



# Does Management Strategic indicate financial distress? Evidence from Manufacturing Firms in Indonesia

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## **Abstract**

*This research aim to compare two types of management strategies in manufacturing firms, those with the change in its management and its public accountant. Those strategies are considered being used by firms who have financial difficulty or can be identify as financial distress firms. This research develop and test hypotheses, whether these management strategies indicate financial distress in firms. Data with period of 2006- 2011 from manufacturing firms in Indonesia with indicate financial problem with altman Z score and using the comparative test, we try to give evidence for "opportunistic behavior" hypotheses. The change of accountant can be inferred as an obligation or as a tool for managers in describing company conditions. In opportunistic behavior this strategies were used to hide information such as financial problem to outside stakeholder. Meanwhile the change of its management also a strategy that can be interpreted as a good or a bad signals for the outsider stakeholder. The good signal mean it can be inferred as expansions, and the bad signals were something need to be repaired especially if it companied by fact the lack of poor financial data. Its posits that firms management have an incentive to hide information to outside stakeholder. Firms with the change of public accountant tend to have greater opportunistic behavior because their manager have a greater incentive to hide information, have more difficulty problem or financial distress than firms with the change of its management. The result indicate that, consistent with the opportunistic behavior hypotheses that Firms with the change of public accountant tend to have greater opportunistic behavior. Eventhough both strategies were indicated the use of opportunistic behavior in practice.*

*Keywords : change, public accountant, management, management strategies, financial distress.*

## **BACKGROUNDS**

Bussiness world changing so fast along with Information and Technology development and also dinamic social rhytm in it. Bussiness is a



manifestation nexus of contracts with so many interests in it. Many theories try to explain pattern what had happened in business world to anticipate and overcome problem that arise in this changing world. Many rules were set by regulator, formulas were create, and development continue to cover holes that were discovered over time. Many scandals in accounting also contributes in making improvements needed. Monetary crisis that arise comes from accounting scandals creates global resesion, known as worst accounting scandals in early 2000 (Enron, Tyco, Worldcom and Freddy Mae in USA) and in 2008 also create a global resesion Lehman brothers , Bernie Madof and Saytam (<http://www.accounting-degree.org/scandals/> assessed on 1st september 2013).

What had happened reflecting that business operation have a big pattern of opportunistic behaviour in it. It can be found in many form, some of them can be found in a kind of change in mangement. The evidence that change in management were one of the variabel connected to change of public accountant in Indonesia (Mardiyah, 2002). Results from Haskin and William (1990) showed that financial problem were one of the factors affect firms decisions in changing it's public accountant. Possibility to have qualified audit opinion make the auditees have the tendency to change their public accountant, these findings were found in Chow and Rice (1982), Craswell (1998) and Gull (1992). This fact were given more confirming fact that empirical result from Corcello and Neal (2003) showed that auditor belief that they will be replace after they release going concern opinion. Supporting evidence also come from Schwartz and Soo (1995) stated that bankrupt firms more often changed auditor compare to unbankrupt firms. Result from Sinarwati (2010) give evidence of patttern of financial distress manufacturing firm that related to management changes and the auditor change.

But contra's were found in empirical result done by Damayanti (2007) in Sinarwati(2010), she found that firms with financial distress didn't connected to the change of their auditor. Confirming result on findings in Carcello and Neal (2003) about auditor beliefs that will be replaced if release the qualified opinion not been yet found in Indonesia.

This empirical results not conclusive yet , epecially in Indonesia. thats why this research aim to compare two types of management strategies in manufacturing firms in Indonesia period 2006-2011, first those with the change in it's management and firms with change of public accountant. Those strategies are considered being used by firms who have financial difficulty as a tool to hide information from others parties or outside stakeholder known as opportunistic behavior. This research develop and testing hypothesis whether the use of these strategies indicating financial distress in manufacturing firms.



## **Identify Problems**

- 1 Whether the change in management as strategic management decision indicate higher financial distress in manufacturing firms?
- 2 Whether the change of public accountant as strategic management decision indicate higher financial distress in manufacturing firms?
- 3 Is there a difference in financial distress condition when using these two strategies on manufacturing firms in Indonesia ?

## **THEORY**

### ***Agency theory***

Agency theory were developed by Jensen and Meckling (1976), it posits that there were so many conflict of interest between management in this case take a part as an agent and shareholders (principle). Each party have their own interests in firms, these conflicts trigered the change in management. Where the new management will have the bigger authorization in managing firms operation in many aspects. So therefore it will create greater discretion in several strategic decisions, for example the change in management and auditor. Opportunistic behavior for management arise in that strategic decisions, firms with the change of public accountant and change management tend to have greater opportunistic behavior because their manager have a greater incentive to hide information, especially when firm have financial difficulty problem.

### ***Signaling hypotheses***

The change of accountant can be inferred as an obligation or as a tool for managers in describing company conditions. In opprtunistic behavior this strategies were used to hide information such as financial problem to outside stakeholder. Meanwhile the change of it's management also a strategy that can be interpreted as a good or a bad signals for the outsider stakeholder. The good signal mean it can be inferred as expansions, and the bad signals were something need to be repaired especially if it accompanied by fact the lack of poor financial data.

### ***Opportunistic behavior***

Psychological behaviorism developed during the mid 19th and early 20th centuries. According to Robert H. Wozniak from Bryn Mawr College, behaviorist researchers saw psychology as a natural science that could be broken down into physical processes. They focused on the physical relationships between environment and behavior. Behaviorist philosophy dominated psychology from the 1920s through the 1960 ([http://www.ehow.com/list\\_7222350\\_types-behavioraltheories.html#ixzz2emqSz9wd /asessed](http://www.ehow.com/list_7222350_types-behavioraltheories.html#ixzz2emqSz9wd /asessed) on 4th septeber 2013).



Abundance of evidence can be found that business operation were very pshychology, pattern in real market were well documented like random walk, january effect, etc in (Thaler et all, 1996).

### ***Hypothesis Development***

Management strategic in financial distress situation have a crucial role to play. In critical situation every stakeholder of firms will highly aware of every moves management decisions. Every actions will highly evaluate by all stockholder concerning financial distress condition, it can be seen as a signal that representing the fall or awake of the firm. In critical situations when financial data getting worse unavoidably, people tend to be skeptic in reading the signal from the management. Positive signal usually comes when it accompanied by arousing financial data than it was before (Mc Keown et all, 1991). All strategic management in that situation will be appreciate positive, as management actions in solving problems (Jones, 1996) in indonesia result given by Sinarwati (2010). But when financial data were tend to be down, all strategic management in that situation will seen as negative signal (Schwartz & Soo, 1995).

1. **H 1 : the change in management indicate higher financial distress in manufacturing firms**
2. **H2 : the change of public accountant indicate higher financial distress in manufacturing firms**

Because the critical situation in financial distress above, management understand that other parties were sophisticated and highly cautious. They will make their decision wisely, cause they don't want to be misinterpreted in their actions. The change in management and public accountant were management strategies incommoding actions that result from financial distress zone. fact that change in public accountant and change in management were the strategic that used as tools for firm to hide information from other parties (Schwartz & Soo, 1995). It used to send signals to outsiders, therefore every level of financial distress will effect to every strategy that firm will take.

3. **H3 : financial distress manufacturing firms with change in management and change it's public accountant were different.**

### ***Hypotheses***

4. **H 1 : the change in management indicate higher financial distress in manufacturing firms**



5. **H2 : the change of public accountant indicate higher financial distress in manufacturing firms**
6. **H3 : financial distress manufacturing firms with change in management and the change of public accountant were different.**

### **Methodology**

Variable Definition : financial problem condition by using Altman's Z Score

This measures used to indicate financial condition of the firm with financial problem, we used the Altman Z score measures as an indicator. From the score we can classify that our sample were firms with financial trouble criteria.

\*Working capital = (cash on hand and banks, placement in other banks, notes and securities, loan and investment)-(demand, time and saving deposit)

\*Book Value of Equity = shareholder's equity = Total Asset – Liabilities

\*Book Value of Debt = Liabilities = Short term debt + Long term debt

\*EBIT = operating profit

$$Z'' = 6,56X1 + 3,26X2 + 6,72X3 + 1,05X4$$

where :

$Z''$  = *bankruptcy index*

$X1$  = *working capital/total asset*

$X2$  = *retained earnings / total asset*

$X3$  = *earning before interest and taxes/total asset*

$X4$  = *book value of equity/book value of total debt*

Indicator Z' Score:

- a.  $Z'' < 1,1$  bankrupt.
- b.  $1,1 < Z'' < 2,6$  *grey area* (area in between , can't be classified )
- c.  $Z'' > 2,6$  not bankrupt.

Sample were manufacturing firms listed in IDX with in period 2006-2011. Using purposive sampling.

### **Research design**

Two steps testing hypotheses .

1. Using independent samples t test (upper tailed/one tailed)
7. This method were used to test whether the change in management and the change of public accountant indicate financial distress in firms, we do it separately. First we test H1 by classifying Z score manufacturing firms who change its management with the group that not change its management.



- H1 : the change in management indicate higher financial distress in manufacturing firms
8. Then, we test the second hypotheses by classifying the firms who change it's public accountant and who didn't changed .
- 9.
- H2 : the change of public accountant indicate higher financial distress in manufacturing firms
2. Using independent samples t test (two tailed)
10. Finally to test whether these two strategies have stronger effect to indicate financial distress between one another we used independent samples t test (two tailed). The differences can be inferred that these two strategies reflecting different financial distress condition in manufacturing firms in Indonesia.
- H3 : financial distress manufacturing firms with change in management and change it's public accountant were different.

## EMPIRICAL RESULTS

### Change in management

Our first test examines the difference of condition financial distress to firms who change in management with firms who didn't change it's management. The result indicates that are no significance difference in financial distress condition between firms with the change its management and who didn't change.

11. **H 0 : the change in management didn't indicate higher financial distress in manufacturing firms**
12. **H 1 : the change in management indicate higher financial distress in manufacturing firms**

table. I Result for H1

Test	Value	Result
mean change in mangement	1.5	grey area of bankruptcy
mean not change in mangment	1.7	grey area of bankruptcy
Levene"s test	0.613	equal variance assumed
t hit	-0.638	sig > 0.05
sig (one tailed)	*0.261	H0 can't be rejected

\*(0.524/2 =0.262)

Indicator Z' Score:

- a.  $Z'' < 1,1$  bankrupt.
- b.  $1,1 < Z'' < 2,6$  *grey area* (area in between )



c.  $Z'' > 2,6$  not bankrupt.

Sample description showed that financial distress condition manufacturing firms on this sample both for who change it's management and didn't change it's management were in grey area of bankruptcy classification according to Altman's Z score. The range 1.5 -1.7 were area close to the area of bankrupt ( $Z'' < 1,1$  bankrupt), it can be said that even they were both can't be classify bankrupt but hard to say that statistical data were given an optimistic measures. From this data we can see the tendency that firms who didn't change in management had better financial distress condition compare to the one who change it's management.

Hypothesis testing showed that Levene's test fit to assumption that equal variances assumed . So for the hypothesis  $t=-0,638$  and  $p$  value  $0.261$  , because  $p$  value  $0.261 > 0.05$  can be inferred that  $H_0$  can't be rejected.

The conclusion can be interpreted from this test are no significance difference in financial distress condition between firms with the change it's management and who didn't change. The empirical result didn't give enough evidence that management strategic by changing decision maker were one of the tool used by management to give good signal to outsider. Although from data description can be seen such a tendency that management with the change in management have more poor financial condition compare to who didn't change.

### **Change in public Accountant**

Our second test were examine the selection of external audit, we test the difference of condition financial distress of firms who change it's public accountant with firms who didn't change it. The result confirm with the hypothesis that the change of public accountant indicate higher financial distress in manufacturing firms. The result indicates that are significance difference in financial distress condition between firms who change it's public accountant with firms who didn't change it.

- 13.  $H_0$  : the change of public accountant didn't indicate higher financial distress in manufacturing firms**
- 14.  $H_2$  : the change of public accountant indicate higher financial distress in manufacturing firms**

Table. 2 Result for H2

Test	Value	Result
mean change in public acc	1.3	grey area of bankruptcy
mean not change in public acc	1.9	grey area of bankruptcy
Levene test	0.612	equal variance assumed
t hit	-2.124	sig > 0.05
sig (one tailed)	*0.0175	Reject $H_0$



\*(0.035/2 = 0.0175)

Indicator Z' Score:

- a.  $Z'' < 1,1$  bankrupt.
- b.  $1,1 < Z'' < 2,6$  grey area (area in between )
- c.  $Z'' > 2,6$  not bankrupt.

Sample description showed that financial distress condition manufacturing firms on this sample both for firms with the change it's public accountant with firms who didn't change it were in grey area of bankruptcy classification according to Altman's Z score. The range 1.3 -1.9 were significant space to make interpretation cut off in this area, mean firms with the change it's public accountant close to the area of bankrupt ( $Z'' < 1,1$  bankrupt), it can be said that they have greater opportunity to use this strategic as a tool to compensate their statistical data . From this data we can see strong tendency that firms who change it's public accountant had worse financial distress condition compare to the one who didn't change it's public accountant.

Hypothesis testing showed that Levene's test fit to assumption that equal variances assumed . So for the hypothesis  $t=-2,124$  and  $p$  value  $0.0175$  , because  $p$  value  $0.0175 < 0.05$  can be inferred that reject  $H_0$  .

The conclusion can be interpreted from this test that there are significance difference in financial distress condition between firms with the change it's public accountant with firms who didn't change it. The empirical result given enough evidence that management strategic by changing their external auditor were one of the tool used by management in bad financial condition reflected by small z score indicating near bankruptcy that the have an opportunistic behavior by doing this strategy. Data description showed that firms who didn't change it's public accountant had higher score of Altman's Z score (mean : 1.9) , it means more optimist data because it's position were in upper grey area. Result test confirming that firms with bad financial distress have Greater opportunistic behavior where management use this strategic to hide information from others parties or outside stakeholder by using different public accountant than it was before.

### **Change in management and Change in public Accountant**

Our final test were examine the two strategies, try to find confirming analysis to support which strategies stronger in reflecting the use of opportunistic behavior in firms. We test the difference of condition financial distress of firms who change it's management with firms who change it's public accountant. The result indicates that are no significance difference in financial distress condition between firms with the change in it's management and firms who change it's public accountant. In this test



we use all company that used these two strategies, by categorizing 1 as firms with the change in it's management and 2 as firms who change it's public accountant. By comparing Altman's Z score mean from those strategies, we can see if there is a difference between two groups it means that one of this strategy were more used by firms who have bad financial performance, and do have stronger effect to be used as a tool for management in hide information to other parties. But the result as shown the table below, Financial distress manufacturing firms with change in management and manufacturing firms with change it's public accountant were not different. It means that the change in management and change public accountant strategies were used by firms with merely had same financial condition.

15. **H0 : Financial distress manufacturing firms with change in management and manufacturing firms with change it's public accountant were not different.**
16. **H3 : Financial distress manufacturing firms with change in management and manufacturing firms with change it's public accountant were different.**

Table. 3 Result for H3

Test	Value	Result
mean change in mangement	1.48	grey area of bankruptcy
mean change in public acc	1.37	grey area of bankruptcy
Levene test	0.521	equal variance assumed
t hit	0.195	sig > 0.05
sig (two tailed)	0.846	H0 can't be rejected

Indicator Z' Score:

- a.  $Z'' < 1,1$  bankrupt.
- b.  $1,1 < Z'' < 2,6$  *grey area*(area in between)
- c.  $Z'' > 2,6$  not bankrupt.

Sample description showed that financial distress condition manufacturing firms on this sample both for who change it's management and change it's public accountant were in grey area of bankruptcy classification according to Altman's Z score. The range 1.37 -1.48 were tight area close to the area of bankrupt ( $Z'' < 1,1$  bankrupt), the same with condition in H1, it can be said that even they were both can't be classify bankrupt but hard to say that statistical data were given an optimistic measures. From this data we can see the tendency that firms change it's public accountant had worse financial distress condition compare to the one who change it's management.



Hypothesis testing showed that Levene's test fit to assumption that equal variances assumed. So for the hypothesis  $t=-0,195$  and  $p$  value  $0.846$ , because  $p$  value (two tailed)  $0.846 > 0.05$  can be inferred that  $H_0$  can't be rejected.

The conclusion can be interpreted from this test are no significance difference in financial distress condition between firms with the change it's management and change it's public accountant. The empirical result didn't give enough evidence that both management strategic by changing decision maker nor changing auditor were indicating higher financial problem. Both strategies were proved being used by firms within grey area condition in bankruptcy zone but no indication that one of the tool more used by firms with higher financial distress. It means that the change in management and change public accountant strategies were used by firms with merely had same financial condition.

Both tools were used by management equally to give good signal to outsider. Although from data description can be seen such a tendency that management with the change of public accountant have more poor financial condition compare to firms with change in management.

## **DISCUSSION**

From three hypothesis above, only H2 were accepted that confirm with the empirical results, confirming that firms with bad financial distress have Greater opportunistic behavior where management use this strategic to hide information from others parties or outside stakeholder by using different public accountant than it was before. For H1 and H2 weren't supported by empirical result. This situation can be explained by several points, as we mentioned bellow :

- Fact that the change of management strategy didn't indicate higher financial distress can be explained by signaling hypothesis ( .....). Using this theory, management see the financial distress situation in firm as surveillance from other party. This also explain agency theory in practice, because every stakeholder will acts on their behalf. Even though factual data descriptively proofed tendency that firms using this strategy had smaller Altman's Z Score (worse condition), it makes management will act very careful in every actions. They find other parties were sophisticated, can read that change in management can be seen as bad signal that arose from worse financial condition that happened.
- The 2 strategies were used by firms with merely same financial distress condition, this situation means that management and other parties were aware of the financial crisis and every action will take cautiously. Supporting first argumentation paragraph above, that every party will actions on their behalf so every action that can be viewed as a tool will be used wisely by management, only positive signals



were up to. So both strategies were proved being used by firms in same financial condition.

## CONCLUSIONS

1. This research gives empirical result for the use of change of public accountant strategy in indicating higher financial distress in firms.
2. The change of management strategy didn't indicate higher financial distress, even though factual data descriptively proofed tendency that firms using this strategy had smaller Altman's Z Score (worse condition), this situation makes management act very careful in every actions. They find other parties were sophisticated.
3. Both strategies were used by firms with the same condition financial distress firms, because the tool used wisely by management in preventing signaling hypothesis that can be seen from the use of those strategies.

## REFERENCES

- Altman. Edward L. (1968). "Financial Ratio Discriminant Analysis and the Prediction of Corporate Bankruptcy". *The Journal of Finance*, Volume.23, 4 (September 1968), pp.589-609.
- Atmini, Sari dan Wuryana. (2005) . "*Manfaat Laba dan Arus Kas Untuk Memprediksi Kondisi Financial Distress Pada Perusahaan Textile Mill Products dan Apparel and Other Textile Products yang Terdaftar di Bursa Efek Jakarta*". Simposium Nasional Akuntansi VIII. Solo.
- Brigham F. Eugene and Houston F. Joel. (2007). *Essentials of Financial Management*. Thomson, Singapore.
- Chow, C.W. dan S.J. Rice. (1982). "*Qualified Audit Opinions and Auditor Switching*". *The Accounting Review*. Vol LVII No. 2 April 1982, pp.326-335.
- Craswell, A.T.(1998). "*The Association Between Qualified Opinions and Auditor Switches*". *Accounting and Business Research*. Ed.19, pp. 23-31.
- Ferrel O.C, Hirt Geoffrey, and Ferrell Linda.( 2008). *Business A Changing World*. 6th ed. Mcgraw Hill, New York.
- Gujarati, d.N. and D.C. Porter. (2009). *Basic Econometrics*. 5th ed. Mcgraw Hill, New York.
- Gul, F.A., Lee,D.S. dan M Lynn. (1992)."*A Note on Audit Qualification and Switches: Some Further Evidence From A Small Sample Study*". *Journal of International Accounting, Auditing & Taxation*, 1: pp.111-120.
- Haskin, M.E. dan D.D Williams. (1990). "*A Contingent Model of Intra-Big Eight Auditor Changes, Auditing*": *A journal of Practice and Theory*, Vol.9 No. 3, Fall, pp. 55-74.
- Hill N.T., S.E. Perry da S. Andes. (1996). "*Evaluating Firms in Financial Distress: An Event History Analysis*". *Journal of Applied Business Research*. Vol.12(3): p.60-71.
- <http://www.accounting-degree.org/scandals/> assessed on 1st september 2013.
- [http://www.ehow.com/list\\_7222350\\_types-behavioral-theories.html#ixzz2emqSz9wd](http://www.ehow.com/list_7222350_types-behavioral-theories.html#ixzz2emqSz9wd) assessed on 4 september 2013.



- Jensen, Michael C dan Meckling W.H.(1976). "*Theory of The Firm:Managerial Behaviour, Agency Cost and Ownership Structure*". Journal of Financial Economics Vol . 3. pp. 305-360.
- Jones. (1996)."*Current Tehniques in Bankruptcy Prediction*". Journal of Accounting Literature. pp. 64-131.
- Lau A.H. (1987). "*A Five State Financial Distress Prediction Model*". Journal Accounting ResearchVol. 25: pp.127-138.
- Mardiyah, Aida Ainul. (2002). "*Pengaruh Perubahan Kontrak, Keefektifan Auditor, Reputasi Klien, Biaya Audit, Faktor Klien, dan Faktor Auditor Terhadap Auditor Changes Sebuah Pendekatan Dengan Model Kontijensi RPA*". Simposium Nasional Akuntansi V. Semarang.
- McKeown, J. Mutchler, dan W Hopwood. (1991). "*Toward an Explanation of Auditor Failure to Modify the Audit Opinion of Bankrupt Companies*". Auditing: A Journal Practice & Theory. Suplement. pp.1-13.
- Schwartz, KB and BS. Soo. (1995). "*An analysis of firm 8K Disclosure of auditorchange by firms approaching bankruptcy*". Auditing: A Journal Practice & Theory., vol.14.no.1 , spring1995,pp.125-135.
- Stanislaus S. Uyanto, Ph.D. (2006). Pedoman Analisis Data dengan SPSS. 2nd ed. Graha Ilmu, Yogyakarta.
- Sinarwati,Ni Kadek. (2010). "*Why manufacturing firms change it's public accountant*". Simposium Nasional Akuntansi XIII, Purwokerto.
- Thaler, Richard .H. et all, (1996)."*The Winner's Curse*",*Anomalies Compilation*.Journal of Financial Economics.



## Appendix

### Group Statistics

	CHGEMNGM	N	Mean	Std. Deviation	Std. Error Mean
altmanok1	1	27	1.5147778	2.05775224	.39601460
	0	196	1.7855296	2.07011288	.14786521

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower		Upper
altmanok1	Equal variances assumed	.257	.613	-.638	221	.524	-.2707518	.4246510	-1.10764	.5661318
	Equal variances not assumed			-.641	33.668	.526	-.2707518	.4227194	-1.13013	.5886298

### Group Statistics

	CHGEPACC	N	Mean	Std. Deviation	Std. Error Mean
altmanok1	1	74	1.3390311	2.03457154	.23651414
	0	149	1.9582181	2.05719014	.16853158

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower		Upper
altmanok1	Equal variances assumed	.258	.612	-2.124	221	.035	-.619187	.2915034	-1.19367	-.044705
	Equal variances not assumed			-2.132	147.23	.035	-.619187	.2904167	-1.19311	-.045263

### Group Statistics

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
ALTMAN3	1	24	1.4823208	1.94915446	.39786949
	2	91	1.3778901	2.42469686	.25417730

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower		Upper
ALTMAN3	Equal variances assumed	.414	.521	.195	113	.846	.1044307	.53598409	-.957450	1.166312
	Equal variances not assumed			.221	44	.826	.1044307	.47212946	-.847242	1.056103