**Ratio Analysis of Samsung Electronics Co., Ltd.**

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**Abstract**

This paper will examine the financial performance of Samsung Electronics Co. Ltd. from the years 2016 to 2019. Currently, it is known that the sales and profitability of the company have been affected due to its exposure to the changes in their economic environment. Hence, this paper will determine their financial health and identify whether the company can be recommended for investors and creditors as a choice for investing in or lending to the company. The method for analyzing their financial position will be done through the use of ratio analysis, thus, this paper will include calculations of liquidity ratios, activity ratios, debt ratios, and profitability ratios from the Income Statement and Balance Sheet of Samsung Electronics Co., Ltd.

**Introduction**

Established in 1969, Samsung Electronics Co., Ltd (SEC) was created as a subsidiary of Samsung Group, and over time, it has grown to be one of its most significant units. This subsidiary was developed by Samsung as it aimed to enter into the electronics market, and their initiative proved to be successful since it has become one of the market’s powerful leaders today (Burris, 2020). Currently, SEC has four divisions, which are: Consumer Electronics (CE), Information Technology and Mobile Communications (IM), Device Solutions (DS), and Harman. Based on research findings, they are most successful in the CE and IM divisions, as their highly demanded products are televisions and smartphones. However, there has been a decline in their profits during 2019, as a significant drop in sales from the DS division had been reported. It is assumed that there has been a fall in demand for one of the products in this division, which are reported to be the semi-conductors, due to economic changes and fierce competition. The current economic environment is suggested to be influenced by the implications of the trade war between the US and China, which had severely affected Samsung, and with the ongoing pandemic of COVID-19, more risk factors are to be added in the current economic challenges that the company is facing (SAMSUNG, 2019).

Considering the situation of Samsung, it is significant to study their current financial position to understand if they can be recommended for investors to invest in since it appears that they are facing several challenges. Moreover, this assessment can aid effective managerial decisions that should be made by the SEC to ensure their survival in this thriving market. With this intention, the goal of this paper is to assess the financial health of the company through the use of ratio analysis, and based on the results, recommendations can be made whether investors are encouraged to invest or not, and managerial decisions can be effectively made through what the outcomes depict SEC’s current financial state is.

Financial statements are designed to aid the decision-making of investors, creditors and other stakeholders as it supplements their understanding of the business with the use of its historical data, and this can help in creating predictions of any company’s cash flow and profitability. A company’s financial performance can be assessed through the evaluation of the company’s liquidity, profitability, efficiency, and structure of its capital (Mautz, Jr., & Angell, 2006). To consider a company to be financially stable, they would have good liquidity, profitability, and structure of capital, and these can be assessed with the use of ratio analysis on their Income Statements and Balance Sheets. For example, most investors perform financial analysis to make decisions based on whether a company’s liquidity state is good enough to invest in since it is identified that those who have good liquidity is normally linked to bringing business to have good profitability, which is the desired factor for investors to see in a business (Rashid, 2018).

Moreover, ratio analysis is also a useful tool for companies to use in predicting their future financial performance where effective decisions can be made to assure that the objectives of the business will still be met, and overall ensures the stability of the business (Myšková & Hájek, 2017). SEC can find this helpful as the assessments of their current situation and predictions of their future performances can improve their financial management. Effective management of finance is crucial, as any potential corporate failure would be prevented if effective strategies and financial management would be developed earlier to counter these failures from rising (Muhairi & Nobanee, 2019). Therefore, effective financial management supplements the reduction in risks of failing to reach the achievement of their objectives, and can ultimately promote more opportunities for both the growth of the business and its financial performance (Al Ahbabi & Nobanee, 2019).

Overall, performing a ratio analysis of SEC does not only advise investors on their decision-making on choosing whether to invest or not, but it can also improve the company’s financial management through the consistent assessment of their financial performances that is determined by the analysis of their financial ratios, which is currently substantial for the company since they are recently operating under an unstable economic environment.

**Data and Methodology**

Yahoo Finance was used to collect data from the SEC’s Income Statement and Balance Sheet. Data were selected based on the requirements needed for the calculations of liquidity, activity, debt, and profitability ratios. The values entered are from the years 2016 to 2019 and is in the currency of Korean Won (KRW).

**Table 1: Financial Data (SEC)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item/Year | 2019 | 2018 | 2017 | 2016 |
| Current Assets | 181,385,260,000 | 174,697,424,000 | 146,982,464,000 | 141,429,704,000 |
| Current Liabilities | 63,782,764,000 | 69,081,510,000 | 67,175,114,000 | 54,704,095,000 |
| Inventories | 26,766,464,000 | 28,984,704,000 | 24,983,355,000 | 18,353,503,000 |
| Cash | 108,779,703,000 | 100,939,943,000 | 83,184,201,000 | 88,182,313,000 |
| Receivables | 35,131,343,000 | 33,867,733,000 | 27,695,995,000 | 24,279,211,000 |
| Total Assets | 352,564,497,000 | 339,357,244,000 | 301,752,090,000 | 262,174,324,000 |
| Total Liabilities | 89,684,076,000 | 91,604,067,000 | 87,260,662,000 | 69,211,291,000 |
| Total Equity | 254,915,472,000 | 240,068,993,000 | 207,213,416,000 | 186,424,328,000 |
| Sales | 230,400,881,000 | 243,771,415,000 | 239,575,376,000 | 201,866,745,000 |
| Cost of Goods Sold | 147,239,549,000 | 132,394,411,000 | 129,290,661,000 | 120,277,715,000 |
| EBIT | 27,768,509,000 | 58,886,669,000 | 53,645,038,000 | 29,240,672,000 |
| Interest | 686,356,000 | 674,617,000 | 655,402,000 | 587,831,000 |
| Net Income | 21,505,054,000 | 43,890,877,000 | 41,344,569,000 | 22,415,655,000 |

*All numbers are in thousands, Source: Yahoo Finance*

The ratios that would be used in the financial analysis of the SEC are the Liquidity, Activity, Debt, and Profitability Ratios.

Liquidity ratios measure the liquidity of a company, which is their capability of transforming their assets into cash. Through this measurement, it is possible to determine how well a company can meet its short-term debts without needing to raise further capital (Hayes, 2019). Although many investors consider the profitability of a company to be an important factor for their decision-making, liquidity is mentioned to be an equally significant evaluator of a firm’s financial position as well, since it shows whether the company has chances of entering bankruptcy, which most investors would consider the company as a risky choice (Rashid, 2018). Finally, this paper will explore the liquidity position of the SEC through the use of current, quick, and cash ratios.

Activity ratios, on the other hand, are used to measure the firm’s efficiency in utilizing their assets in producing sales or cash and how efficient they are in collecting their receivables. Measuring a company’s efficiency can involve assessing their asset and inventory management, as well as operational efficiency since it can monitor how well the company can distribute or produce their outputs in a manner that generates profits efficiently (Kenton, 2020a). In the case of SEC, this paper will be using the Inventory, Receivable, and Total Asset Turnover as a measurement to determine their efficiency.

Debt ratios will also be used to identify how reliant SEC is in funding their assets through liabilities. This measurement will be helpful for investors and creditors to know, as the degree of risk will be identified. If the company is found to have debt ratios at a high number, it indicates that they are greatly dependent on debts to fund their operations, which can be risky if it is found that the company is troubled with repayments, and it can result to discouraging creditors from lending to the company. Moreover, with the use of ratios, it is also plausible to measure how a company is capable of repayments and the duration it would take them to do so (Zutter & Smart, 2019). Debt ratios will be useful for creditors and investors in determining the level of risk in selecting SEC as a choice for investing or lending, as the factors of the company’s capabilities on repayments and the duration it normally takes for them to pay them back will be assessed. Hence, to measure these factors, the ratios used will be Debt ratio and Times Interest Earned Ratio.

Lastly, profitability ratios can depict a firm’s ability to produce profits through their sales, costs, assets, and the equity of its shareholders as well (Kenton, 2020b). This is what most investors would seek to know as it is shown how capable the company is in producing high returns from their shareholder’s investments. Moreover, it is also used as a tool to assess how successful the company has been, as most businesses have the primary goal of maximizing profits. Monitoring their performance will allow effective decision-making if it is noticed that they have not been effective in generating earnings, which will be useful in the case of SEC as their profits have been reported to decline in 2019. Therefore, to examine the profitability of the SEC, the financial ratios of Return on equity, return on assets, and Profit margins will be used.

Overall, the usefulness of the results from the ratio analysis of SEC’s financial statements can be gained with comparisons of its ratios from previous years and its competitors. However, in this paper, the analysis will only consider its financial performance across the years 2016 to 2019.

**Results and Discussion**

**Table 2: Liquidity Ratios of SEC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ratio/Year | 2019 | 2018 | 2017 | 2016 |
| Current Ratio | 2.84 | 2.53 | 2.19 | 2.59 |
| Quick Ratio | 2.42 | 2.11 | 1.82 | 2.25 |
| Cash Ratio | 1.71 | 1.46 | 1.24 | 1.61 |

***Figure 1: Current Ratio of SEC***

Current Ratio reveals how a company’s current assets can pay for its current liabilities, otherwise known as a measure of how well it can meet its short-term debts. The optimal ratio must be between 1.5 and 2.0, and anything below 1.0 indicates that they are insufficient in meeting their current liabilities, while above 2.0 shows that they have enough to be solvent in the short-run. SEC shows consistently high ratios over 4 years as they are all above 2.0, and it has begun to increase even more from 2017. It signifies that they are capable of meeting their short-term obligations. Their capability can be explained through the prioritization of SEC in liquidity, as they have created strict management to prevent any worse situations that can lead them to be illiquid (SAMSUNG, 2019).

***Figure 2: Quick Ratio of SEC***

Quick Ratio shows a clearer insight into how liquid a company is when meeting its current liabilities as only its trade receivables and cash are considered, as it excludes inventory. SEC doesn’t appear to struggle in meeting its short-term debts within 4 years from 2016 to 2019, as the ratio has not fallen below 1 ever since. Not only does it show that SEC has good liquidity management but it also shows how effective they are in improving their liquidity position due to the rise of the ratio 1.87 in 2017 to 2.42 in 2019.

***Figure 2: Quick Ratio of SEC***

***Figure 3: Cash Ratio of SEC***

The cash ratio measures the liquidity of a company through how its cash and cash equivalents can meet its current liabilities. It considers a company’s most liquid assets on how it can meet its short-term debts. Although the ratio had dropped from 1.61 in 2016 to 1.24 in 2017, it quickly recovered as it had risen to 1.71 in 2019.

The Liquidity ratios of SEC shows that they have managed their working capital effectively as it has suggested that their current assets always exceed their current liabilities. Moreover, the ratios had not fallen under 1 since 2016, which indicates that they have effective liquidity management. Through their management, the chances of being bankrupt are extremely low for the company, which can be attractive for investors to know. Finally, SEC appeared to be at its best liquidity position in 2019, with the ratios of 2.84, 2.42, and 1.71 in their current, quick, and cash ratios respectively, which are the highest as compared to the previous 3 years of the company.

**Table 3: Activity Ratios Ratios of SEC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ratio/Year | 2019 | 2018 | 2017 | 2016 |
| Inventory Turnover | 5.50 | 4.57 | 5.18 | 6.55 |
| Receivable Turnover | 6.56 | 7.20 | 8.56 | 8.31 |
| Total Asset Turnover | 0.65 | 0.72 | 0.79 | 0.77 |

***Figure 4: Inventory Turnover of SEC***

Inventory turnover indicates the frequency of a company selling and replacing their inventory at a certain time. It would be more favorable to the company if the number of times of turnover is revealed to be higher, as a low turnover can indicate poor inventory management. During 2016, SEC shows that they replace their inventory 6.55 times but it has fallen to 4.57 times in 2018. However, it appeared to slightly recover as it had risen to 5.50 times in 2019, suggesting the inventory was more efficiently managed in 2019 than the previous 2 years.

***Figure 5: Receivable Turnover of SEC***

Receivable Turnover shows the efficiency or how quickly a company receives the amount owed to them from their customers. If the ratio is mentioned to be higher, it would mean that the company has been receiving payments from their debtors more quickly, which is desirable as there are higher chances where cash flow will be improved. There was a slight increase in efficiency from 2016 to 2017, as it increased from 8.31 times to 8.56 times. However, it began to drop from 2017 to 2019, as it fell from 8.56 times to 6.56 times. The year 2019, revealed to be the lowest point of their Receivable Turnover compared to the previous 3 years. This suggests that they are experiencing some difficulties in receiving payments from their debtors.

***Figure 6: Total Asset Turnover of SEC***

Total Asset turnover indicates how well a company utilizes its assets to produce revenue. Efficiency in utilizing their assets to generate revenue was shown from the years 2016 to 2017, as there was a slight increase from 0.77 to 0.79. Moreover, it has begun to decrease from 2017 to 2019, as it fell from 0.79 to 0.65, indicating its lowest point as compared to the previous three years. This suggests that the company is facing an issue to increase their sales, or they have too much inventory or assets left unused and are ineffective in generating revenue.

Activity Ratios of SEC have shown that they are beginning to be less effective in collecting payments from debtors within 2019, as well as their utilization of assets to produce revenue had dropped at its lowest when compared to the previous 3 years. However, SEC has shown an improvement in its inventory efficiency in 2019 as compared to the drop they experienced from 2017 to 2018.

**Table 4: Debt Ratios of SEC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ratio/Year | 2019 | 2018 | 2017 | 2016 |
| Debt Ratio | 25% | 27% | 29% | 26% |
| Times Interest Earned Ratio | 40.46 | 87.29 | 81.85 | 49.74 |

***Figure 7: Debt Ratio of SEC***

The debt ratio shows the proportion of a company’s assets that are financed by debt. SEC shows a debt ratio of less than 100%, which is desirable for investors and creditors to see. It also indicates that they have more assets than debts, which suggests that they are financially healthy. 2017 was the year that SEC had experienced its highest debt ratio of 29% within the 4 years. However, it has fallen from 29% to 25% in 2019. This is a good indication of SEC’s financial health as they do not appear to be heavily reliant on debts to fund their assets, especially since it had decreased from 2017 to 2019.

***Figure 8: Times Interest Earned Ratio of SEC***

Times Interest ratio measures how a company is capable of meeting their interest payments with their present EBIT. It presents the number of times a company can cover its interest payments with its EBIT. SEC shows that they are very capable of meeting their interest payments obligations since their ratio in 2016 shows that they are 49 times capable of covering their interests, while 2018 serves as the highest, with 87 times. This signifies that the company would not face any difficulty in paying their long-term obligations due to the high number of times that indicates its capabilities in paying interests. However, the ratio significantly dropped to 40 times in 2019. This could be suggested by the decline in sales, resulting in a drop in their EBIT, and with the added challenge of increased interest payments within 2019, it is assumed that it had led to difficulties the company is facing in meeting their obligations.

The debt ratios of SEC show that the company is in a good financial position as they appear to be less reliant on debts to fund their assets, and it has improved further in 2019. However, its Time Interest Earned Ratio showed that SEC was in a better condition from 2016 to 2018, as it had dropped by half in 2019. Although, SEC still presents a low risk for investors and creditors to select the company as the choice of investing in or lending to, as the ratios depict the company to be solvent, based on their low debt ratios and high number of times in paying interests.

***Table 5: Profitability Ratios of SEC***

***Figure 9: Return on Equity of SEC***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ratio/Year | 2019 | 2018 | 2017 | 2016 |
| Return on Equity | 8% | 18% | 20% | 12% |
| Return on Assets | 6% | 13% | 14% | 9% |
| Profit Margin | 9% | 18% | 17% | 11% |

Return on equity shows a company’s ability to effectively utilize their shareholder’s equity into profits. If the percentage is high, it indicates that the company is effectively using their investor’s funds to produce profit, which is what most shareholder’s desire to see as it indicates higher returns from their investments. With an increase from 12% to 20% in 2016 to 2017, SEC has been utilizing their shareholder’s equity effectively to generate profits. However, from 2017 to 2019, it has fallen from 20% to 8%. This can suggest that Samsung may have slowed down in seeking to generate returns for their investors as they have been ineffectively used their investor’s finance from 2017. Moreover, it is suggested that this drop could be due to the decline in their profits. This can be risky factor as it could discourage potential investors in selecting SEC to invest in.

***Figure 10: Return on Total Assets of SEC***

Return on Total Assets indicates how a company can effectively generate profit from utilizing their assets. Within 2016 to 2017, it has shown an increase from 9% to 14%, signifying that they have been utilizing their assets effectively to generate profit. However, it has dropped from 2017 to 2019, with 14% to 6% respectively. This suggests that SEC has inefficiently used their assets to increase profits, as it is also shown that their net income had declined in 2019. The drop in their ROA is also linked to the drop in their ROE, as it indicates that they have not been using their investor’s finance efficiently in generating profits as well. The fall in this ratio can be discouraging for investors, as they are seeking for a company that can promise high returns from their investments.

***Figure 11: Profit Margin of SEC***

Profit margin shows how a company effectively generates profits from the sales that they have made. SEC shows that they have been successful in the growth of sales from 2016 to 2017, resulting to an increase in profit margins from 11% to 17%. This can be explained through their release of their QLED TV, which is the very first kind of TV in the global market, and this had boosted their sales as they were highly demanded. They continued to secure their leadership in the year 2018, which improved their profit margin to 18% (SAMSUNG, 2019). However, there is a decline in their profits due to fall in sales during 2019. It has been suggested that Samsung had been negatively affected by the trade war between US and China and to fierce competition, which results to a fall in demand towards one of their products, semiconductors. This resulted to significant fall in sales and it had affected the company’s profits (Business Times, 2019). Overall, this can be predicted on the basis of their ROA and ROE, as the previous ratios had depicted an inefficient usage of assets to generate profits.

Overall, the profitability ratios show that the company had experienced difficulties in generating profits over the years from 2018 to 2019. This fall in profits can be explained through the increases in operating costs and decline in sales, which had led to a significant fall in their operating profit in 2019 as compared to 2018. Furthermore, their ROE and ROA has shown that the company has been inefficient in utilizing their total assets in generating sales, which had led to the fall in their profits. The drop in these ratios can be discouraging for potential investors as low confidence is expected when these figures depict potential low returns for SEC’s shareholders.

**Conclusion**

SEC appears to be stable in terms of liquidity and in their structure of capital, as they their ratios deem themselves to be capable of paying their short-term debts effectively and they are also shown to be less reliant on debt in funding their operations. However, their activity and profitability ratios can differ in comparison.

Their liquidity position has grown to improve from 2017 to 2019 and this can benefit them in the long run. Through effective management, they can develop further strategies with the aim of improving their profitability, without the risks of being unable to pay their debts that can arise from the planned activities they would do in the future (Alnuaimi & Nobanee, 2020). This is evident in SEC through their liquidity results, since it defines the company to have extremely low chances of bankruptcy, and this is attractive to investors and creditors as it shows that there are high chances of earning repayments. Moreover, SEC is seen to be financially healthy in terms of their debt ratios as results shows that their assets is enough to be capable of paying off their liabilities, which is another factor that investors and creditors can desire at this current time, as it indicates that the company is able to pay them back despite of the unstable economic environment caused by the ongoing pandemic. However, the Time Interest Earned Ratio contrasts the improved results of the debt ratio as it had declined over time, although, this ratio is not expected to be completely discouraging for financially concerned stakeholders as results is depicted to still be very high, which indicates that SEC is able to pay their obligations effectively.

On the other hand, SEC’s activity ratios depict the company to be less efficient in 2019. They appear to have difficulties in collecting payments from debtors and they are also becoming less effective in utilizing their assets to produce revenues. Contrarily, an improvement has been noticed in their Inventory Turnover in 2019 as compared to the fallen results shown from 2017 to 2018. Furthermore, the fall in their sales could be a consequence of the changes within the economic environment and from increasing competition in the electronics market, and this had caused a fall in their profits. This can be further explained from their ROE and ROA, as the ratio’s results has shown that the company has been inefficient in utilizing their total assets in generating sales, which can be discouraging for potential investors when they notice that the current SEC’s shareholder’s equity is not being utilized efficiently to generate profits.

Finally, in the year 2020, the economic environment is predicted to be more unstable due to the current pandemic, and this may affect their financial performance even more. However, the overall results of SEC’s ratio’s analysis is not deeming the company to be at its worst state over its entire lifespan as of now, but rather they are facing challenges that many can expect for the business to overcome across time, as they can still be seen to be financially healthy on the basis of their liquidity and their structure of capital. Hence, it is still advisable for SEC to be a choice for investors and creditors, however, it is still important for the firm to execute effective managerial decisions that would solve the issues that is revealed from their activity and profitability ratios.

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