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# The Effect of Types, Agency Costs and Governance of Government-Owned Entities on the Book-Tax Difference: The Case of Korea

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**Abstract:** This study has analyzed the influence of characteristics of government-owned entities on BTD (Book-Tax Difference) according to the type, agency cost and governance of Korean government-owned entities. Results of the study are as follows. First of all, the more likely it was for them to be quasi-government bodies, the more they were separately managed with proper purpose business accounting and profit business accounting. Therefore, they tended to have more opportunities to reduce tax burden or increase accounting profit. Hence, BTD turned out to be increased by a significant positive value. Secondly, according to the result of comparing agency cost and BRD in the government-owned entities, agency cost incurring from the president of an organization turned out to be high. This implies that BTD increased to reduce cash outflow due to the cause for performance evaluation and tax burden. Third, hypothesis has been established indicating that governance of government-owned entities and BTD were not related with each other. However, they turned out not to be significant. Therefore, non-executive director policy (outside director policy) turned out not to properly function for keeping the president of an organization in check. According to the result of this study, it is meaningful that influence of characteristics of general companies and government-owned entities has expanded the scope of previous studies through agency cost with uncertainty of accounting profit information and governance. In addition, this study will be also meaningful that proper purpose business and profit business appropriate for the goals for separate accounting from government-owned entities are sub-divided further while emphasizing that a research is needed to deal with accounting and tax proceedings of government-owned entities.

**Key words:** Government-owned entities, book-tax difference, agency cos, governance, significant positive value, BTD

## INTRODUCTION

Governance of a company serves as a function for monitoring the opportunistic behaviors of a manager. Solidly established governance serves as a role of reducing earnings management or avoidance of tax. Therefore, governance of government-owned entities might be related to behaviors including earnings management or avoidance of tax. However, there are previous studies indicating that a role of non-standing director failed to serve his/her role among the governance of government-owned entities.

In addition, government-owned entities are an organization that serves as a role of government. Therefore, owner-agency theory is applied and agency cost incurs. The higher the agency cost is the more there is a tendency to avoid tax or manage earnings. Jensen and Meckling (1976) reported that compensation policy of the manager related to company performance could solve an issue of agency. Jensen and Murphy (1990) indicated that motivation was feasible to exert more effort with compensation based on the performance where interests of a manager and stockholders were consistent for improving the company performance. This similarly occurs among government-owned entities. President of the government-owned entity is relevant to the CEO who is responsible for the management of an organization with the power of appoint and dismiss from the government. Especially, agency cost incurring by the president of government-owned entities serves as a proxy

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for issues of agency. Therefore, the more likely it is of an organization with severe issues of an agency, the more likely it is for them to perform tax strategies for avoiding or reducing tax.

Ministry of Strategy and Finance in Korea has been performing the managerial performance evaluation on government-owned entities every year. At this time, indices in the use of financial values among managerial evaluation performance significantly rely on the balance sheet prepared by each of the government-owned entities. However, balance sheet of government-owned entities is mostly prepared randomly according to its characteristics. In addition, since consolidated financial statement needs to be prepared without distinguishing profit and non-profit business that are supposed to be separated, there is an issue of lowering the possibility of comparison for financial statement.

The member from Land Infrastructure and Transport Committee has reported that the tax amount worth 35.309781 million Won was charged in addition by the tax office from 13 government-owned entities out of 23 entities from Ministry of Land, Infrastructure and Transport since 2008. Among 13 entities charged in addition, 5 entities claimed to appeal the tax. However, claimed refund amount was about 66.7 billion Won that was only 26.9% of the total amount. Because less than a half of entities (13 entities) claimed to appeal the tax after they were charged with a significant amount of tax in addition, accounting transparency turned out to be low.

Therefore, state-owned companies are required to restrain from excessive salary, incentives and various welfares to improve transparency of the accounting and management in the future and also to exert an effort to establish transparency. Hereupon, the objective of this study is to analyze whether organizational characteristics of government-owned entities influence on the difference between accounting earnings and tax profit according to types, agency cost and governance.

Results in this study will suggest the necessity of separate accounting policies among efficient accounting management, proper purpose business fields and profit business according to the types of government-owned entities.

## Literature review

### Theoretical background

**Accounting selection in efficient capital market:** Many of the researches have expected that evaluation on the stock value was not changed even after simply changing accounting management methods if cash flow of the company was not influenced.

However, Watts and Zimmerman (1990) indicated that various types of contract concluded with companies and economic incentives of a manager might be influenced while affecting on the value of the company even if it was a selection of accounting not influencing on the cash flow through positive accounting theory for explaining and predicting the phenomena. Such types of research are classified into three categories; agency cost, information asymmetries and externality. As they received an attention in the late 1970's, they became a mainstream until the mid-1980's. These series of researches in dealing with capital market in Japan and accounting selection imply much about the selection of accounting management methods.

**Governance of government-owned entities:** Corporate governance means a mechanism for regulating the interactive relationship among interested parties, stockholders, board members and managers. In other words it also indicates a mechanism of discipline of stockholders on managers. Joh (2003) have indicated that the structure in efficiently realizing agency cost and transaction cost from separation of ownership and management was the mechanism of discipline for the corporate management. Hereupon, corporate governance is a mechanism of institutional policies and operations in adjusting and regulating various interests and ownership. Appointment of management at a company is determined in the general meeting of stockholders and control of decision making process is performed in the board of directors. Therefore, corporate governance is of a means for being responsible for company management by controlling appointment of the management and decision making process. However, since appointment of management in the government-owned entities is not determined in the general meeting of stockholders, configuration and activities of board of directors significantly influence on managerial decision making. Therefore, the role of outside directors in government-owned entities is very important for social organization and activities. Hereupon, configuration of board of directors is a core element in explaining efficient corporate governance.

Rhee and Cho (2001) indicated that the proportion of outside directors in the board was of an element for acquiring independence of board of directors. Xie *et al.* (2003) have reported that the more frequently the meeting of board of members held, the more earnings management was reduced according to the result of identifying how characteristics of board of directors and audit committee influenced on earnings management.

Petra (2007) has reported that the independence of board of directors estimated by the proportion of outside directors was significantly and positively correlated with information of profits according to the result of research in investigating the correlation of earnings measured in earnings response coefficient with independence of board of directors, auditing committee, compensation committee whether CEO served concurrent position for chairperson in the board of directors and existence of BGN.

Jensen and Meckling (1976) have reported that agency issue might be significantly solved if compensation system of the manager was connected with company performance. Jensen and Murphy (1990) have indicated that compensation based on performance in consistent with interest from manger and stockholder might motivate to improve performance of the company. As equity-related compensation might be of motivation for improving value of company among managers over cash compensation, it was possible to solve conflict among interests between managers and stockholders with equity-related compensation. Banker and Datar (1989) have reported that the higher the risk of company was the higher the compensation risk was among employees in the relevant company. In addition, they insisted that high amount of compensation needed to be paid in exchange for high risk to provide enough incentives to employees. In the study by Banker and Datar (1989) correlation between risk of the company and manager compensation was reported, since a higher amount of compensation needed to be paid to manager if there was higher level of risk in operation.

**Study on accounting earnings and tax earnings:** Manzon and Plesko (2001) have estimated tax earnings in the use of financial data from 1988-1998. According to the result of investigating the causes of book-tax difference, the book-tax difference turned out to be positive while representing an increasing trend of accounting earnings versus tax earnings unlike the result from the past. However, there was no causes for positive difference. Manzon and Plesko (2001) have researched with focus on the occurrence of book-tax difference. Phillips *et al*. (2003) have predicted that earnings management was reflected by the book-tax difference. Phillips *et al*. (2003) have insisted that temporary book-tax difference influenced on the accounting amount related to profits and expenses of a manager while incurring deferred corporate tax.

Mills and Newberry (2001) have reported that there was a huge book-tax difference if there was an incentive for earnings management by using classified resources. Manzon and Plesko (2001) have analyzed the causes of book-tax difference reporting that the difference between them increased as time passed by. Such results of the study were interpreted to be caused by behaviors for earnings management from a manager. Chaney and Jeter (1994), Phillips *et al*. (2003) have reported that deferred corporate tax and discretionary accruals were positively correlated and that earnings management from a manager was reflected on the book-tax difference. In addition, Phillips *et al*. (2003) have collected and reported that changes in deferred corporate tax and asset were related to earnings management for avoiding reduced earnings.

Park and Jeon (2003) have reported that the more likely it was for companies with higher discretionary accruals, the more deferred corporate tax increased and that the more likely it was for companies with higher accounting earnings than tax earnings, the more the deferred corporate tax increased. This has been insisted to serve as a role of useful information making it feasible to observe whether earnings management was performed by a manager with information of deferred corporate tax. Ko and Yoon (2006) have expanded the scope of research by Phillips *et al*. (2003) classifying the book-tax difference in depreciation, allowance for retirement, inventory asset, incurring amount, equity method stock, allowance for bad debt and others. Among them, they suggested that inventory asset, equity method stock and allowance for bad debt provided explanatory power on earnings management.

**Study on earnings management for accounting earnings and tax accounting:** Kim and Jeon (2010) have used the Ohlson (1995) model verifying the influence of book-tax difference on companies listed in marketable securities market from 2000-2004. According to the result, tax earnings turned out to serve as a role of bench-mark for the areas that stock price could not be explained by accounting earnings in the same manner with tax earnings. The book-tax difference has been reported to have an additional relevance of value other than the areas where explained the company value.

Park and Jeon (2003) have reported that discretionary accruals and deferred corporate tax were positively correlated. The book-tax difference and deferred corporate tax were positively correlated with each other implying that the book-tax difference was used as a measuring value for earnings management.

Joo *et al*. (2005) have used BTD variables as an earnings-managing variable classifying the companies (114 companies performing earnings management and 37 companies for vice versa) that have and have not performed earnings management according to the research method by Burgstahler and Dichev (1997) to

clarify the relevance of BTD with earnings management. According to the result of verifying the relevance, BTD turned out to identify groups that have not managed earnings and those that have managed earnings and also suggested that they were more accurate than incurring amount with additional explanatory power.

**Study on the governance of government-owned entities:** Weishbach (1988) has practically analyzed the relationship between replacement of CEO and outside directors reporting that the companies with higher level of independence from proportion of outside directors tended to sensitively replace CEOs according to managerial performance. Therefore, he has represented the result of research for how outside directors effectively monitored the management.

Beasely (1996) has investigated the difference of characteristics of board of directors from companies with and without accounting manipulation. As a result, the more likely it was for companies with high proportion of outside directors, the less the accounting manipulation turned out to be. Menon and Williams (1994) have indicated the result that outside directors more effectively monitored the manager than inside directors. Xie *et al.* (2003) have identified the influence of characteristics of board of directors and auditing committee earnings management by using the frequency of meeting from board of directors as a variable for activity. They reported that the more frequently board of directors held meeting, the more earnings management was reduced.

## MATERIALS AND METHODS

### Research design

**Research hypothesis development:** Government-owned entities are classified into public companies, quasi-government bodies and other public organizations. Among them, quasi-government bodies are sub-divided into consigned execution and fund-managing type. This quasi-government body is divided into proper purpose business for operating the business with government subsidy or funds from government and profit business as a type of business for operating with profit. Therefore, quasi-government is required to separate and bookkeep proper purpose business and profit business and also classify them in years when applied different accounting standards. At last, earnings from these two types of business are applied with the same corporate tax law with general companies. Here, separate accounting is applied. However, there might be cost transferring phenomena at some degree. In addition, there might be a relatively huge opportunity to execute tax strategies for avoiding or reducing tax compared to other types of government-owned entities.

Government-owned entities have a differential taxation on each field if they operate profit business to be taxed along with proper purpose business. This situation makes 'tax planning' in the use of form of an organization' suggested by Scholes and Wolfson feasible. In other words, they are able to minimize the tax burden with strategy for converting income to be taxed into the one exempted from taxation in order to reduce tax burden on government-owned companies. Therefore, following hypotheses are established.

**$H_1$:** There might be a huge book-tax difference if it is quasi-government body. Government-owned entities are an organization that serves as a role of government. Therefore, owner-agency theory is applied and agency cost incurs. According to previous studies, the higher the agency cost is the more there is a tendency to avoid tax or manage earnings. This similarly occurs among government-owned entities. President of the government-owned entity is relevant to the CEO who is responsible for the management of an organization with the power of appoint and dismiss from the government.

Especially, agency cost incurring by the president of government-owned entities serves as a proxy for issues of agency. Therefore, the more likely it is of an organization with severe issues of an agency, the more likely it is for them to perform tax strategies for avoiding or reducing tax. Hereupon, following hypothesis is established.

**$H_2$:** The more likely it is for companies with high agency cost, the higher the book-tax difference is. Governance indicates a function for monitoring the opportunistic behaviors of a manager (Yoon and Lee, 2012). Therefore, solidly established governance serves as a role of reducing the earnings management and behaviors for avoiding tax. Hereupon, governance of government-owned entities might be related to earnings management or behaviors for avoiding tax by the president of an organization. However, there were previous studies indicating that the role of non-standing directors was not well performed among governance of government-owned entities. Therefore, following null hypothesis is established.

**$H_3$:** Governance of government-owned entities might not be related to the book-tax difference.

**Research model:** The objective of this study is to verify the book-tax difference through each of the independent variables from accounting characteristics of separating features and separate accounting policies in government-owned entities. Research model is as follows in Eq. 1.

The dependent variable, BTD was the amount that deducted the corporate tax from net income before income taxes and was measured by the book-tax difference that were standardized as total assets in the end of previous term. In addition, quasi-government (Quasi-Qrg) for verifying the $H_1$ was measured as "1" if it was fund-managing type of consigned execution or "0" if otherwise. Agency cost (Agency) for verifying the $H_2$ was measured as "1" if natural log value of work expenses spent by the president of an organization exceeded the 3rd quantile of the natural log value of the expenses from the entire government-owned entities and "0" if otherwise. In addition, outside director (Governance) for verifying the $H_3$ was measured by natural log of the number of outside directors.

As for control variables, Agency cost (Agency), outside directors (Governance), Size of organization (SIZE), Return on Asset (ROA), debt ratio (LEV) and Year Dummy ($\sum$YD) that could influence on the book-tax difference were used:

$$BTD_{it} = \alpha_1 + \beta_1 Quasi\text{-}Org_{it} + \beta_2\ Agency_{it} + \beta_3 Governace_{it} + \beta_4 SIZE_{it} + \beta_5 ROA_{it} + \beta_6 LEV_{it} + \beta_j \sum YD + \varepsilon_{it} \quad (1)$$

Where:

BTD = (Net income before income taxes-corporate tax standards) ÷ total asset in the end of previous term

Quasi_Org = "1" if quasi-government and "0" if otherwise

Agency = "1" if the natural log of work expenses from the president of an organization exceeded the 3rd quantile of the natural log of expenses of the entire government-owned entities and "0" if others

Governance = Natural log value of the number of outside directors

SIZE = Natural log value of the total asset in the previous term

ROA = Net profit in the current term ÷ total asset in the end of previous term

LEV = Total liability ÷ total asset in the end of previous term

ΣYD = Variable of year dummy

**Measurement of variable**

**Book-Tax Difference (BTD):** Measured by dividing the amount deducted with corporate tax standards from net income before income taxes by the total asset in the end of previous term.

**Quasi-government (Quasi_Org):** Measured as 1 if it is quasi-government and 0 if otherwise according to types of government-owned entities.

**Agency cost (Agency):** "1" if the natural log of work expenses from the president of an organization exceeded the 3rd quantile of the natural log of expenses of the entire government-owned entities and "0" if others.

**Governance (outside director):** Measured by using the natural log value of the number of outside directors.

**Size of an organization (SIZE):** Measured with the natural log from the total asset in the end of previous term by considering non-linear relationship with dependent variables from the SIZE of government-owned entities.

**Return on Asset (ROA):** Measured by dividing the net income in the current term by the total asset in the end of previous term.

**Debt ratio (LEV):** Debt ratio was measured by dividing the total liabilities by the total asset in the end of previous term. Liabilities serve as a role of indirect monitoring on managers in the perspective of governance. The more likely it is for companies with high liability proportion, the more the necessity of a tool for governance is to be reduced.

**Year Dummy (ΣYD):** Year dummy has been used to separate the effect incurring when the relevant year involves in the dummy. In this study, 1 was granted if it was dummy and 0 if otherwise.

**Sample selection:** Publicly available financial information and non-financial information needed for measurement of variables in the managerial information open system have been used on government-owned entities in this study. Analysis period was from 2011-2015. Ultimately selected organizations are shown in Table 1 and there were total 1,733 organizations including 70 public enterprises in the market, 83 quasi-market public companies, 75 funding-managing types of quasi-government bodies, 375 consigned execution type of quasi-government organizations and 1,130 of other companies in the sample.

Table 1: Distribution of samples

| Samples | Fy 2011 | Fy 2012 | Fy 2013 | Fy 2014 | Fy 2015 | Total |
|---|---|---|---|---|---|---|
| **Public enterprise** | | | | | | |
| MBE | 14 | 14 | 14 | 14 | 14 | 70 |
| QMPC | 16 | 16 | 16 | 16 | 16 | 83 |
| **Quasi- government** | | | | | | |
| FM type | 15 | 15 | 15 | 15 | 15 | 75 |
| CE type | 75 | 75 | 75 | 75 | 75 | 375 |
| Other companies | 226 | 226 | 226 | 226 | 226 | 1,130 |
| Total | 346 | 346 | 346 | 346 | 346 | 1,733 |

Definitions of variables are as follows: public enterprises are consisted of MBE (Market-Based Enterprise) and QMPC (Quasi-Market Public Companies) quasi-government bodies are consisted of FM (Funding-Managing) types and CE (Consigned Execution) types other companies

## RESULTS AND DISCUSSION

### Results of empirical analysis

**Descriptive statistics and correlation:** As descriptive statistics of variables in Table 2, the average of BTD in this study turned out to be 0.005 and the median value was 0. Quasi_Org turned out to be 0.26 (0) in average (median) and average (median) of agency turned out to be 0.233 (0). Average (median) of governance turned out to be 2.048 (2.079). In addition, average (median) of SIZE was 10.192 (9.972) and average (median) of ROA and LEV turned out to be 0.055 (0.003) and 0.491 (0.397), respectively. Therefore, it was confirmed that there was a huge difference on all the variables. Especially, according to the average (median) of all other variables related to types of government-owned entities, agency cost and governance in the hypotheses, Quasi_Org, agency cost and agency variables of government-owned entities turned out to have a huge difference from BTD.

According to the result of analysis on correlation on major variables prior to regression analysis, BTD and other variables turned out to be positively correlated with each other. ROA was negatively correlated with them. Quasi-government bodies (Quasi_Org) and other variables were positively correlated with agency and SIZE. In addition, Governance and ROA were negatively correlated. Agency was positively correlated with Governance and SIZE and negatively correlated with ROA. In addition, governance and SIZE were negatively correlated but positively correlated with ROA. Lastly, SIZE and ROA were negatively correlated.

**Results of OLS regression analysis:** For the verification of hypotheses in this study, BTD was regarded as a dependent variable while performing multiple regression analysis in Table 3. Influence of control variables included in the research model on BTD has been identified through $H_1$. Quasi_Org turned out to represent a significantly positive value and SIZE, ROA and LEV turned out to represent negative value. Therefore, they supported the hypothesis. In $H_2$, Quasi_Org represented a positive value while SIZE, ROA and LEV turned out to represent negative value. Therefore, they supported the hypothesis. In $H_3$, governance represented a positive value while the remaining SIZE, ROA and LEV represented a negative value as they indicated in hypothesis 1 and 2. Therefore, they supported the hypothesis.

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**Additional test:** In order to identify the influence of each of the variables in this study each year, additional analysis is conducted in Table 4. According to the result of identifying the influence of variables in each year, t-value of Quasi_Org was 3.14 in 2013 and 1.74 in 2013. However, it was rapidly increased to 6.15 in 2014. Therefore, it was significant at significance level of 1%. As for agency, it was 2.19 in 2012 and 2.48 in 2013 and hence was significant at significance level of 5%. However, it was not significant in 2014. Governance turned out not to be statistically significant in all the cases. SIZE turned out to be significant in 2012 and 2013 at significance level of 1% and also in 2014 at significance level of 10%. ROA turned out to be significant as -8.2% in 2012 but not to be significant in 2013. However, it was significant as -2.01 in 2014 at significance level of 5%. LEV turned out to be statistically significant in both 2012 and 2014 except for 2013.

According to the expected sign in each year among variables, all other variables turned out to be consistent. However, agency that was expected to represent a positive sign turned out to indicate a negative value in 2014. According to F-value for representing the fit of model in each year, they turned out to be statistically significant at significance level of 1%.

Table 2: Descriptive statistics of major variables (N = 1,733)

| Variables | Mean | SD | Min. | Q1 | Median | Q3 | Max. |
|---|---|---|---|---|---|---|---|
| BTD | 0.005 | 0.584 | -12.066 | -0.013 | 0.000 | 0.004 | 5.395 |
| Quasi-org | 0.260 | 0.439 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| Agency | 0.233 | 0.423 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| Governance | 2.048 | 0.496 | 0.000 | 1.792 | 2.079 | 2.303 | 4.234 |
| SIZE | 10.192 | 2.159 | 2.996 | 8.610 | 9.972 | 11.856 | 17.825 |
| ROA | 0.055 | 0.398 | -1.000 | -0.011 | 0.003 | 0.045 | 9.663 |
| LEV | 0.491 | 0.620 | 0.000 | 0.117 | 0.397 | 0.684 | 10.398 |

The variables are defined as definitions of equation 1. BTD = (Net income before income taxes- corporate tax standards) ÷ total asset in the end of previous term; Quasi_Org = "1" if quasi-government and "0" if otherwise; Agency = "1" if the natural log of work expenses from the president of an organization exceeded the 3rd quantile of the natural log of expenses of the entire government-owned entities and "0" if others; Governance = Natural log value of the number of outside directors; SIZE = Natural log value of the total asset in the previous term; ROA = Net profit in the current term ÷ total asset in the end of previous term; LEV = Total liability ÷ total asset in the end of previous term

Table 3: Results of OLS regression

| | | $H_1$ | | $H_2$ | | $H_3$ | |
|---|---|---|---|---|---|---|---|
| Variables | Exp. sign | Coeff. | t-stat. | Coeff. | t-stat. | Coeff. | t-stat. |
| Intercept | +/- | 0.595 | 7.06å | 0.578 | 6.95å | 0.413 | 3.28å |
| Quasi_org | + | 0.138 | 3.3ã | | | | |
| Agency | + | | | 0.136 | 3.76å | | |
| Governance | +/- | | | | | 0.069 | 2.07ã |
| SIZE | +/- | -0.045 | -6.09å | -0.046 | -6.19å | -0.039 | -4.58å |
| ROA | +/- | -0.203 | -20.25å | -0.202 | -20.40å | -0.296 | -15.86å |
| LEV | +/- | -0.860 | -7.22å | -0.866 | -7.21å | -0.807 | -7.54å |
| ∑YD | +/- | Included | Included | Included | | | |

F-value: 116.07å, 116.95å, 97.94å; Adj. $R^2$: 0.539, 0.541, 0.552; Observation: 1,733; Statistically significant at the (1%), ã (5%) and ä (10%) two-tailed level, respectively. The variables are defined as definitions of Eq. 2.

Table 4: Results of OLS regression (by year)

| | | $H_1$ | | $H_2$ | | $H_3$ | |
|---|---|---|---|---|---|---|---|
| Variables | Exp. sign | Coeff. | t-stat. | Coeff. | t-stat. | Coeff. | t-stat. |
| Intercept | +/- | 0.653 | 2.36ã | 0.224 | 1.04 | 0.395 | 2.07ã |
| Quasi_Org | + | 0.286 | 3.14å | 0.131 | 1.74ä | 0.910 | 6.15å |
| Agency | + | 0.203 | 2.19ã | 0.179 | 2.48ã | -0.015 | -0.19 |
| Governance | +/- | 0.052 | 0.67 | 0.060 | 1.03 | -0.007 | -0.15 |
| SIZE | +/- | -0.059 | -3.05å | -0.040 | -2.62ä | -0.026 | -1.74ä |
| ROA | +/- | -0.727 | -8.20å | -0.305 | -1.48 | -0.364 | -2.01ã |
| LEV | +/- | -0.434 | -5.54å | 0.0005 | 0.01 | -0.213 | -2.64å |
| ∑YD | +/- | Included | Included | Included | | | |

F-value: 102.30å, 118.09å, 98.17å; Adj. $R^2$ 0.771: 0.648; 0.755 Observations: 346. Statistically significant at the â (1%), ã (5%) and ä (10%) two-tailed level, respectively. The variables are defined as definitions of Eq. 2

## CONCLUSION

There have been many of the studies conducted by using the BTD in various fields using BTD, finding earnings management, utilizing BTD as a replaced value for earnings management or using the BTD as an index for representing quality of earning. Government-owned entities are of an organization that serves as a role of government and owner-agency theory is applied. The higher the agency cost is, the more there is a tendency for avoiding tax. Especially, quasi-government is required to separate and bookkeep proper purpose business and profit business. These two types of business are classified in years when applied the different accounting standards. At last, income incurring from profit business is applied with the same corporate tax standards with general companies and separate accounting was applied. Hereupon, cost-transferring phenomenon might occur at some degree and there might be relatively high opportunity to execute tax strategy for avoiding or reducing the tax compared to other types of government-owned entities.

Results in this study are as follows. First of all, the more likely it was for quasi-government bodies, the more they were classified into fund-managing type and also into proper purpose business (government subsidy) accounting and profit business accounting. Therefore, BTD turned out to be increased due to relatively more opportunities for reducing tax burden or increasing accounting earnings.

Secondly, according to the result of verifying the BTD with agency cost in government-owned entities, agency cost turned out to be high by the president of an organization. There is an incentive of high evaluation of

performance in case of high agency cost. At the same time, BTD turned out to be increased as an incentive for reducing cash outflow in the form of tax burden.

Third, null hypothesis was established by assuming that there might not be BTD in the governance of government-owned entities. However, it turned out not to be significant and hence was denied. Governance that could monitor or control opportunistic behaviors including incentive of earnings management by a president of an organization or reduction of tax burden influenced on BTD. However, according to the results of this study, it could be interpreted that non-standing director policy (outside director policy) failed serving as a proper role.

This study has identified the relationship of BTD according to characteristics of general companies and other government-owned entities. This study is meaningful in that it has expanded the scope of previous studies in dealing with accounting earnings and tax earnings by verifying BTD according to agency cost and governance from uncertainty in accounting earnings information t.

However, there are limitations of this study as follows. First of all, this study was unable to sub-divide quasi-government bodies and proceed expanded research. Secondly, this study failed in sub-dividing proper purpose business and profit business on the research. Therefore, a follow-up study is recommended to sub-divide proper purpose business and profit business according to the goals of separate accounting in government-owned entities and proceed research on accounting and tax management in government-owned entities.

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