

# Meituan's Profitability Analysis Based on DuPont Analysis

Xiaoqing Zhou

Guanghua Cambridge International School, Shanghai, China

cindy@designsdirect-china.com

**Abstract.** As a fast-growing emerging industry, the development prospects of the e-commerce industry have attracted much attention. The profitability of companies has always been a vital aspect of evaluating the prospects of enterprises, so how to scientifically and reasonably evaluate the profitability of enterprises has been discussed. This study is based on the DuPont analysis method to analyze the return on equity, sales net profit margin, total asset turnover rate, and equity multiplier of Meituan, a representative enterprise in the food and beverage delivery field. It is ultimately found that the main reasons for lowering Meituan's profitability are high sales costs, poor debt structure, and high dividend payout ratio. Corresponding optimization suggestions were proposed, which have reference significance for improving Meituan's profitability and enhancing the profitability of other e-commerce related industries.

**Keywords:** Profitability; DuPont Analysis; E-commerce Industry; Food-deliver Industry.

## 1. Introduction

In recent years, the e-commerce industry has boomed and competition in the industry has intensified. At this stage, profitability has become an important aspect of enterprise competition and prospect assessment, and how to scientifically evaluate enterprise profitability has also become a topic of common concern in academia and industry. Based on the development background of a life service e-commerce industry, the food delivery industry, this paper intends to draw on the DuPont analysis system to select Meituan to deeply analyze the current situation and sustainability of its profitability, to explore the reasons for the low profitability of China's e-commerce industry at this stage, and to put forward some suggestions for improvement, hope can help other this type of companies to develop.

## 2. Literature Review

### 2.1. Definition of Profitability

The concept of profitability was developed by Benjamin · Graham. Although he has not explicitly stated the concept of profitability, his investment philosophy and strategy contain a number of standards and rules related to it. Later, on his basis, the concept of profitability was clarified, that is: the ability of an enterprise to obtain profits, which is often manifested in the amount of income of the firm in a particular period of time and its level.

Indicators of profitability mainly include operating profit margin(PM), cost and expense profit margin, surplus cash guarantee ratio, return on total assets(ROA), return on equity(ROE) and return on capital(ROC).

### 2.2. Relevant Theory

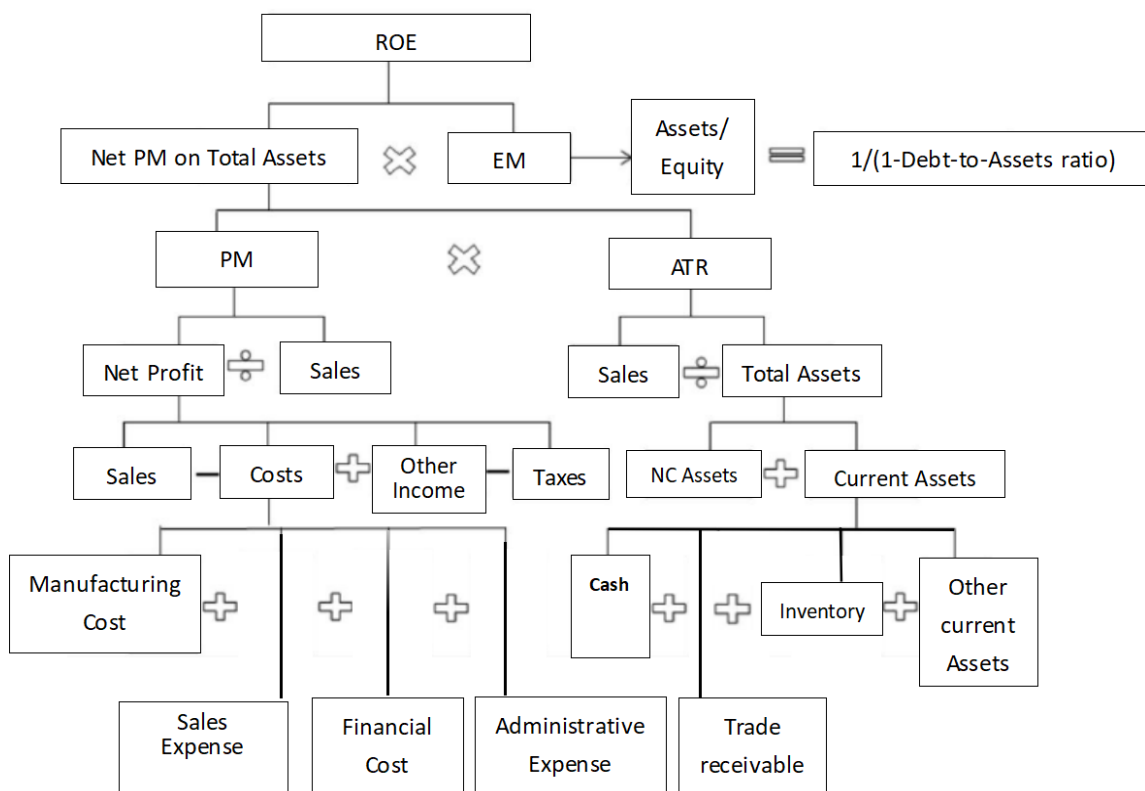
#### 2.2.1. DuPont Analysis

There are many ways to assess the profitability of a business like SWOT analysis and Porter's Five Forces Model. This article will focus on the DuPont analysis as it can provide a comprehensive perspective on evaluating a company's operating situation and unlike the SWOT analysis and Porter's



Five Forces Model, it is not influenced by subjective factors. The DuPont analysis method analyzing the financial health of a business uses comprehensively by finding the relationship between several major financial ratios. It was DuPont United States who initially used this method, hence the name DuPont analysis. The foundational idea is to break-down the ROE of a firm into the product of a number of financial ratios, which is helpful for in-depth analysis and comparison of the company's operating performance.

At the heart of DuPont Analysis is its four formulas that reveal the key drivers of profitability: PM Formula, the ratio of profit to sales used to assess the company's ability to produce sales revenue during a particular time period; Assets Turnover Ratio(ATR) Formula, sales divided by total assets, reflects the ratio between asset investment scale and sales level; Equity Multiplier (EM) Formula, total assets divided by stakeholders' equity, shows the size of a company's financial leverage; ROE Formula, the ratio of the product of PM and ATR to EM. The basic framework of DuPont analysis system is shown in Figure 1 below.



**Fig 1.** Framework of DuPont Analysis system

## 2.3. Literature Review

### 2.3.1. Research on Profitability

#### (1) Influencing factors

Firms' profitability is influenced by many elements, and there has been a lot of research in this area.

Many researchers such as Lijun YANG (2019) [1], Shujie CHEN and Yaling XIE (2022) [2] and so on pointing out that marketing strategies such as advertising, giving discount, changing the interior layout and so on can effectively increase sales and profitability. Jing SUN(2024) proposed that cost control management strategies, including strengthening cost control, optimizing capital management, and improving operating efficiency, are very effective in improving the profitability of enterprises [3].

There are also massive non-financial factors that can affect the profitability of a business. Except improving control, H. Lim, R. Rokhim(2020) find that liquidity and sustainable growth rate is

positively and strongly related to profitability. And it is interesting that some time one factor may have both side effect on profitability [4]. S. G. Anton&A.E.A Nucu(2020) indicated that the relationship between working capital management(WCM) and profitability is non-linear. It reports an inverted U-shaped relationship meaning that before the break-even point WCM has a positive effect on firms' profitability but once after the point effect becomes negative [5]. Yilin LI(2021) took agricultural enterprises as the research object and found that the innovation performance indicators of enterprises showed a positive correlation with the profitability indicators [6]. The number of patents and the amount of research and development investment of agricultural firms nowadays are positively correlated with their operating income in the current year, and to a certain extent, they positively affect firms' profitability. Environmental regulation also has a long-term effect on the profitability of enterprises. Chen ZHANG(2022) mentions that although the actual expected profitability of enterprises in short-term pollution-intensive industries has decreased, which is consistent with the high-cost regulatory hypothesis, the long-term strict environmental supervision ability has promoted enterprises to improve their innovation capabilities and the benefits brought by this can compensate for the cost pressure caused by environmental regulations, and ultimately improve the profitability of enterprises, which confirms the strong Porter hypothesis [7].

### **2.3.2. Research on the Application**

There are many analytical methods for evaluating profitability

Wenjuan YAN(2017) uses the Delphi method, the staggered analysis and the fuzzy comprehensive evaluation method to evaluate the profitability of HIY and analyze the factors influencing its profitability [8]. Lulu ZHANG(2022) used factor analysis, grey correlation method, entropy method and multiple linear regression analysis to study the influencing factors of the profitability of regional joint-stock Zhonghuishang Bank [9].Tu EQ.Le and T. Ngo(2020) use the system generalized method of moments to explore the determinants of bank profitability [10].However, due to the obvious advantages of DuPont analysis this article will focus on it.

Before this article there are already many researchers using DuPont analysis to asses other enterprises. M. Ram, R. K. Chouhan(2020) elaborated on the application of the DuPont analysis and used an example company to show the practical application [11]. C. Shahniah(2020) use it to analysis the performance of companies in Indonesia [12]. Y Zhao(2023) use it to evaluate financial condition of Chinese listed real estate companies [13].DuPont analysis is popular for its unbiased and comprehensive perspective, which helps identify the key factors that influence ROE. Its convenience and simplicity are also reasons why predecessors and this articles use it.

### **2.3.3. Study Review**

The DuPont analysis method is a traditional and mature profitability analysis method, so it is also often used to evaluate the financial performance of traditional large enterprises. However, With the development of the times, many new industries have emerged, and they have different financial structures and business models than previous enterprises. The application of DuPont analysis in this area is relatively rare, leaving a gap. This study combines traditional methods with emerging enterprises, uses DuPont analysis to analyze Meituan, an emerging e-commerce and monopoly enterprise, to fill the gap in the application of DuPont analysis.

## **3. Brief Introduction of the Case Company**

### **3.1. The Case Company**

Meituan, a technology retail company established in March 2010 founded by WangXing. 'Helping everyone eat better and live better' is its mission. Meituan has been persistently improving the digital upgrading of service retail and commodity retail on both the consumer and producer sides, and cooperating with its partners to offer quality services for consumers. Meituan was listed on the Hong Kong Stock Exchange in 2018. The Meituan application designed by it is the leadership in this

industry in China. The company Meituan started with buying in bulk and has continuously expanded its business to form a company that covers all aspects in lifestyle services such as catering, hotels, tourism, and community e-commerce. The company is also making efforts to develop other businesses such as travel, and supply chain. It now has a leading position in the industry, occupying about 70% of the market share. It is also at the forefront of the industry in the fields of hotel and tourism, community group buying, and commuting. On August 28, 2024, Meituan's latest second quarter and semi-annual financial report showed that its revenue for the second quarter of 2024 was 82.3 billion yuan, with a market estimate of 80.4 billion yuan, a year-on-year increase of 21%. The adjusted profit was 13.6 billion yuan, with a market estimate of 10.6 billion yuan, a year-on-year increase of 77%.

In recent years, food delivery market has growth constantly and rapidly, and the market concentration is high, mainly Meituan accounting for about 70% by 2024.6.6. Ele.me, one company belong to Alibaba, used to be seen as the biggest competitor with Meituan, nowadays only occupies less than 15% of the market share (Chinese mainland). As a leader in a fast-growing industry, Meituan's business model and development history are worth learning from other companies.

### **3.2. Analysis of Industry Characteristics**

(1) Unlike the cost structure of traditional service industries, Meituan's non current assets are relatively small, indicating a relatively small depreciation expense, but its human capital expenditure is relatively high. Non-current assets usually occupies large proportion of total assets and total assets is an important factor when calculate the ROE, Meituan's profitability can be expected to be not bad. This is because Meituan is a business operates in typical Internet platform model. The business mode is that the platform distributes traffic collected by company through high frequency, low margin takeaway business to different scenarios. So as to gradually radiate the low-frequency, higher-margin in-store hospitality business and tune the conversion rate of platform traffic. Meituan provides many convenient conditions for consumers to complete transactions, improves the stickiness of consumers to use software, and attracts more merchants to settle on the platform. The company also generates its revenue by charging merchant transaction commissions, merchant advertising fees, check-in fees, etc. As most of these can be done online then the company doesn't need much office space and won't need many non-current asset.

(2) The industry concentration is high, the monopoly is large so the winner takes all. The strong is always strong, the profitability is strong, and the weak have little profit margin. The difference is too large, resulting in a horizontal comparison of financial reports with other e-commerce industries that are unreliable. In the past few years, the epidemic has led to great challenges to China's catering, dine-in has been continuously restricted, consumers have increased their home scenes, and ordering takeout has gradually become a new lifestyle for domestic consumers. In this situation, Meituan grew rapidly and became the only listed limited company in this industry.

## **4. Profitability of Meituan under Dupont Analysis**

### **4.1. ROE Analysis**

To calculate ROE, financial information of Meituan is needed. The financial data are shown in the following two tables (table 1 & table 2). Data come from Tonghuashun App.

**Table 1. Income statement**

[Unit: billion yuan]

	2022	2023	2024(half)
<b>Sales</b>	220	276.7	155.5
<b>Cost of sales</b>	(158.25)	(179.6)	(95.94)
<b>Gross Profit</b>	61.75	97.19	59.59
<b>Expenses</b>	(71.23)	(89.79)	(44.03)
<b>Other income</b>	2.68	5.41	0.93
<b>Profit from operation</b>	(6.79)	12.81	16.49
<b>Interest</b>	0.04	1.21	0.65
<b>Profit before tax</b>	(6.75)	14.02	17.14
<b>Tax</b>	(0. 07)	(0.16)	(0.42)
<b>Net profit</b>	(6.68)	13.86	16.72

This is Meituan's income statement over the past three years, which provides basic data used to calculate PM.

**Table 2. Statement of financial position(Unit: billion yuan)**

	2022	2023	2024(half)
Non-current Assets	101.3	109.9	115.3
Current Assets	143.1	183.1	170.3
Total Assets	244.5	293	285.6
Capital	128.7	152	160.5
Non-current Liability	39.35	40.2	30.8
Current Liability	76.43	100.9	94.26
Total Capital&Liability	244.5	293	285.6

This is Meituan's statement of financial position over the past three years. It provides basic information to calculate EM and ATR. With PM, ATR and EM, ROE can be found and the calculation process is shown in Table.3 below.

**Table 3. Calculation of ROE**

	2022	2023	2024(half)
PM	-3.036%	5.009%	10.752%
multiply by ATR	89.979%	94.436%	116.946%
	-2.73176%	4.73030%	12.57403%
divided by EM	189.97%	192.76%	177.94%
ROE	-1.438%	2.454%	7.066%
Average increase		4.252%	

According to the chart data, Meituan's ROE is generally on the rise at this stage, and its profitability has grown steadily at an average annual rate of 4.252%, especially from 2023 to 2024 it rose from 2.454% to 7.066%. In the 12th year of its establish, the ROE in 2022 was only -1.438%, mainly due to the impact of the second full lockdown control of the epidemic. According to the performance of domestic listed companies over the years, in average, companies with an ROE of over 15% are generally worth investing in, while Meituan only reported an ROE of about 7.066% in the first half of 2024. Even if there is a large gap between industries, such a low ROE should not happen as the food delivery industry has developed rapidly in recent years and Meituan is far ahead of its peers in the industry such as Ele.me and foodpanda. The possible reasons are yet to be discussed.

#### 4.2. Profit Margin Analysis

PM is needed to calculate the Net PM on Total Assets. PM is net profit divided by sales and the calculation process is shown in Table.4 below.

**Table 4.** Calculation of Profit Margin(Unit:billion yuan)

	2022	2023	2024(half)
Net Profit	(6.68)	13.86	16.72
divided by Sales	220	276.7	155.5
Profit margin	-3.036%	5.009%	10.752%
Average increase	6.894%		

Through data calculation, it can be concluded that Meituan Company's sales and net profit have also shown stable and continuous growth in average at the rate 6.894% in the past three years, with a negative value in 2022. Analysis shows that this is mainly due to the early stage of the end of epidemic risk control. In general Meituan has developed constantly with higher profit return, which will improve profitability.

#### 4.3. Assets Turnover Ratio Analysis

ATR is needed to calculate the Net PM on Total Assets. ATR is sales divided by total assets and the calculation process is shown in Table.5 below.

**Table 5.** Calculation of ATR

	2022	2023	2024
Sales	220	276.7	334
divided by Total Assets	244.5	293	285.6
ATR	89.979%	94.436%	116.946%
Average increase	13.483%		

Since there are only half-year financial reports for 2024 for the time being, this article uses the average multiple between Meituan's half-year turnover and year-end turnover in previous years to estimate the expected year-end turnover in 2024. Data analysis shows that the asset investment return rate of Meituan has steadily increased at an average annual rate of 13.483% over the past three years, also showing Meituan's improvement in efficiency of assets investment. This had led to an increase in profitability.

#### 4.4. EM Analysis

The denominator in the ROE formula is EM, which is obtained by dividing the total assets by stockholders' equity. The calculation process is shown in the Table.6 below.

**Table 6.** Calculation of EM

	2022	2023	2024(half)
Total Assets	244.5	293	285.6
divided by total stockholders' equity	128.7	152	160.5
EM	189.97%	192.76%	177.94%
Average decrease	6.015%		

The equity multiplier of Meituan will first increase and then decrease between 2022 and 2024, but overall it will still decrease at a rate 6.015%. This means that the proportion of capital invested by shareholders in the total capital has increased, and the financial leverage has been reduced. As an influencing factor when calculating ROE, the smaller the EM the greater the ROE. Therefore overall the profitability can be improved.

#### 5. Analysis of Reasons for Weakening Enterprise Profitability and Corresponding Suggestions

There may be a number of reasons for the low ROE, combined with Meituan's monopoly position in the industry and the good market growth, the authors believe that Meituan's low ROE is mainly caused by internal factors.

First of all, the lack of cost control ability leads to a low level of net profit. Meituan's gross profit margin is not low, averaging 33.8%, but profit margin is relatively low due to various expenses are too high to erode profits, which ultimately affects ROE.

Secondly, improper use of financial leverage and unreasonable liability structure. Meituan's high proportion of short-term debt may lead to greater debt repayment pressure, which will affect the company's capital and operational stability, which in turn will have a negative impact on ROE.

Thirdly, Meituan's higher dividend ratio. This will reduce the amount of net profit that will be reinvested after it is distributed to shareholders, which may affect future development and profitability, while the company's cash reserves will decrease, affecting the company's operations and development, which will worsen ROE.

This article proposes the following suggestions to address the above issues:

(1) Carry out cost control management, especially sales expenses. More than half of Meituan's annual expenses are spent on sales. However, as a monopoly enterprise in the food delivery industry its popularity is already very wide so some unnecessary expenses such as advertising expenses should be controlled. Necessary expenses such as wages and social security provident funds in sales expenses is unavoidable but everything else can be controlled. This can be done through budget management, etc. Set a budget in advance, analyze the reasons for any exceedance, and adjust the budget for the next year. Budget management also optimizes the company's capital planning.

(2) Debt optimization. Replace some short-term borrowing with long-term. Meituan's current liability is too much, which means that there is too much short-term debt, greatly affecting cash flow and corporate performance. Long trade payable turn over rate will also influence the relationship between suppliers and customers. Debt can be optimized and liquidity can be improved through debt

restructuring and consolidation. Meituan can also find a debt optimization company to develop a personalized optimization plan.

(3) Appropriately reduce dividends. Companies are not legally obligated to pay dividends, and there is nothing legally wrong with paying less or no dividends, but in order to maintain a good relationship with shareholders, an appropriate amount of dividends is necessary. If the stock price falls, dividends can retain investors. However, in normal market conditions or even when the stock price rises, the company can reduce its dividends, and shareholders will not be dissatisfied in this case. The profits saved can be used for future development of the company, and the ROE of the year will also be improved.

## 6. Conclusion and Future Work

This article uses the DuPont analysis method to analyze the financial data of Meituan Company for a total of two and a half years from 2022 to 2024. Research has shown that the main problems with Meituan's profitability are high sales costs, poor debt structure, and high dividends, causing low ROE. These issues can be separately addressed through cost control management measures such as sales budgeting, replacing short-term bonds with long-term bonds or consulting professional debt optimization companies to develop plans, and appropriately reducing the dividend yield. There are also shortcomings in this study. As the experimental energy is limited, the timeline spans only three years, resulting in slightly thin data. Hope that future work can effectively improve this and hope this study can help further expand future research.

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