

Case Study of Cost Management and Control - Xiaomi as an Example

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Abstract: This paper analyzes Xiaomi's cost structure from the perspective of cost management and control. Based on the data from 2015 to 2019, the performance analysis of relevant financial indicators of Xiaomi and Huawei, combined with the current internal control status under the cost structure, provides relevant suggestions for Xiaomi to achieve sustainable and long-term competitive advantages.

Keywords: Cost Management, Cost Control, Performance Analysis.

1. Introduction

The full name of Xiaomi Corporation is Beijing Xiaomi Technology Co., Ltd., which was officially established in April 2010. It is an innovative technology enterprise focusing on the construction of smart phones, Internet TVs and smart home ecological chains. Xiaomi has continued to develop at an astonishing speed since its establishment, continuously launching cost-effective products that satisfy users. Through ten years of development, Xiaomi has formed branch products such as Internet services, IOT smart products and Xiaomi finance. On July 9, 2018, Xiaomi was listed on the Hong Kong Stock Exchange, and in just nine years Xiaomi has become an Internet company with a market capitalization of over \$100 billion, as well as the world's fourth largest mobile phone manufacturer, with sales of several items ranking among the top in the world. Meanwhile, Xiaomi, which was valued at just \$1 billion at its inception, was valued at more than \$45 billion by the end of 2017, and its valuation exceeded \$100 billion after its IPO in 2018.

Xiaomi's CEO Lei Jun proposed in 2013 to incubate 100 eco-chain companies within a decade, and as of March 2019, Xiaomi has reached this goal and the companies are still expanding, and the companies that Xiaomi has incubated have brought huge rewards to Xiaomi itself. As of December 2018, Xiaomi has surpassed Lenovo as well as LG to become one of the top three mobile phone brand manufacturers with its successful development operations, following Apple and Samsung. At the end of 2018, Xiaomi also signed strategic cooperation agreements with Aiki and Baidu to further develop cooperation, which has further enhanced Xiaomi's corporate competitiveness and advantage protection. [5].

2. Cost management and control analysis

2.1 Cost structure

2.1.1 Supply chain costs

In the procurement process, Xiaomi's suppliers are the original mobile phone accessory suppliers, and the supplier of Xiaomi's mobile phone chip is Qualcomm, the top original accessory supplier, which is an important advantage of Xiaomi's mobile phone. Since there are not many suppliers of Xiaomi mobile phones that meet the quality requirements for each accessory and the prices of accessories change every year, resulting in different models of Xiaomi mobile phones with accessories from different suppliers. At present, Xiaomi does not have its own spare parts production, but is processed by Foxconn, Ingvar and Intel, etc. In recent years, too many suppliers and agent processing factories have led to a continuous upward trend in the company's raw material costs, and

in the face of so many suppliers, the quality of the accessories provided by them is gradually increasing the difficulty of supervision.

On the production side, Xiaomi focused its core efforts on R&D and design, and outsourced the production process that it is not good at to Foxconn and Informa, which can cut or even eliminate the non-value-added operation process and facilitate the company to make reasonable production arrangement and R&D plan.

In the sales process, Xiaomi, in order to avoid the formation of a premium in the flow of products, resulting in subsequent product cost increases, has mainly adopted the establishment of cooperation with e-commerce companies and adopted a direct network sales model, encouraging consumers to purchase from the source, i.e., the network sales terminal, simplifying the intermediate flow of products, effectively controlling the cost channel, using the data information technology of the Internet to reduce the cost costs incurred by the sales channel, providing the use of the Internet's data information technology to reduce the costs incurred by the sales channel, providing consumers with great price space, has also brought Xiaomi considerable sales results.

In the marketing segment, Huawei, which is compared with Xiaomi in this article, invested 10 billion yuan in advertising in 2017 to do corporate publicity and marketing, including celebrity endorsements and offline bombing advertising. As a successful self-publisher, Xiaomi disseminates information through major Internet platforms, and through mutual communication and promotion with "rice fans", replaces "money marketing" with highly sticky communication from person to person, which greatly controls publicity costs.

2.1.2 Drive costs

In the content of one of Lei Jun's speeches about the most core ideas for managing Xiaomi, we attribute Xiaomi's driving costs to: talent, technology and management.

To avoid talent loss, Xiaomi has spent plenty of time and manpower in the preliminary work of employee recruitment and interview, showing enough patience and conviction. And in the talent recruitment requirements, Lei Jun summarized three characteristics: capable, highly responsible and strong self-driven. We know that high-end technical R&D talents are the guarantee of efficient execution efficiency and an important condition for cost reduction. For Xiaomi, whose main business is to develop smart phones, technology is the key cost driver. With the growth and continuous upgrading of the smart industry in the same industry, the speed of smart product updates has accelerated, making Xiaomi pay more attention to the investment in technology R&D costs, reducing production costs by improving technology, and thus improving production efficiency. In terms of management, Xiaomi has almost legally bound its own net profit margin with the aim of gaining unreserved trust from consumers. In addition, Xiaomi aims to create a relatively equal management atmosphere so that each business unit has a strong initiative, which is more conducive to the development of cost management while improving management level and efficiency.

2.2 Cost structure disadvantages

In the procurement process, Xiaomi does not have its own manufacturing plant due to the lack of self-production of spare parts, and all products are manufactured by OEMs, and the production of raw materials also relies almost entirely on suppliers, and in recent years, too many suppliers and agency processing plants have led to a continuous rise in the cost of raw materials for the company, and in the face of so many suppliers, it is gradually difficult to monitor the quality of the parts provided by them. With so many suppliers, it has become increasingly difficult to monitor the quality of the parts provided by them.

Excessive hunger marketing has led to consumer dissatisfaction. Xiaomi's mobile phones require online reservations at the beginning of the market, and Xiaomi only offers a small number of phones in order to control costs, making it difficult for most users to buy them, and this marketing model is easy to be imitated by the industry, and then gradually lose its competitive advantage. When consumers are determined to buy, but due to the lack of inventory and off the shelves, it is easy to lose part of the group using Xiaomi products, reducing customer loyalty.

The cost of brand transformation and upgrading is high. Xiaomi's concept is "built for enthusiasts", and this market positioning is no longer suitable for Xiaomi's current development needs. The development of smartphones has been very rapid, with a full range of functions and an ever-expanding target audience. At present, the target range of Xiaomi market has been expanded, and the existing product categories are also rich and diverse, but still can not well meet the needs of some "enthusiasts", in people's impression of Xiaomi products are still cost-effective low-end products, therefore, Xiaomi brand high-end upgrade is more difficult, brand transformation costs are too high.

2.3 Cost structure improvements

The company has abandoned the low value-added manufacturing and sales processes, and has taken full advantage of its information network to make key customer-focused cost investments. First of all, Xiaomi has adopted a "made-to-order" production model for the low value-added production process. Based on users' online orders, Xiaomi calculates the number of mobile phones to be produced, then purchases mobile phone components from suppliers and outsources the production business. On the one hand, it eliminates the need for large production inputs, and on the other hand, it can focus on understanding user needs, developing products, etc.

In the product marketing and development process, Xiaomi has created a cost structure with customer relationship maintenance cost as the core. Under the constraints of its own resources, Xiaomi has established its unique competitive advantage by maintaining the fan base and stimulating the fan effect. From product development to the marketing process, Xiaomi fully embodies the principle of user participation throughout the entire process, and it achieves seamless cooperation between the product development team and users by building an Internet platform to fully understand the needs of the enthusiast group and their expectations of the product. In the product marketing process, Xiaomi not only uses social software to attract users, but also attaches great importance to offline communication and feedback from users, and gives Mi fans the right to participate in preferential activities and purchase scarce products on a priority basis.

3. Comparative industry analysis

3.1 Huawei corporate profile

Huawei Technologies, founded in 1987, has used just three decades to seize the opportunity of China's reform and opening up and the rapid development of the information technology industry, insisting on consumer-centric, in-depth innovation from the actual needs of users, and reaping the affirmation and support of users, from a small company with an initial registered capital of just RMB 21,000, it has continued to develop into a Fortune 500 company. Huawei has a unique business vision, its goal is to provide users with quality products and services, to help users to enjoy the highest IT services at the appropriate consumption of physical examination. The company has a clear positioning since its inception, that is, the user experience is the first priority, based on which a lot of money is invested in product development and sales expansion.

Huawei's business areas mainly include the carrier segment, the consumer segment and the enterprise segment. In the carrier segment, Huawei mainly manufactures and installs 4G base stations, with operations in more than 140 countries worldwide, supporting more than 1,500 networks. Huawei has attracted carrier partners from around the world under its dual product- and service-driven strategy. In the consumer business segment, Huawei focuses on the development and sale of mobile devices, with a similarly extended global footprint. And in the enterprise business area, Huawei builds IT intelligence systems for enterprise customers, with many of the world's top 500 companies among its corporate customers.

3.2 Performance comparison

3.2.1 Analysis of Xiaomi's financial indicators performance

(1) Profitability analysis: net sales margin, as shown in Table.1.

Table.1. Xiaomi 2015-2019 Net Sales Margin

Sports event	2015	2016	2017	2018	2019
Net sales margin(%)	11.35	0.72	-38.29	7.71	5.60

From the data in Table 1, it can be seen that the net sales margin of Xiaomi has changed tremendously from 2015-2019, especially in 2017 when the value of this indicator dropped to a negative number, indicating that Xiaomi incurred a loss in that year. Moreover, a comparison with the industry average shows that Xiaomi's net sales margin was well below the industry level during 2016-2017, but in a situation where the industry level dropped to -6.77%, Xiaomi achieved a relatively large profit, thanks in part to the IPO in 2018. Although Xiaomi's net sales margin has been above 5% for the last two years, seemingly defying the promise of a consolidated net margin of no more than 5%, the majority of Xiaomi's net profit actually comes from investment income.

(2) Solvency analysis: gearing ratio, as shown in Table.2.

Table.2. Xiaomi 2015-2019 Gearing Ratio

Sports event	2015	2016	2017	2018	2019
Gearing ratio(%)	321.37	281.34	241.55	50.94	55.53

Looking at Xiaomi's gearing level from 2015-2019, there are large fluctuations, especially during 2015-2017, its gearing is even well over 200%, the reason for this great figure is that before the company was listed, its large number of preferred shares were accounted for in the financial liabilities account, resulting in a large amount of debt for the company. It was not until 2018 that the data turned around, which is also in line with the timing of Xiaomi's IPO in 2018. After 2018, Xiaomi's gearing ratio returned to a normal level, which also indicates that Xiaomi gradually improved its asset realisation and anti-risk capacity after the IPO, and better avoided potential financial risks.

(3) Operating capacity analysis: inventory turnover ratio, as shown in Table.3.

Table.3. Xiaomi 2015-2019 Inventory Turnover Ratio

Sports event	2015	2016	2017	2018	2019
Inventory turnover ratio(times)	7.42	7.19	8.05	6.67	5.71

The inventory turnover ratio of a company reflects the speed of product sales and cash recovery of the company. From the data in Table 3, it can be seen that Xiaomi's inventory turnover ratio has shown a significant downward trend in general since 2015 except for 2017, which indicates that Xiaomi's product sales have declined compared with previous years and the speed of capital recovery has become slower, affecting the efficiency of the enterprise's capital utilization. According to the relevant information, Xiaomi began to increase its inventory significantly in the second quarter of 2018 in order to address the situation of oversupply of mobile phone products, which made the inventory growth rate far exceed the revenue growth rate and caused the inventory backlog.

(4) Growth capacity analysis: growth rate of operating income, as shown in Table.4.

Table.4. Xiaomi 2015-2019 Operating Revenue Growth Rate

Sports event	2015	2016	2017	2018	2019
Operating income growth rate(%)	5.00	2.43	67.48	52.66	17.70

The revenue growth rate is an important symbol to measure the business condition and market share ability of the enterprise and predict the trend of business expansion, and the increasing revenue is the basis for the survival and development of the enterprise. From the data of Xiaomi's operating revenue growth rate from 2015-2019, between 2015 and 2016, the revenue growth rate was 5% and below, indicating that Xiaomi was in the urgent period of product renewal, while in 2017-2018, the revenue growth rate reached more than 50%, and its development rate was very impressive, indicating that Xiaomi saw a huge expansion of its main business in 2017, and by 2019, and returned to a reasonable range of 10%-20%. Overall, Xiaomi has more potential to grow and its growth ability is more good.

3.2.2 Analysis of Huawei's financial indicators performance

(1) Profitability analysis: net sales margin, as shown in Table.5.

Table.5. Huawei 2015-2019 Net Sales Margin

Sports event	2015	2016	2017	2018	2019
Net sales margin(%)	9.34	7.10	7.86	8.23	7.30

Net sales margin can reflect the profitability level of the company's sales revenue, generally speaking, the larger the value of net sales margin, the more profitable the company is, and also indicates that the lower the ratio of costs and expenses to revenue, the better the cost control of the company. As indicated by the changes in Huawei's net sales margin from 2015-2019, despite the ups and downs of fluctuations, a comparison of the industry values of 2.91% and -6.77% in 2017 and 2018 reveals that Huawei has been able to go up against the wind in a situation where the industry has declined significantly and performed poorly, indicating that Huawei has a relatively good profitability.

(2) Solvency analysis: gearing ratio, as shown in Table.6.

Table.6. Huawei 2015-2019 Gearing Ratio

Sports event	2015	2016	2017	2018	2019
Gearing ratio(%)	68.00	68.41	65.24	65.00	65.60

As can be seen from the data in Table 6, Huawei's gearing ratio is at 65% and above from 2015-2019, and the overall trend is relatively stable in terms of values alone, with a slight decline in recent years. This indicates that Huawei has a high degree of financial leverage utilization and a stable overall debt level, and even though its debt service indicator has exceeded the appropriate range of 40%-60%, combined with Huawei's profitability, its assets have a certain guarantee for debt repayment, so it can be judged that Huawei has a low risk of not being able to repay its debt. As long as it continues to maintain good solvency in the follow-up, there will be no harm for Huawei.

(3) Operating capacity analysis: inventory turnover ratio, as shown in Table.7.

Table.7. Huawei 2015-2019 Inventory Turnover Ratio

Sports event	2015	2016	2017	2018	2019
Inventory turnover ratio(times)	3.75	4.19	5.07	4.68	3.24

It is generally believed that the higher the inventory turnover ratio, the better the liquidity of inventory assets and the faster and shorter the recovery period of the capital spent on inventory. From the data in Table 7, it can be seen that Huawei's inventory turnover ratio shows a downward trend and

slows down in 2018 and 2019, indicating that Huawei may have sales-related problems and inventory backlog in these two years, but Huawei's business development and increase in business scope also contribute to its decline. Therefore, when Huawei budgets for production or sales, it should take into account the needs of the actual situation, reduce the amount of inventory appropriately, accelerate the speed of inventory realization, and avoid inventory hoarding.

(4)Growth capacity analysis: growth rate of operating income, as shown in Table.8.

Table.8. Huawei 2015-2019 Operating Revenue Growth Rate

Sports event	2015	2016	2017	2018	2019
Operating income growth rate(%)	37.06	32.04	15.73	19.48	19.10

As can be seen from the data in Table 8, Huawei maintained a growth rate of more than 10% during 2015-2019, and the revenue growth rate even exceeded 30% continuously in 2015-2016, although the growth rate declined and leveled off in the following three years, but according to the industry average, the revenue growth rate of Huawei in the past two years is higher than the industry level of 12.92%, and is in 10%-20% reasonable range, indicating that the company's products are still in the growth period, will also continue to maintain a good growth momentum, has not yet appeared product renewal risk. Therefore, from an overall perspective, Huawei has demonstrated good growth capability.

3.2.3 Comparison of results

(1)Profitability comparison

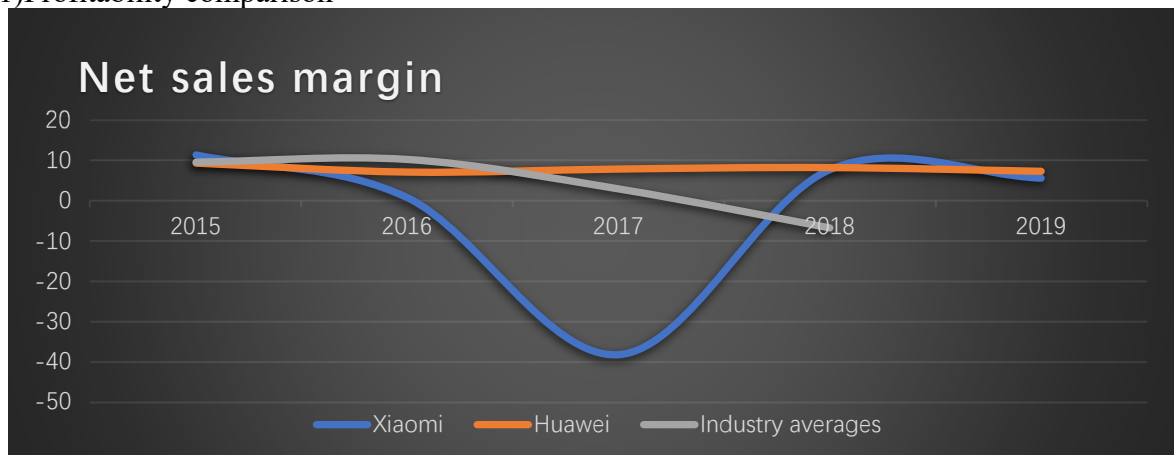


Figure 1. Trend of net sales margin between the two largest companies and the industry average

The trend graph in Figure 1 shows that Xiaomi's net sales margin is more volatile, while the change in Huawei's value of this indicator tends to be stable, indicating that Huawei's profitability is more stable. When the industry was in a downturn in 2018, both Huawei and Xiaomi's profitability levels exceeded the industry average and were on the rise, completing a counter-trend growth.

(2)Solvency comparison

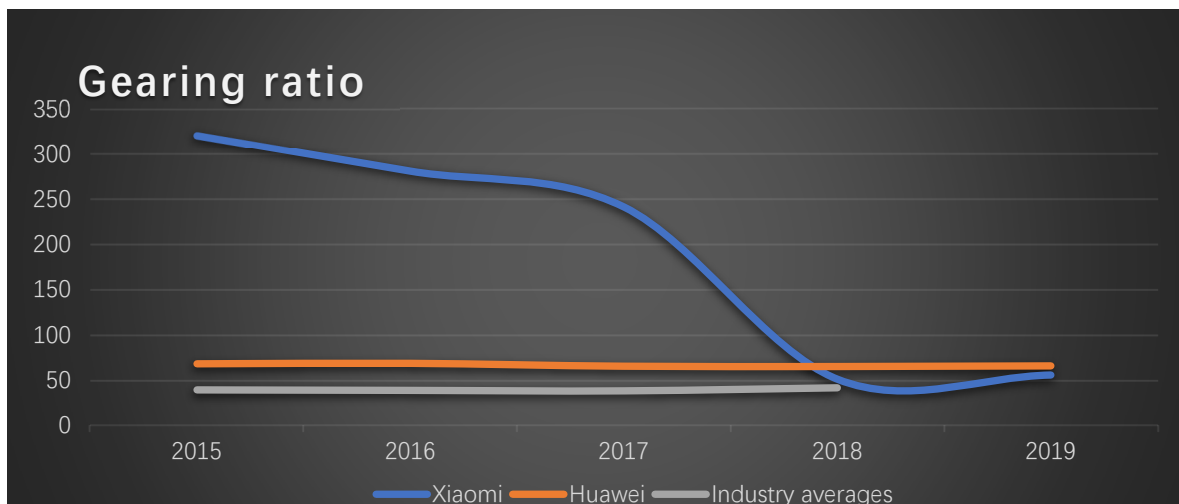


Figure 2. Trend of gearing ratio of two major companies versus industry average

As can be seen from the trend graph in Figure 2, both Xiaomi and Huawei's debt to operating ratio are higher than the industry average, but considering that the gearing ratio needs to be combined with industry characteristics to judge its reasonableness, in the case of Huawei, its gearing ratio is at 65% and above, which is beyond the appropriate range of 40%-60%, but in terms of numerical stability, its assets have a certain guarantee for the repayment of liabilities. Xiaomi, on the other hand, has reduced its debt level to a reasonable range after its IPO in FY18, and of course, the measurement method is one of the reasons for its decline. Overall, both companies have good solvency and are not at financial risk for the time being.

(3) Operating capacity comparison

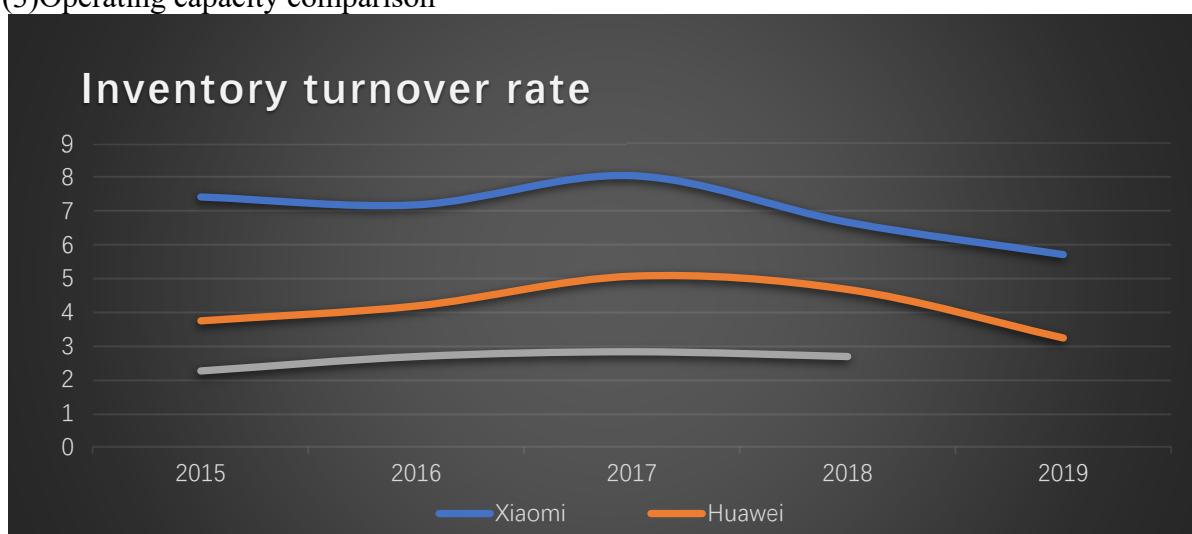


Figure 3. Trend of inventory turnover ratio of two major companies versus industry average

The trend graph in Figure 3 shows that both Xiaomi and Huawei have inventory turnover ratios that are higher than the industry average, and Xiaomi's inventory turnover speed is again better than Huawei's, which alone shows that Xiaomi's inventory management is more efficient. However, analysis of the above indicators for individual companies shows that both companies have inventory hoarding and therefore both need to accelerate the speed of inventory liquidation.

(4) Growth capacity comparison

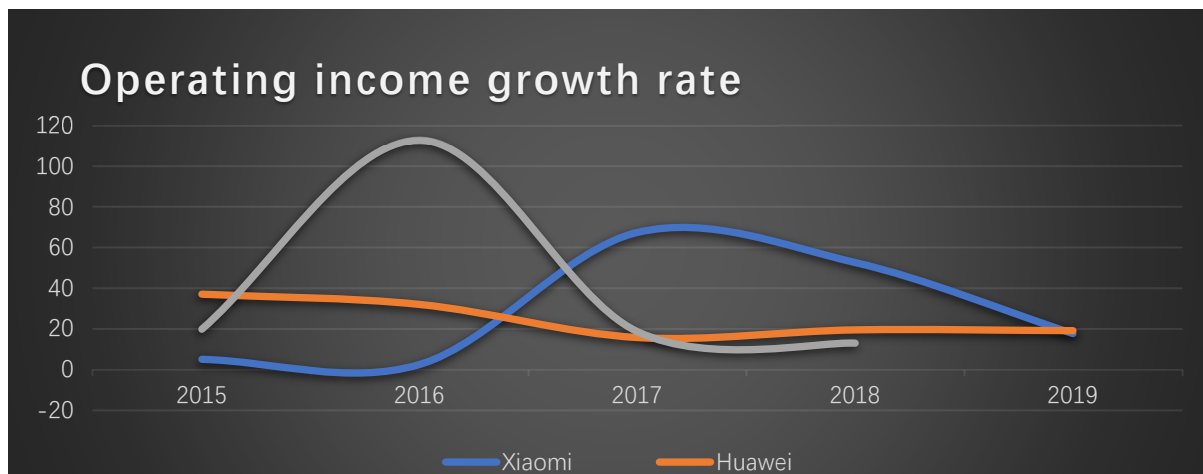


Figure 4. Trend of operating income growth rate of two major companies versus industry average

From the trend chart in Figure 4, we can see that the revenue growth rate of Xiaomi and Huawei is higher than the industry level since 2017, and for Xiaomi, its 2017-2018 value is also higher than Huawei's, which shows that Xiaomi's main business is developing extremely fast before and after the IPO in FY18. However, according to the latest financial report, Huawei's sales revenue in the first half of 2020 was 454 billion yuan, while Xiaomi's was 103.24 billion yuan, from the current point of view, Xiaomi still needs to focus on the development of differentiation strategies to avoid the monolithic nature of sales.

3.3 Performance improvement

In terms of profitability, Xiaomi insists on real material pricing, promotes a more extreme product experience, and pursues a "thin profit and more sales" profit model, so it makes sense that it is below the average net profit margin of 10% compared to the average domestic mobile phone. However, from the perspective of long-term development of the enterprise, if the enterprise cannot ensure the sales volume or the sales growth rate cannot meet the capital needs of the enterprise, then it will lead to the stagnation of the enterprise's development, and even cause the breakage of the capital chain. Therefore, Xiaomi should be consumer - market oriented to ensure the continuous growth of sales volume with low profit.

In terms of solvency, 40%-60% is generally considered an appropriate range, and Xiaomi's gearing ratio is already at a reasonable level of debt raising ratio in 2018-2019, so in the subsequent period, Xiaomi needs to keep a constant eye on its gearing and continue to maintain good solvency in the face of various pressures.

In terms of operational capability, Xiaomi should improve the speed of inventory turnover to avoid stockpiling and waste of resources. Since Xiaomi does not have its own manufacturing plants and mostly relies on suppliers and agency processors, it should implement the supply chain cost management concept and target orders for procurement instead of meeting procurement plans to inventory needs. This management model of production and processing according to the actual needs of users enables the company to improve its own production and service capabilities, and can minimize inventory backlog and improve inventory turnover efficiency.

In terms of growth capacity, Xiaomi has maintained its revenue growth rate above 10% since 2017, indicating that the enterprise is in a better growth stage, and in the face of future business expansion or business scope increase, it needs to pay attention to its profitability and development conditions, and focus on product updates and R&D to make it conform to the dynamic changes of the market and consumers to avoid the enterprise facing the risk of decline.

4. Conclusions

This paper analyzes Xiaomi's cost structure and compares its financial indicators with Huawei, a leading company in the industry. From the above analysis, it is clear that the traditional cost management methods are gradually outdated and can no longer meet the needs of today's fast-growing enterprises, and the company's cost management should be raised to the strategic level, not only considering cost reduction, but also linked to the development strategy of the company. Xiaomi should adopt a multi-brand strategy, focus on its own R&D, solidify its dominance in the smart home sector, and base on a new retail channel that integrates online and offline. The differentiation strategy will enable Xiaomi to serve different user groups more effectively and further expand its user base. Integrating internal control-risk management-budgeting into cost control allows companies to realize their strengths and weaknesses, quickly develop appropriate and relevant measures to strengthen business management, achieve sustainable and long-term competitive advantages, and adapt to the rapidly changing industry competition and market environment.

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