

# Research on the Motivation and Performance of Midea Group's Merger and Acquisition of KUKA

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**Abstract.** Merger and acquisition (M&A) is one of the most important investment methods for enterprises. In recent years, sales in the household appliance manufacturing industry have been slowing down gradually. Facing fierce market competition, many household appliance enterprises try to find a new profit growth point through M&A. This paper takes Midea Group's M&A of KUKA as an example to analyze the motivation of M&A through the dimensions of industry and enterprise. It also systematically evaluates the financial and non-financial performance of Midea Group before and after the M&A. It finds that this M&A effectively mitigated the impact of industry cyclicality on Midea Group's financial performance. However, overall, the performance indicators are not significantly improved after the M&A. Therefore, this paper suggests that Midea Group slow down the speed of M&A, pay attention to the existing resources integration, and strengthen the training of professional talents.

**Keywords:** Midea Group; M&A motivation; M&A performance.

## 1. Introduction

In recent years, the profit level of the household appliance manufacturing industry has been continuously dropping. On the one hand, benefiting from economic growth, people's living standards are increasingly improved. Consumer demand has changed from primary function to quality of life. On the other hand, as China's demographic dividend continues to disappear, the development advantage of cheap cost factors gradually no longer exists. M&A is a fast way for enterprises to realize diversified development and strategic transformation.

In 2016, Midea Group announced that it would acquire KUKA, a German manufacturer of industrial robots and automated production equipment, for a cash consideration of about 29.2 billion yuan. Did such a high transaction consideration bring a matching performance improvement to Midea Group? Have the strategic goals of the enterprise been realized? A series of questions need to be studied urgently. This paper uses financial analysis and comparative analysis to explore the motivation and performance of Midea Group's M&A of KUKA. Combining with the successful experience and deficiencies of Midea Group, it makes suggestions for other enterprises' M&A, which has a degree of practical significance and reference value.

## 2. Case Overview

### 2.1. Background of M&A Parties

#### 2.1.1 Midea Group

The predecessor of Midea Group was a township enterprise founded in 1968, mainly producing plastic bottle caps, automobile brake valves, diesel generators, etc. In 1980, it began to enter the household appliance manufacturing industry and officially registered to use the trademark "Midea" in 1981. Two years later, Midea (SZ.000527) was listed on the A-share market, becoming China's first township enterprise to be restructured and listed on the Shenzhen Stock Exchange(SZSE). 2013 was the year when Midea merged with the Midea Group (SZ.000333) and became listed on SZSE in its entirety. Nowadays, Midea has developed into a large-scale comprehensive enterprise group

focusing on household appliance manufacturing. It is devoted to providing diversified products and services to global customers.

### **2.1.2 KUKA Group**

KUKA was incorporated in Augsburg, Germany, 1898. Initially, the enterprise was mainly engaged in city and indoor lighting. Afterward, it began to develop and produce welding equipment, large containers, and municipal vehicles. In 1966, the enterprise became the European leader in the manufacture of municipal vehicles, and in 1973, KUKA invented the world's first industrial robot, and formally entered the field of industrial robots from that time onwards. Through continuous exploration and innovation, KUKA has mastered outstanding process skills and cutting-edge robotics technology. With its depth of attainment in industrial robotics and automation solutions, KUKA has taken a leading position in German Industry 4.0, and has been honored as "the future of German industry".

## **2.2. The Process of M&A**

### **2.2.1 Pre-contact**

Midea Group first purchased 5.43% of KUKA's shares in 2015, becoming the fourth largest shareholder of KUKA. 2016 Midea Group's shareholding increased to 10.2%, becoming the second largest shareholder of KUKA. In May of the same year, Midea Group issued an announcement, officially announcing the launch of a takeover bid to KUKA shareholders in cash. The offer price was 115 euros per share. It intended to acquire more than 30% of the shares and became the first major shareholder of KUKA.

### **2.2.2 Resistances**

Although both Midea Group and KUKA Group held a positive attitude towards this M&A. The entire negotiation process remained fraught with difficulties. There were two main aspects of resistance. Firstly, KUKA Group operates in the European Union(EU), the United States, Brazil, etc. The proposal would need to pass antitrust scrutiny in many countries and regions. Secondly, KUKA Group is a core enterprise in Germany. The EU and German governments worried that the M&A would lead to the flow of core robotics technology into China and jeopardize the development of their industries.

### **2.2.3 Process**

To ensure the smooth implementation of the M&A, Midea Group and KUKA Group signed a binding investment agreement in June 2016. It set out commitments about specific matters and ex-post arrangements for the M&A. The Agreement provided that KUKA's business would remain independent after the completion of the M&A. Midea Group was required to ensure the stability of KUKA's senior management and core technical staff as well as to maintain the listed status of KUKA. In January 2017, Midea Group completed the M&A. It owned a total of 94.55% of the shares of KUKA Group through its wholly-owned foreign subsidiary MECCA.

## **3. Motivation Analysis of Midea Group's M&A of KUKA**

### **3.1. Industry Background of the M&A Parties**

#### **3.1.1 Household Appliance Manufacturing Industry**

Data from the Ministry of Industry and Information Technology shows that from 2012 to 2016, China's household appliance manufacturing revenue and profit rose year on year. However, the growth rate has continued to slump. In particular, since 2014, the demand market has gradually weakened, and the industry's profitability has declined sharply. In 2015, due to the superimposed impact of the macroeconomic slowdown and the real estate market downturn, the sales of household appliances fell into the predicament of negative growth. In 2016, the overall sales of the industry

appeared to rebound. Nevertheless, the situation is grim, and the overall growth momentum is slightly weak.

### **3.1.2 Industrial Robotics Manufacturing Industry**

Industrial robots mainly refer to multi-joint manipulators or multi-degree-of-freedom robots for the industrial field. As the necessary equipment for modern high-end manufacturing, industrial robots are the best tool to cope with rising labor costs and improve the productivity of enterprises. According to the market report of the International Federation of Robotics, robotic automation of manufacturing processes has become a global trend. Since 2012, the global installation of industrial robots has been climbing. Among them, the installed base reached a record high of 304,000 units in 2016, a year-on-year increase of 19.69%. Global sales of industrial robots are also on an upward trend, and in 2016 exceeded \$13 billion for the first time.

## **3.2. Midea Group's Strategic Layout**

Reviewing the development history of Midea Group, we can find that the enterprise is mainly through M&A, gradually expanding the product lines and building an empire of household appliances. In the late 1990s, Midea Group began to implement a diversification strategy. In 2010, Midea Group began to implement automation transformation. In 2015, it proposed to change from a traditional household appliance manufacturer to a manufacturer of intellectual household creators. Intelligent manufacturing is the future development direction of Midea Group. It is conducive to improving manufacturing efficiency and product quality to accelerate the realization of transformation and upgrading.

## **3.3. Motivation Analysis of Midea Group's M&A of KUKA**

### **3.3.1 Industry Dimension**

The equipment level of China's manufacturing industry lags far behind developed countries. Core technology needs to be enhanced urgently, and high-end applications have not yet been widely used. After the completion of the M&A, on the one hand, as an upstream enterprise of Midea Group, KUKA can provide industrial robots for the group to improve workshop production efficiency; on the other hand, Midea will enter the domestic industry robot market and expand its business scope through the integration of KUKA's core technology.

### **3.3.2 Enterprise Dimension**

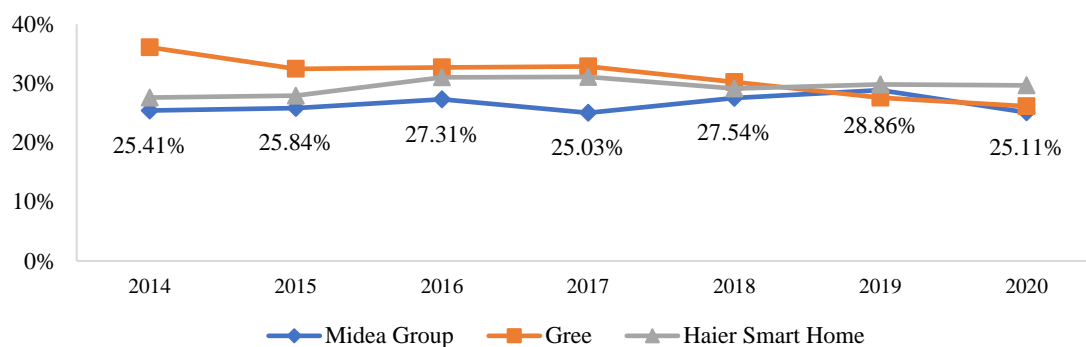
Facing the shrinkage of the household appliance market, traditional household appliance manufacturers can find profit growth points for their enterprises only by transforming to intelligence, quality, and high-end. Different from Gree, which masters core technology through independent R&D, Midea Group accelerates its transformation and upgrading through M&A. After the success of the M&A, Midea Group and KUKA Group can generate more value through synergy and resource sharing<sup>[1]</sup>.

## **4. Performance Analysis of Midea Group's M&A of KUKA**

### **4.1. Financial Performance Analysis**

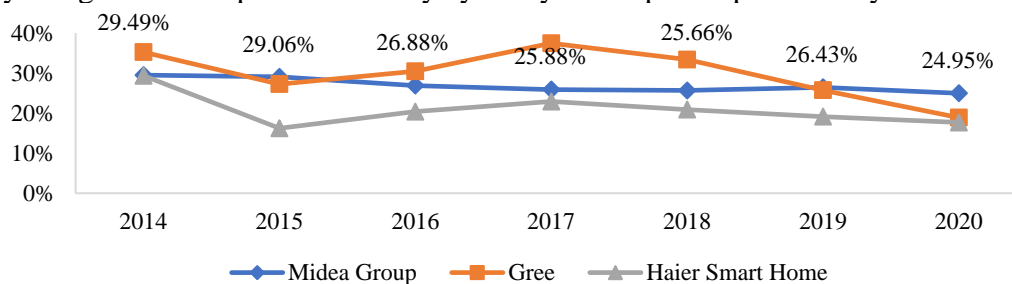
#### **4.1.1 Profitability Analysis**

This paper selects two indicators, which are gross margin and return on net assets, to evaluate the changes in the profitability of Midea Group. Comparative analysis is conducted with two other industry giants to ensure the comparability of the indicators.



**Fig. 1** Gross margin of Midea Group

Overall, there was a slight decline in Midea Group's profitability in the year of M&A. With the expansion of business scale and market scope, profitability rebounded slightly one to two years after the M&A. But as a whole, after the M&A each profitability indicator did not get a significant improvement. Financial synergies were not prominent. Secondly, the fluctuation of Midea Group's return on net assets was smaller than that of Gree and Haier Smart Home. It shows that M&A effectively mitigated the impact of industry cyclicality on corporate profitability.

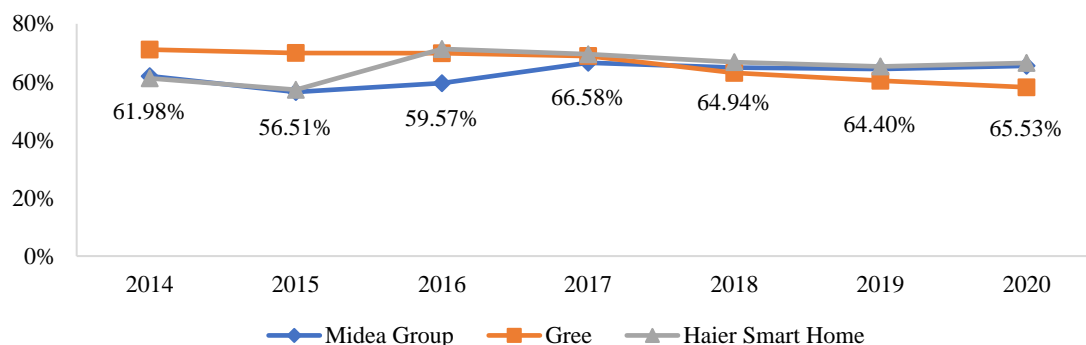


**Fig. 2** Return on net assets of Midea Group

Data source: East Money

**4.1.2 Debt-servicing Capacity Analysis**

Generally speaking, the lower the asset-liability ratio, the stronger the long-term debt-servicing capacity of the enterprise. The trend of changes in the asset-liability ratio of the three enterprises was roughly similar, fluctuating between 60% and 70% overall. Before the M&A implementation, Midea Group's long-term debt-servicing capacity had been better than the other two enterprises. After Midea Group acquired KUKA in 2017, the asset-liability ratio increased by a large amount, up 11.77% year-on-year. The reason for the increase is that the total price of the acquisition was about 26.986 billion yuan, which directly led to a decrease in the group's cash and an increase in liabilities. However, compared horizontally with Gree and Haier Smart Home, the long-term debt-servicing capacity of Midea Group remained at a high level.



**Fig. 3** Asset-liability ratio of Midea Group

Data source: East Money

### 4.1.3 Operating Capacity Analysis

The total assets turnover ratio of Midea Group did not change significantly from 2014 to 2020, showing an overall downward trend except for a slight increase in 2017. The inventory turnover ratio showed a steady upward trend before 2016 and then declined year by year. It began to rebound by 2018. But it was still lower than the level before the M&A.

It shows that funds within the business did not flow to more productive investment opportunities one to two years after the M&A. While the M&A of KUKA brought more possibilities for the group's operations. In the short term, however, Midea Group failed to manage and utilize its economic resources effectively, which led to the speed of profit capture beginning to decline.

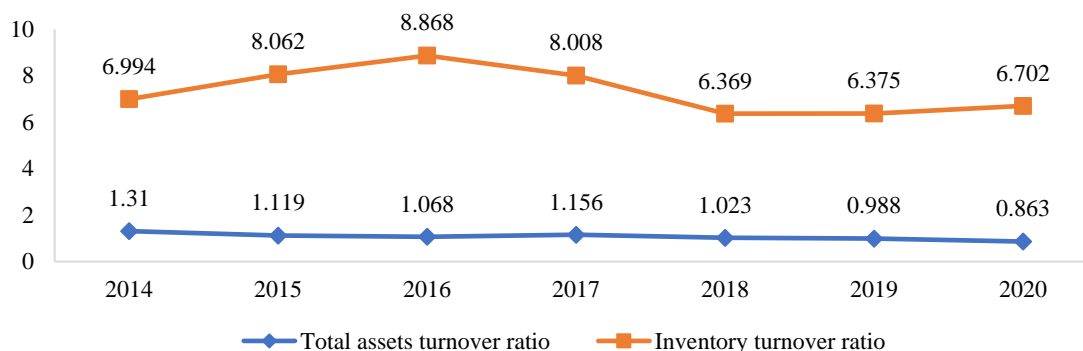


Fig. 4 Operating capacity indicators of Midea Group

Data source: East Money

### 4.1.4 Development Capacity Analysis

After Midea Group's M&A of KUKA in 2017, there was a significant increase in the growth rate of major business revenue, which increased by 245.05% year-on-year. There was roughly the same movement in the growth rate of total assets and major business revenue. In terms of net profit growth rate, there was no significant change from 2016-2019, before a sharp decline in 2020, with a year-on-year decrease of 39.21%. It shows that the M&A has not yet improved Midea Group's capability to manage and innovate. Whether or not it will strengthen the competitive capacity of the enterprise in the future needs to be further tested.

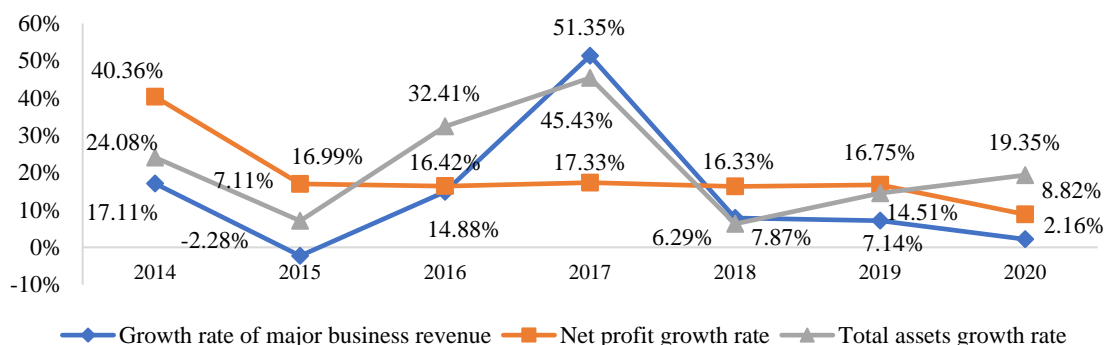


Fig. 5 Development capacity indicators of Midea Group

Data source: East Money

## 4.2. Non-financial Performance Analysis

### 4.2.1 Obtaining International Market Recognition and Enhancing Brand Influence

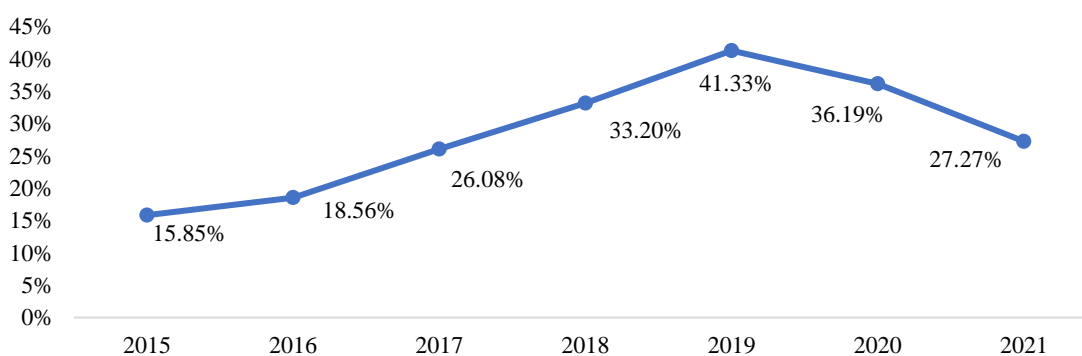
In 2011, China Enterprise Confederation (CEC) released the "Top 100 Multinational Brands in China Multinational Index" for the first time, to evaluate the internationalization level of Chinese multinational brands<sup>[2]</sup>. The index mainly evaluates the number of assets, revenue, and employees

owned by the enterprise abroad. The higher index represents the higher level of multinational operation of the enterprise.

As can be seen from the figure, Midea Group's transnational index has been higher than the average level and shows a stable upward trend. In addition, the M&A has also significantly increased the brand value of Midea Group, which ranked among the Fortune 500 for the first time in 2016, becoming the first Chinese household appliance enterprise to enter the list. It shows that Midea Group's integration of KUKA's abroad marketing channels was relatively effective. Higher international awareness of the brand, rising overseas market share of the products, and increasing overseas operating income have laid a solid foundation for Midea Group's globalization strategy.

**Table 1.** Average transnational index of China's top 100 enterprises

Year	2015	2016	2017	2018	2019	2020	2021
Average transnational index(%)	15.59	14.4	14.85	15.80	15.96	16.10	15.07



**Fig. 6** Transnational indexes of Midea Group

Data source: CEC

#### 4.2.2 Innovate Logistics System and Gradually Realize Intelligent Logistics

As the "last frontier of cost reduction", modern logistics is regarded as the "third source of profit" internationally<sup>[3]</sup>. Swisslog, a subsidiary of KUKA, provides automation solutions for hospitals, warehouses, and distribution centers. With the support of KUKA and Swisslog's top technology, Midea Group can develop a new area of intelligent logistics.

#### 4.2.3 Expanding Market Share and Enhancing Business Capabilities

Midea Group added the robotics and automation systems business in 2017. This business accounted for 11.23% of the operating revenue in that year. Afterward, it maintained about 8.85% of the overall operating revenue, while maintaining a gross margin of about 20%.

**Table 2.** Midea Group's robotics and automation systems revenue

Year	2017	2018	2019	2020
Share of operating revenue(%)	11.23	9.89	9.05	7.60
Gross margin(%)	14.48	22.85	20.79	19.88

Data source: Annual reports of Midea Group

### 5. Research Conclusion and Countermeasure Suggestion

This M&A effectively mitigated the impact of industry cyclicality on the financial performance of Midea Group. However, on the whole, the financial indicators have not significantly improved after the M&A. M&A financial synergies were also not prominent enough. But this is only a preliminary conclusion. Whether the performance of M&A will improve in the future needs to be further tested.

Combining the successful experience and deficiencies of Midea Group's M&A, this paper puts forward the following suggestions for enterprises that want to carry out M&A and have already implemented M&A. Firstly, an enterprise should clarify the direction of strategic M&A. Blind M&A

will not only lead to business failure but also limit the development of the enterprise itself, causing management to fall into difficulties. Thus, M&A should be a well-considered decision from the perspective of enterprise strategy. Secondly, enterprises should pay attention to the integration after M&A. Enterprises in the implementation of M&A, especially cross-border M&A, should strengthen the cultural exchanges between organizations. To provide a good atmosphere for overall development, both sides of the M&A need to harmonize their strategic planning to ensure that resources are utilized efficiently within the group<sup>[4]</sup>.

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