

Financial Analysis of Snack Food Companies in Urgent Need of Transformation

Xiaofan Xie^{1,a,*}

¹*Guangdong Industrial University, No. 729, Dongfeng East Road,
Guangzhou City, Guangdong Province, China*

a. xiaofansofia@foxmail.com

**corresponding author*

Abstract: “New retail” is shining brightly in the era of digital economy. The new retail format of digital, networked, and intelligent development has enabled the snack food industry in my country to develop rapidly. As a leading company in the e-commerce snack food industry, Three Squirrels Co., Ltd. took the lead in carrying out offline channel reforms. However, this was followed by a corresponding fall in stock prices. Based on the financial data of Three Squirrels from 2019 to 2021, this article analyzes the company’s debt repayment, operations, profitability, and development capabilities to examine the advantages and disadvantages of this representative company before and after its transformation. Corresponding development suggestions are given based on the analysis results, in order to provide a reference for snack food enterprises that are in urgent need of transformation.

Keywords: financial analysis, financial statements, DuPont analysis, three squirrels

1. Introduction

With the development of society and the improvement of people’s living standards, there is a gradual increase in people’s consumption demand for organic and healthy food. The field of organic snack food, mainly composed of nuts, has received extensive attention. As an important pillar of the leisure food industry in my country, organic snack food plays a crucial role in improving the national happiness index and satisfying people’s desire for a better life.

In recent years, the “new retail” concept in the era of the digital economy has shone brilliantly. The digitization, networking, and intelligent development of the new retail format have led to rapid growth in my country’s snack food industry, with sales increasing year by year. However, the leisure food industry still faces complex challenges, such as insufficient innovation capacity and frequent food quality problems. There is still a significant gap compared to developed leisure food enterprises in Europe and America [1].

As one of the leading companies in the snack food industry, Three Squirrels Co., Ltd. has been praised by media outlets such as the “Wall Street Journal,” “Reuters,” and “Bloomberg” as “a strong competitor for American companies” and “a model for the rise of Chinese brands.” However, since Three Squirrels made efforts to transform its offline channels, its stock prices have plummeted since August 2020. Stock prices represent investors’ expectations of a company’s future performance, and performance is the internal driving force that affects stock price changes [2].

Therefore, this article focuses on Three Squirrels, a representative enterprise in the snack food industry, based on the current industry development status. It takes a financial analysis perspective and utilizes financial statement data from 2019 to 2021 to identify the reasons for the lower market expectations for its future. Furthermore, it provides relevant suggestions for overcoming current difficulties and adjusting future development directions, with the aim to serve as a reference for the transformation and development of the snack food industry.

2. Strategic Analysis

Three Squirrels Co., Ltd. was established in 2012 and was listed on the Shenzhen Stock Exchange in 2019. It has received recognition from Xinhua News Agency and People's Daily as a "business card of reform" and "the next leader in domestic products" in the new era. It is considered the top national snack stock. Three Squirrels originates from e-commerce and is a multi-brand company that operates through mainstream channels, with a focus on nuts and a commitment to health and digitalization. Its main brand, "Three Squirrels," focuses on nuts, while its sub-brand, "Xiaolulan," focuses on baby snacks. As of the end of 2021, the number of fans on Taobao and Jingdong stores reached 66.32 million, ranking first in the fan list of the snack food industry. The company has consistently ranked first in the snack category through mainstream domestic e-commerce channels for many years and has also secured top rankings in Double Eleven sales for consecutive years.

2.1. Introduction to the company's business model

Three Squirrels has adopted the "1+N multi-brand" model, implementing a strategy that focuses on nuts and selected snacks. The brand has successfully transformed into an IP through the use of cartoons, live broadcasts, short videos, and derivative peripherals, enabling global precision marketing. At the research and development end, Three Squirrels has its own internal food research institutes while also collaborating with platform-based partners for research and development. The procurement and production process involves working with hundreds of qualified suppliers and alliance factories. The products undergo quality inspections to ensure compliance with the full-link food quality and safety management system. They are then stored or transported to third-party warehouse distribution partners. Three Squirrels sells its products to consumers through online B2C e-commerce flagship stores, B2B e-commerce platforms, and offline stores. They analyze relevant big data from after-sales consumer evaluations to gain insights into user needs, which are then used in the initial research and development stages for product development, resulting in a continuous improvement in operating quality.

2.2. Macro-environment analysis—PEST analysis

Analysis of the political environment: In January 2022, the State Council issued the "Opinions on Promoting Rural Revitalization in 2022," which outlined the requirements for the development of agricultural product processing in various regions. China is rich in nut varieties and is an important source of forest fruits. The healthy development of the nut industry not only helps increase farmers' income and promotes the sustainable use of land resources, but also improves the national ecological environment. It also contributes to agricultural production, value transformation, targeted poverty alleviation, and rural revitalization.

Analysis of the economic environment: According to Frost&Sullivan data, it is estimated that the retail sales of the leisure snack industry in China will reach 1,101.4 billion yuan in 2025. The compound annual growth rate from 2020 to 2025 is projected to be approximately 7.3%, indicating steady growth. Roasted nuts, as an emerging category in the snack food market, align with the long-

term market trend of health consciousness. This category is still in a stage of rapid development, with an expected compound annual growth rate of 9.0% from 2020 to 2025.

Analysis of the social environment: The consumption patterns of people have gradually shifted from offline to online due to the impact of the COVID-19 pandemic. New commercial ecosystems, such as e-commerce, social media, live streaming, and short videos, are rapidly developing and becoming driving forces for the food and beverage industry [3]. Additionally, there is an increasing demand for diet quality, with a focus on health and sustainability. This trend presents new growth opportunities for the mixed nut industry.

Analysis of technical links. In the digital age, new-generation digital information technologies such as big data, artificial intelligence, mobile Internet, cloud computing, and the Internet of Things are widely used in the retail industry [4], enabling the retail industry to enhance transfer value more efficiently and provide better service to consumers. customer service.

2.3. Micro-environment analysis—SWOT analysis

By conducting an analysis of the internal strengths and weaknesses, as well as the external opportunities and threats, of Three Squirrels, a SWOT analysis model is generated.

Table 1: THREE SQUIRRELS SWOT Analysis

	Advantages	disadvantages
internal	1. A leader in the field of snack foods with significant brand effect	1. The “trend of store closings” leads to a waste of funds and resources
	2. Preliminary establishment of a new physical retail system of "one main body, two wings and three sides"	2. Upstream and downstream supply chains are not running smoothly, and quality control is difficult
	3. "Alliance Factory" makes the quality control and management system more perfect	3. High cost leads to low profit margin
	Opportunities	Threats
external	1. Digitalization empowers the retail industry	1. The online bonus period has passed, and the cost of acquiring customers for traditional e-commerce has risen
	2. The epidemic is forcing the development of the online market	2. The number of new snack food companies has increased significantly
	3. Increased market demand for green and healthy snack foods	3. Increased attention and low-price strategies for OEMs

3. Analysis of financial indicators

3.1. Balance Sheet Analysis

Table 2: Structure of assets and liabilities of the three squirrels

Indicator name	2019	2020	2021
Assets (100 million yuan)	48.42	44.01	50.33
Current assets (percentage of structure)	84%	78%	78%
Non-current assets (percentage of structure)	16%	22%	22%
Current liabilities (structure %)	55%	46%	48%
Non-current liabilities (structure percentage)	6%	7%	7%
Owner's Equity (Structural Percent)	39%	48%	45%

From an asset structure perspective, the ratio of current assets to total assets for Three Squirrels has remained around 80% from 2019 to 2021. This indicates that the company follows an asset-light approach, with current assets mainly comprising inventory and monetary funds. This asset-light characteristic is primarily attributed to Three Squirrels' OEM model, which eliminates the need for substantial investments in production equipment.

However, in 2021, the proportion of owners' equity to liabilities stands at 44.86%, significantly lower than the industry average of 66.17%. This is primarily due to Three Squirrels' high current liabilities, which result from the capital-intensive nature of its OEM foundry development model. The company's substantial inventory purchases have also created greater short-term debt repayment pressure. A similar situation can be observed in Bestore, a competitor that adopts a comparable development model to Three Squirrels.

3.2. Solvency analysis

3.2.1. Short-term solvency

Analyze the short-term solvency of Three Squirrels based on working capital, current ratio, quick ratio, and cash flow ratio (refer to Table 3).

Table 3: Three squirrels short-term solvency analysis table

Indicator name	2019	2020	2021	Industry average (2021)
Working capital (100 million yuan)	14.25	14.00	14.61	10.47
current ratio	1.54	1.69	1.60	2.05
quick ratio	0.60	1.01	0.91	1.56
cash flow ratio	-0.12	0.59	0.24	0.45

In terms of working capital and current ratio, Three Squirrels demonstrates positive working capital, which is higher than the industry average. This indicates the company's ability to repay short-term debts. The current ratio, which consistently falls between 1 and 2, reflects a moderate level of current asset coverage for current liabilities. However, a horizontal comparison reveals that Three Squirrels surpasses the industry average for accounts payable due to its status as an industry leader. This higher current liability results in Three Squirrels consistently maintaining a lower current ratio than the industry average. On one hand, this allows Three Squirrels to utilize unpaid funds to generate value over time. On the other hand, it poses liquidity risks, potentially requiring the company to seek short-term borrowing or sell long-term assets for repayment.

Regarding the quick ratio, Three Squirrels exhibits a significantly lower value compared to the industry average, indicating a higher backlog of inventory. This discrepancy from the current ratio suggests that Three Squirrels experiences substantial inventory buildup. This is partly due to the company's higher year-end sales growth compared to the industry, requiring increased inventory to meet peak demand during the New Year season—an inventory turnover that is expected to be quick. Additionally, Three Squirrels' adoption of an "OEM" model necessitates a lengthier production cycle and multiple layers of screening for product quality, contributing to periodic inventory increases.

Concerning the cash flow ratio, a horizontal comparison shows that Three Squirrels generally falls below the industry average. However, vertical comparison reveals a significant upward trend in the cash flow ratio from 2019 to 2020. This is primarily attributable to a year-on-year decrease in expenses, resulting in increased net cash flow from operating activities. However, due to a rise in short-term borrowings, the cash flow ratio experiences a steep decline from 2020 to 2021. Notably, Three Squirrels faces significant cash flow issues in 2021. One possible reason is the company's use

of monetary funds at the beginning of the year to purchase a large number of negotiable certificates of deposit, leading to reduced capital liquidity. Additionally, accounts payable reaching their due dates forced the company to resort to short-term borrowings for timely repayment.

3.2.2. Long-term solvency

Analyze the long-term solvency of Three Squirrels by considering the asset-liability ratio, equity ratio, and cash flow-to-debt ratio (refer to Table 4).

Table 4: Three Squirrels' long-term solvency analysis table

Indicator name	2019	2020	2021	Industry average (2021)
Assets and liabilities	60.85%	52.37%	55.13%	31.42%
Equity ratio	155%	110%	123%	45%
Cash Flow Debt Ratio	-0.11	0.52	0.21	0.16

In terms of the asset-liability ratio, the asset-liability ratio of Three Squirrels remained relatively stable within a reasonable range from 2019 to 2021, indicating a healthy production and operational status. However, a longitudinal comparison reveals that Three Squirrels' asset-liability ratio is higher than the industry average, suggesting weaker long-term solvency and higher financial risks. Further analysis indicates that the increase in the debt ratio is due to higher accounts payable, which hasn't resulted in any negative impact on the company's reputation or market position. Therefore, the advantages of a higher asset-liability ratio for Three Squirrels outweigh the disadvantages by improving cash utilization efficiency and delivering greater benefits to investors.

Regarding the equity ratio, in 2019, Three Squirrels had a property rights ratio of 155%, indicating weak long-term solvency. However, there was a significant downward trend in 2020-2021, indicating lower risk at this stage and a development towards a more stable financial structure. Through horizontal comparison, it can be observed that Three Squirrels' property rights ratios for the period from 2019 to 2021 were significantly higher than the industry average. This suggests a relatively aggressive financial structure, with a lower degree of protection for creditors' invested capital by shareholders' rights.

In terms of the cash flow-to-debt ratio, Three Squirrels experienced a sharp increase from 2019 to 2020, indicating improved ability to use operating cash flow for debt repayment. From 2020 to 2021, the cash flow-to-debt ratio slightly declined but remained higher than the industry average. This indicates that the net cash flow generated by Three Squirrels' operating activities is sufficient to ensure timely repayment of due debts and demonstrates strong long-term solvency.

3.3. Operational Capacity Analysis

Analyze the operational capabilities of Three Squirrels by examining the accounts receivable turnover ratio, inventory turnover ratio, and fixed asset turnover ratio (refer to Table 5).

Table 5: Three Squirrels Business Capability Analysis Table

Indicator name	2019	2020	2021	Industry average (2021)
Accounts receivable turnover ratio	36.08	40.94	47.55	21.07
Inventory turnover	3.95	3.85	4.51	5.32
Fixed asset turnover rate	31.26	21.38	18.39	5.13

In terms of the accounts receivable turnover ratio, Three Squirrels' ratio is significantly higher than the industry average, indicating efficient management of accounts receivable. The main reason for this is that, as an online retail company, Three Squirrels' accounts receivable predominantly comes from offline channels, which account for 32.87% of sales. Therefore, a high accounts receivable turnover rate does have a positive impact on capital efficiency, although not very pronounced. Furthermore, a vertical comparison reveals that the accounts receivable turnover rate has shown a consistent upward trend from 2019 to 2021, indicating the continuous improvement of Three Squirrels' operational capabilities

Regarding the inventory turnover ratio, Three Squirrels experienced an overall increase from 2019 to 2021. However, it still remains lower than the industry average, signifying issues in inventory management and backlog. A detailed analysis demonstrates that the company's inventory decreased by 43.98% in 2020, primarily due to an increase in raw materials and turnover materials, along with a significant decrease in inventory and shipped goods. This reflects a phase of inventory digestion. It is worth noting that Three Squirrels faced a food quality crisis from 2020 to 2021. It can be predicted that prolonged inventory digestion will negatively impact product quality and the brand image of Three Squirrels.

Regarding the fixed asset turnover ratio, Three Squirrels witnessed a decrease of over 41% from 2019 to 2021. In comparison, its main competitors, Bestore and Laiyifen, did not experience a decrease of more than 15%. This illustrates that the drop in the fixed asset turnover rate was primarily caused by internal control issues within Three Squirrels' management, such as low efficiency in utilizing fixed assets. A careful analysis reveals that Three Squirrels started expanding its offline channels on a large scale from 2020. However, due to external competition and changes in its positioning, it proactively closed a significant number of stores that did not align with long-term development. This resulted in a short-term decline in the efficiency of fixed asset utilization. Nevertheless, in the long run, this move will be beneficial for the company's development.

3.4. Profitability analysis

Analyze the profitability of Three Squirrels by examining the net profit margin on total assets, gross profit margin on sales, net profit margin on sales, and the proportion of each income to total profit (refer to Table 6).

Table 6: Three Squirrels Profitability Analysis Table

Indicator name	2019	2020	2021
Net interest rate on total assets	6.02%	6.52%	8.72%
gross sales profit margin	27.8%	23.9%	29.38%
Sales margin	2.35%	3.08%	4.21%
Net income from operating activities/total profit	87.06%	82.75%	73.73%
Net income from value change/total profit	3.40%	5.82%	10.57%
Net non-operating income and expenses/total profit	2.44%	2.09%	13.84%

In terms of the net interest rate on total assets, from a horizontal perspective, Three Squirrels' net interest rate on total assets is much higher than Liangpin Store's 5.88% and Laiyifen's 1.02%, its main competitors in the same industry. From a vertical perspective, Three Squirrels has been experiencing an annual acceleration in the net interest rate on total assets, indicating the company's ongoing optimization of operating efficiency.

Comparing the gross sales profit margin and net sales profit margin, it was found that while the gross profit margin is as high as 29.38%, the net sales profit margin is only 4.21%. One possible

reason for this is that Three Squirrels' sales expenses account for 21.21% of total operating income, which reduces the net sales profit margin. Further research revealed that due to the OEM model, Three Squirrels heavily relies on traffic monetization and needs to invest heavily in brand promotion to maintain brand awareness. Additionally, the decline of the online bonus period has led to a year-on-year increase in advertising expenses for Three Squirrels. However, this increase in expenses has not been matched by a corresponding increase in operating income. This indicates that Three Squirrels is facing the challenge of increasing online customer acquisition costs while experiencing difficulty in revenue growth.

In terms of income quality, the proportion of net income from Three Squirrels' operating activities to total profits has shown a significant downward trend from 2019 to 2021, while the proportion of net income from value changes and net non-operating income and expenses to total profits has increased by more than 200% annually. This suggests that the quality of Three Squirrels' earnings has accelerated over time. An analysis revealed that the company's operating income and operating costs are relatively stable, but the profits from external investments have significantly contributed to non-operating income, creating an imbalance in Three Squirrels' income structure.

3.5. Development Capability Analysis

Analyze the development capabilities of Three Squirrels by examining the growth rates of operating income, net profit, and net assets (refer to Table 6).

Table 6: Analysis table of development ability of three squirrels

Indicator name/year	2019	2020	2021
Operating Income Growth Rate	45.3%	-3.72%	-0.24%
net profit growth rate	-21.43%	26.21%	36.44%
Growth rate of net assets	70.41%	10.61%	7.73%

In terms of the operating income growth rate, Three Squirrels has experienced a significant decline from 2019 to 2021. This could be attributed to the stagnation or recession of the traditional e-commerce market since 2020, coupled with fierce competition among new e-commerce channels. As a result, Three Squirrels' online market development capabilities are approaching saturation.

Regarding the net profit growth rate, Three Squirrels has shown positive growth from 2019 to 2021, but the absolute value of net profit in 2021 was only 411 million yuan. Closer analysis reveals that the growth in net profit is mainly driven by a sharp increase in non-operating income in 2021, which is unsustainable due to government cash incentives. Therefore, it cannot be concluded that Three Squirrels has strong development capabilities. Considering the analysis of the operating income growth rate mentioned above, it is apparent that Three Squirrels still possesses strong market competitiveness. However, the sales channels based on e-commerce platforms have been unable to generate substantial development.

Concerning the net asset growth rate, Three Squirrels experienced a downward trend from 2019 to 2021. Nonetheless, the annual growth rate remained positive, indicating an overall increase in net assets and robust capital accumulation capabilities. Thus, Three Squirrels still holds potential for development.

4. DuPont Analysis

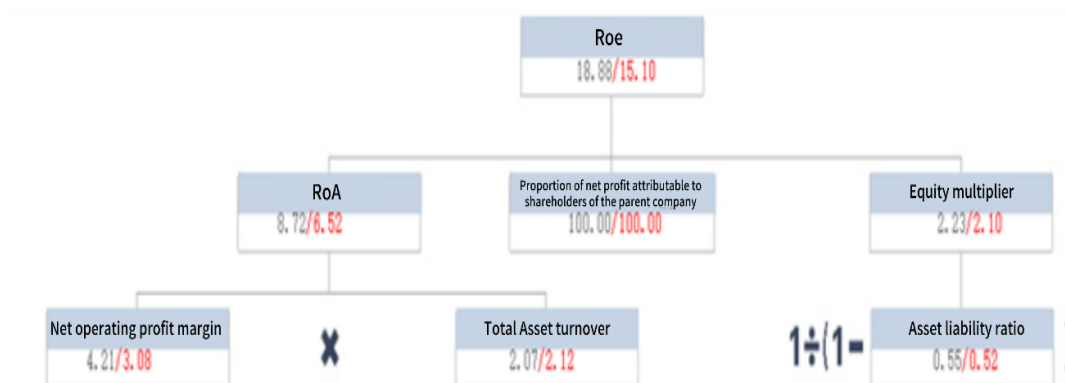


Figure 1: DuPont analysis chart (data for 2021 on the left and data in 2020 on the right)

Compared to 2020, the company's return on net assets is expected to increase in 2021, indicating an overall improvement in performance.

First, the significant decrease in operating costs was offset by a significant increase in sales expenses, resulting in minimal change in total costs. The slight decline in operating income for Three Squirrels can be attributed to the intensifying competition in the industry, indicating challenges in customer acquisition and soaring online customer acquisition costs. Consequently, the company has encountered a development bottleneck, although total revenue remained stable due to the increase in non-operating income and investment income offsetting the decline in operating income.

Second, the return on total assets depends on the total asset turnover and operating net profit. The total asset turnover rate reflects the speed at which total assets are being utilized. In 2021, the total asset turnover rate decreased by 0.05 year-on-year to 2.07. Analysis of the balance sheet supports the notion that excessive inventory affects the turnover rate of total assets. Considering the increase in predetermined amounts at the end of the year, the high inventory levels align with the actual situation.

Third, the equity multiplier can indicate the company's financial policy. While increasing financial leverage can enhance the return on equity, it also raises financial risks when the asset-liability ratio remains relatively stable. The rise in the equity multiplier in 2021 can be primarily attributed to the increase in undistributed profits. It is important to note that the change in the equity multiplier has not adversely impacted the company's financial risk [5].

Overall, the DuPont analysis reveals insights into the company's performance and highlights areas that require attention.

5. Summary

In recent years, traditional e-commerce platforms have reached a stage of traffic saturation. The COVID-19 epidemic has accelerated the development of live streaming e-commerce, while new e-commerce channels are experiencing vigorous growth. The offline market accounts for a significant 82% share of the snack food market. In this context, it is urgent for Three Squirrels to optimize its channel model, which currently focuses mainly on online channels. According to Three Squirrels' 2021 annual report, the company achieved a total operating income of 9.77 billion yuan throughout the year, a slight decrease of 0.24% compared to the previous year. However, the net profit attributable to shareholders of listed companies increased by an impressive 36.43% year-on-year, indicating a healthy trend of higher profit growth compared to revenue. This trend is not unique to Three Squirrels; listed companies in the domestic snack food industry with e-commerce platforms as their primary channels have also experienced sluggish operating incomes. This is due to the saturation

of e-commerce platforms, which are now experiencing a decentralization trend. Offline channels still dominate, accounting for 82% of the snack food market. According to the 2021 annual report, Three Squirrels' offline channel operating revenue reached 3.176 billion yuan, accounting for 33.69% of total revenue. Within the offline channels, revenues from food stores experienced an 8.37% year-on-year decline, while alliance points and new distribution revenues both increased by over 38% year-on-year. Although the overall development of Three Squirrels' offline channels is positive, its instability is the primary reason for investor optimism about the company's future development. Under these circumstances, the successful development of offline channels will be the main focus for the future development of Three Squirrels.

A careful analysis of Three Squirrels' financials for 2021 reveals that the earnings per share will be 0.7 yuan, the net assets per share will be 5.35 yuan, the operating income will reach an impressive 9.324 billion yuan, and the return on net assets will be 13.18%. These figures position the company as a leader in the industry. With the industry's development and the saturation of the online market, Three Squirrels can utilize the online funds to assist in developing its offline channels, expanding the overall market reach, and achieving a balanced development of both online and offline channels, thus tapping into the potential opportunities offered by both channels. The company will continue its focus on the nut strategy, expanding efforts in promoting the special production line project for core products, and striving for steady product quality improvement through large-scale promotion and professional upgrading. It will also aim for comprehensive coverage of offline channels, prioritize the development of the Xiaolu Lanlan sub-brand, strengthen private domain operations, and expand customer acquisition channels. Additionally, Three Squirrels' return on total assets in recent years has been 11.82%, surpassing the industry average and indicating the company's strong profitability compared to its assets.

Despite the overall transformation of industry channels, Three Squirrels maintains its status as an industry leader. In this turbulent environment, the company has taken decisive steps to explore offline channels and has achieved outstanding results in 2021, highlighting its stable industry position. It is recommended to consider short-term investments, but a long-term perspective is needed to assess whether Three Squirrels can truly achieve omni-channel development both online and offline.

References

- [1] Du Ruiyun, Jiang Kan. *New Retail: Connotation, Development Motivation and Key Issues* [J]. *Price Theory and Practice*, 2017 (02): 139-141. DOI: 10.19851/j.cnki.cn11-1010/f.2017.02.038.
- [2] Dong Run. *Research on the Development Trend of New Retail* [J]. *Economic Research Guide*, 2022(12):51-53.
- [3] Chen Wenling. *Internet and New Real Economy* [J]. *China Circulation Economy*, 2016, 30(04): 5-10. DOI: 10.14089/j.cnki.cn11-3664/f.2016.04.001.
- [4] Wang Xiaoping, Liu Jia, Wei Weiwei. *Research on the micro-mechanism of the growth of the new physical retail industry in the digital economy era - based on the double case analysis of "Best Store" and Three Squirrels* [J]. *Price Theory and Practice*, 2022(04) :57-61.DOI:10.19851/j.cnki.cn11-1010/f.2022.04.098.
- [5] Guan Shuhui. *Positioning and upgrading path of internal audit function of state-owned enterprises* [J]. *Contemporary Accounting*, 2021(09):91-92.