温州肯恩大学
WENZHOU-KEAN UNIVERSITY

Financial Statement Analysis: A Case Study of Ctrip

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WANG Jiayi

1025850

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ABSTRACT

In recent years, Online Travel Agencies (OTAs) have become popular in China. Ctrip is the biggest and the most successful one among them. However, many agencies have developed well and taken market share from Ctrip. The two biggest agencies of them are Fliggy and Meituan. This paper analyzes Ctrip's current situation. I collect data from its financial statements of the past four years and its historical stock price. Then, I calculate financial ratios and draw graphs of them to find its management issues and financial problems. I also compare Ctrip with Fliggy and Meituan, but they do not only involve traveling business. Therefore, it is difficult to analyze them deeply. I will analyze them from their business, target customers instead of financial data. I expect the performance of Ctrip is better than that of others, but it also can help people learn some advantages for its future development from other agencies.

Keywords: financial statements, financial ratios, stock price, online travel agency, Ctrip

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Introduction

The society develops faster and people depend on the technology heavily in their daily lives. People are used to finishing many different missions on the Internet, including travel arrangements. Many people use online travel agencies to buy transportation tickets, book hotels and find travel guides. Ctrip is a leading online travel agency in China, but there are more and more challenges that it is facing. Some famous and well-funded agencies appeared and took market share from Ctrip. Ctrip has to find its advantages and problems and make some proper adjustments to keep its successful position. Therefore, understanding its current situation is necessary. Financial statement analysis can help me find the advantages that help it develops better and the problems that should be noticed and corrected in the future. The analysis of its stock price shows its market situation so that its past development trend in the market can be analyzed. Ctrip's stock price may show a downward trend in recent years because of its powerful competitors' appearance. In my opinion, after the research, some financial management problems will be found, even though it also does well in some respects.

Financial statements can describe the situation of a company well, so they are effective tools for analyzing the company's performance. The analysis of financial statements can help the managers understand the company's situation and the investors make the right decisions. It is also important for Ctrip to solve its problems so that it can face serious challenges.

Literature Review

Every company has to prepare the financial statements which are important to the managers, the investors and the employees of every company. Fridson and Alvarez (2011) stated that financial statements can assess the company's profitability and financial condition precisely. They can help the investor know the current situation, and managers can decide the future development trends better.

Analysis of Financial Statements

In Masson's opinion (2018), the analysis of financial statements needs six steps in general. At first, people should analyze the industry's economic condition and identify the company's strategies. In these two steps, people will know the industry's situation and the company itself so that people can know the position of the company in its industry. It will provide help for identifying issues in the next steps. Then, people should assess the quality of financial statements and also calculate financial ratios to evaluate the company's financial situations, such as liquidity, asset management, profitability, and market valuation. At last, people have to make future assumptions to predict the change in the company's cash flows and value the company with discounted cash flow methodology. Following these six steps, people will have an overall understanding of the company which will help them find and solve the problems in future research.

There are three main kinds of financial statements, income statement, balance sheet, and cash flow statement. Each of them has different functions so that people

can analyze the company's situation with them from different perspectives. The income statement shows the revenue and the cost it produces in a specific period. The investors can predict the companies' future repaying ability according to their past data. Second, people can assess if the company can pay for its operations, debts, and dividends through the balance sheet which summarizes the value of assets, liabilities, and equities. Finally, the cash flow statement shows the change of cash so that people can know whether the company has enough cash for its daily business and whether it needs new investments or not. (Robinson, Henry, Pirie, & Broihahn, 2015)

Financial Ratios

With the data from financial statements, people can calculate financial ratios to further analyze the situation of the company. According to McGowan (2014), there are different kinds of financial ratios.

The first one is the liquidity ratios which assess the company's ability to meet short-term financial obligations. People will calculate the current ratio at first which indicates the relationship between short-term assets and short-term liabilities, and the quick ratio can be used to measure the liquidity after excluding the inventory. Then, people can also calculate asset management ratios. The days' sale outstanding ratio indicates the average days to collect accounts receivable. People can know the inventory management level through inventory turnover and the efficiency of using fixed assets through net fixed asset turnover. Besides these ratios, people can also use total asset turnover to evaluate the company's ability to generate revenues. The third

kind is financial leverage ratios, including the total debt ratio, debt to equity, the equity multiplier and times interest earned. They indicate how the company finance, using debt or equity. Among them, “the total debt ratio measures the proportion of funds provided by creditors and debt holders” (McGowan, 2014).

Fourth, profitability ratios help people evaluate the overall efficiency of the company. The operating margin indicates the relationship between operating profit and sales. Net profit margin, return on assets and return on equity measure the ratio of net income to sales, total assets and owner’s equity respectively. The final part is the market-based ratios that assess the value of the company, including earnings per share, price-to-earnings, the book value ratio, market value, the payout ratio, the retention ratio, dividends per share and dividend yield. All of them are about stocks and dividends, and the investor can evaluate the performance of the company. For example, the earnings per share ratio calculated how much net income the company earned for one share.

Ctrip

“Ctrip was founded in 1999” (Schaal, 2014). During its development, Ctrip has three main successful services. One is hotels, one is airline tickets, and the third one is vacation packages. Their success laid the foundation of Ctrip’s success. According to Schaal (2014), the market cap of Ctrip has been closed to $15 to 20 million in 2016. Byrne (2018) analyzed that Ctrip’s mature systems improved its operation efficiency, but it still had problems in management. Ctrip has many workplaces all over the world

so that it is easy for it to develop a new market. It also has wide product portfolios to satisfy different customers' needs so that it can keep customer loyalty. However, Ctrip has management problems not only on assets but also on the employees in the company. The problems with assets hurt the company's daily performance, and the problems with employees make them lose confidence and motivation for the company and their work.

Nowadays, Ctrip is the leading company in the Online Travel Agency (OTA) industry. According to the data from "Analysys", Chinese market research company, Ctrip took 36.6 percent market share in 2018. However, Fliggy and Meituan-Dianping are also developing better and faster, and they will be the biggest competitors of Ctrip in the future. Besides these famous and well-funded agencies, some new and small OTAs are trying to take market share from Ctrip, as well. They usually focus on one specific market. Therefore, Ctrip should make lots of changes to face these challenges. ("Free World Holdings," n.d.)

Competitors of Ctrip

Compared with Ctrip, Fliggy focuses on younger customers and pays attention to technology development. Fliggy prefers providing more energetic travel and its users are high-educated and high-income. At the same time, Fliggy develops a high-tech hotel to convince customers. However, Ctrip still insists on offering transportation service and hotel reservations through its website and mobile APP. (Carter, 2019) Unlike them, Meituan takes different strategies. It starts its business from lower-tier

hotels and enters the market of high-end hotels and international hotels gradually (Moh, 2018).

Financial statements are important for every company. Although Ctrip is the leader among Chinese online travel agencies, some competitors are taking market share from Ctrip. Therefore, the analysis of financial statements can help Ctrip find its problems to develop and keep its leading position.

Research Design

Data

Online Travel Agencies (OTAs) have become an important industry in China. Analyzing them is useful for investors and also for its future development. That also means it is easy to look for information on this industry on the Internet and have a deep understanding.

As a famous brand in China, Ctrip's basic information is almost on the Internet, such as its history, target customers, and major business firstly. Besides, Ctrip is a publicly listed firm, so all the information about the financial statements and its stock price can be easily found from the website, Yahoo! Finance. Due to the credibility, comparing the data with Bloomberg makes sure that all of them are accurate.

Finally, some basic information and business philosophies of its biggest competitors', Fliggy and Meituan, are also important. They are also public listed companies and famous in China. Lots of people have researched them. Therefore, it is easy to find an analysis of them from the Internet.

Methodology

The Chinese market has lots of various online travel agencies, but Ctrip is the top of OTAs, to analyze its market and finance situation.

To find its positive aspects and problems, there are four kinds of financial ratios that are used: liquidity ratios, asset management ratios, financial leverage ratios and profitability ratios.

Liquidity Ratios:

The current ratio and is a short-term index, and the cash ratio shows the cash balance of the company. The third one is NWC to total assets where NWC is net working capital. It equals current assets minus current liabilities. This ratio reflects the level of liquidity.

Asset Management Ratios:

Days' sales in receivables shows the number of days needed to collect accounts receivables (McGowan, 2014). Receivables turnover is revenues divide accounts receivable. Besides that, there are two main types of turnovers. Net fixed assets turnover reflects the utilization of fixed assets, and total assets turnover shows the ability of selling and the return on investment.

Financial Leverage Ratios:

The total debt ratio is a good index to measure the level of financial leverage. A higher ratio means a higher risk. Then, times interest earned indicates how much EBIT can decline before the bankruptcy. Because, if the company cannot pay the interest, the company faces the risk of bankruptcy (McGowan, 2014).

Profitability Ratios:

The net profit margin shows how well Ctrip manages the cost related to the revenue. Moreover, returns on assets measures how much Ctrip earns for one dollar in total assets, and returns on equity tells the return on the stockholders. Both ROA and ROE are the accounting numbers. The difference between them reflects the level of financial leverages. In general, ROE is larger than ROA if the company has debt. The

larger the difference between them, the higher the leverage.

The formulas of these ratios can be found in the appendix.

These ratios of the past four years are calculated and the line charts about the trends of them are drawn respectively. The charts can show a change in the company's recent situation directly.

Then, the trends of its stock price for the recent five years are also be graphed. It shows how people think about the value of Ctrip directly and how it changes. At the same time, it indicates Ctrip's market situation.

To face the challenges, knowing its competitors is also important. This paper also analyzes its two biggest competitors, Fliggy and Meituan, to find their advantages and what makes them become successful and develop quickly. At last, their differences in various parts are found, such as management methods and funding strategies.

Results

Liquidity Ratios

Current Ratio:

In 2015: ￥40,600,868/￥33,666,094=1.2060

In 2016: ￥45,911,442/￥30,295,026=1.5155

In 2017: ￥59,226,820/￥42,159,932=1.4048

In 2018: ￥79,394,000/￥68,784,000=1.1543

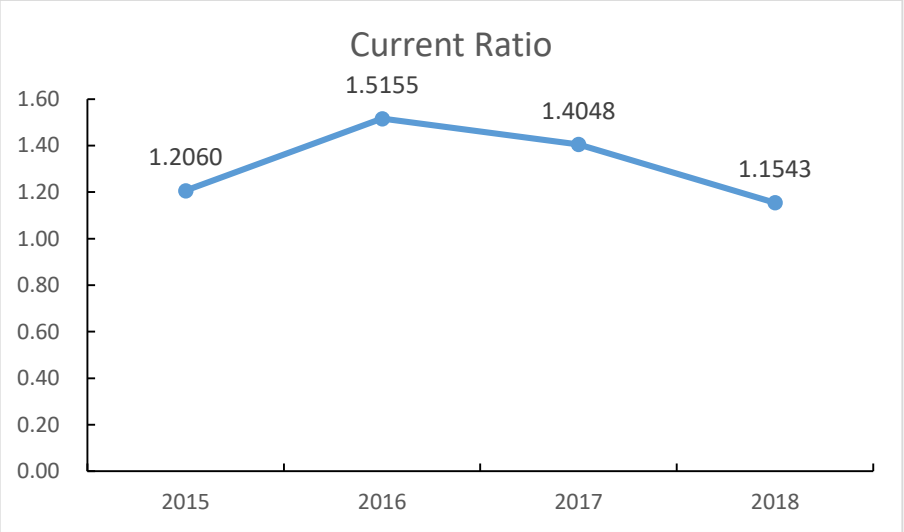

Figure 1: Current Ratio

From the graph above, it shows the ability of Ctrip to pay debts in the future 12 months improved from 2015 and decreased after 2016. The ratio of 2018 was the lowest in the last four years.

Cash Ratio:

In 2015: ￥27,451,460/￥33,666,094=0.8154

In 2016: ￥32,547,544/￥30,295,026=1.0744

In 2017: ￥46,372,930/￥42,159,932=1.0999

In 2018: ￥58,283,000/￥68,784,000=0.8473

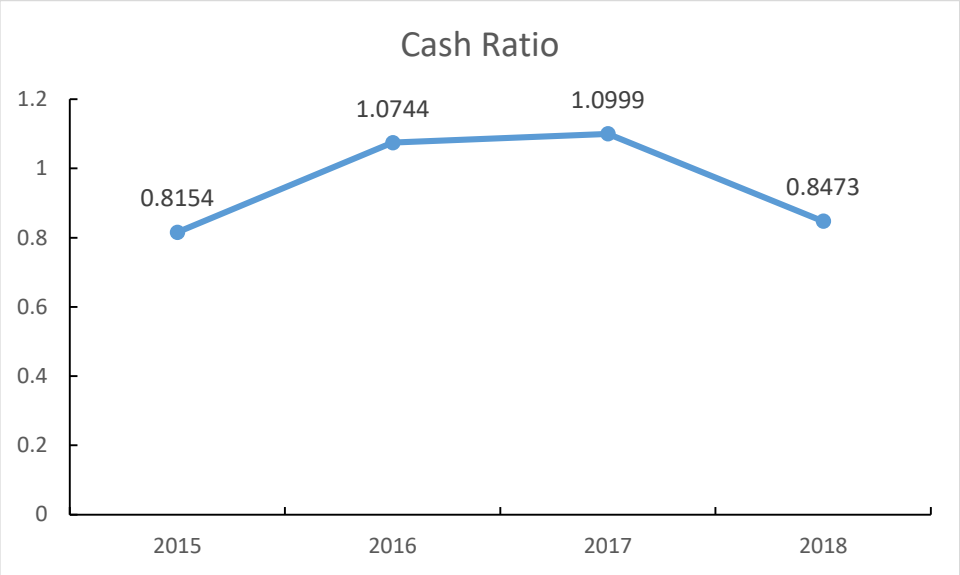

Figure 2: Cash Ratio

Figure 2 indicates that the liquidity of Ctrip increased before 2017, and then decreased. The ratio of 2018 was similar to the data of 2015. That also means the ability to use cash to pay the debts returned to 2015.

<u>NWC to Total Assets:</u>

In 2015: NWC: ￥40,600,868 - ￥33,666,094=6,934,774

￥6,934,774/ ￥118,842,592=5.84%

In 2016: NWC: ￥45,911,442 - ￥30,295,026=15,616,416

￥15,616,416/ ￥144,413,902=10.81%

In 2017: NWC: ￥59,226,820 - ￥42,159,932=17,066,888

￥17,066,888/ ￥162,048,477=10.53%

In 2018: NWC: ￥79,394,000 - ￥68,784,000=10,610,000

￥10,610,000/ ￥185,830,000=5.71%

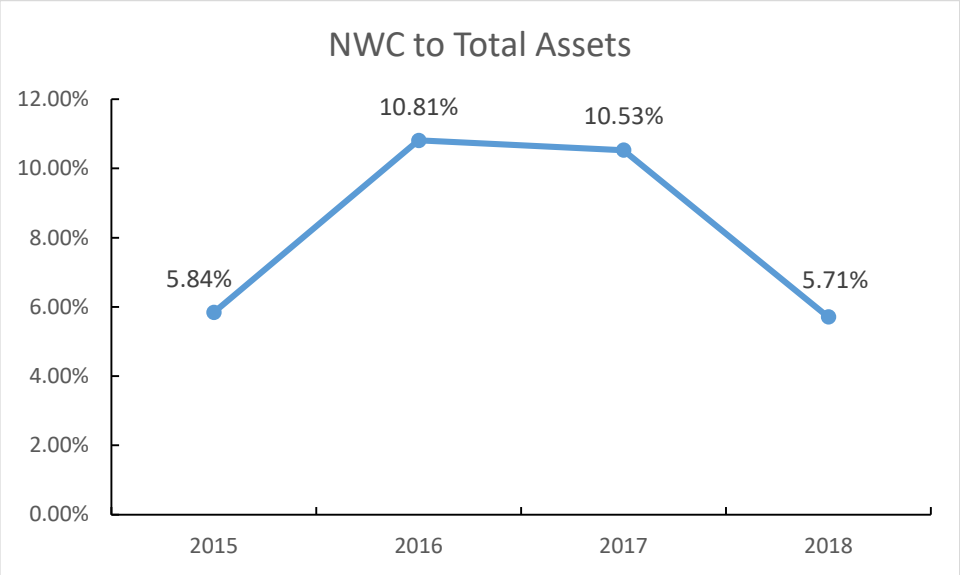

Figure 3: NWC to Total Assets

From 2015 to 2016, the ratio increased which means the liquidity was improving. After 2016, the ratio decreased. It indicates that Ctrip had more current liabilities which reduced the net working capital.

Asset Management Ratios

<u>Days' Sales in Receivables:</u>

In 2015: Receivables Turnover: ￥10,897,568/￥3,150,768=3.4587

365/3.4587=105.5310

In 2016: Receivables Turnover: ￥19,228,440/￥4,624,818=4.1577

365/4.1577=87.7889

In 2017: Receivables Turnover: ￥26,779,631/￥4,559,053=5.8739

365/5.8739=62.1393

In 2018: Receivables Turnover: ￥30,965,000/￥5,668,000=5.4631

365/5.4631=66.8119

*There are no accounts receivable in the income statement of Ctrip. Therefore, instead of accounts receivables, net receivables are used there. The net receivables equal accounts receivables minus allowance for doubtful accounts.

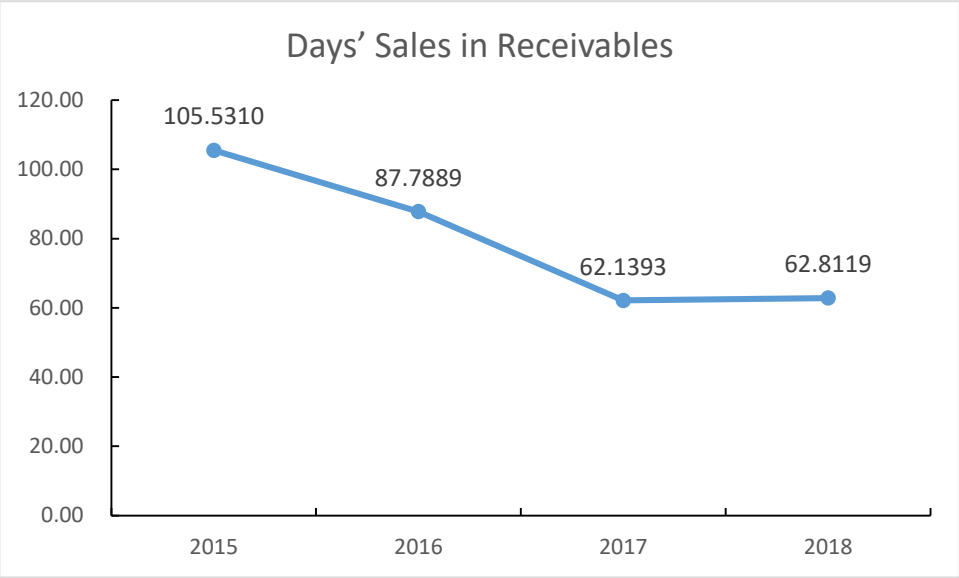

Figure 4: Days' Sales in Receivables

From 2015, the days' sales in receivables was decreasing, it also means that the ability of Ctrip to turn the sales into cash was increasing. However, the ratio of 2018 was similar to 2017, and even a little higher. Therefore, the ability of Ctrip to turn accounts receivables into cash became worse in 2018.

<u>Net Fixed Assets (NFA) Turnover & Total Assets Turnover:</u>

In 2015: ￥10,897,568/￥5,658,288=1.9259

In 2016: ￥19,228,440/￥5,691,505=3.3784

In 2017: ￥26,779,631/￥5,712,262=4.6881

In 2018: ￥30,965,000/￥5,966,000=5.1902

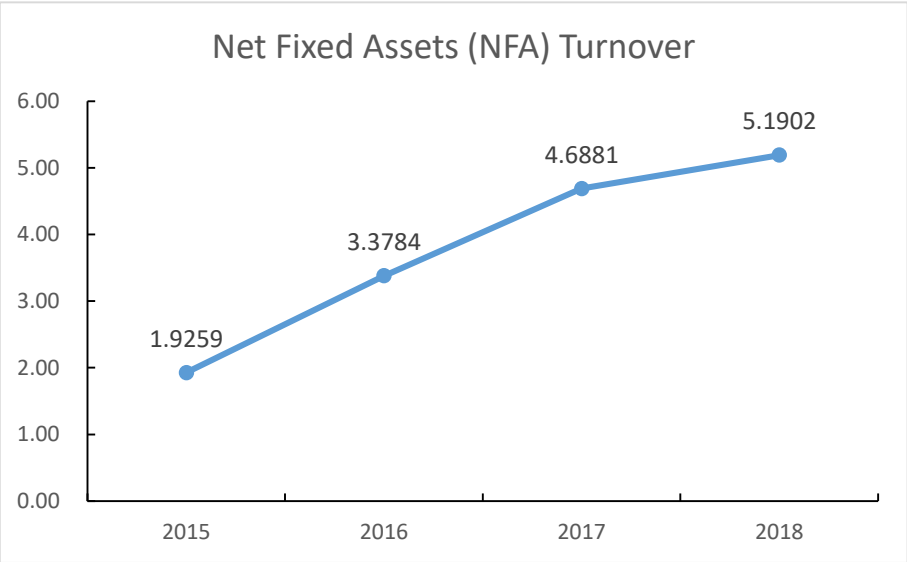

Figure 5: Net Fixed Assets (NFA) Turnover

In 2015: ￥10,897,568/￥118,842,592=0.0917

In 2016: ￥19,228,440/￥144,413,902=0.1331

In 2017: ￥26,779,631/￥162,048,477=0.1653

In 2018: ￥30,965,000/￥185,830,000=0.1666

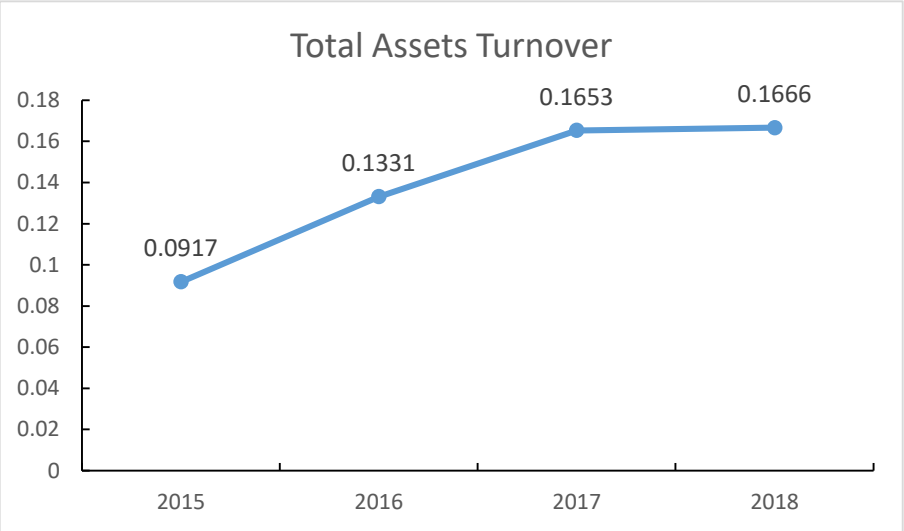

Figure 6: Total Assets Turnover

Net fixed assets turnover and total assets turnover both were increasing all the time, but the speed became slower in 2018. Although the ability to manage assets was improved, its progress was not as significant.

Financial Leverage Ratios

Total Debt Ratio:

In 2015: ￥55,157,664/￥118,842,592=0.4641

In 2016: ￥68,893,149/￥144,413,902=0.4771

In 2017: ￥75,575,448/￥162,048,477=0.4664

In 2018: ￥97,097,000/￥185,830,000=0.5225

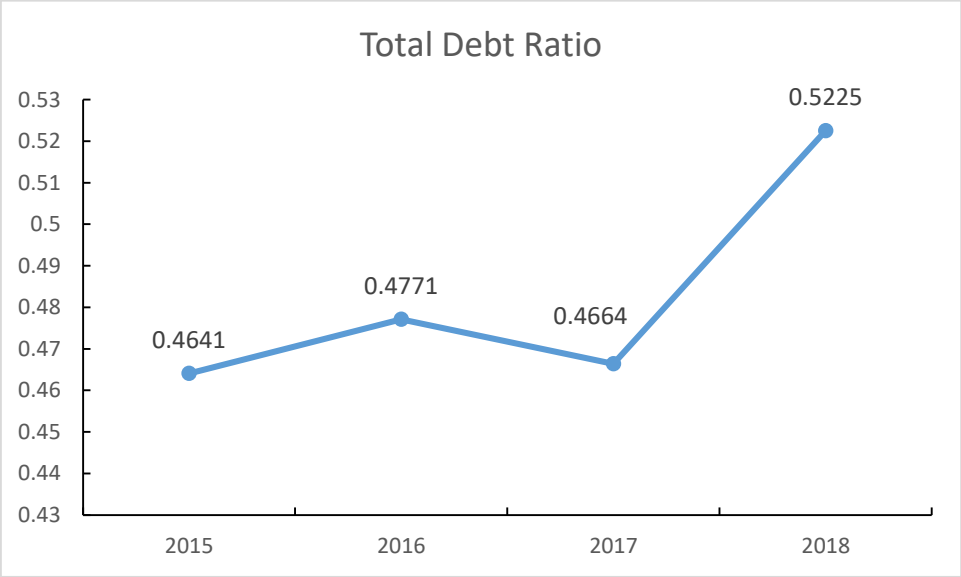

Figure 7: Total Debt Ratio

From 2015 to 2017, the total debt ratio was fluctuated at about 0.47. However, it rose significantly and even surpassed 0.5. In 2018, most of the assets are from equity, and the risk of defaulting on loans for Ctrip became higher.

Times Interest Earned:

In 2015: ￥381,043/￥302,426=1.2600

In 2016: ￥-1,568,478/￥731,923=-2.1430

In 2017: ￥2,926,171/￥1,286,284=2.2749

In 2018: ￥2,605,000/￥1,508,000=1.7275

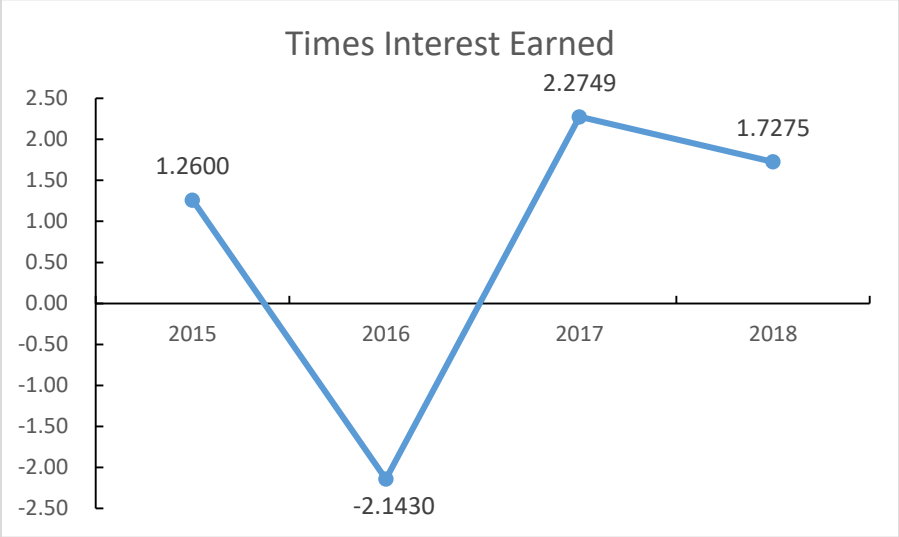

Figure 8: Times Interest Earned

Except for 2016, Ctrip's times interest earned was higher than 1.00 so that it means that there were no problems for it to pay the interests. However, this ratio decreased in 2018.

Profitability Ratios

<u>Net Profit Margin:</u>

In 2015: ￥2,507,656/￥10,897,568=23.01%

In 2016: ￥-1,430,703/￥19,228,440=-7.44%

In 2017: ￥2,142,012/￥26,779,631=8.00%

In 2018: ￥1,112,000/￥30,965,000=3.59%

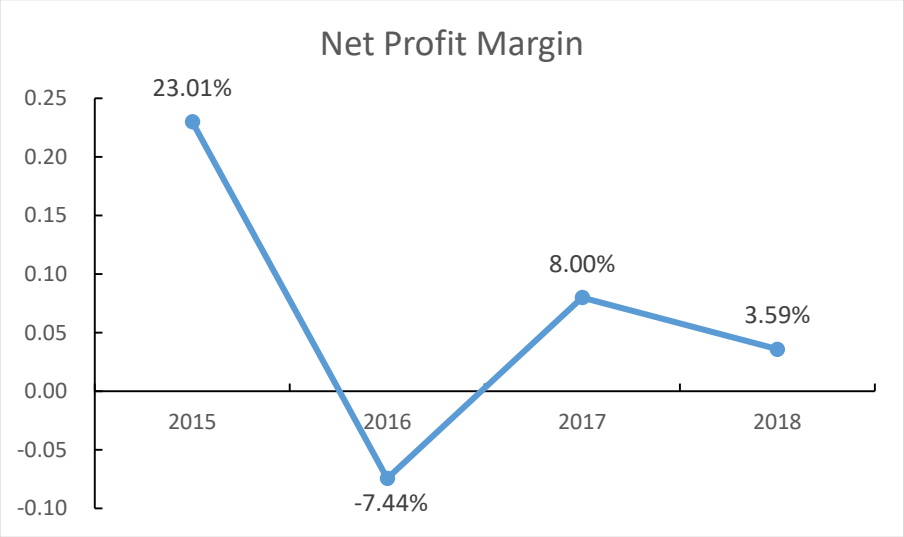

Figure 9: Net Profit Margin

Except for 2016, the net profit margin was dropping but was positive all the time. It means that the expenses increased and the speed was higher than the increase in revenues.

<u>Returns on Assets (ROA):</u>

In 2015: ￥2,507,656/￥118,842,592=2.11%

In 2016: ￥-1,430,703/￥144,413,902=-0.99%

In 2017: ￥2,142,012/￥162,048,477=1.32%

In 2018: ￥1,112,000/￥185,830,000=0.60%

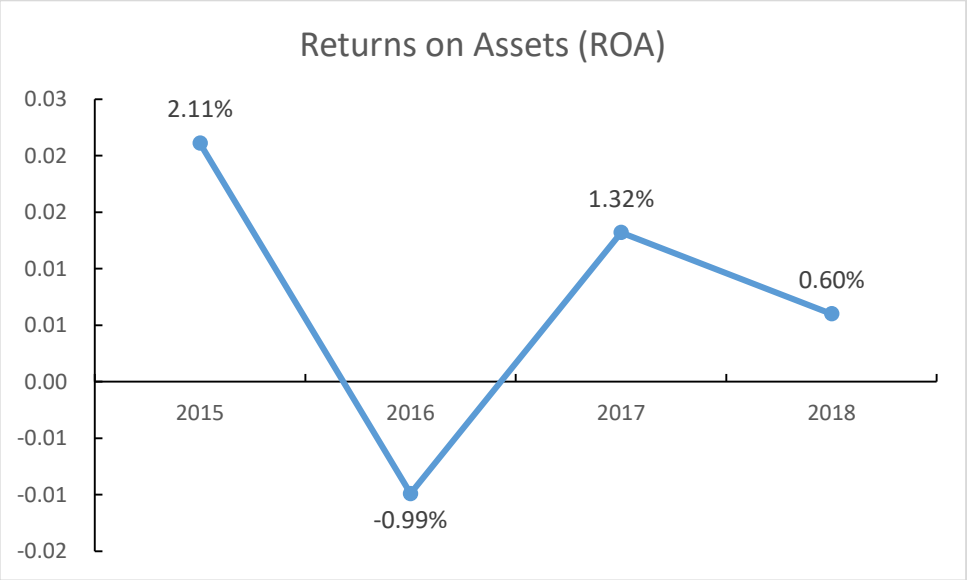

Figure 10: Returns on Assets (ROA)

As the net profit margin, ROA also showed a downward trend. It reflects the company did not use the assets well. The company's investment in assets did not increase its net income.

<u>Returns on Equity (ROE):</u>

In 2015: ￥2,507,656/￥44,550,730=5.63%

In 2016: ￥-1,430,703/￥71,536,835=-2.00%

In 2017: ￥2,142,012/￥84,693,814=2.53%

In 2018: ￥1,112,000/￥86,715,000=1.28%

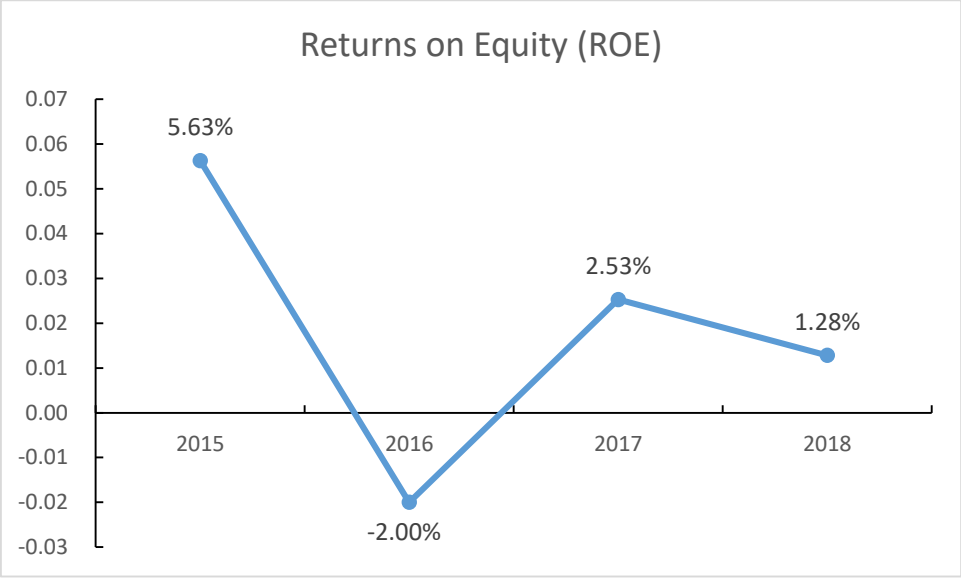

Figure 11: Returns on Equity (ROE)

Except for 2016 where the net income was negative, the whole trend of ROE was downward. It reflects two main problems of Ctrip. One is the drop in net income, and the other one is false investment management.

Market Performance

<u>Stock Price:</u>

Figure 12: Stock Price

The stock price of Ctrip peaked in 2017. After 2017, the overall trend was downward. It shows the view of the investors on Ctrip was not positive, and the market performance of Ctrip was not good.

Competitors Analysis

Fliggy:

Fliggy's target customers are young people and provide various and personalized traveling design. At the same time, Fliggy belongs to Alibaba which is a very large company in China. That means, it is well-funded, so it can provide some low-priced services.

Meituan:

Meituan focuses on low-ended hotels. The price of these kinds of hotels is not high, but it receives lots of orders every year which can increase the revenues. At the same time, Meituan has much experience in group purchase business, such as meals and entertainment. Therefore, it launches some packaged products which include hotels, transportation tickets, meals, and entertainment.

Conclusions

Problems

Overall, the performance was good, but there were lots of problems in Ctrip after 2017. First, the liquidity decreased, it also meant that the ability to pay the debts in the short term decreased. Also, it faced some problems with the use of assets. Third, although there were no problems to pay the interests, the risk of defaulting on loans increased. Besides them, the profitability decreased. Finally, market performance was not good.

Solutions

Expect to solve its above problems, Ctrip needs to learn some strategies from its competitors. Although Ctrip does not obtain enough capital as Fliggy and Meituan, it needs to develop low-ended hotels business and launches some discounting activities to attract more customers and encourage customers' consumption.

Limitations

Although Fliggy and Meituan are public companies, their businesses do not only involve the traveling industry. Fliggy belongs to Alibaba Company which has various types of business, and Meituan's main business category is group purchase. Therefore, it is difficult to analyze them through financial statements. It also makes the comparison not representative. Moreover, in China, there is no mature and individual Online Travel Agency industry. That also means that the average industry indexes also

cannot be found on the Internet, whatever on the website or Bloomberg. Therefore, Ctrip's financial data cannot be compared with the whole Chinese industry. Its advantages and the aspects that it doesn't perform well cannot be decided through comparison.

In the future, people can find more specific figures to make the analysis of Fliggy and Meituan more representative and accurate and the comparison more convictive. People can do some researches to analyze the traveling business separately. Also, people can collect data from most online travel agencies and calculate the average indexes of the whole industry in China to analyze them better.

Contributions

Although Ctrip is still the leader in the OTAs industry now, it has not been as good as the previous years' performance. The analysis can help it find its problems in time in case that it will experience larger failure and even lose its whole markets. And worst of all, it will have to exit this industry at last.

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Appendix

Formulas of Financial Ratios:

Liquidity Ratios:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Cash Ratio} = \frac{\text{Cash}}{\text{Current Liabilities}}$$

$$\text{NWC to Total Assets} = \frac{\text{NWC}}{\text{Total Assets}}$$

Asset Management Ratios:

$$\text{Days' Sales in Receivables} = \frac{365}{\text{Receivables Turnover}}$$

$$\text{Net Fixed Assets (NFA) Turnover} = \frac{\text{Revenues}}{\text{Fixed Assets}}$$

$$\text{Total Assets Turnover} = \frac{\text{Revenues}}{\text{Total Assets}}$$

Financial Leverage Ratios:

$$\text{Total Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

$$\text{Times Interest Earned} = \frac{\text{EBIT}}{\text{Interest}}$$

Profitability Ratios:

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Revenues}}$$

$$\text{Returns on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}}$$

$$\text{Returns on Equity (ROE)} = \frac{\text{Net Income}}{\text{Owner's Equity}}$$