Financial Analysis of Tesla

Article *in* SSRN Electronic Journal · July 2021

DOI: 10.2139/ssrn.3896901

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Abstract

This entire study has done based on the financial analysis of Tesla, inc. to understand its financial position throughout the year 2017 to 2020. The fundamental purpose of this report is to gain some proficient knowledge about ratio analysis through which how the company is performing within the industry could be understood. Data has been collected through Yahoo Finance and using those data, five different ratios, namely, profitability, liquidity, activity, cash-flow, debt ratio, have been performed. Concerning entire factors, this report is mainly supported by concise recommendations, which could be helpful for stakeholders of this company.

Keywords: Ratio Analysis; financial position; liquidity; profitability.

Introduction

This study will be done based on the chosen company, namely, Tesla, Inc., in this context. This company is one of the famous electrical vehicle companies based in the USA. However, this company is an electric vehicle and clean energy company with different types of products, like, electric cars, battery energy storage, solar panels, and other related services or products. This company has ranked the world's best plug-in selling company with a 16% market share and 23% battery-electric segment, according to the 2020 report, however, by using ratio analysis of the financial position of Tesla throughout four years. Ratio analysis depicts the analysis of the company's financial position; thus, it would be appropriate to use different ratios to identify whether the company is doing well or not. Therefore, this report would depict the financial conditions of Tesla over the year by using ratio analysis.

Literature Review

Ratio analysis is considered the quantitative method for gaining insight into the company's financial position under different circumstances. Therefore for analysis of financial position, most of the financial analysts use ratio analysis technique as it presents the actual scenario of the company of different financial years. According to (Kim & Im, 2017) and (Al-Marzooqi & Nobanee, 2020), by using ratios, financial researchers would understand a company's liquidity, profitability, efficiency, and gearing position. These different financial scenarios elaborate different financial conditions of a particular organization. On the other side, based on the viewpoint of (Kourtis *et al.*, 2019), a comparison between two companies in terms of financial position across the same industry could be possible by using ratio analysis under different circumstances.

Again (Otekunrin *et al.*, 2018) has expressed that this is important for ratios to be paired with other metrics. In this way, the financial analysts or management of the company could get a broader viewpoint of the financial health of that particular company in this context. Following this discussion, it can be stated that ratio analysis supports the company's management in making crucial operational decisions. It can also help the investors as well make decisions from their perspective. As per (Islami & Rio, 2019), by scrutinizing past and present financial statements of the company and comparing those reports, investors could easily take their decision whether the organization is performing well or not. Based on those situations, investors, therefore, could make their decisions regarding investment easily.

According to (Srinivasan, 2018), ratio analysis can be performed through four steps which are highly recommended for every company to follow. At the very first stage, relevant accounting data should be collected from the financial statement. After that, in the next step, this is important to construct ratios of those related figures. In the third step, management should compare those calculated ratios with the industry average for understanding financial conditions correctly. After that, in the last stage, it would be appropriate to critically interpret those ratios to the entire stakeholder by providing an annual report or any other form of a report to emphasize the organization's financial conditions.

Data and Methodology

In this study, the financial analysis of Tesla has done by using techniques and tools of ratio analysis. However, following this discussion, it can be stated that the relevant data for 2017 to 2020 has been collected from Yahoo Finance. The critical components of three financial statements: the balance sheet, the income statement, and the cash flow, have been used to collect information. Then, the company's financial position, namely, liquidity position, profitability position, activity ratios, debt ratios, and some cash-flow ratios, has been evaluated (Yahoo.com, 2021).

The below table is showing the collected information of Tesla based on its financial reports:

Table 1: Financial Data of Tesla Inc.

Item/Year	**2020**	**2019**	**2018**	**2017**
Current Assets	26,717,000	12,103,000	8,306,308	6,570,520
Current Liabilities	14,248,000	10,667,000	9,992,136	7,674,670
Inventories	4,101,000	3,552,000	3,113,446	2,263,537
Cash	19,384,000	6,268,000	3,685,618	3,367,914
Receivables	1,886,000	1,324,000	949,022	515,381
Total Assets	52,148,000	34,309,000	29,739,614	28,655,372
Total Liabilities	29,073,000	26,842,000	23,981,974	23,420,784
Total Equity	23,075,000	7,467,000	5,757,640	5,234,588
Sales	31,536,000	24,578,000	21,461,268	11,758,751
Cost of Goods Sold	24,906,000	20,509,000	17,419,247	9,536,264
EBIT	1,902,000	20,000	-341,674	-1,737,773
Interest	748,000	685,000	663,071	471,259
Net Income	690,000	-862,000	-976,091	-1,961,400
Operating Cash Flow	5,943,000	2,405,000	2,097,802	-60,654

All numbers in thousands, Source: Yahoo Finance (Yahoo.com, 2021)

Therefore, following this discussion, it is crucial for the financial analysts to properly know about the ratio analysis, which could be used here to do the financial evaluation of Tesla. Hence below the discussion regarding the ratios which should be used in this context:

Liquidity Ratio

In liquidity ratio, three types of ratios have been used, namely, current ratio, quick ratio, and cash ratio. Each of these ratios depicts the liquidity position of the organization. For analyzing the financial position of any company, it is essential to check their liquidity position, like how much cash they have in their hand for accomplishing the short-term obligations, and if there is enough liquidity to endure the operating cycle (Almani & Nobanee, 2018; Ahmed & Nobanee, 2020). These liquidity ratios, therefore, could give more emphasis on this situation. Hence by using the current ratio, quick ratio and cash ratio, the management of Tesla would understand their liquidity position from the year 2017 to 2020.

Activity Ratio

Here three activity ratios have been used for analyzing the financial position of this company. These three activity ratios are inventory turnover ratio, receivable turnover ratio, and total assets turnover ratio. Through these ratios, the management of Tesla would understand how efficiently a company is performing within the industry in this situation (Daryanto & Samidi, 2018). Using those three ratios, how the company efficiently uses inventories, and its total assets could be understood. On the other side, how efficiently they would be managing their receivables throughout the years can be understood in this situation.

Debt Ratio

Financial analysts have used both debt ratio and times interest earned ratio to examine the financial leverage of the organization in this situation. Using this ratio, one would understand whether the company is going with debt finance or owned funds (Setiawan & Amboningtyas, 2018). Here for Tesla, through these two debt ratios, financial analysts could easily find out the leverage position of this company.

Profitability Ratio

Here three ratios, therefore return on equity (ROE), return on assets (ROA), and profit margin have been performed to identify the company's profitability position. The profitability ratio depicts some financial metrics through which the ability of a business to generate earnings compared to its revenue could be understood (Amalia *et al.* 2020). With this, using some data throughout four financial years, the financial managers understood the profitability position of Tesla.

Cash-Flow Ratio

Through the cash-flow ratio, one can understand how cash-flows activities could cover current liabilities. Now, using cash-flow to total assets ratio and cash-flow to sales ratio, the management of Tesla would understand whether they are capable or not to cover current liabilities by using cash flow in this context (Purba & Septian, 2019).

Results and Discussion

Liquidity Ratio

Table 2: Liquidity Ratios of Tesla Inc.

Ratio / Year	**2020**	**2019**	**2018**	**2017**
Current Ratio	1.88	1.13	0.83	0.86
Quick Ratio	1.59	0.80	0.52	0.56
Cash Ratio	1.36	0.59	0.37	0.44

Current Ratio

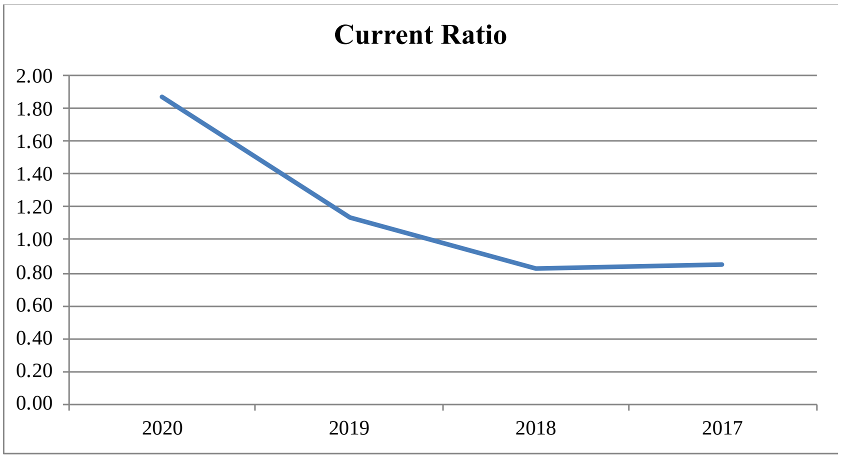

Figure 1: Current Ratio of Tesla Inc.

Based on the estimated current ratio, it has been found that over the four years, Tesla's current ratio margin increased in 2020. The company had the highest margin of current ratio that is 1.88. This higher current ratio margin denotes that currently, Tesla has a stable and efficient amount of current assets to cope with the short-term obligations and continue the daily operations (Ibrahim, 2019).

Quick Ratio

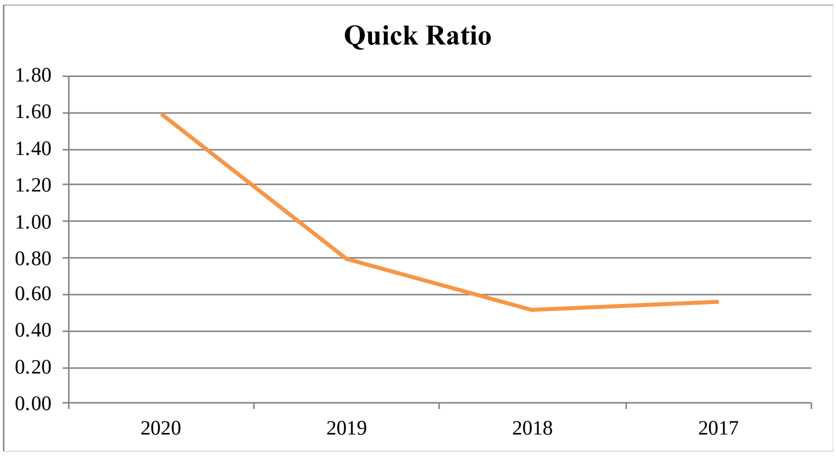

Figure 2: Quick Ratio of Tesla Inc.

Likewise the current ratio, Tesla's quick ratio, has also increased over the four years. Moreover, in 2020 company had the highest margin of quick ratio that is 1.59. The primary reason for this growth in the quick ratio is the higher margin of liquid assets without considering the inventories. Furthermore, with a higher quick ratio, Tesla would quickly convert its liquid assets into cash to maintain financial sustainability and pay off the short-term obligations (Tesla.com, 2021).

Cash Ratio

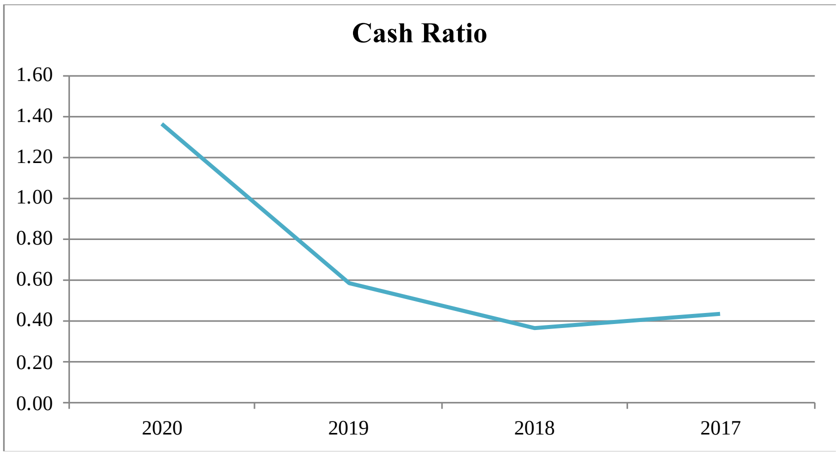

Figure 3: Cash Ratio of Tesla Inc.

Among the liquidity ratios, it has also been found that the cash ratio of Tesla has also increased over the four years, and in 2020, Tesla had the highest cash ratio margin of 1.36. This higher growth margin of cash ratio shows that Tesla currently has high cash availability (Rosini & Gunawan, 2018). Moreover, creditors would highly prefer a higher cash ratio as it would denote easy pay off the short-term debts.

Activity Ratio

Table 3: Activity Ratio of Tesla Inc.

Ratio / Year	2020	2019	2018	2017
Inventory Turnover Ratio	6.51	6.15	6.48	4.40
Receivable Turnover Ratio	19.65	21.63	29.31	23.18
Total Assets Turnover Ratio	0.73	0.77	0.74	0.46

Inventory Turnover Ratio

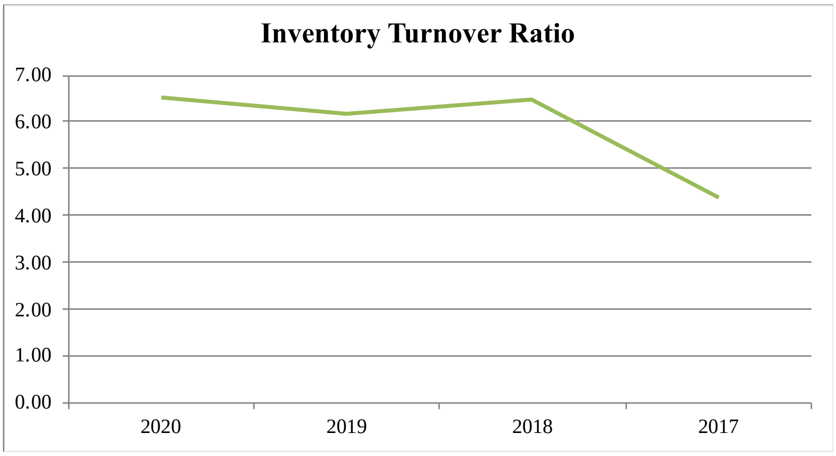

Figure 4: Inventory Turnover Ratio of Tesla Inc.

Higher inventory turnover is anticipated to result in quick use or sell of inventories with a lower risk of deterioration. Significantly, for Tesla, it is found that estimated Inventory Turnover has been fluctuating throughout four years time period and in 2020 company had the highest inventory turnover ratio of 6.51. By considering this fluctuating inventory turnover ratio of Tesla, it can be said that the company is unable to use or sell the inventories to generate more sales properly. Moreover, it is reflecting the poor efficiency of inventory management (Tesla.com, 2021).

Receivable Turnover Ratio

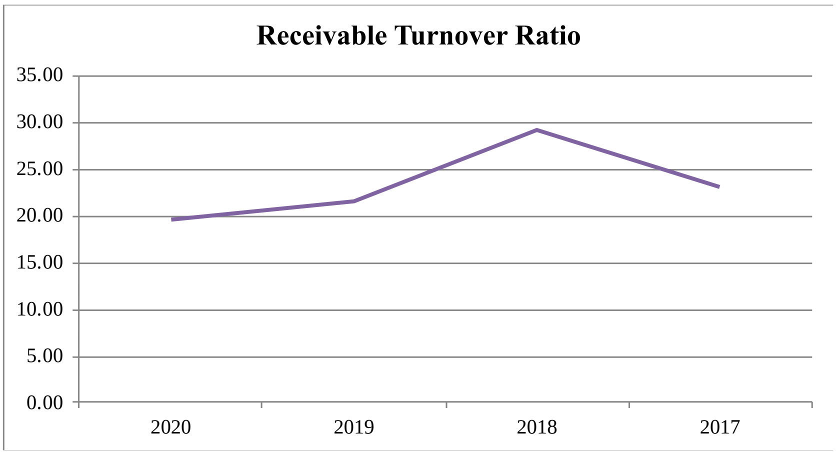

Figure 5: Receivable Turnover Ratio of Tesla Inc.

This ratio would measure how efficiently a company can extend its credit and would collect debts. However, for Tesla, it is observed that the receivable turnover ratio has been fluctuating at a diminishing rate (Lee & Lee, 2018). Moreover, after having the highest receivable turnover of 29.31 in 2018, in 2019 and 2020, Tesla's receivable turnover has decreased drastically, and in 2020, it became a lower margin of 19.65. The primary cause is the poor credit policy of Tesla, with having more delinquent customers.

Total Assets Turnover Ratio

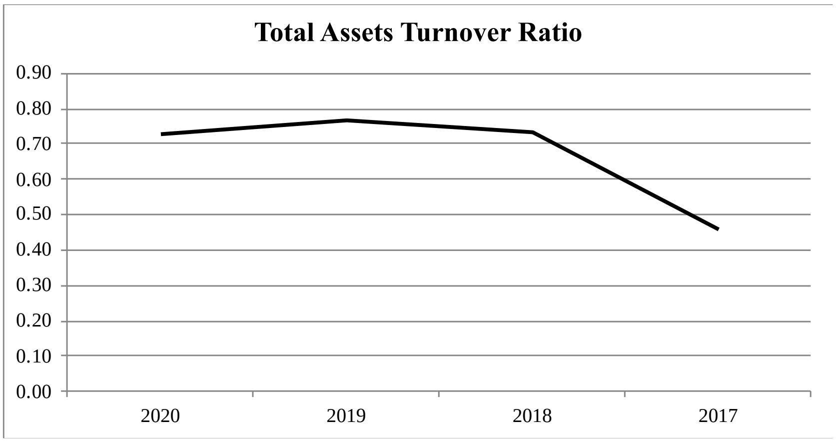

Figure 6: Total Assets Turnover Ratio of Tesla Inc.

This ratio would measure the efficiency of the company to use its assets to generate more sales revenue. Thus, for Tesla, it is found that the margin of total assets turnover has been fluctuating over the four years (Carreras Simó & Coenders, 2020). Furthermore, after having the highest margin of 0.77 in 2019, again in 2020, Tesla's total assets turnover margin has decreased to 0.73. It is reflecting inefficiency in using assets to generate revenue, and it is also indicating towards inefficient asset management activity of Tesla.

Debt Ratio

Table 4: Debt Ratio of Tesla Inc.

Ratio / Year	2020	2019	2018	2017
Debt Ratio	0.56	0.78	0.81	0.82
Times Interest Earned Ratio	2.54	0.03	-0.52	-3.69

Debt Ratio

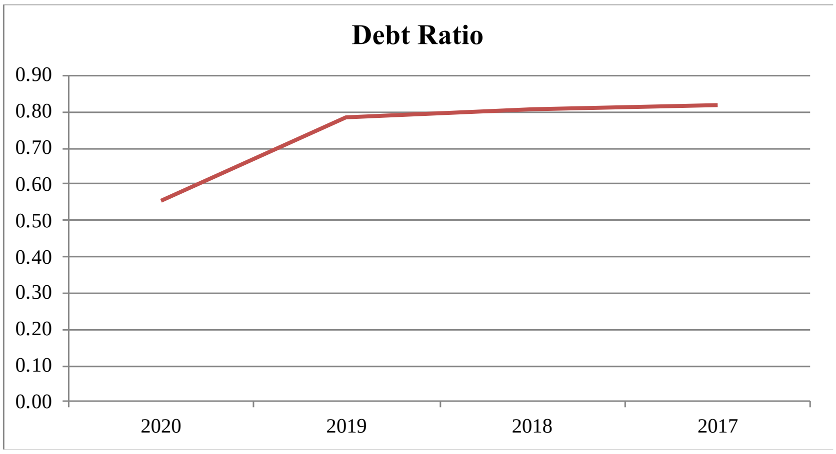

Figure 7: Debt Ratio of Tesla Inc.

This ratio would measure the proportion of a company's assets that are financed through debt capital. Significantly, in the case of Tesla, it has been found that the company's debt ratio margin has gradually decreased over four years time period. Furthermore, in 2020 Tesla had the lowest debt ratio margin of 0.56. That means Tesla relies less on the debt capital to finance its assets (Daryanto & Samidi, 2018). Moreover, that would be a better sign for Tesla as lower debt financing for assets would lower the debt or solvency risk.

Times Interest Earned Ratio

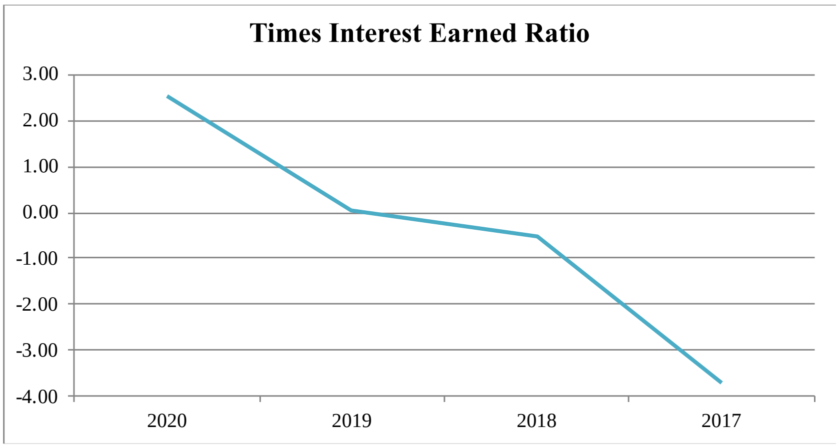

Figure 8: Times Interest Earned Ratio of Tesla Inc.

This ratio would measure the company's ability to meet its debt obligations based on the present income. Thus, based on the Times Interest Earned ratio of Tesla, it has been found that over the four years, the margin has increased, specifically after being negative for 2017 and 2018 consecutively. Moreover, in 2020 Tesla had the highest TIE ratio of 2.54. It is exhibiting that Tesla is in a good financial position and can meet its debt obligations based on present income as the TIE margin has increased (Tesla.com, 2021).

Profitability Ratio

Table 5: Profitability Ratio of Tesla Inc.

Ratio / Year	2020	2019	2018	2017
Return on Equity (ROE)	2.99%	-11.54%	-16.95%	-37.47%
Return on Assets (ROA)	1.32%	-2.51%	-3.28%	-6.84%
Profit Margin	21.02%	16.56%	18.83%	18.90%

Return on Equity (ROE)

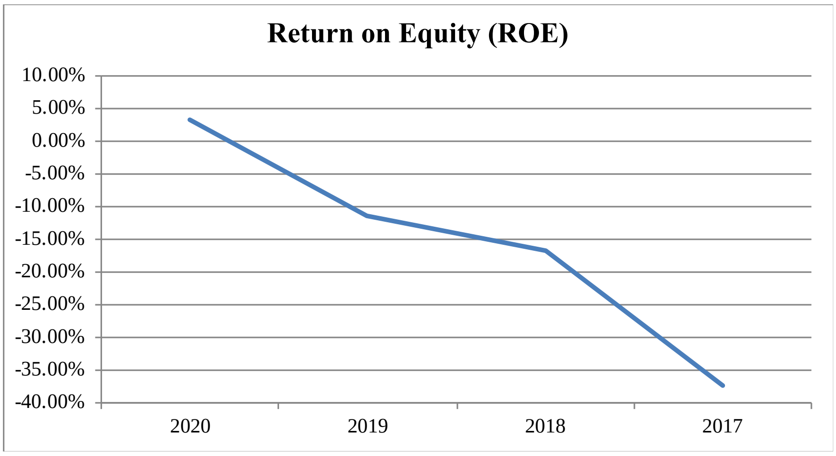

Figure 9: Return on Equity (ROE) of Tesla Inc.

Tesla's ROE margin has increased significantly over the four years. After having a continuous negative trend of ROE, in 2020, Tesla had the highest and positive margin of ROE that is 2.99%. The key reason behind this is the negative growth of net profit margin, which has led the return on equity to be negative, and with positive growth in net income or profit, Tesla's return has also increased (Firdaus & Endri, 2020). Thus, it can be said that currently, Tesla has a profitable performance with potential investment opportunities as the return is higher.

Return on Assets (ROA)

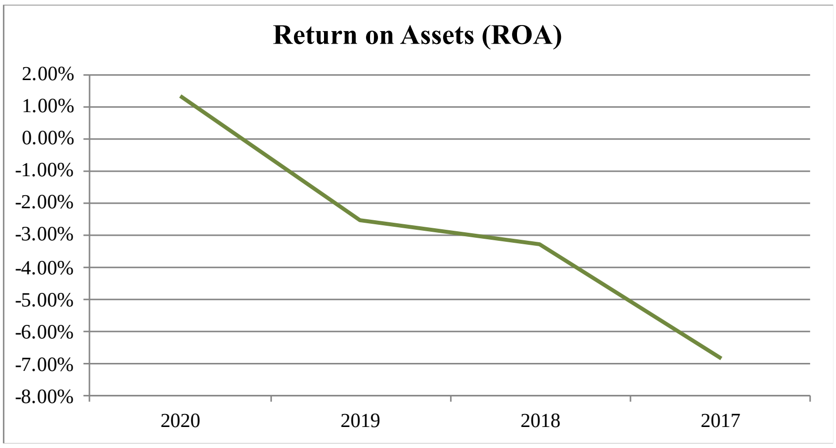

Figure 10: Return on Assets of Tesla Inc.

Likewise ROE, Tesla's ROA margin has also increased significantly over the four years and in 2020 company had the highest ROA of 1.32%. It is denoting that Tesla is currently in a profitable position to earn more money on less investment.

Profit Margin

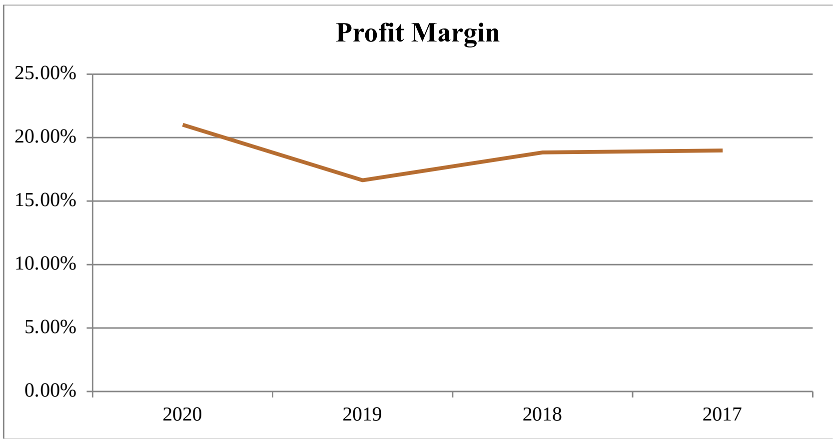

Figure 11: Profit Margin of Tesla Inc.

However, Tesla's profit margin has been fluctuating throughout four years, and in 2020, it had the highest profit margin of 21.02% after having the lowest profit margin of 16.56% in 2019. The main reason for this lower profit margin is denoting unstable profitability in terms of the chosen selling price, which is not much higher than the costs (Ali & Faisal, 2020). This, as a result, would lower the sales revenue margin.

Cash Flow Ratio

Table 6: Cash Flow Ratio of Tesla Inc.

Ratio / Year	2020	2019	2018	2017
Cash Flow to Total Assets Ratio	0.137	0.075	0.072	-0.002
Cash Flow to Sales Ratio	0.19	0.10	0.10	-0.01

Cash Flow to Total Assets Ratio

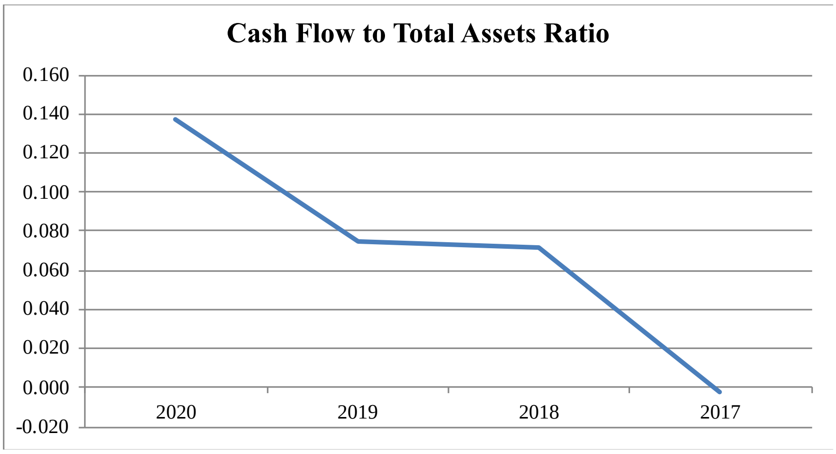

Figure 12: Cash Flow to Total Assets Ratio of Tesla Inc.

This particular ratio would measure the company's efficiency by rating cash flows to assets without being affected by income recognition or measurements. Therefore, in the case of Tesla, it has been found that the cash-flow to total assets ratio has increased gradually over the four years. Moreover, in 2020 company had the highest margin of 0.137. This increasing cash-flow increase to total assets ratio denotes that Tesla is efficiently utilizing its cash-flows to assets without affecting the income growth (Maisharoh & Riyanto, 2020).

Cash Flow to Sales Ratio

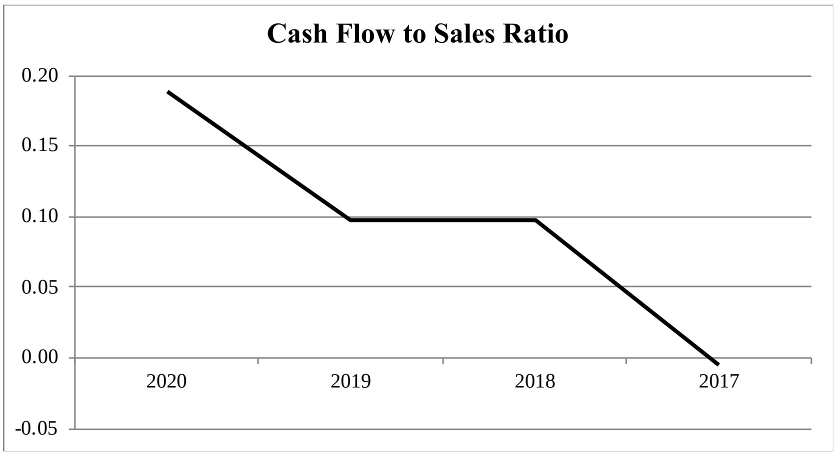

Figure 13: Cash Flow to Sales Ratio of Tesla Inc.

On the other hand, this ratio would reveal the company's ability to generate cash flow in proportion to sales volume. Significantly, in the case of Tesla, it could be found that the cash-flow to sales ratio has increased gradually over four years. Furthermore, in 2020 Tesla had the highest margin of cash-flow to sales ratio of 0.19. This increasing and higher-margin is exhibiting that Tesla performs effectively with greater capacity to turn sales into cash (Tesla.com, 2021).

Discussion

However, based on the entire analysis of the financial situation of Tesla, this can be stated that apart from profitability position, the financial performance of Tesla is good from 2017 to 2020 in this situation. According to their financial data, their current assets increased tremendously in 2020 compared to 2017, which states that Tesla can accomplish all of its short-term obligations under different circumstances. On the other side, both efficiency and debt situation are good, but they need to pay more attention while maintaining their profitability position in this context (Brazer & Daryanto, 2019). Hence, considering all these aspects, it can be identified that Tesla maintains their responsibilities towards its stakeholders by fulfilling its clean energy objectives. Therefore, this kind of situation helps the management of this organization maintain their sustainability towards their environment within which they are operating. Lastly, concerning the entire situation, it can also be stated that Tesla has maintained and created all their financial reports ethically, which further shows their authenticity regarding their operations.

Recommendations to investors

Based on the above findings and discussion, it has been found that Tesla's financial performance has been fluctuating and deteriorate in terms of receivable turnover, total assets turnover and specifically in terms of net profit margin. Therefore, these poor performing aspects of the company could increase the risk of inadequate assets management and debt collection period and poor profitability. Thus, based on these identified areas, the following recommendations are made to the management of Tesla:

- Firstly, to increase the efficiency of receivables turnover, management is recommended to incentivize the early payments of the customers and increase billing efficiency for a quick debt collection process.
- Secondly, to increase total assets turnover and utilization of assets to generate more sales, the management of Tesla is recommended to cut the accounts receivables within current assets.
- And, to increase the profit margin, management is further recommended to cut the operating and revenue costs as reduced costs would increase the sales margin. Moreover, as a result, profitability would enhance.
- Contrarily, return on equity capital and assets also indicates the profitable performance of this motor giant. Thus, to gain an increasing return percentage on investment, investors are recommended to invest in Tesla.

Conclusion

Henceforth, per the above discussion and evaluation, it can be implied that financial analysis by using ratios is essential. This is simply because; financial ratio analysis would help analyze and understand the company's financial position, liquidity, profitability, and cash-flow position alongside any available risks in terms of solvency. Significantly, based on the four years' financial analysis of global motor giant Tesla motors, it has been observed that the overall company's financial position is currently more substantial in the market. Specifically, in terms of liquidity, cash flows, and debt position, Tesla's financial performance has been sustainable throughout the four years with no risk of liquidation and debt pr solvency. However, on the contrary, it has been found that in terms of asset utilization, receivables management and net income margin, Tesla has suffered highly. Thus, management is suggested to provide more concern on fund and assets management alongside focusing more on quick debt collection and cost controlling measurement. It would provide efficiency to operations while enhancing profitability outlook in the long run.

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