







deviation value of 4.89099 with an average value of 78.0971, a minimum value of 66.45, and a maximum value of 85.70. The following are descriptive statistical data:

TABLE 1  
DESCRIPTIVE STATISTIC

	N	Minimum	Maximum	Mean	Std. Deviation
ROA (Y)	87	0	0.21	0.0522	0.03519
OL (Z)	100	0.12	385.67	24.6154	46.09432
PLF (X)	100	66.45	85.7	78.0971	4.89099
Valid N (list-wise)	87				

Source: Sample Airlines Annual Report from 2009-2018.

The results of statistical analysis obtained variable coefficient values of each model, for PLF (X) were identified as having a negative and significant effect on OL (Z) with a coefficient value of -0.222 and a significant value of 0.011. This means that by increasing the PLF (X) by 1 unit (percent), then OL (Z) decreases by 22.2% assuming the other variables do not change. For PLF (X) has a positive and significant effect on ROA (Y). The coefficient value is 0.244 with a significant value of 0.033. That is, if PLF (X) increases by 1 unit (percent) then ROA (Y) increases by 24.4%, assuming other variables remain. For OL (Z), it has a negative and significant effect on ROA (Y) with a coefficient value of -0.210 and a significant value of 0.48. The meaning of this relationship is that an increase in OL (Z) 1 unit (percent) can reduce ROA (Y) by 21.0% assuming the other variables do not change. The following is a summary of the direct effect of the results of the standard path coefficients:

TABLE 2  
SUMMARY OF DIRECT EFFECT RESULTS OF PATH STANDARD COEFFICIENT

	Coeff	St.Error	t	Sig.
X - Z	-,222	,336	-2,583	,011**
X - Y	,244	,001	2,169	,033**
Z - Y	-,210	,000	-2,013	,048**

\*\* signifikan p < ,05

Source: Processed Data

The coefficient value of the indirect effect of PLF (X) on ROA (Y) through OL (Z) is obtained from the multiplication of the direct effect of the independent variable on the intervening variable and the intervening variable on the dependent variable  $((\rho_{ZX})(\rho_{YZ}))$ . Then the coefficient of indirect effect is obtained  $((-0.222) (0.210)) = 0.047$ .

The calculation of the total effect is obtained by adding up the coefficient of the direct effect of the independent variable on the dependent variable with the indirect effect of the independent variable on the dependent variable through the intervening variable  $(-0.244 + -0.047) = 0.291$ .

Detection of indirect effects is done by sobel test. The results of this calculation obtained the t-statistic value  $0.666 < t$ -table 1.9863 at a significance level of 0.05. This means that there is no mediating effect between PLF (X) on ROA (Y) through OL (Z). Operating leverage (OL) is not able to change the return on assets (ROA) that is influenced by passenger load factor (PLF).

## DISCUSSION

This study examines the direct effect of passenger load factor (PLF) on operating leverage (OL) and return on assets (ROA), and tests the indirect effect of passenger load factor (PLF) on return on assets (ROA) through operating leverage (OL). The interesting thing in this study is the passenger load factor (PLF) has a negative effect on operating leverage (OL). The low passenger's load factor (PLF) flag carrier airline of APEC member countries is caused by available seat kilometers (ASK) to continue to grow even though revenue passenger kilometers (RPK) is also experiencing growth, but revenue passenger kilometer (RPK) growth is relatively small. Every increase in available seat kilometers (ASK) is defined as an increase in airline capacity. This increase drives an increase in the fixed costs used. Operating leverage (OL) arises due to the use of airline operational fixed costs. Large fixed costs encourage an increase in operating leverage (OL), meaning that profits are very sensitive to changes in sales. The condition of revenue passenger kilome-

ters (RPK) which experienced relatively small growth was unable to cover the use of fixed costs for airline operations. The result is that operating leverage (OL) increases and is able to cause profits to decrease drastically. In the results of other studies it was found that innovations that encourage the use of fixed costs increase operating leverage (OL) (Nicolaus, 2012).

Meanwhile, the high passenger load factor (PLF) on flag carrier airlines of APEC member countries as a relatively large increase in passenger kilometers (RPK), although the increase in available seat kilometers has also increased. The increase in available seat kilometers (ASK) results in an increase in fixed costs and operating leverage (OL) also increases. However, the resulting passenger kilometer (RPK) revenue is able to offset the use of fixed costs used and in the end the ability of operating leverage (OL) to influence earnings decreases.

The next interesting thing in this study is the negative relationship between operating leverage (OL) and return on assets (ROA). This shows that the flag carrier airlines of APEC member countries that use high fixed costs cannot be covered well and make a profit. Increased operating leverage (OL) directs airlines to experience losses based on return on assets (ROA). High operating leverage (OL) is caused by an increase in airline capacity in the form of available seat kilometers (ASK). This increase also increases the use of fixed costs, but the revenue generated is not able to cover fixed costs properly and causes operating leverage (OL) to reduce the acquisition of return on assets (ROA) of the airline.

The low operating leverage (OL) resulted from the decrease in available seat kilometers (ASK) flag carrier airlines of APEC member countries. This reduction reduces the fixed costs used. While the income obtained is able to cover the use of fixed costs that have been reduced. Thus the ability of operating leverage (OL) to influence return on assets (ROA) is weak because income can cover well the use of fixed costs.

On the indirect effect of interesting results obtained, passenger load factor (PLF) is not able to influence return on assets (ROA) through operating leverage (OL). The ability of a high passenger load factor (PLF) can reduce the ability of operating leverage (OL) to influence earnings. This means that operating leverage (OL) is not able to increase profit or loss. On the one hand, a high passenger load factor (PLF) can increase the return on assets (ROA). The ability of the passenger load factor (PLF) shows that the flag carrier airline APEC is able to generate profits and increase return on assets (ROA) without having to go through increased operating leverage (OL). This is different from the results of previous research which states that operating leverage (OL) affects the return on assets (ROA), increased income can increase return on assets (ROA), while worsening income causes losses suffered very large (Gritta, 2006).

## Conclusion

This study measures the direct effect between passenger load factor (PLF) on operating leverage (OL) and return on assets (ROA). This study also measures the indirect effect of passenger load factor (PLF) on return on assets (ROA) through operating leverage (OL). The interesting thing in this study is the passenger load factor (PLF) has a negative effect on operating leverage (OL). Likewise, operating leverage (OL) has a negative effect on return on assets (ROA), while the ability of a high passenger load factor (PLF) is capable of producing high return on assets (ROA). Therefore, operating leverage (OL) is not able to provide a large influence on return on assets (ROA) based on an increase in passenger load factor (PLF).

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