

## CUSTOMER SATISFACTION AND FINANCIAL PERFORMANCE OF PT. GARUDA INDONESIA (PERSERO) TBK.

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**Abstract:** An increase in passengers does not always accompany the rise in Garuda Indonesia's customer satisfaction index (CSI). However, even though the number of passengers decreased, income on scheduled airline service showed an increasing trend. On the other hand, this condition has no implications for increasing the company's profitability. This phenomenon is important to study because it will likely decline if it refers to the projection of the number of aircraft passengers in the following year. This problem will, of course, impact the financial condition of the airline company, so it is necessary to do several alternative strategies to overcome it. This study aims to analyze trend of CSI on Garuda Indonesia's, determine the effect of customer satisfaction (CSI) on Garuda Indonesia's financial performance and formulate an alternative approach to improve the company's financial performance in the future. The results show that customer satisfaction harms financial performance through return on assets (ROA). Firm size is negative to moderate the relationship between CSI and ROA. Meanwhile, sales growth cannot moderate the relationship between CSI and ROA. An alternative strategy that the company can take to improve its financial performance is making efficient operating expenses, including operational flight expenses, ticket expenses, sales, promotions, and passenger service expenses. In addition, the company can also maximize the company's loyalty program.

**Keywords:** customer satisfaction, financial performance, return on assets, airline industry, Garuda Indonesia

**Abstrak:** Peningkatan customer satisfaction index (CSI) Garuda Indonesia tidak selalu diiringi dengan peningkatan jumlah penumpang. Akan tetapi, walaupun jumlah penumpang menurun pendapatan pada penerbangan berjadwal menunjukkan tren yang terus meningkat. Namun, kondisi tersebut tidak berimplikasi pada peningkatan profitabilitas perusahaan. Fenomena tersebut menjadi penting untuk diteliti karena jika mengacu pada proyeksi jumlah penumpang pesawat di tahun selanjutnya kemungkinan masih akan terus menurun. Permasalahan tersebut tentu saja akan berdampak pada kondisi keuangan perusahaan penerbangan sehingga perlu dilakukan beberapa alternatif strategi untuk mengatasinya. Tujuan utama dari penelitian ini adalah untuk mengetahui pengaruh customer satisfaction (CSI) terhadap kinerja keuangan Garuda Indonesia dan merumuskan alternatif strategi untuk meningkatkan kinerja keuangan perseroan di masa depan. Hasil menunjukkan bahwa customer satisfaction berpengaruh negatif terhadap kinerja keuangan melalui return on asset (ROA). Firm size diketahui dapat memoderasi hubungan antara CSI dan ROA, namun bernilai negatif. Sedangkan sales growth tidak dapat memoderasi hubungan antara CSI dan ROA. Alternatif strategi yang dapat dilakukan perseroan untuk meningkatkan kinerja keuangannya yaitu dengan melakukan efisiensi pada beban usaha, diantaranya pada beban operasional penerbangan, beban tiket, penjualan dan promosi, serta pada beban pelayanan penumpang. Selain itu perseroan juga dapat memaksimalkan program loyalitas perseroan.

**Kata kunci:** customer satisfaction, kinerja keuangan, return on assets, industri penerbangan, Garuda Indonesia

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## INTRODUCTION

Financial performance can be measured through profitability growth (Matar and Eneizan, 2018). In service companies, customer satisfaction has an important role in the company's financial performance. This is because customer satisfaction affects the company's financial performance (Sun and Kim, 2013). One of the service companies in Indonesia is PT Garuda Indonesia (Persero) Tbk, which is a State-Owned Enterprise. On scheduled flight services, Garuda Indonesia provides passenger flight services with Full-Service Carrier services. Garuda Indonesia conducted a satisfaction survey through the customer satisfaction index (CSI) to assess passenger satisfaction. The company's CSI shows an increasing trend every year. However, the increase in CSI is not always directly proportional to the growth in the number of passengers. On the other hand, if viewed from the company's financial statements, the number of scheduled flight revenues has actually increased even though the number of passengers has decreased. In fact, when Garuda Indonesia experienced the highest decline in the number of passengers in 2019, the percentage of scheduled flight revenue generated the highest increase. Garuda Indonesia managed to achieve an increase of 5.60 percent compared to the previous year. However, this condition does not affect the company's profitability through return on assets (ROA). This phenomenon is important to study because if we refer to the projected number of aircraft passengers in the following year, it will likely continue to decline due to the impact of the COVID-19 pandemic. According to the International Air Transport Association or IATA (2020), aircraft passengers will likely recover or return to normal in 2024. This problem will, of course, impact the financial condition of the airline companies, so that several alternative strategies are needed to overcome them.

Profitability can be measured using return on assets (ROA). The proxy is a representative of financial ratios to evaluate performance (Sun and Kim, 2013). The customer satisfaction index is one of the most frequently measured marketing instruments by most companies to determine the extent of their customer satisfaction. Eklof et al. (2020) stated that customer satisfaction positively influences profitability by measuring return on assets (ROA). Ghaia and Ammar (2018) add that sales growth affects the company's financial performance. In their research, Sun and Kim (2013) stated that sales have an essential role in the

relationship between customer satisfaction and financial performance. In addition to sales growth, Ghaia and Ammar (2018) explains that firm size also affects the company's financial performance. In a study conducted by Assaf et al. (2015), firm size can be a moderating variable to strengthen the relationship between customer satisfaction and financial performance.

This research was conducted to provide an overview of what factors can affect a company's financial performance. In addition, there is still a lack of research on the relationship between customer satisfaction and company financial performance, especially in the aviation or air transportation sector, which is interesting to study. As explained in the background, the airline industry is currently experiencing a decline in passengers. When viewed in the previous few years, the number of passengers continued to increase, followed by an increase in revenues and customer satisfaction. However, increasing the amount of revenue does not always have implications for increasing the company's profitability. Therefore, it is important to conduct a study to examine the situation so that this research is expected to provide an analysis related to the company's decision-making in the future, especially on the financial side.

This study aims to analyze trend of CSI on Garuda Indonesia's, then determining the relationship between customer satisfaction and Garuda Indonesia's financial performance, the influence of customer satisfaction on Garuda Indonesia's financial performance through revenue growth and company size, and then formulate alternative strategies to improve Garuda Indonesia's financial performance. This research is limited to the company's financial performance in profitability with the return on assets proxy as the dependent variable. The independent variable used is customer satisfaction using customer satisfaction index data in the annual report of Garuda Indonesia. The moderating variables used in this study are sales growth rate and firm size. This study focuses on the performance of the Garuda Indonesia company from 2009 to 2019.

## METHODS

The research was conducted from March to July 2021. Research conducted on PT Garuda Indonesia (Persero) Tbk. This study uses secondary data, including return on assets, customer satisfaction index, sales growth

ratio, and firm size. The data are obtained from the annual and financial reports of Garuda Indonesia for the period 2009 to 2019 are collected through the site [www.idx.com](http://www.idx.com) and [www.garuda-indonesia.com/id/en/investor-relations/index](http://www.garuda-indonesia.com/id/en/investor-relations/index).

Secondary data was collected by purposive sample with the following criteria: (1) The annual report of Garuda Indonesia, which included data on the customer satisfaction index. (2) The financial statements PT Garuda Indonesia (Persero) Tbk, especially only on Garuda Indonesia airlines. The literature study uses the results of previous research related to customer satisfaction and company financial performance, articles that discuss aviation industry problems, and other literature related to customer satisfaction and financial performance.

This research is quantitative using a descriptive approach which aims to analyze the relationship between customer satisfaction and Garuda Indonesia's financial performance using data taken from the financial and annual reports of PT Garuda Indonesia (Persero) Tbk. The analytical method used in this research is descriptive analysis and multiple linear analysis. In the descriptive analysis, the variables of customer satisfaction (CSI) and return on assets (ROA) are described using tables and graphs. A multiple linear regression analysis methods was used to measure the effect of the independent variable with the dependent

variable. The formulation of the multiple linear regression model used in this study is as follows:

$$ROA = \alpha_0 + \alpha_1 CSI + \alpha_2 SGR + \alpha_3 FS + \alpha_4 (CSI \times SGR) + \alpha_5 (CSI \times FS) + \varepsilon$$

Description: ROA (return on asset/ratio); CSI (customer satisfaction/index); SGR (sales growth/ratio); FS (firm size/Ln(total assets)).

One primary independent variable in this study is customer satisfaction, while the dependent variable is financial performance using a return on assets. In addition, this study has two moderating variables that may have a contingency impact on the relationship between the independent and dependent variables. The moderating variables are sales growth rate and company size. Sales growth ratio is measured by increasing sales from year to year, while the firm size is measured by the natural logarithm of total assets. Furthermore, these variables were analyzed using multiple linear regression to measure the effect or relationship between the independent variable and the dependent variable. This step is expected to provide an overview and understanding of the relationship between customer satisfaction and financial performance and provide managerial implications in alternative strategies to improve Garuda Indonesia's financial performance in the future. The flow of the framework of this research is shown in Figure 1.

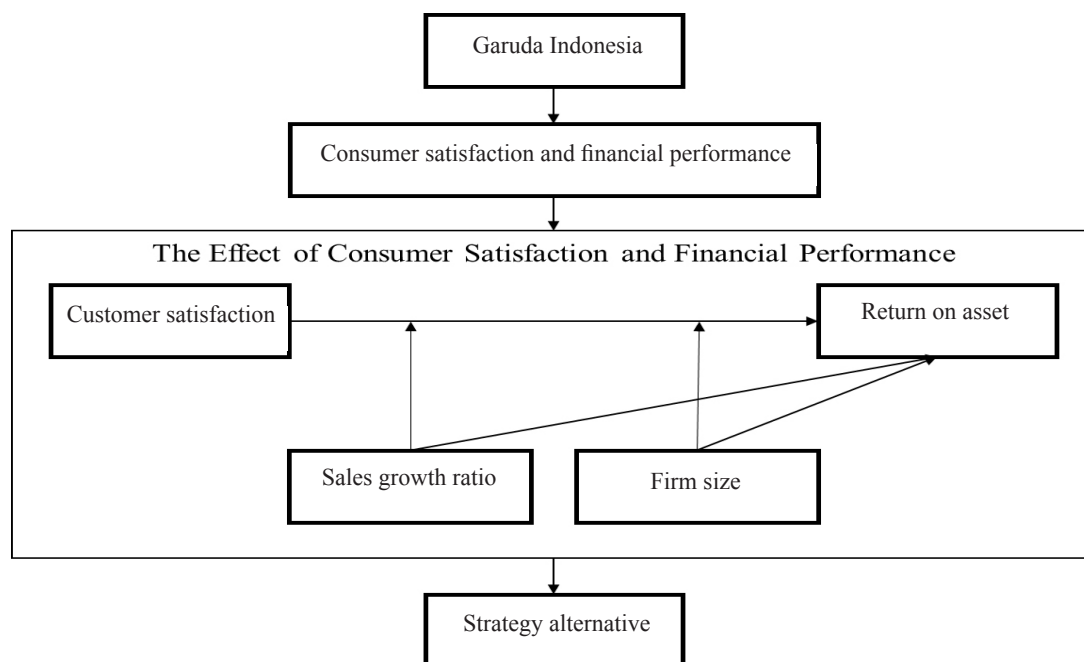


Figure 1. Research framework

## RESULTS

### Garuda Indonesia's Customer Satisfaction Index (CSI)

Garuda Indonesia has a CSI that continues to increase every year. In the company's annual report, CSI began to be described from 2009 to the last annual report published in 2019. CSI can be used as a reference or parameter for passenger satisfaction with all touchpoints for the services provided and can be used as a benchmark in determining development strategy and services to passengers. However, it was not possible to analyze the touchpoint in this study due to the limited data available. The results of the CSI are as shown in Figure 2. Based on the graph, it can be seen that CSI continues to increase every year. CSI measurement on Garuda Indonesia is carried out by conducting a customer satisfaction survey to increase customer satisfaction. The CSI achievement illustrates the company's performance that consistently improves service quality to increase passenger satisfaction.

However, from 2011 to 2013, there was no increase in CSI. Based on the company's annual report, in 2011, Garuda Indonesia made preparations to join the SkyTeam aviation alliance. The preparation is carried out by improving the quality of flight services. Then in 2012 and 2013, the company's CSI has not experienced a significant increase; this is because the program carried out is still the same as the previous year as a form of improvement and refinement. Then in 2014, these efforts succeeded in making Garuda Indonesia into the SkyTeam alliance. The positive impact of this success is that Garuda Indonesia can expand its flight routes and destinations, and passengers can enjoy

all services on all airlines members of the SkyTeam alliance. Therefore, the company's CSI experienced a slight increase in 2014 and a significant increase in the following year.

### Garuda Indonesia's Financial Performance

In this study, Garuda Indonesia's financial performance was measured based on Return on Assets (ROA). The ROA measurement results on Garuda Indonesia are as shown in Figure 3. It can be seen that Garuda Indonesia's ROA fluctuates every year. This condition indicates that the company's financial performance is in a fluctuating condition for the efficiency of the use of its assets because the total value of assets is getting bigger each year but is not directly proportional to the net profit from year to year. In 2014, 2017, and 2018 the company's ROA reached minus values. The low ROA value in the company reflects a low level of efficiency in using assets to obtain higher profits. It is due to several internal and external factors that affect the company's low financial performance. In 2014, which was the lowest point of ROA, despite having operating revenues from scheduled flights which increased from the previous year, the company's financial performance declined extremely. According to Simarmata et al. (2014), the airline industry experienced difficulties in making a profit in 2014. This condition is due to operating expenses that are greater than operating revenues. One of the factors of this condition is the high exchange rate and the price of avtur, which is aircraft fuel. Based on the company's annual report, the airline's operating expenses are fuel expenses for Garuda Indonesia, which accounted for 60.9% of the company's total flight operating expenses.

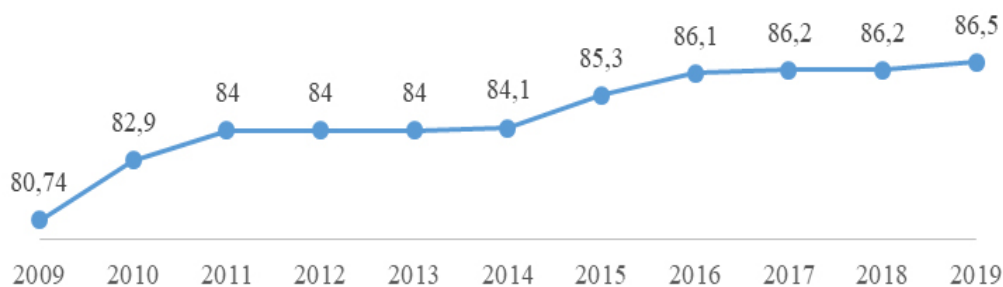


Figure 2. Garuda Indonesia Customer Satisfaction Index 2009-2019

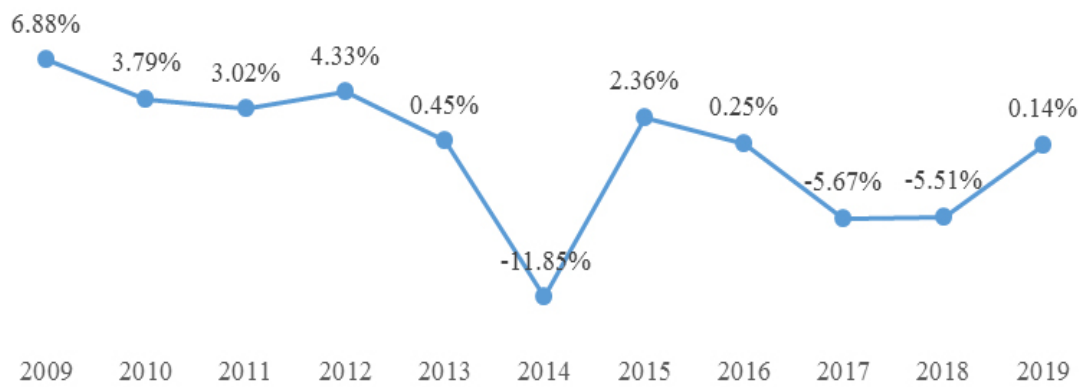


Figure 3. Garuda Indonesia's financial performance based on ROA in 2009-2019

Furthermore, in 2017 and 2018, the company's low financial performance was also caused by a decrease in net profit from the previous year. The company's low net profit was due to lower operating income compared to operating expenses. Based on the company's 2017 annual report, this condition was due to the declining level of people's purchasing power that year. In 2017 the Ministry of National Development Planning of the Republic of Indonesia (Bappenas) predicted a decline in productivity growth over the last 15 years and was among the lowest in the regions above Malaysia, Thailand, Vietnam, the Philippines, and China (Bappenas 2019). In addition to the declining level of people's purchasing power, another factor that caused the decline in Garuda Indonesia's operating income was the decrease in ticket prices that year. Another factor that causes operating income to be smaller than operating expenses is the high operational costs that must be borne. This was due to the increase in avtur fuel prices by 17.17%. Due to these conditions, the company's operating income is low and has implications for negative financial performance.

In 2019, Garuda Indonesia's financial performance showed improvement. This condition occurs because the company's operating income is relatively high. The number of passengers in 2019 decreased compared to the previous year, but the company managed to obtain a higher operating income. One of the strategies taken by the company is to increase the price of airline tickets. This favorable situation implies the high level of satisfaction of Garuda Indonesia passengers so that consumers are willing to use its services even though they have to pay higher costs.

In linear regression analysis, this study performed the F test, coefficient of determination ( $R^2$ ), and t-test. The results of the three tests are shown in Table 1. The

coefficient of determination shows that the value of  $R^2$  is 0.662 or. These results interpret that the independent variable can explain the diversity in the dependent variable by 66.20%, while other variables explain the remaining 33.80%. Then the F test shows that the probability value of 0.013 or less than 0.05. These results interpret that the model is feasible to use, and there is a common effect or at least one of the independent variables that affect the dependent variable. In contrast, the t-test shows different results for each variable. The CSI variable has a negative effect on ROA. The SGR variable does not affect ROA, while the FS variable has a negative impact on ROA. Then for the relationship between the independent variable and the dependent variable using a moderating variable, it is known that SGR cannot moderate the relationship between CSI and ROA. In comparison, FS is known to mediate the relationship between CSI and ROA.

### The Effect of Customer Satisfaction on Financial Performance

The regression analysis results that have been carried out show that the customer satisfaction variable affects financial performance by measuring return on assets (ROA). This result is in line with previous research by Eklof et al. (2020) and Sun and Kim (2013) that customer satisfaction has an effect on company profitability by measuring return on assets (ROA). However, the impact between CSI and ROA shows a negative value. This negative relationship is not in line with research conducted by Lee and How (2019), Golovkova et al. (2019), and Saeidi et al. (2015), that customer satisfaction has a positive influence on the company's financial has a negative effect on ROA, customer satisfaction programs or strategies require quite expensive costs in the short term. The negative influence between CSI and ROA shows that the rise

and fall of CSI will affect the company's financial performance through ROA.

Based on the company's financial statements, the condition is inversely proportional between CSI and ROA due to the passenger service burden, which shows an increasing trend every year. From 2009 to 2019, Garuda Indonesia's passenger service load fluctuated and showed an increasing trend. The passenger service burden aims to increase passenger satisfaction to ensure that passengers are satisfied, the airline company must provide the best service. The burden of passenger service on Garuda Indonesia is as shown in Figure 4.

In addition to the passenger service burden, another factor that may cause the inverse of CSI and ROA is the cost of maintenance and repairs, which from 2009 to 2019 also showed an increasing trend. Aircraft maintenance and repair are critical for aircraft safety and security in aviation (Cahyo et al. 2020). If the passenger feels safe, it will increase the satisfaction of the passenger. The maintenance and repair expenses on Garuda Indonesia are as shown in Figure 5.

The two factors above are critical in Garuda Indonesia's flight activities. Passenger service expenses and maintenance and repair expenses account for 14-18 percent of the company's total operating expenses. Therefore, the increase or decrease in passenger service expenses and maintenance and repair expenses significantly affect the company's operating expenses and have implications for the growth and reduction in profits and the profitability of Garuda Indonesia. Compared to other airlines with high profitability, namely Delta Airlines, the burden is relatively high. In the range of 2015 to 2019, Delta Airlines has a high average ROA, which is 7.32%. This condition implies the increased net income obtained so that the rate of return on total assets is getting higher. Passenger service expenses and Delta Airlines' maintenance and care expenses only contributed 7-8% of the company's total operating expenses. Compared to the number of fleets and flight schedules, Delta Airlines has a more extensive fleet of aircraft and higher flight schedules than Garuda Indonesia. Therefore, Garuda Indonesia needs to make efficient in these expenses so that it is expected to increase its income.

Table 1. Regression results

R <sup>2</sup>			0.662	
F test			Pr > F	
			0.013	
t-test	Source	Value	Pr >  t	Result
	CSI	-0.00649	0.012	Negative
	SGR	0.00457	0.822	No
	FS	-0.02792	0.007	Negative
	CSIxSGR	0.00005	0.851	No
	CSIxFS	-0.29991	0.010	Negative

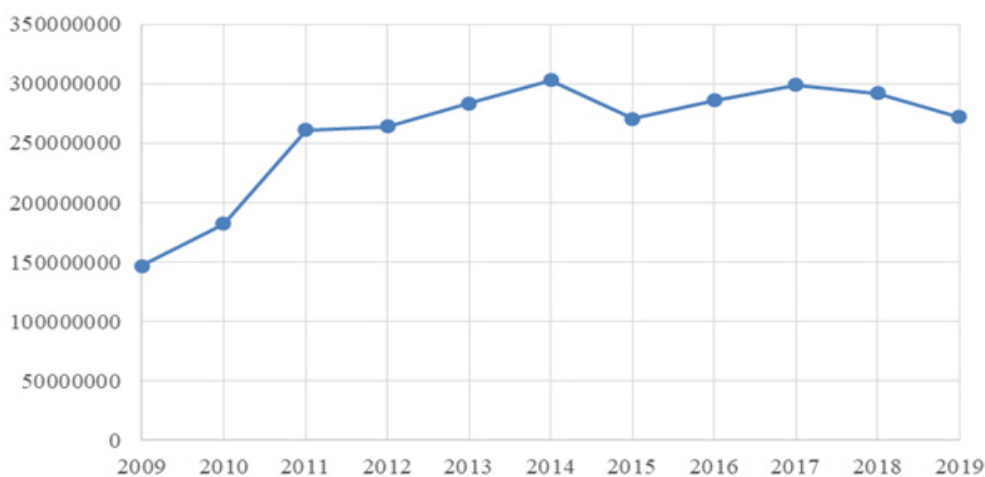


Figure 4. Garuda Indonesia passenger service expenses in 2009-2019

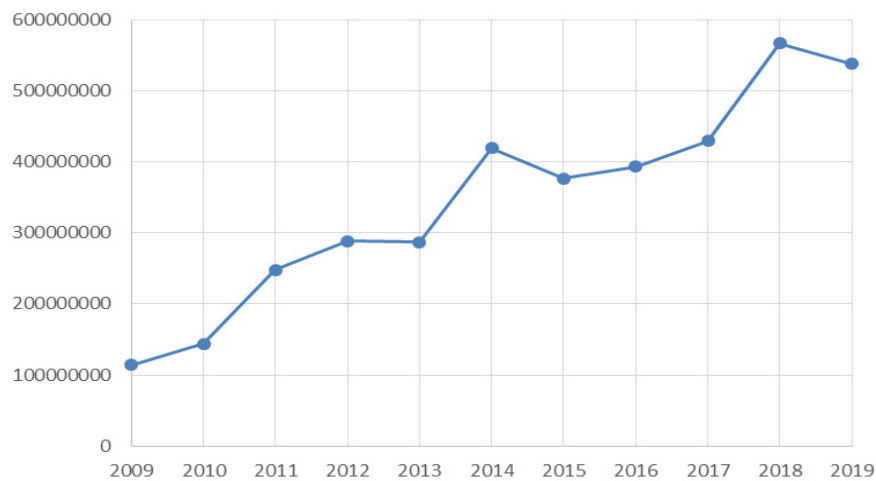


Figure 5. Garuda Indonesia maintenance and repair expenses for 2009-2019

The use of ineffective aircraft types is also a factor in the company's low profitability. One of the strategies carried out by the company to improve flight services is to continue to update or add to the aircraft fleet. Based on the company's financial statements, aircraft operating expenses are the most significant operating expenses, with an average of 58.44% in the 2015-2019 period. The passenger load factor (PLF), which is the percentage of aircraft occupancy rates based on the comparison of seat capacity owned and sold, indicates that the use of several types of aircraft at Garuda Indonesia has not been effective. The average PLF of the company is only 74.05% from 2015-2019. This percentage is low compared to the average world airline in the same year and with the highest revenue globally, namely Delta Airlines. The comparison of Garuda Indonesia's PLF with other airlines is as shown in Figure 6. Airlines have fixed or fixed costs on each flight, and if it produces a higher PLF, the profit margin will be higher (Mazareanu, 2021). The higher the margin, the better its profitability because it can cover other large airline operational costs, such as aircraft fuel costs.

#### The Effect of CSI on ROA is Moderated by Sales Growth Ratio

The regression results show that SGR cannot moderate the relationship between CSI and financial performance. These results are not in line with research conducted by Sun and Kim (2013) that sales have an essential role in the relationship between customer

satisfaction and financial performance. However, these results are supported by the latest research conducted by Hantono (2021), that sales growth does not have a substantial partial effect on ROA. If you look at the company's financial statements, this condition is due to a decrease in sales compared to previous years, while customer satisfaction continues to increase. Customer satisfaction should increase sales from a company so that it has implications for increasing revenue directly related to the company's financial performance.

#### The Effect of CSI on ROA is Moderated by Firm Size

Based on the results obtained, it is known that FS can moderate the relationship between CSI and financial performance. These results align with the research conducted by Assaf et al. (2015), that firm size can moderate the relationship between CSI and financial performance. The larger the size of a company, the stronger the relationship between customer satisfaction and the company's financial performance. However, the effect of CSI on ROA moderated by FS shows a negative value, meaning that if CSI increases, ROA will decrease, and vice versa. This condition is due to the inverse trend between the company's ROA and total assets, which measures company size. Therefore, the effect of CSI on ROA moderated by FS is negative. According to Kartikasari and Merianti (2016), the negative relationship is logically acceptable because the more total assets the company has, the lower the ROA value assuming constant net income.

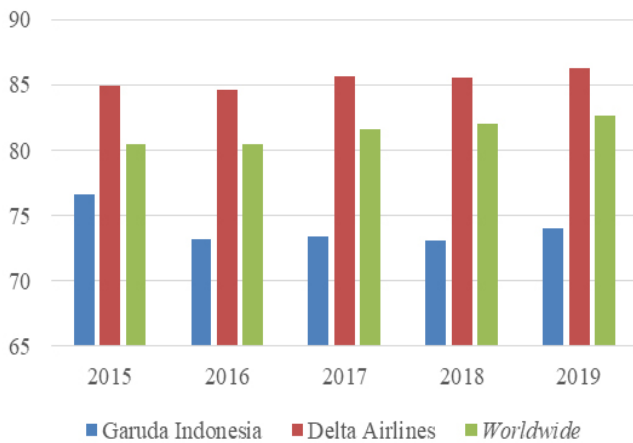


Figure 6. Comparison passenger load factor

If it can be optimized properly, the company's size is very influential on its profitability. Companies can make efficient in the company's promotional expenses. Based on Assaf and Agbola (2011) research, companies with large resources or assets can analyze satisfaction and increase customer or consumer loyalty. Passenger satisfaction and loyalty will be achieved if the quality of service increases. Because there is a positive relationship between service quality and passenger loyalty (Rahmawati, 2015).

### Managerial Implications

The strategy that the company can take is to make efficient in the operating expense structure. Here are some alternative strategies that Garuda Indonesia can carry out: (1) Efficiency in-flight operational expenses. Aircraft rental and charter expenses are the most significant operating expenses. Garuda Indonesia must renegotiate the aircraft rental rate with the financing party (lessor). Re-negotiation can be done by withdrawing several aircraft units or negotiating the cost of aircraft rental. This strategy can deal with the company's debt problems and declining revenues from aviation activities. (2) Efficiency in ticket expenses, sales, and promotions. Based on regression analysis, it is also known that company size can moderate the relationship between customer satisfaction and financial performance. Therefore, Garuda Indonesia can save the burden of promotion costs and salaries, allowances, and employee benefits to deal with the company's financial problems. (3) Efficiency in passenger service load. Efficiency can be done on the cost of passenger service and salaries, allowances, and employee benefits. One way to reduce this burden is to reduce the number of

employees through an early retirement program. This strategy can be an alternative to adjust service costs to the decreasing number of airplane passengers. (4) Maximizing the company's loyalty program. In addition to efficiency in several operating expenses to increase the profitability of Garuda Indonesia, another alternative strategy that can be done is to maximize and optimize the company's loyalty program. According to Saxon and Spickenreuther (2018), loyalty programs aim to increase passenger loyalty and income for the company. Garuda Indonesia has a loyalty program called GarudaMiles. The company's strategy is to commercialize several loyalty services, one of which is lounge facilities at several airports. The company can carry out this strategy to continue earning income apart from purchasing airline tickets.

Based on the results of the analysis, there are several limitations to this study. The limitations of the study are:

1. Lack of parameter data on the level of passenger satisfaction with Garuda Indonesia's service touchpoints, so that the formulation of alternative strategies is less detailed on each passenger satisfaction parameter.
2. There is no comparative data on similar companies in Indonesia. The only airline company in Indonesia that has published customer satisfaction data is PT Garuda Indonesia (Persero) Tbk. Therefore, this study cannot perform a comparative analysis on other companies.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Garuda Indonesia's customer satisfaction index (CSI) shows an increasing trend every year. Meanwhile, financial performance shows a fluctuating trend from year to year. CSI has a significant negative effect on ROA. This is because in meeting customer satisfaction, the company must pay higher costs. Sales growth cannot moderate the relationship between CSI and ROA due to a decline in sales in recent years, but on the other hand, CSI continues to increase. Meanwhile, Firm size can moderate the relationship between CSI and ROA in a significantly negative way. This result is due to the trend between CSI and the company's total assets experiencing an inversely proportional to ROA.



An alternative strategy that can be taken to improve Garuda Indonesia's financial performance is to increase efficiency in operating expenses and maximize the company's loyalty program.

### Recommendations

Further research is needed on customer satisfaction based on touchpoints found on Garuda Indonesia. This is done to find out what parameters the company needs to optimize related to customer satisfaction. Then it is also important to analyze and evaluate Garuda Indonesia's loyalty program, namely GarudaMiles. In addition, it is also essential to make comparisons with other companies or airlines. Furthermore, it is necessary to conduct an analysis related to the efficiency of using the type of aircraft owned by Garuda Indonesia.

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