

**CEA AND FINANCIAL RATIOS ANALYSIS FRAUDS MODEL FOR INVESTMENT,
EVIDANCE FROM INDONESIA**

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Abstract

This study aims to propose two models of financial statement analysis that is CEA and company fraud ratio to know the capital investment policy in a company, by using one sample company in Indonesia. From the studies that have been conducted provide an analytical framework, that the proposed model can provide input on capital investment policies in a company.

Keyword: Fraud analysis, Certainty equivalent approach, Investment equity.

I. CERTAINTY EQUIVALENT APPROACH

Enron, Tyco, and WorldCom are companies that suffer billions of losses and detected companies fraudulent financial statements. The occurrence of business fraud that reached an average of \$ 1 million, making some companies are bankrupt and bankrupt according to the version of ACFE Report 2004 for the Nation. A University of Indiana Ratio professor conducts an analysis to identify possible violations and focus his efforts on finding fraud in the company's financial statements. Although the study is only six years old, the model of analysis is increasingly used in various financial studies, to help detect signs of financial manipulation.

As an example of the model, the uncertainty equivalent approach (CEA) for risk analysis is to convert the cash flows from each project to the difference in fair value adjusted to the equivalent risk. This model of analysis is taken using the concept of utility theory. This model of analysis can also provide a decision to determine at which point the firm is not concerned with the choice between a certain amount of money and the expected value of the amount at risk.

Under this approach, first determine a certainty equivalent adjustment factor, a , as:

$$a = \frac{\text{Certain sum}}{\text{Equivalent risky sum}}$$

The number a will be in, and then the result is multiplied by the original cash flow to get an equivalent cash flow. Thus, the decision to accept or reject a business decision by using normal capital budgeting criteria. PT PK assuming 14 percent cost of capital after taxes is considering a project with an expected life of 3 years. The project requires an initial specified cash outlay of 3,697,744,000. The expected cash inflows and certainty equivalent coefficients are as follows:

Year After-Tax Cash Flow Certainty Equivalent Adjustment Factor

1	27.581.226	0.95
2	94.646.307	0.80
3	86.337.518	0.70

Assuming that the risk-free rate of return is 5 percent, the NPV and IRR are computed is Follows:

First, the equivalent certain cash inflows are obtained as follows:

Year	After-Tax Cash Inflow	Equivalent Certain Cash Inflow	PV at 5%	PV
1	27.581.226	0.95	2,620,216,492.20	2,495,494,187.17
2	94.646.307	0.80	757,170,457.85	686,753,605.27
3	86.337.518	0.70	604,362,623.04	522,048,433.78
				3,704,296,226.22

$$NPV = 3,704,296,226.22 - 3.697.744.000. = +/ 7.000.000$$

II. FINANCIAL RATIOS ANALYSIS FRAUDS

In the test of time and still helps to send a potential red-cheat flag. Sales Growth Index (SGI) Companies with high growth rates feel highly motivated to commit fraud when the trend reverses. The shareholders inside and outside the company expect growth to continue and hope that encourages managers to produce. sales of the current year

Sales Growth Index = sales current year / sales prior year

Sales Growth Index 2015 = +/ 1,10

Sales Growth Index 2016 = 1,111

Sales Growth Index June 2017 = 0,512

Firms is the manipulate income for this case if has mean SGI 1.607 and median 1.411. Students from Cornell university's earned SGI figures for Enron companies at 1.526, which placed them in the average manipulator range. Conclusion The Company is not in the position of manipulator.

Gross Margin Index (GMI) Comparing gross margins from one period to the previous period resulted in a gross margin index. If GMI is greater than 1 gross margin the company has deteriorated and management is motivated to show better numbers. Like SGI, GMI sounds a potential warning tone. Finding a high GMI means the auditor and CFE should look deeper into sales reporting and cost of goods sold.

Gross Margin Index = (sales prior year minus cost of goods sold prior year) / sales prior year / (sales current year minus cost of goods sold current year) / sales current year

Gross Margin Index 2015 = +/1,390

Gross Margin Index 2016 = 1,111

Gross Margin Index June 2017 = 0,433

Figures manipulators sported GMIs of 1.193 at the mean and 1.036 at the median. Enron scored into the upper ranges with 1.448. Thus PT PK company is not in the position of manipulator

AQI's Asset Quality Index (AQI) measures the proportion of total assets in which future benefits are uncertain. This index reflects changes in asset risk by comparing current assets and fixed assets with total assets. AQI greater than 1 means that the company has the potential to delay costs in an effort to increase the bottom line.

Days' Sales in Receivables Index = (receivables current year/ sales current year) / (receivables prior year/ sales prior year)

Days' Sales in Receivables Index 2015 = +/ 5,579

Days' Sales in Receivables Index 2016 = 6,293

Days' Sales in Receivables Index 2017 = 2,467

Value of average is AQIs of 1 and a mean of 1.254. The evidence of Enron's suspension of costs in 1997 is reflected in AQI 1.308. Conclusion on PT PK there is no manipulator, because the AQIs numbers are not in the mean position.

If the ratio detects an increase in receivables, the change may come from income inflation. DSRI is an example of how the ratio can give false signals.

Receivables Index (DSRI) Sales and receivables are usually fixed

Receivables Index (DSRI) 2015 = 3,170

Receivables Index (DSRI) 2016 = 2,481

Receivables Index (DSRI) June 2017 = 1,020

An explanation of the increasing DSRI may be a corporate legal activity that gives more credit to customers. Companies that weigh in on revenue have an average DSRI of 1.465 and a median of 1,281. Enron is lower than the average non-manipulation company at 0.625. Conclusion PT PK away from manipulator numbers.

III. CONCLUSION

From the study, explaining that the position and financial condition of PT PK is not in the manipulator position and the result of the application of CEA model gives positive result during 3 year period starting from book year 2015, 2016 and per juni 2017.

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