



# Analysis of Real Estate Enterprise Profitability Index Data Model Under Computer Accounting Processing

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**Abstract.** Accounting analysis is the most complicated and error-prone place in the traditional accounting processing, the emergence and development of financial data accounting and analysis meet the needs of the development of social production. Before, the enterprise production scale is very small, the occurrence of economic business is not much, the need for accounting analysis of the data is very simple [1]. However, With the continuous improvement of productivity level in our country, the scale of the enterprise is more and more big, the economic business growing, the content of the increasingly complex economic business relations, in order to the writing of confused economic business accounting and supervision effectively, you need to put a large amount of scattered the nature of the different economic business data for scientific classification and arrangement, It can not only clearly reflect the economic nature of the business of the enterprise, but also reflect the changing trend of various financial indicators of the enterprise. Therefore, the emergence of computer data processing technology is immediately applied in the field of finance, becoming one of the fields in which enterprise management first applies computers. Computer data processing technology has become the most advanced accounting processing tool.

**Keywords:** Computer Information Technology · Accounting Model · The Data Model

## 1 Introduction

Accounting analysis is the most complicated and error-prone place in the traditional accounting processing, the emergence and development of financial data accounting and analysis meet the needs of the development of social production. Before, the enterprise production scale is very small, the occurrence of economic business is not much, the need for accounting analysis of the data is very simple. However, With the continuous improvement of productivity level in our country, the scale of the enterprise is more and more big the economic business growing, the content of the increasingly complex economic business relations, in order to the writing of confused economic business accounting and supervision effectively, you need to put a large amount of scattered the nature of the different economic business data for scientific classification

and arrangement, It can not only clearly reflect the economic nature of the business of the enterprise, but also reflect the changing trend of various financial indicators of the enterprise [2]. Therefore, the emergence of computer data processing technology is immediately applied in the field of finance, becoming one of the fields in which enterprise management first applies computers. Computer data processing technology has become the most advanced accounting processing tool.

The real estate enterprise is the pillar industry that promotes the national economic growth of our country. Its development is more and more important in people's life because of the large investment, the long investment cycle, the high risk that the enterprise deals with and the high profit. However, computerized accounting is widely used in the real estate enterprises in our country, makes the real estate enterprises completed the computer instead of manual, the human brain to analyze accounting information, forecasting, decision-making process, constantly improve the level of the real estate enterprise financial management, enterprise's economic benefit, realize the modernization and informatization development of accounting work [3]. Facing the new situation and new environment, China's real estate enterprises should constantly innovate and keep pace with The Times, give full play to the huge role of accounting computerization in real estate enterprises, and lay a solid foundation for the development of real estate enterprises.

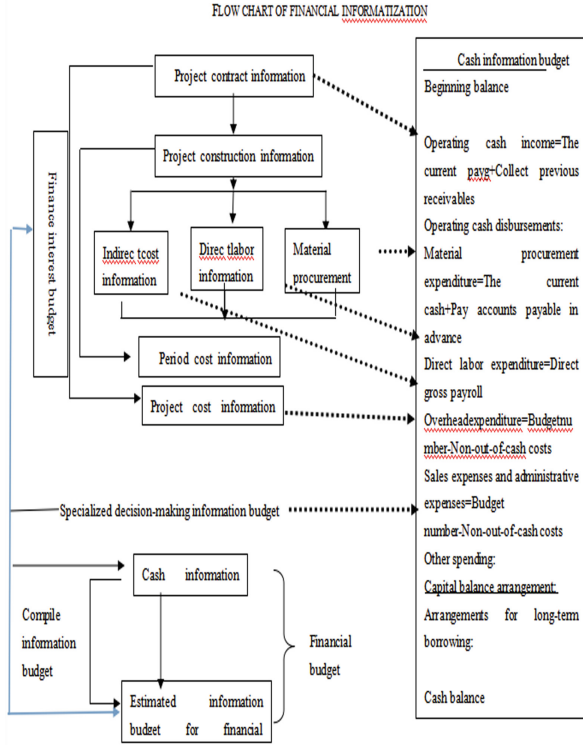
## **2 Real Estate Enterprise Profitability Index Data Model Formula Under Omputer Accounting Processing**

There are several ways to evaluate the profitability of real estate enterprises. At present, there are four generally applicable and authoritative financial evaluation models for profitability under computer accounting treatment (as shown in Table 1):

The evaluation index of profitability is very concerned and valued by enterprise management, creditors and investors. It is the ability of enterprises to obtain profits and realize capital appreciation through business activities. Therefore, it is particularly important for enterprises, especially in the development of computer accounting processing technology today, the analysis of enterprise profitability is more complex.

## **3 Ange Trend Analysis of Real Estate Enterprise Profitability Data Model Under Computer Accounting Processing**

This paper mainly takes JK Real Estate Group Co., LTD., as an example, calculates four indicators to evaluate the company's profitability based on the relevant important data in the company's financial statements from 2018 to 2020, so as to analyze the trend of the enterprise's profitability indicators and their impact on the enterprise under the background of computer accounting processing technology. JK Real Estate Group Co., Ltd. was listed on November 28, 1996, mainly engaged in real estate development. After 20 years of development, it has become one of the "Top 500 Chinese enterprises".



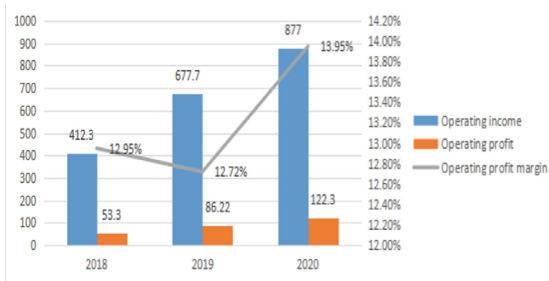
**Fig. 1.** Accounting processing system model based on financial data accounting.

**Table 1.** Calculation formula table of main financial evaluation index of real estate enterprise profitability.

Calculation formula of financial evaluation index	The significance of financial evaluation index
1. Operating profit margin = (Operating profit/ Operating income) × 100%	This index mainly reflects how much operating profit is finally obtained for every 1 yuan of operating revenue.
2. Cost profit margin = (Profit total/ Total cost) × 100%	This index mainly reflects how much profit is obtained for every 1 yuan of cost.
3. Guaranteed earnings cash = Net cash flow from operations/ Net profit	This index mainly reflects the guarantee degree of cash income in net profit.
4. Return on total assets = (Total earnings before interest and tax/ Average total assets) × 100%	This index mainly reflects the net profit earned per 1 yuan of assets.

**Table 2.** JK Real Estate Group Co., LTD. 2018–2020 operating profit margin calculation table. Unit: 100 million yuan

project	2018	2019	2020
Operating income	412.3	677.7	877
Operating profit	53.3	86.22	122.3
Operating profit margin	12.95%	12.72%	13.95%



**Fig. 2.** Trend chart of JK Real Estate Group Co., LTD.’s operating profit margin model from 2018 to 2020.

### 3.1 Trend Analysis of Operating Profit Margin Data Model Under Computer Accounting Processing

The operating profit rate mainly reflects the profitability of the daily business income of the enterprise. The higher the operating profit rate is, the stronger the profitability of the daily business income of the enterprise is. (Table 2 and Fig. 1 are the operating profit margin data sheet and change analysis chart of JK Company respectively).

According to the analysis results of computer accounting processing technology (Table 2), the operating income of real estate Group Co., Ltd. rose from 41.23 billion yuan in 2018 to 87.7 billion Yuan in 2020. The operating income increased by 46.47 billion yuan during the two-year period, with an average annual increase of 23 billion yuan. Operating profit also rose to 12.23 billion yuan in 2020 from 5.33 billion yuan in 2018, with operating revenue increasing by 6.88 billion yuan during the two-year period, an average annual increase of 3.4 billion yuan. This shows that JK Real Estate Group Co., Ltd. has achieved good overall business results in the past three years. With the rapid development of financial information technology, it can fully evaluate the situation by analyzing the operating environment and competition situation and develop a good momentum..

For any enterprise, if it wants to develop and grow, it must have enough capital guarantee, JK Real estate Group Co., Ltd. is no exception. The main guarantee for JK Real Estate Group Co., Ltd. to obtain benefits is its operating income. Based on the analysis of computer accounting processing technology, it can be seen from Table 2 and Fig. 1 that the operating profit margin of JK Company in 2018 and 2020 is 12.95% and 13.95% respectively, both of which are in an upward trend. However, the operating profit margin

**Table 3.** JK Real Estate Group Co., LTD. 2018–2020 cost profit margin calculation table. Unit: 100 million yuan

project	2018	2019	2020
Profit total	52.1	83.35	121.8
Total cost	358.1	585.1	774.3
Cost profit margin	14.55%	14.25%	15.73%

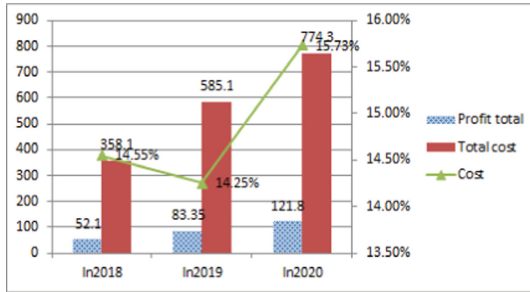
in 2019 was 12.72%, a slight decrease of 0.23% compared with 2018, which indicates that the overall operating cost of JK Real Estate Group Co., Ltd. in 2019 fluctuated. Through the analysis of the specific data in the 2019 financial statements combined with the development trend of the company in that year, In 2019, JK Real Estate Group Co., LTD.'s profit increased but profit margin decreased because the company invested and won many pieces of land in the later stage of development that year, which increased the financing cost of the company and caused small fluctuations in operating profit margin. But on the whole, it shows that the company's operating income has objective profitability.

### 3.2 Cost Profit Rate Data Model Trend Analysis Under Computer Accounting

The profit rate of cost and expense mainly reflects the cost that the enterprise pays for profit. The higher the profit rate of cost and expense, the lower the cost that the enterprise pays for profit, the higher the profitability of the enterprise and the better the cost and expense control of the enterprise. (Table 3 and Fig. 2 are the cost and profit margin data sheet and change analysis chart of JK company respectively).

As shown in Table 3, the total profit of JK Real Estate Group Co., Ltd. rose from 5.21 billion yuan in 2018 to 12.18 billion yuan in 2020, and the total profit increased by 6.97 billion yuan during the two-year period, with an average annual increase of 3.5 billion yuan. According to Table 2, the operating profit of the enterprise increases by 3.4 billion yuan on average every year, which fully shows that the total profit of the enterprise mainly comes from daily operating profit. Other enterprises with small non-operating income and expenditure of JK Company operate normally. In addition, the total cost and expense of the enterprise also increased from 35.81 billion yuan in 2018 to 177.43 billion yuan in 2020, and the total cost and expense increased by 41.62 billion yuan during the two years, which shows that JK Real Estate Group Co., Ltd. Has been increasing investment in the past three years, and the increased investment is only the total cost and expense of the enterprise.

For enterprises, in order to maximize profits in a certain income, cost control must be paid attention to, JK Real Estate Group Co., Ltd. is no exception. According to the analysis of computer accounting processing technology, it can be seen from Table 3 and Fig. 3 that the profit margin of JK company's cost and expense in 2018 and 2020 is 14.55% and 15.73% respectively, both of which are in an upward trend. However, the profit margin of JK company's cost and expense in 2019 is 14.25%, a slight decrease of 0.3% compared with 2018. Suggesting that JK real estate group co., LTD. In 2019 the overall cost of the fluctuations, based on the company's financial statements related data



**Fig. 3.** cost profit margin index model of JK Real Estate Group Co., LTD from 2018 to 2020.

**Table 4.** Calculation table of surplus cash guarantee multiple of JK Real Estate Group Co., LTD. 2018–2020. Unit: 100 million yuan

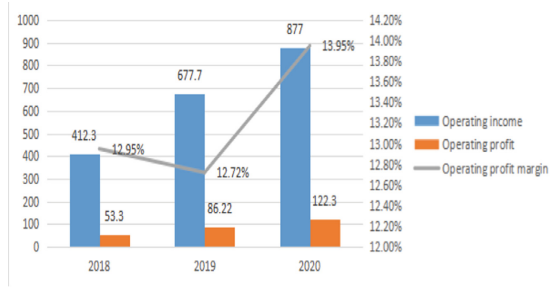
project	2018	2019	2020
Net cash flow from operations	13.29	22.39	145.1
Net profit	40.21	63.57	94.04
Earnings cash protection multiple	0.33	0.35	1.54

in 2019 when the accounting treatment is the company’s business trends using computer technology were analyzed, and the company investment in 2019 had more land that the company’s financing costs increase, Thus make cost profit margin small fluctuation. But on the whole, it shows that the company has a good cost control and considerable profitability.

### 3.3 Trend Analysis of Surplus Cash Guarantee Multiple Model for Computerized Accounting Processing

The guaranteed earnings cash multiple mainly reflects the cash guarantee degree of the net profit obtained by an enterprise [4]. The larger the index, the better the cash guarantee degree. (Table 4 and Fig. 4: Data sheet and change analysis chart of THE earnings cash protection ratio of JK company respectively).

As shown in Table 4, the net operating cash flow of JK Real Estate Group Co., Ltd. Rose from 1.29 billion yuan in 2018 to 14.51 billion yuan in 2020. The net operating cash flow increased by 13.181 billion yuan during the two-year period, and the net cash flow increased by 6.5 billion yuan annually on average. The net operating cash flow of enterprises is calculated according to the cash outflow and inflow generated by business activities, so it can be seen that THE cash flow of JK Company shows a good development trend. In addition, the net profit of JK Company also rises from 4.021 billion yuan in 2018 to 9.404 billion yuan in 2020, and the net profit increases by 5.383 billion yuan during



**Fig. 4.** Change chart of surplus cash guarantee multiple index of JK Real Estate Group Co., LTD from 2018 to 2020.

**Table 5.** Calculation table of return on total assets of JK Real Estate Group Co., LTD from 2018 to 2020. Unit: 100 million yuan

project	2018	2019	2020
Total earnings before interest and tax	57.53	93.01	131.1
Average total assets	1940.5	2761.5	3514
Return on total assets	2.96%	3.37%	3.73%

the two years. However, the cash guarantee ratio was lower than 1 for two consecutive years in 2018 and 2019, indicating that the cash guarantee in net profit was weak.

According to the analysis of computer accounting processing technology, it can be seen from Table 4 and Fig. 4 that the guarantee multiple of surplus cash of JK Company from 2018 to 2020 increases from 0.33 to 1.54, which has been in an upward trend for three consecutive years. However, the guarantee multiple of surplus cash in 2018 and 2019 is less than 1. Shows JK real estate group co., LTD. These two years acquired net cash security level is low, through to the company’s financial statements in recent two years of relevant data trend analysis combined with the company’s business activities, these two years JK real estate group co., LTD., are at the stage of investment development until 2020 surplus cash to cover greater than 1. But overall to illustrate the company’s cash security degree showed a positive trend.

### 3.4 Trend Analysis of Return Rate Model of Total Assets Under Computer Accounting Treatment

The rate of return on total assets mainly reflects the profitability of the enterprise’s total assets. The higher the index, the higher the utilization efficiency of assets and the better profitability. (Table 5: Data table and change analysis chart of earnings cash guarantee multiple of JK Company respectively).

The results of computer accounting processing technology analysis (Table 5) show that the total eBIT of JK Real Estate Group Co., Ltd. Rose from 5.753 billion yuan in

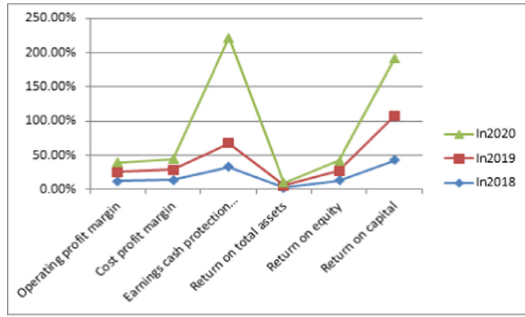


Fig. 5. JK Real Estate Group Co., LTD. 2018–2020 profitability indicator model chart.

2018 to 13.11 billion yuan in 2020, and the total eBIT increased by 7.357 billion yuan during the two-year period. The total eBIT is calculated by the total pre-tax profit of an enterprise plus the amount of interest expense. As shown in Table 3, the total profit in 2018 is 5.21 billion yuan, and the total profit in 2020 is 12.18 billion yuan, so it can be seen that the interest expense of JK company in 2018 is only about 500 million yuan, and the interest expense of the company in 2020 is 1 billion yuan. Therefore, it can be seen that JK Company obtained debt financing during these two years, so its interest expense increased. In addition, the average total assets of JK Company from 2018 to 2020 are also increasing year by year from 194.05 billion yuan in 2018 to 351.4 billion yuan in 2020. The calculation of the average total assets is mainly taken from the pairwise average between 2017 and 2020.

#### 4 Evaluation of Real Estate Enterprise Profitability Data Model Under Computer Accounting Processing

The development of computer accounting processing technology, there are many listed real estate companies today. In this paper, JK Real Estate Group Co., Ltd. is selected as the research object and the profitability of the enterprise is obtained through the analysis of the following indicators (Fig. 5).

From the line chart of the six indicators from 2018 to 2020, the two indicators of the company’s earnings cash guarantee multiple and return on capital show an obvious upward trend, and the other indicators also show a slight upward trend. Combined with the current environmental background of computer accounting processing technology, JK company’s information acquisition channels, information processing procedures and investment analysis are becoming more and more perfect, so the company’s overall profitability in the past three years has been on the rise.

#### 5 The Summary

Anyway, for the real estate listed companies, in the rapid development of the financial information technology today real estate enterprise management concept, management means, profit model and so on are all more or less by financial information technology



environment, the influence of different level in fact on the financial information technology under the drive of enterprise strategic management goal of change is the necessary way of enterprise development, Enterprises that can adapt to the development of financial information technology will win out, otherwise they will be eliminated by the big data environment. Therefore, we can also see that “big intelligence moving cloud” is an inevitable trend of social development. Regardless of the real estate enterprises need to adapt as soon as possible, but all walks of life need to be prepared to meet it.

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