the rapeseed oil futures market in Anhui Province with emphasis. The author found futures market has the function of price discovery and hedging, the function of the futures market is of great significance to the spot market, and Now oil enterprises in Anhui province use rapeseed futures hedging function is more active, and have some benefits in the actual operation for enterprises to avoid price risks [2]. Zheng's analysis of vegetable oil futures help enterprises manages risks. The author found rapeseed oil futures help companies ensure stable supply and price. Besides, the customers have widely concerned about the operation of rapeseed oil future and all give a positive evaluation of the price discovery function and price effectiveness of rapeseed oil future [3].

Chen found the business risk was bought by rapeseed oil price fluctuations. The author analysis the comparative study of traditional hedging, OLS static hedging and ECM-GARCH dynamic hedging, the results show that the performance of dynamic hedging is better than that of static hedging and traditional hedging in most cases, and the hedgers should avoid the spot market portfolio risk with the concept of dynamic hedging [4]. Li investigates the price discovery function of rapeseed oil futures. The ECM model is used to examine the price discovery efficiency of China's rapeseed oil futures market in three stages: the rising period, the falling period and the price adjustment period. The results show that China's rapeseed oil futures market is gradually maturing and now has a price discovery function and is efficient in price discovery [5]. Zhao illustrates how rapeseed oil futures have played an important role in promoting the development of the rapeseed oil industry since they have been traded on the market. The article makes some suggestions on the use of the rapeseed oil futures market in the rapeseed oil industry in Haibei, expecting to use futures to have a positive impact on the development of the rapeseed industry in Haibei, increasing the income of farmers and increasing the efficiency of enterprises [6].

Zhang conducted a unit root test and co-integration analysis on the relationship between rapeseed oil futures prices and the spot price of rapeseed oil in Hubei Province and found consistent fluctuation trends between them. A series of analyses were then conducted to further find a one-way relationship of causality between them. This paper shows that the rapeseed oil futures market has a protective effect on the development of the rapeseed oil industry in Hubei Province [7]. In Wang's research, the GARCH model is used to analyze the data of rapeseed oil futures and spot market prices in China. Then they tried to confirm the spillover effect and dynamic correlation between the Chinese rapeseed oil futures market. The research finally showed that: The relationship between the rapeseed oil futures market and the spot market is weak. To promote the healthy development of the rapeseed oil futures market and industry, it is necessary to give full play to the role of market mechanism [8].

In the rapeseed oil futures instrument is widely recognized in the Chinese market, Bai combined with the rapeseed industry and rapeseed oil futures market development status. The necessity and feasibility of the rapeseed oil futures market were analyzed by using the functions of hedging and risk avoidance of rapeseed oil futures. Finally, the main restricting factors and policy suggestions for rapeseed oil futures development were studied [9]. He applied the VAR model to study the futures and spot prices of rapeseed oil. The final results show that: Rapeseed oil futures and spot prices have a long-term equilibrium relationship and the price trends of the two markets show a positive correlation. Finally, according to the conclusion obtained, this paper puts forward some relevant policies and suggestions, to make full use of the function of the rapeseed oil futures market [10].

1.3 Objective

To analyze the reasons for the failure of hedging in Yihai Kerry and to give solutions, the remaining part of the paper will be divided into four parts. In the first part, we will conduct a SWOT analysis based on the company's own situation, and conduct a comprehensive, systematic and accurate study of the scenario of the research subject in terms of strengths, weaknesses, opportunities and challenges faced by the company, to formulate corresponding development strategies, plans and countermeasures based on the results of the study. In the second part, it will analyze the reasons for failure based on this information, and in the third part, the study will give recommendations based on the second part. Finally, a detailed summary will be presented based on the full text.

2. SWOT

2.1 Strength

Yihai Kerry Group is one of the largest grain and oil processing groups in China. Its competitive advantage is focused on the kitchen food sector, with several well-known food brands. Among them, "Golden Dragonfish" oil is the company's representative product. The company focused on guiding consumers to develop consumption habits when packaging the product, using small packaged oil to lead consumers to abandon bulk oil in 1991, and launching the second generation of the product in 2001 to lead consumers to shift from "safety" to "nutrition and health". In 2006, the company was announced as the exclusive supplier of edible oils for the Beijing Olympics. In the decades of cultivating the Chinese market, the company has maintained its foresight in the field of edible oils and has built a large and meticulous national marketing network, and years of media marketing have built up a deep brand advantage for them.

At the same time, it has more than 70 production bases and clusters of enterprises in various regions of China, which can coordinate production nationwide. The bases integrate upstream and downstream factories in the industrial chain to take advantage of scale, maximizing the company's efficiency, further compressing production costs, and giving products a more competitive price in the market.

2.2 Weakness

Although Yihai Kerry has built a complete industrial chain, the company needs to rely heavily on raw material imports to cover the demand gap due to the excessive demand for oil and grease in the production process. The vast majority of the company's costs come from raw materials, so when commodity prices fluctuate significantly in the international market, the company's ability to withstand risk becomes weaker. In the company's third-quarter report in 2021, affected by rising raw material prices in the market, the company was unable to cover its losses despite product price increases, and its single-quarter profit fell sharply to almost 10% of the previous quarter. Although the company's revenue will stabilize when the upward trend in the futures market returns, how to avoid the cyclical fluctuations of the market and the occasional black swan events that bring about large fluctuations in raw material prices is still a difficult point for the company to operate.

Another major pain point of Yihai Kerry is its high gearing ratio. In recent years, current liabilities have been growing, with short-term loans and payables alone reaching more than 90 billion yuan, which indicates its weak short-term solvency, and therefore it will face greater financial risks.

2.3 Opportunity

In October 2021, the company announced the expansion of its "central kitchen" business line, a move that responds to the future demand for standardization and modernization in China's food market, which provides a new, multi-dimensional and profitable scenario while strengthening the export channels of its existing products.

Central kitchens can provide the basic hardware and software one-stop services that caterers need, and have unparalleled competitive advantages in the supply chain. This kind of specialized third-party type of institution can well reduce the kitchen manpower, dimension, and cost of ingredient procurement. At the same time, this kind of kitchen can provide different products to different restaurants to fully respond to the needs of different customers, not only making the production efficient and flexible but also to further improving capacity utilization. Therefore, the future development space is huge. However, the initial investment in the central kitchen is huge, and the capital recovery cycle is long, which small and medium-sized enterprises can not afford. This is good news for Yihai Kerry, as it helps to screen competitors and improve the utilization rate of its own complete industrial chain, hence this business line is likely to become the company's second growth curve in the future.

2.4 Threat

Although Yihai Kerry is a huge company, its revenue is mainly based on its "Golden Dragonfish" brand of edible oil, so if there is a food safety issue with this product that causes a negative impact on sales, the company's revenue will be greatly affected.

At the same time, although Yihai Kerry has many products under its flag, it has competitors in the segmented industries, such as Daodao Quan in vegetable oil and Xiwang Food in corn germ oil, all of which are growing in volume. If Yihai Kerry cannot launch strong products and strategies to curb the growth of its rivals, it will lose its competitiveness in the market segment and will not be able to get rid of its dependence on the profit of "Golden Dragonfish" oil.

In addition, "Golden Dragonfish" oil itself faces the same homogenization problem as its competitors, and consumers are unable to distinguish their differences and selling points, so Yihai Kerry needs to enhance public awareness of its brand in order to win in the fierce market competition.

3. Analysis

According to the data, as of June 2019, Yihai Kerry's inventory book was valued at RMB29.82 billion. However, if the market for raw materials or inventory commodities such as soybeans declines significantly, the company will be exposed to the risk of a fall in the value of its inventory. The cost of raw materials for Yihai Kerry already accounts for 88% of the company's main business, with the prices of raw materials such as soybeans, wheat and rice affected by multiple factors such as weather, natural disasters, global supply and demand, and tariffs, so the company chooses to use hedging to reduce its risk.

However, Yihai Kerry's hedging has not been very successful. 2020 net profit was only RMB911 million in the fourth quarter, down 52.55% from RMB1.92 billion in the same period in 2019, and also down as much as 56.29% from the third quarter on a sequential basis. The less-than-expected net profit in 2020 is directly related to the company's hedging losses. The data showed that the total hedging losses, including those included under net investment income, amounted to RMB2.296 billion.

The failure of hedging at Yihai Kerry may have been caused by these reasons:

3.1 Personnel decision problems

According to the theory of behavioral finance, not every futures investor and trader, will be rational about all the problems they encounter. For example, the Herd Effect model in behavioral finance, argues that in some cases operators simply imitate the investment decisions of other operators, ignoring independent private information. The DHS model in behavioral finance places more emphasis on overconfidence and biased self-attribution when analyzing the extent to which investors react to information.

Both psychological and behavioral problems may arise as traders engage in the decision-making process. At Yihai Kerry, the people involved in hedging decisions work together through a series of business analyses. However, when a group of people works together, they are inevitably influenced by the behavior of other decision-makers as mentioned in the herd effect model. This may lead to errors in their decision-making and fail the hedge at Yihai Kerry.

Even if the decision makers' decisions are correct, the trading staff may place trades based on their own experience in the pursuit of better personal performance when placing orders. As mentioned in the DHS model, Traders believe that they are very accurate in their interpretation of the market and are unable to react to changing market conditions promptly. If serious, this kind of thing may impact the overall company's business situation.

3.2 Inadequate company hedging systems

The soybean industry in China has not been developed for a long time and hedging of soybeans is only done by a few outstanding large-scale companies. At present, as Yikai Kerry may not have a sufficient understanding of the hedging mechanism, it may not have invested enough effort in how to assess the effectiveness of hedging and how to choose hedging transactions more rationally. This is even though these issues also play a key role in hedging.

3.3 Companies are not positioned for hedging strategies

International agricultural companies have elevated hedging to the level of corporate development strategy. However, Yihai Kerry's hedging strategy is only aimed at improving the company's risk resistance and is not yet well-developed in terms of personnel and systems. The company may only be trying to increase its profits or reduce its losses through hedging, but it has not achieved the process of using hedging to stabilize its operations and develop the company over time.

4. Suggestion

The cost of raw materials for Yihai Kerry products accounts for a relatively high proportion of the cost of the main business. The company's raw material purchase prices are based on the prices of domestic and international commodity markets, in which the prices of soybeans, wheat, rice and other agricultural products are affected by various factors such as climate, natural disasters, global supply and demand, policy regulation, tariffs, domestic and foreign market conditions and trade frictions. If the price of raw materials fluctuates sharply, it may have a greater impact on the company's profitability. Therefore, Yihai Kerry will determine a more reasonable raw material procurement quantity and procurement time according to its own orders, and use the domestic and foreign derivatives trading market to adopt a hedging business strategy for raw material procurement, while Yihai Kerry should actively expand new raw material procurement channels, continuously strengthen supply chain management, and minimize the impact of raw material price fluctuations on the company's profits.

Based on the above analysis of Yihai Kerry, this paper recognizes many problems existing in the process of hedging Yihai Kerry and the reasons behind the problems, including personnel decision problems, inadequate company hedging systems, the unclear positioning of the company's hedging strategy and so on. The following lists the optimization suggestions for the Company's hedging from all aspects.

4.1 Vigorously introduce and train quantitative researchers and program traders

Quantitative researchers and program traders are new talents, whose knowledge keeps pace with the times. Quantitative research and program tradings are the most popular research and trading methods nowadays. Such research and trading methods can make up for the deficiencies of traditional research and trading methods. Therefore, Yihai Kerry should introduce and train quantitative researchers and program traders to fully participate in the decision-making and implementation of enterprise hedging.

4.2 Establish an effective risk management system

Yihai Kerry shall strengthen and improve the system construction of various business hedging, including risk prevention and control system, decision-making system, business personnel ability evaluation system, exploration and innovation system, etc. Only by establishing a sound system, enterprises can better supervise various affairs in hedging and mobilize the enthusiasm of business personnel.

Yihai Kerry must establish an effective risk assessment, risk management system and strict stop-loss system. When the change of the basis is unfavorable and the floating loss exceeds the set index, the company should immediately choose to close the position and stop loss to avoid further expansion of the loss range.

4.3 Attach importance to strategy research

In the process of hedging, enterprises should attach importance to the research of trading strategies and algorithms, and strengthen the learning of traders on financial mathematical models and other knowledge, and provide opportunities for researchers to learn from senior people in the industry. At the same time, researchers should pay attention to innovation and research various strategies beneficial to the company from different perspectives.

In addition, in recent years, the international price of oilseeds has risen sharply, and the domestic price increase of oil and fat is lower than that of the international market, and the price difference between home and abroad is an important factor affecting the production and operation of COFCO oil and fat. The increase in the market price and basis fluctuations of oilseeds has brought great difficulties to the production and operation of enterprises, and it is difficult to meet the purpose of hedging price risks and achieving stable operations by relying on futures hedging alone. Options are non-linear hedging tools, the operation is also more flexible, the use of futures, options tools, or the option contract for spread combination trading, you can develop a more diverse, more in line with the hedging needs of spot enterprises trading strategies, to help enterprises achieve better risk management results. Yihai Kerry can also reduce hedging costs and enrich hedging models by selling options and other models. In addition, Yoshi Kerry can use options to hedge futures position risk. When the futures price fluctuates sharply, the option will effectively stabilize the market mentality, reduce irrational trading, and promote the smooth operation of the futures market.

5. Conclusion

Hedging is an important tool for spot companies to hedge their price risk in the spot market. Yihai Kerry Company maintains stable corporate operations through hedging transactions. This paper analyses the background of Yihai Kerry through swot analysis researches the company's hedging strategy and makes reasonable suggestions for them. The main findings of this paper are that there are several reasons for the failure of hedging in Yihai Kerry: (1) there were mistakes in the hedging decisions made by the company, or in the trading process, some employees made incorrect decisions for their performance; (2) the hedging risk assessment system in Yihai Kerry was not yet perfect; (30 the strategic positioning of Yihai Kerry is not clear. Afterward, the paper puts forward corresponding suggestions: (1) recruiting and training quantitative researchers and program traders; (2) attaching importance to strategy research and system construction; (3) establishing an effective risk management system. When hedging, enterprises should always pay attention to the factors affecting commodity prices and formulate appropriate hedging strategies according to their own needs. In addition, Yihai Kerry can also use options and futures tools to customize more diversified trading strategies to help enterprises achieve better risk management effects.

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