



# Study on the Efficiency of Accounts Receivable

## Utilization

-----Based on data from companies in the appliance manufacturing industry

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**Abstract.** Nowadays, "credit sales" has become a mainstream sales method. This mode can be used to quickly increase sales and bring profits, but it also leads to a large increase in accounts receivable. Once there is a large amount of bad debt in the accounts receivable, or the repayment is not timely and other such problems, it will lead to problems in the daily operation of the enterprise. Therefore, enterprises should improve the efficiency of the use of accounts receivable to reduce business risks.

**Keywords:** Credit Sales, Accounts Receivable Utilization Efficiency, Supply Chain, Accounts Receivable Turnover Days

## 1 Introduction

Accounts receivable has always been in an important position in the financial statements. Accounts receivable not only reflects the business situation of the enterprise, but also proves the industry status of the enterprise. In recent years, the importance of accounts receivable has been gradually increased by the influence of credit sales, so how to improve the efficiency of the use of accounts receivable has also become a challenge for scholars. If the efficiency of the use of accounts receivable is improved, then the business will be better funded, the flow will be faster

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and the cash flow will be more adequate. Eventually all the enterprises in the supply chain will benefit from this. Current research is deficient in improving accounts receivable turnover, so this paper examines the reasons for low accounts receivable turnover and gives solutions.

This paper consists of five chapters, the first chapter is the introduction, which mainly explains the direction of the research and the reason for the research. Chapter 2 is the basic concept of accounts receivable, which explains the definition of accounts receivable in Chinese and American accounting standards. Chapter 3 is the efficiency of accounts receivable utilization in supply chain, which mainly explains the definition of supply chain and the efficiency of accounts receivable utilization of companies in supply chain. Chapter 4 is a case study, which compares the accounts receivable of two companies, Gree and Midea. Chapter 5 is the conclusion, which suggests ways to improve the efficiency of the use of accounts receivable.

## **2 Basic Concepts of Accounts Receivable**

Accounts receivable, defined by ASBE as various accounts receivable, such as payments for goods, services, interest and other receivables, which have been incurred but not yet collected, and an important part of an enterprise's operating activities, are formed in the normal course of business, and are defined as monetary assets under the current accounting policy. As a kind of debt of the enterprise, it mainly bears the credit risk. Under the same conditions, the seller utilizes accounts receivable to sell on credit, thus deferring the payment, improving the competition rate and increasing the sales volume. Since credit sales require a period of time, how to use accounts receivable efficiently and rationally arrange the collection period of accounts receivable so as to make the cash flow remain stable has also become a major challenge for enterprise management.

In the face of global harmonization of the difficult problem of accounts receivable, differences in accounts receivable from country to country may lead to solutions, the more representative of which are the guidelines for accounts receivable in the United States of America in China.

Accounts receivable in China and the United States share certain commonalities. In U.S. accounting standards, accounts receivable are contractually established rights to receive payment, in most cases with a fixed date, and are usually presented on the seller's balance sheet. This means that for both the United States and China, accounts

receivable is a kind of operating remuneration, and the purpose of the emergence is to expand the market and save the expenses of management fee and risk fee of goods inventory, and a large number of goods are transformed into accounts receivable of the enterprise, and the allocation of the enterprise's capital can be optimized.

However, the utilization rate of accounts receivable of Chinese enterprises is significantly lower than that of U.S. enterprises, and the bad debt rate is much higher than that of the U.S. The reasons for this are economic problems and standard-setting problems.

Economically, the United States is dominated by the private sector, and its accounting standards are formulated by civil society, with the goal of emphasizing investor services; whereas China's accounting standards are formulated by the government, with civil society organizations playing a relatively small role. In this case, the utilization rate and recovery rate of accounts receivable in most state-owned enterprises are much higher than those in private enterprises, and the relatively low degree of protection of accounts receivable in private enterprises has created the predicament of "difficult to collect" and "many bad debts". So that many private enterprises due to the inability to collect accounts receivable on schedule leads to daily production, the normal economic decisions of the enterprise can not be successfully implemented. On the contrary, due to the tendency of American enterprises to protect investors and private enterprises, the detailed degree and restrictive clauses in the content of accounts receivable are much higher than those in China, which makes the recovery and utilization of accounts receivable can be well formed into a stable system to protect the development of enterprises.

In terms of standard-setting, China, in formulating accounting standards, is more comprehensive, broader in scope, holistic and comprehensive, but is slightly deficient in dealing with the details of the work of neglecting the necessary definitions of interpretation and other such details. The U.S. guidelines are very detailed, exhaustive provisions to deal with all aspects of accounts receivable need to pay attention to. If the dispute of accounts receivable occurs between enterprises, China's accounting standards due to the lack of detailed content is likely to lead to accounts receivable accounting, recognition, return disclosure, resulting in disputes can not be resolved in a timely manner, and the relevant legal basis is not comprehensive enough, there is no way to make timely judgment of the amount of accounts receivable to deal with the impact on the operation of the enterprise. The U.S. guidelines are relatively detailed, and many details have been made mandatory requirements, with relatively few

omissions, which is not easy to cause bad debts and delinquency of accounts receivable.

### **3 Efficiency in the Use Of Receivables in the Supply Chain**

#### **3.1 Definition of Supply Chain**

Supply chain is a network structure formed by upstream and downstream enterprises that provide products or services to end-users in the process of production and distribution, i.e., the chain formed by the final delivery of produced products from producers to consumers. Close supply chain partnership is one of the most important sources for enterprises to achieve sustained operation and continuous competition, which can reduce costs, shorten the manufacturing cycle, reduce internal inventory, maintain stable supply and demand, reduce the problem of untimely capital turnover, improve the competitive advantage of enterprises, and obtain a large amount of profits. The famous General Motors is because of the close relationship with the upper and lower by the enterprise, so as to rapidly expand the market, increase the market share, and obtain a large number of benefits in the short term.

For the convenience of the study in the following the scope of the supply chain is narrowed down to upstream firms, manufacturing firms and sell-to-market firms. The supply chain is simplified because it is too complex and may form a web.

#### **3.2 Accounts Receivable Utilization in the Supply Chain**

Accounts receivable plays a very important role in the supply chain economy. An upstream company sells raw materials or processed parts on credit to a manufacturing company, which in turn creates accounts receivable. Similarly, the manufacturing company also sells on credit to the selling company to form accounts receivable. In this chain it is actually the company located downstream that is taking funds from the upstream company for production. That is, they are using the accounts receivable of the upstream company. Under ideal conditions, if the overall recovery period of accounts receivable in the supply chain is kept consistent, and the efficiency of accounts receivable usage in the whole supply chain is kept consistent, then all the enterprises in the supply chain can continue to operate and survive stably. But this situation is not possible.

With their own growth in mind, companies want to occupy other companies' funds for a longer period of time, in a system where the stronger company can collect accounts receivable sooner and pay accounts payable later. At the same time, they occupy the capital of upstream and downstream companies to expand the production of their products or enhance their operations. Therefore, in reality, it is not easy to keep the recovery period of accounts receivable of all enterprises in the supply chain consistent, but enterprises that cannot occupy a leading position should enhance the turnover rate of accounts receivable of enterprises and improve the speed of flow of funds, so as to prevent the situation that once the downstream enterprises are unable to pay back the receivables in a timely manner, which will lead to the breakage of all the financial chain.

In terms of the supply chain as a whole, there are two ways to improve the efficiency of accounts receivable utilization.

The first is the method of constraining the dominant firm. In the supply chain on the accounts receivable recovery period has the greatest impact on the dominant enterprise, due to his own accounts payable repayment period is longer, for the upstream enterprises, its accounts payable recovery period is extended, in order to continue to make profits can only take up the funds of the upstream enterprises, the ring ring, continue to squeeze the survival of other enterprises; The shortened recovery period of accounts payable of downstream enterprises can only continue to occupy the funds of downstream enterprises, forming a vicious circle. If, in the event of a large-scale policy change or other important circumstances, the dominant enterprise delays in making the next production or sales decision and hoards a large amount of funds to sell only a certain amount of inventory, it will be very easy for the weaker small companies in the supply chain to go bankrupt first, which will have an impact on the supply chain.

In response to the risk of supply chain disruption, enterprises in the downstream of the dominant enterprise can join forces to constrain the dominant enterprise and use the purchase of dominant commodities as a bargaining chip to counter-compel the dominant enterprise to relax its payment terms; while upstream enterprises need to join forces to use the raw materials needed by the dominant enterprise as a condition for the enterprise to appropriately enhance the repayment efficiency of its accounts receivable. Or by the state to formulate relevant policies, such leading enterprises issued certain targeted policies, limit the amount of funds held by the enterprise and provide for the recovery of accounts, payment of a reasonable period of time as the

basis for constraints on the leading enterprises, to avoid a dominant, the formation of a monopoly, to break the balance of the market. If the dominant firm is a sales firm, the state constraint approach can also be used. However, since it does not exist downstream, the joint approach may be difficult to threaten it, then in order to constrain the sales firm, it can consider introducing other sales firms to form a strong competitive relationship, so that the supplier can obtain certain preferential terms in the competition and at the same time constrain the two future dominant firms.

The second is the ecological approach. The supply chain is actually equivalent to an ecosystem, where the number of organisms in a weaker position is on the verge of extinction if the number of powerful predators is too low. In a supply chain, the weak firms are unable to survive as their living space is heavily squeezed. The dominant firms also cannot exist alone in the supply chain. So this sense of sustainability should be created for the powerful enterprises to maintain the ecological balance of the supply chain.

## **4 Ase Study**

In this article, the main focus is to analyze the efficiency of accounts receivable usage of small home appliance manufacturing companies Gree and Midea Group. Small home appliance manufacturing enterprises have both upstream suppliers and downstream distributors, with a complete supply chain, which is suitable for the research topic of this article. Among the small home appliance manufacturing enterprises, Gree and Midea are both leading enterprises, but there is a huge difference between their accounts receivable characteristics.

### **4.1 Case Brief**

Zhuhai Gree Electric Appliances Co., Ltd. was founded in 1991, after years of development, has formed a set of development, manufacturing, marketing, after-sales service in one of the modern international electrical appliances company, under the Gree, TOSOT, Jinghong and other three international small appliances. Gree has multiplied its benefits through the implementation of diversified development strategy, focusing on the research and development of core technology, and focusing on product quality, etc. In 2004, Gree Electric entered the market of small household appliances and expanded rapidly with its technology. 2013, Gree began to enter the

field of intelligent robot manufacturing. 2016 March, it began to enter the field of new energy, and acquired Yinlong new energy vehicles. 2015, Yinlong new energy vehicles won the sales order of 7,000 units. In 2015, Yinlong new energy vehicle took the sales order of 7,000 units, the annual sales volume of the country's seventh.

Midea is a globalized technology group covering smart home, industrial technology, building technology, robotics and automation and other innovative businesses. Founded in 1968, Midea officially entered the home appliance industry in 1980 and registered the Midea brand in 1981. Before 2011, Midea Group was mainly a crude management mode, focusing on quantitative growth and low value-added products. In 2011, Midea put forward "product leadership, efficiency drive, global management" as the three strategic axes, and in 2013, it officially began to carry out self-transformation and digital transformation. 2019 Midea Group put forward "comprehensive digitalization, comprehensive intelligence" under the strategy, and has been working hard for it so far. In 2019, Midea Group put forward the requirements of "comprehensive digitalization and intelligentization" under the strategy, and has been working hard for it so far. Midea has the most complete air-conditioning industry chain, refrigerator industry chain, washing machine industry chain, microwave oven industry chain and dishwasher industry chain in China; it has more than 60 overseas branches around the world, and its products are exported to more than 200 countries and regions.

By analyzing the development strategies of the two firms, Gree and Midea have chosen different development approaches. Gree Group is more inclined to maintain the core R & D technology of small household appliances at the same time, to the more development potential of the new industry investment, and development of technology. While the United States group is more inclined to reduce the price of small household appliances, and to the intellectual energy furniture to carry out a comprehensive layout, in order to create a "United States ecological".

## **4.2 Analysis of Accounts Receivable**

In recent years, the accounts receivable of Midea and Gree have increased dramatically with the increase of sales, and the efficiency of the use of accounts receivable should be emphasized more. Once accounts receivable are not collected in a timely manner or cannot be collected, even the strongest group will suffer a huge

loss as a result. The accounts receivable of the two companies are analyzed as follows.

The efficiency of the use of accounts receivable can be understood in two ways. One is the proportion of accounts receivable to operating income which shows the controllability and recoverability of accounts receivable. The other is accounts receivable turnover ratio and accounts receivable turnover days, which can directly reflect the utilization efficiency.

**Table 1.** Midea accounts receivable to operating income Unit (thousand dollars)

Item	2018	2019	2020	2021	2022
Accounts Receivable	19,390,174	18,663,819	22,978,363	24,636,440	28,237,973
Operating income	259,664,820	278,216,017	284,221,249	341,233,208	343,917,531
Weighting	7.47%	6.71%	8.08%	7.22%	8.21%

**Table 2.** Gree's Accounts Receivable to Operating Income Unit (\$)

Item	2018	2019	2020	2021	2022
Accounts Receivable	7,699,658,990	8,513,334,545.08	8,738,230,905.44	13,840,898,802.76	14,824,742,623.45
Operating income	198,123,177,057	136,219,366,183.61	107,841,790,174.49	187,868,874,892.71	188,988,382,706.68
Weighting	3.89%	6.25%	8.10%	7.37%	7.84%

**Table 3.** Mei's accounts receivable turnover and turnover days

Item	2018	2019	2020	2021	2022
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Accounts receivable turnover ratio	13.39	14.62	13.65	14.33	13.01
Accounts receivable turnover days	26.88	24.62	26.37	25.12	27.67

**Table 4.** Gree Accounts Receivable Turnover and Turnover Days

Item	2018	2019	2020	2021	2022
Accounts receivable turnover ratio	25.73	16.80	12.50	16.64	13.19
Accounts receivable turnover days	13.99	21.42	28.79	21.63	27.30

As shown in chart I, accounts receivable for Midea increased year by year except for 2019, and the proportion of accounts receivable to operating income was basically stable. As in chart II, for Gree Group before 2018 accounts receivable accounted for basically no more than 4% of operating income, but since 2019 the proportion of accounts receivable has suddenly surged significantly. The reason for this is that at the time of the epidemic, air-conditioning merchandise sales difficulties, and such goods accounted for nearly 70% of operating income, and in the case of relative financial difficulties to broaden sales channels in the hope that it can be opened to foreign markets, a large number of credit sales. Gree supply channel providers to provide the phenomenon of account period pressure on goods may occur, the sales of goods are becoming worse. In the event of a significant bad debt, a previously balanced and stable supply chain is extremely problematic and should be managed in a timely manner.

As shown in Tables 3 and 4, Midea's turnover ratio continues to increase and the company has taken effective measures to manage accounts receivable. The opposite is true for Gree, where the efficiency of accounts receivable utilization has suddenly and dramatically decreased, and the company may be experiencing certain problems. Until 2019, Gree's accounts receivable turnover ratio is much higher than Midea's and accounts receivable turnover days are much lower than Midea's. Even this part of

accounts receivable can be regarded as cash. This is mainly due to the fact that Jinghai Interconnection Company, an important distributor alliance of Gree Group, is one of the top ten shareholders of Gree Group, and that Gree's appliances are prestigious in the industry, with high sales volume and demand exceeding supply. However, after 2019, Jinghai Interconnection Company has been reducing its shareholding, reducing the amount of Gree appliances ordered. In order to maintain its interests, Gree reduced the terms of credit sales, which led to a significant reduction in the efficiency of the use of accounts receivable, losing Gree's unique advantages and increasing corporate risk. On the contrary, Midea realized that the use of accounts receivable was too inefficient, even nearly the same as the industry average, which was clearly not in line with Midea's position in the supply chain. Therefore it increased its control of accounts receivable, reduced the number of days of accounts receivable turnover, and improved the activity of the company.

Gree should pay attention to the problem of accounts receivable, during the five-year period through notes payable, prepaid accounts and other accounts to whitewash the increase in accounts receivable, and extracted the profits previously hidden in contract liabilities to make profits remain stable. In the process of future development, we should pay attention to the large bad debts in the international market, and diversification of all kinds of small appliances, the single product range is also one of the causes of accounts receivable. In the industry is also facing challenges, the Midea's operating income increased year by year, accounts receivable accounts receivable ratio is also basically maintained stable, proving that the enterprise has the ability to continue to operate, and the enterprise state is stable. And the Midea also began to the future part of some of the planning, if the development of the Midea's building, hope that this in the future of the enterprise competition advantage, at the same time improve the utilization rate of accounts receivable, accelerate the flow of funds, sustained the research and development of new projects.

## 5 Conclusions

If enterprises want to develop continuously and improve economic benefits, they must continuously improve the management system, strengthen the management and supervision of accounts receivable, ensure the normal flow of enterprise funds, improve the efficiency of enterprise funds, enhance the market competitiveness of enterprises, and thus promote the continuous rise of enterprise profits. Therefore it is

necessary to improve the turnover rate of accounts receivable. Enterprises can improve the turnover rate of accounts receivable from the establishment of internal management system of accounts receivable and the enhancement of measures for recovering money.

Enterprises should enter all accounts receivable into their internal management system and keep detailed records of all accounts receivable credit sales, collection periods, and recovery dates. Enterprises should make a list of companies that have delayed repayment and those that are unable to make repayment, arrange them on the basis of citation level, and share them within the industry. Enterprises should also control the sales volume to downstream enterprises accordingly, and implement the strategy of less sales and more collection for defaulting enterprises. Effectively control the turnover rate of accounts receivable.

Enterprises that have recovered accounts receivable should be timely investment or expansion of operations to reduce the money on the books to stay in time, increase the speed of capital operation. At the same time, the management should formulate a reasonable retention period of accounts receivable, and at the same time, the person in charge of overdue accounts receivable should be penalized to ensure that this policy can be successfully implemented.

In addition, enterprise sales staff should also be responsible for accounts receivable, to payback speed and payback amount for the assessment as a grip, to establish a scientific accounts receivable payback assessment mechanism. Enterprises should not only include the payback in the assessment, the process of payback should also be included in the assessment. At the same time, it should also establish an appropriate reward and punishment mechanism to widely mobilize the enthusiasm of employees.

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