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The relationships among governance and earnings management: An empirical study on non-profit hospitals in Taiwan

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Sequel to the fact that the financial information of non-profit proprietary hospitals in Taiwan has been called into question, the Department of Health, Executive Yuan, (2006/2) has established guidelines regarding the financial reports of medical juridical person, stipulating that these reports must be audited by a certified public accountant (CPA) to show that reported earnings are representative. However, non-profit proprietary hospitals still employ numerous measures to transfer hospital profits to individuals or corporate groups, indicating that earnings figures do not necessarily reflect operational performance. Previous studies have focused on researching earnings management behavior in non-profit hospitals in the UK and the U.S.; however, the operational system and environment of hospitals in Taiwan are significantly different from the cases studied and cannot therefore be considered equivalent. This study used non-profit proprietary hospitals in Taiwan and ordinary least square method to test our hypothesis about earnings management behavior. The empirical results show that CEO duality (CEO serving as chairman) negatively relates to earnings management. However, information transparency and social responsibility insignificantly relate to earnings management. On the other hand, discretionary accruals play an active role in earnings management.

Key words: Not profit hospital, earnings management.

INTRODUCTION

Healy and Wahlen (1999) define earnings management as managers use of judgment in financial reporting and in structuring transactions to alter financial reports either to mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers. Earnings management has been labeled probably the most important ethical issue facing the accounting profession (Merchant and Rockness, 1994). Parfet (2000) notes that management has a portfolio of good or ethical; and bad or unethical earnings management practices from which to choose. Ethical earnings management practices would include, for risks (an example, using derivative securities to hedge business important business purpose). Unethical earnings management practices include accrual management (that

is, artificially shifting expenses between periods) to cosmetically smooth earnings (Parfet, 2000). Another form of earnings management is earnings smoothing (Dechow and Skinner, 2000), which can be defined as the process of manipulating the time profile of earnings to make the reported income stream less variable (Fudenberg and Tirole, 1995). Bhattacharya et al. (2003) also identify earnings aggressiveness, loss avoidance, and earnings smoothing are commonly used methods that contribute to earnings management. In additions, earnings management can be accomplished through many different means, such as modifying the lives of depreciable assets, changing the estimate of how much of accounts receivables will be uncollectible, or altering the estimate of the amount of warranties that will be exercised on the company's products (Huang et al., 2008). Managers can also understate earnings to make reported earnings appear less volatile than the firm's actual fundamental performance (Huang et al., 2008)

Much of this research has focused on determining

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whether earnings management exists and identifying the incentives to manage earnings (Healy and Whalen, 1999). For example, managers' equity incentives (Cheng and Warfield, 2005), acquire the capital needed (Gaud et al., 2007; Iatridis and Kadorinis, 2009; Douppnik, 2008), ensure the distribution of dividends in years of poor performance (Buckmaster, 2001).

Iatridis and Kadorinis (2009), Schonfeld (1998) examine the earnings management inclination of firms that seek to meet or exceed financial analysts' forecasts. Iatridis and Kadorinis (2009) also finding generally indicate that firms with low profitability and high leverage measures are likely to use earnings management. In addition, firms that are close to debt covenant violation also appear to be inclined to employ earnings management practices. Likewise, firms tend to use earnings management to improve their financial numbers and subsequently reinforce their compensation.

On the other hands, research also has begun to examine the ability of corporate governance and other institutional factors or law to constrain earnings management (Chung et al., 2002; Krishnan, 2003; Haw et al., 2004). Burgstahler et al. (2006) also find earnings management to be more prevalent in countries with weak legal enforcement systems.

The globalization of health services is reflected in the emergence of new forms of organization for health care in the last decade and increased cross-border delivery of health services through the movement of goods and services (Vargas-Hernandez and Noruzi, 2010). A global restructuring in the health sector due to high costs of medical services, particularly in developed countries has resulted in the creation of an international market of care and health care (Vargas-Hernandez and Noruzi, 2010). Hospital structures in different countries vary owing to operational environment in diverse operations strategies or mainly historical factors (Braam Rust and Johan de Jager, 2010).

Based on ownership, Taiwan hospitals can be divided into three categories, public hospitals, proprietary hospitals, and private hospitals. Public hospitals do not aim to make profits. Proprietary hospitals are a kind of private hospital, and do not pursue profits either. Private hospitals, on the other hand, are mainly for making profits. In terms of judging their efficiency or level of performance, hospitals can be categorized into three major categories; medical centers, regional hospitals, and local hospitals. Medical centers are large-scale hospitals mainly responsible for education, research, training, and highly complicated medical treatments; regional hospitals are medium-sized hospitals responsible for education, training, and complicated medical treatments; local hospitals are small-scaled hospitals mainly for training and ordinary medical treatments (Ching, 2007).

According to Taiwan's medical law, public hospitals managed by the government or public enterprise or universities, non-profit hospitals established by private

universities or donations for purposes of charity or medical research, and proprietary hospitals owned by physicians (hereafter termed for profits hospitals). Investor-owned corporations are prohibited from owning hospitals in Taiwan. In spite of this institutional difference, FP (for profit) hospitals in Taiwan are distinguished from non-profit hospitals by a variety of legal and economic aspects similar to the distinctions in the United States. First and the foremost, FP hospitals are managed and controlled by physician(s) who own the organization and its profits. By comparison, NFP (not for profit) hospitals do not have owners, but have self-perpetuating boards that have control rights. Therefore, a NFP hospital is legally forbidden from distributing its net earnings, if any, to its board of directors, administrators, doctors, or anyone else. Second, owners of FP hospitals have to pay personal income tax from net earnings. By contrast, NFP hospitals pay corporate income tax only if less than 80% of net earnings are not spent on purposes specified in the charter. Even in that case, the rate of personal income tax is much higher than that of corporate income tax. Third, NFP hospitals also are exempt from land and property taxes. Finally, NFP hospitals are entitled to receive charitable contributions. Most NFP hospitals were initially established through large charitable donations, while most FP hospitals were initially established through non-tax exempt personal debt.

On March 1, 1995, Taiwan introduced a National Health Insurance to cover all citizens in the country. Since it was compulsory, the insured rate was as high as 90%. The Bureau of National Health Insurance is the authority responsible for the implementation and management of the system. For the public, the implementation of National Health Insurance reduces most of their burden in medical costs. However, from the hospital's point of view, the system has a negative impact on revenues since fees originally paid by patients are transferred to the insurer, as the third party. In an earlier stage before the system was implemented, hospitals collected revenues through a service fee, making it possible for them to increase revenues by offering more services. However, doing this resulted in an escalation of medical costs, since they were unable to increase premiums to keep up with the increased services, for political reasons. Statistics from the Bureau of National Health Insurance reveal an 'embarrassing' situation of the hospitals not being able to make ends meet when the premium's annual growth was 4.26%, given that the increase in their medical costs was as high as 6.26% over the same period. In order to prevent the National Health Insurance Scheme leading to a deterioration in the finances of the hospitals, the Bureau of National Health Insurance introduced different methods of payment, and implemented National Budgeting System on July 1, 2002 hoping that the new budgeting method would be capable of focusing or restricting the medical services provided as well as controlling the rate of increase in medical costs (Ching,

2007). However, most of non-profit hospitals (especially medical centers or institution-owned Hospitals) have positive net income and even more than other industries were.

It is a serious puzzle. One possible explanation for this result is for this result is because more of non-profit hospitals in the Taiwan suffered the lack of financial transparency, such as related party transactions (for example, the sales of goods or services from related-party, the purchases of goods from related-party) or equipment depreciation too fast, and, drug price, donated revenue, subsidy revenue, sales commission, earnings management.

The goal of non-profit hospitals is not to create profit, but interested parties or stakeholders (creditors, communities, responsible authorities, donors, and third-person related parties) use earnings to evaluate hospital performance nonetheless (Leone and van Horn, 2005). Therefore, various inducements, such as maintaining the balance between profit and loss (Ballantine et al., 2007; Leone and van Horn, 2005; Ballantine et al., 2008; Eldenburg et al., 2008; Eldenburg et al., 2004), assurance of organizational position (Brickley and van Horn, 2002), budget constraints (Hoerger, 1991), donations (Frank et al., 1990), or saving on taxes (Leone and van Horn, 2005; Frank and Salkever, 1994) may lead hospital managers to manipulate earnings.

This paper examines the motives for Taiwan NFP hospitals that engage in earnings management activities with the hope of offering some insights for government.

LITERATURE REVIEW

CEO serving as chairman

In agency theory, by allowing the Chairman to act as CEO, the board of directors would lose its supervisory influence on managers, (Boyd, 1994; Core et al., 1999), and independence, (Fama and Jensen, 1983; Cadbury Committee, 1992).

This leads to degraded internal management mechanisms and high degree of earnings management (Beasley 1996; Klein 2002; Zhao and Chen, 2008). Non-profit hospitals are different from those in for-profit organizations.

According to Medical Treatment Act 33, the Chairman is the primary person in charge. In practice, the CEO is the top -level of manager.

H₁: CEO duality has a positive correlation with earnings management

Transparency

Information transparency affects the way managers manipulate earnings (Hirst and Hopkins, 1998). Lower transparency allows for an increase in hidden earnings

manipulation (Hunton et al., 2006), while more available information can limit opportunities to manipulate earnings significantly (Hirst and Hopkins, 1998). Because of the lack of personal benefits, most managers are often not willing to conduct earnings management (Lobo and Zhou, 2001).

H₂: Financial transparency has a significant negative relationship with earnings management

H₃: Non-financial transparency has a significant negative relationship with earnings management

Socially responsible

Socially Responsible (SR) is related to ethical and moral issues concerning corporate decision-making and behavior and, as such, addresses complex issues like, local community relations (Castelo and Lima, 2006) or by advancing the goals of community organizations (McWilliams et al., 2006). Disclosure of information about outcomes regarding social responsibility may help build a positive image among stakeholders (Orlitzky et al., 2003). On the other hands, SR activities are a powerful tool for obtaining support from stakeholders. With this tactic, the manager will reduce the likelihood of being fired due to pressure from discontented stakeholders whose interests have been damaged by the implementation of earnings management practices (Cespa and Cestone, 2007). Thus, this behavior associated with the negative relationship between socially responsible and earnings management (Chih et al., 2008).

H₄: Socially Responsible has a significant negative relationship with earnings management

METHODOLOGY

Sample data

The sample of this study was obtained from the Department of Health, Executive Yuan, or non-profit proprietary hospital's website (included 42 hospitals) between 2005 and 2008 (Sample=98).

Empirical model

The study used the ordinary least squares (OLS) method. The general model used to determine which factors influence the earnings management. The proxy variables are as follows:

Dependent variable: Measuring discretionary accruals

Discretionary accruals (DA_{it}): DA represents that part of total accruals that is more susceptible to manipulation by managers and are frequently used in prior studies as a proxy for earnings management (Chung et al., 2005; Leone and Van Horn, 2005; Kothari et al., 2005). Where, the absolute value of ϵ_t to measure

earnings management were adopted.

$DA1_{it}$:

$$\frac{TAC_{it}}{TA_{i,t-1}} = \alpha_0 \left(\frac{1}{TA_{i,t-1}} \right) + \alpha_1 \left[\frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{i,t-1}} \right] + \alpha_2 \left(\frac{PPE_{it}}{TA_{i,t-1}} \right) + \varepsilon_i \quad (1)$$

$DA2_{it}$:

$$\frac{\Delta BAD_{it}}{TA_{i,t-1}} = \alpha_0 \left(\frac{1}{TA_{i,t-1}} \right) + \alpha_1 \left[\frac{\Delta NETREV_{it}}{TA_{i,t-1}} \right] + \varepsilon_i \quad (2)$$

$DA3_{it}$:

$$\frac{TAC_{it}}{TA_{i,t-1}} = \alpha_0 \left(\frac{1}{TA_{i,t-1}} \right) + \alpha_1 \left[\frac{\Delta REV_{it}}{TA_{i,t-1}} \right] + \alpha_2 ROA_{i,t-1} + \varepsilon_i \quad (3)$$

Where, $TA_{i,t-1}$ is assets measured as at time t-1.

TAC_{it} = (Δ current assets minus Δ cash) minus (Δ current liabilities minus Δ Short-term loans minus Δ tax payable) minus depreciation; Δ is measured as the difference between at time t and at time t-1. Thus, ΔREV_{it} is total revenue (inpatient and outpatient revenue) measured as the difference between at time t and at time t-1; ΔAR_{it} is accounts receivable measured as the difference between at time t and at time t-1; PPE_{it} is net of accumulated fixed assets measured as at time t; ΔBAD_{it} is bad debt measured as the difference between at time t and at time t-1; $\Delta NETREV_{it}$ is net revenue measured as the difference between at time t and at time t-1; $ROA_{i,t-1}$ is return of assets measured as at time t-1.

Independent variables

CEO duality (CEO_{it}) is Chairman served as CEO in NFP hospitals at time t measured in a dummy variable. A dummy variable with a value of 1 if the Chairman served as CEO and 0 otherwise. Financial transparency (FT_{it}) and Non financial transparency (NFT_{it}) are at time t measured in Appendix A. Socially Responsible (SR_{it}) is at time t measured in Medical Treatment Act 46.

Control variable

The study defines the following proxy variables are as follows. $DEBT_{it}$ is the proportion of debt at time t measured in liabilities divided by assets $\times 100\%$ (Cao, 2010). OCF_{it} is operating cash flow measured as at time t. $AUDIT_{it}$ is a certified professional accountant firm at time t measured in a dummy variable. A dummy variable with a value of 1 if a Big 4 audits firm and 0 otherwise. NA_{it} is net asset at time t measured in assets minus liabilities.

RESULTS AND ANALYSES

Descriptive statistics

According to the descriptive statistics analysis in Table 1, the mean of discretionary accruals is significant (T-test), showing that not profit hospitals in Taiwan have higher degree of earnings manipulation. On the other hand, financial transparency is 19.5 points and non financial transparency is 17.6 points. Financial transparency is higher. Socially responsible (10% of net patient revenue) is 11.52%, which complies with the law. The proportion of debt at 22.35% shows it to be financial conservative. Net assets show that not profit hospitals in Taiwan are 248.98 (U.S. million dollars). Operating cash flows show that non-profit hospitals in Taiwan are profitable and doing well.

Empirical test

The empirical results in Tables 2, 3, and 4 show the link between CEO duality and earnings management of non-profit hospitals in Taiwan is negative. The reason is that CEO in non-profit hospital is often hired externally by the board of directors. This increases the independence and power of superintendants and limits the degree to which the boards of directors control earnings. The hypothesis 1 is not supported.

Currently, transparency and earnings management have an insignificant relationship (Alam, 2009). The hypotheses 2 and 3 are unsupported. This shows that many unclear issues concerning hospital information transparency still exist, and information that has already been disclosed (including non-financial transparency) has put pressure on hospitals. Actions to limit earnings management are unclear. We show the link between social responsibility and earnings management of non-profit hospitals in Taiwan is insignificant. The hypothesis 4 remains unsupported. Socially responsible non-profit hospitals in Taiwan focus on community treatment, education, research. If the ratio were close to 10%, it would indicate that manager's compliance with the law and not be a control mechanism for hospital's stakeholders. Thus, the study have been unable to conclusion whether stakeholders have put pressure on hospitals and detected earnings management.

More importantly, from Table 6, it is seen that DA2 is a more powerful method for explaining the relationships between governance with earnings management. It also shows that DA2 is a better index to explain earnings management for Taiwan NFP hospitals.

Results from variance inflation factors to explain fifteen variables for correlation; the result lies between 1.026 and 1.099. There is no correlation problem. In order to avoid possible bias from extreme values, the study also adopt those samples only include the sample data of

Table 1. Descriptive statistics for variables (US dollars in millions, %, points) (N =98).

	Max.	Average	Min.	P-value
$DA1_{it}$	0.936	0.794	0.652	0.000
$DA2_{it}$	1.025	0.977	0.784	0.000
$DA3_{it}$	0.574	0.468	0.356	0.000
FT_{it}	23	19.5	17	0.015
NFT_{it}	18	17.6	15	0.027
SR_{it}	13.6%	11.52%	10.08%	0.072
$DEBT_{it}$	36.72%	22.35%	17.58%	0.058
OCF_{it}	20.74	7.51	1.83	0.036
NA_{it}	687.61	248.98	60.61	0.019

$DA1_{it}$ 、 $DA2_{it}$ 、 $DA3_{it}$ are discretionary accruals; FT_{it} is financial transparency NFT_{it} is non- financial transparency; SR_{it} is Socially Responsible; $DEBT_{it}$ is the proportion of debt ; OCF_{it} is operating cash flow; NA_{it} is net asset.

Table 2. Regression results explaining DA1.

	Dependent variable ($TAC_{it}/TA_{i,t-1}$)
$1/TA_{i,t-1}$	0.205***
$\frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{i,t-1}}$	0.081**
$\frac{PPE_{it}}{TA_{i,t-1}}$	-0.111***
adj- R^2	0.358
F-value	258.693

$$TAC_{it}/TA_{i,t-1} = \alpha_0 (1/TA_{i,t-1}) + \alpha_1 \left[\frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{i,t-1}} \right] + \alpha_2 \left(\frac{PPE_{it}}{TA_{i,t-1}} \right) + \varepsilon_t.$$

TAC_{it} = (Δ current assets minus Δ cash) minus (Δ current liabilities minus Δ Short-term loans minus Δ tax payable) minus depreciation; $TA_{i,t-1}$ is assets measured as at time t-1; ΔREV_{it} is total revenue (inpatient and outpatient revenue) measured as the difference between at time t and at time t-1; ΔAR_{it} is accounts receivable measured as the difference between at time t and at time t-1; PPE_{it} is net of accumulated fixed assets measured as at time t; *:p<0.1、 **: p<0.05、 ***: P<0.01

from the 5th percentile to the 95th percentile as measures for the robustness test, the results show that most of

Table 3. Regression results explaining DA2.

Dependent variable $\Delta (BAD_{it}/TA_{i,t-1})$	
$1/TA_{i,t-1}$	-0.135**
$\frac{\Delta NETREV_{it}}{TA_{i,t-1}}$	-0.222***
adj- R^2	0.415
F-value	317.256

$$\Delta BAD_{it}/TA_{i,t-1} = \alpha_0(1/TA_{i,t-1}) + \alpha_1[\frac{\Delta NETREV_{it}}{TA_{i,t-1}}] + \epsilon_t$$

ΔBAD_{it} is bad debt measured as the difference between at time t and at time t-1; $TA_{i,t-1}$ is assets measured as at time t-1. $\Delta NETREV_{it}$ is net revenue measured as the difference between at time t and at time t-1; *, **; p<0.1, **: p<0.05, ***: P<0.01.

Table 4. Regression results explaining DA3.

Dependent variable $(TAC_{it}/TA_{i,t-1})$	
$1/TA_{i,t-1}$	0.225***
$\frac{\Delta REV_{it}}{TA_{i,t-1}}$	0.072**
$ROA_{i,t-1}$	0.116***
adj- R^2	0.386
F-value	299.527

$$TAC_{it}/TA_{i,t-1} = \alpha_0(1/TA_{i,t-1}) + \alpha_1[\frac{\Delta REV_{it}}{TA_{i,t-1}}] + \alpha_2 ROA_{i,t-1} + \epsilon_t$$

TAC_{it} = (Δ current assets minus Δ cash) minus (Δ current liabilities minus Δ Short-term loans minus Δ tax payable) minus depreciation; $TA_{i,t-1}$ is assets measured as at time t-1. ΔREV_{it} is total revenue (inpatient and outpatient revenue) measured as the difference between at time t and at time t-1; $ROA_{i,t-1}$ is return of assets measured as at time t-1. *, **; p<0.1, **: p<0.05, ***: P<0.01.

them are consistent with Tables 5, 6, and 7.

Conclusion

The purpose of this paper is to examine whether earnings management in the not for profit hospitals of Taiwan and analyze the earnings management behavior. The sample spans from 2005 to 2007. Non-profit hospitals have different goals, management, and manager enticement. All of which lead to differences in financial reports. Studies on earnings management are focus on for profit organizations (Bartov et al., 2000; Klein 2002; Byard et

al., 2007; Siregar and Utama, 2008). However, hospital studies are rare (Leone and Van Horn, 2005; Hoerger, 1991; Frank et al., 1990; Ballantine et al., 2007).

Research indicated that CEO duality had a negative correlation with earnings management. The CEO of non-profit hospitals has a higher degree of independence and supervisory power, thus limiting the influence of board of directors on earnings manipulation. The relationship between transparency and earnings management is still unclear; indicating the Taiwan Department of Health Executive Yuan (DOH) must adopt stricter systems to make internal information more public and such findings

Table 5. Regressions of governance with earnings management (Dependent variable is $DA1_{it}$).

Dependent variable ($DA1_{it}$).						
Intercept	0.311***	0.447***	0.457***	0.515***	0.461***	0.439***
CEO_{it}	-0.325***	-0.375***	-0.321***	-0.329***	-0.358***	0.331***
FT_{it}	0.007	-0.008	0.007	0.011	0.017	0.012
NFT_{it}	-0.025	-0.015	-0.019	-0.017	-0.029	-0.019
SR_{it}	0.004	0.036	0.027	0.019	0.012	0.013
$DEBT_{it}$		0.137**	0.122**	0.126**	0.174***	0.131**
OCF_{it}			-0.158***	-0.152***	-0.136**	-0.132***
$AUDIT_{it}$				0.051	0.027	-0.036
NA_{it}					-0.018	0.014
adj- R^2	0.125	0.137	0.147	0.145	0.152	0.149
F-value	31.121***	24.985***	21.031***	22.301***	19.527***	19.847***

(1). $DA1_{it}$ is discretionary accruals 2. CEO duality (CEO_{it}) is Chairman served as CEO in NFP hospitals at time t measured in a dummy variable. A dummy variable with a value of 1 if the Chairman served as CEO, and 0 otherwise. Financial transparency (FT_{it}) and Non financial transparency (NFT_{it}) are at time t measured in Appendix A. Socially Responsible (SR_{it}) is at time t measured in Medical Treatment Act 46. $DEBT_{it}$ is the proportion of debt at time t measured in liabilities divided by assets $\times 100\%$. OCF_{it} is operating cash flow measured as at time t. $AUDIT_{it}$ is a certified professional accountant firm at time t measured in a dummy variable. A dummy variable with a value of 1 if a Big 4 audits firm and 0 otherwise. NA_{it} is net asset at time t measured in assets minus liabilities. (3). *: $p < 0.1$, **: $p < 0.05$, ***: $P < 0.01$, $N = 98$

Table 6. Regressions of governance with earnings management (Dependent variable is $DA2_{it}$).

Dependent variable $DA2_{it}$						
intercept	0.411***	0.374***	0.357***	0.451***	0.417***	0.539***
CEO_{it}	-0.425***	-0.475***	-0.421***	-0.432***	-0.458***	0.531***
FT_{it}	0.001	-0.004	0.005	0.017	0.016	0.018
NFT_{it}	-0.027	-0.016	-0.024	-0.027	-0.034	-0.028
SR_{it}	0.014	0.047	0.057	0.024	0.032	0.043
$DEBT_{it}$		0.213**	0.142**	0.156**	0.177***	0.143**
OCF_{it}			-0.188***	-0.172***	-0.156**	-0.173***
$AUDIT_{it}$.039	0.037	-0.047
NA_{it}					-0.025	0.024
adj- R^2	0.212	0.237	0.247	0.245	0.252	0.249
F-value	29.457***	23.188***	20.058***	21.581***	22.197***	24.328***
N				98		

(1). $DA2_{it}$ is discretionary accruals (2). CEO duality (CEO_{it}) is Chairman served as CEO in NFP hospitals at time t measured in a dummy variable. A dummy variable with a value of 1 if the Chairman served as CEO, and 0 otherwise. Financial transparency (FT_{it}) and Non financial transparency (NFT_{it}) are at time t measured in Appendix A. Socially Responsible (SR_{it}) is at time t measured in Medical Treatment Act 46. $DEBT_{it}$ is the proportion of debt at time t measured in liabilities divided by assets $\times 100\%$. OCF_{it} is operating cash flow measured as at time t. $AUDIT_{it}$ is a certified professional accountant firm at time t measured in a dummy variable. A dummy variable with a value of 1 if a Big 4 audit firm and 0 otherwise. NA_{it} is net asset at time t measured in assets minus liabilities.

3.*: $p < 0.1$, **: $p < 0.05$, ***: $P < 0.01$,

Table 7. Regressions of governance with earnings management (Dependent variable is $DA3_{it}$).

	Dependent variable ($DA3_{it}$)					
intercept	0.275***	0.274***	0.237***	0.311***	0.314***	0.495***
CEO_{it}	-0.342***	-0.375***	-0.341***	-0.442***	-0.348***	0.455***
FT_{it}	0.004	-0.002	0.004	0.011	0.017	0.014
NFT_{it}	-0.021	-0.015	-0.021	-0.027	-0.029	-0.024
SR_{it}	0.011	0.041	0.051	0.021	0.022	0.027
$DEBT_{it}$		0.203**	0.112**	0.146**	0.157***	0.149**
OCF_{it}			-0.171***	-0.154***	-0.146**	-0.158***
$AUDIT_{it}$				0.027	0.031	-0.027
NA_{it}					-0.017	0.021
adj- R^2	0.195	0.198	0.214	0.199	0.202	0.217
F-value	27.357***	22.114***	19.125***	20.365***	21.036***	22.181***
N			98			

(1). $DA3_{it}$ is discretionary accruals (2). CEO_{it} is Chairman served as CEO in NFP hospitals at time t measured in a dummy variable. A dummy variable with a value of 1 if the Chairman served as CEO and 0 otherwise. Financial transparency (FT_{it}) and Non financial transparency (NFT_{it}) are at time t measured in Appendix A. Socially Responsible (SR_{it}) is at time t measured in Medical Treatment Act 46. $DEBT_{it}$ is the proportion of debt at time t measured in liabilities divided by assets $\times 100\%$. OCF_{it} is operating cash flow measured as at time t. $AUDIT_{it}$ is a certified professional accountant firm at time t measured in a dummy variable. A dummy variable with a value of 1 if a Big 4 audit firm and 0 otherwise. NA_{it} is net asset at time t measured in assets minus liabilities. (3).*: $p < 0.1$, **: $p < 0.05$, ***: $P < 0.01$

also found in case of education in Bangladesh that is non-profit based business (Alam et al., 2010a, 2010b). Because of the special environment, non-profit hospitals in Taiwan often make complex. Most of non-profit hospitals (especially medical centers or institution-owned Hospitals) have positive net income and even more than other industries were. The Department of Health, Executive Yuan, Taiwan (DOH) adopts the so-called revenue-increased system. It leads to burden citizen's insurance costs. It is a serious puzzle. Earnings management and the source of revenue for hospitals are possible reasons for this, as well as the possibility of an unbalanced insurance system. The study also suggest that future studies examine the impact factors of earning management in other kinds of hospitals, because different hospitals have different organizational structures or cultural and industry characters. In addition, other elements such as market competition and the compensation of directors and Supervisors must be considered. Subsequent research should keep track of these trends and analyze the degree of earnings manipulation. Thus, the research will cover a complete study of earnings management in not for profit hospitals.

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