

ACCOUNTING FRAUD AND ACCOUNTING STANDARDS: THE CASE OF TOSHIBA'S FRAUDULENT ACCOUNTING

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Abstract

This study addresses the case of Toshiba's fraudulent accounting in 2015 and examines its implications for setting accounting standards while considering the linkage between theory and practice. If this case is not an isolated case, then what is the problem with the existing accounting standards? The purpose of this study is to clarify this. In conclusion, this case was not a special case insofar as we considered it in this study. In general, it might be difficult to judge their appropriateness for some expenses in practice. Accounting frauds committed using these items would not be a problem of Toshiba only. If we try to judge whether an accounting treatment that is based on a firm's future expectations is right, we need to share at least the probability space that the firm assumes. As a result, it is necessary to look into the extent of costs and benefits obtaining by the users of information when financial statements contain data where it is not possible to determine whether this data is appropriate or not. This equilibrium solution would decide the extent of management's decision in the socially appropriate accounting standards.

Keywords: Accounting standards, Fraudulent accounting, Toshiba

JEL code: M41, M42, M48

1. Introduction

Toshiba Corp. is one of the most famous firms in Japan. This study addresses the case of Toshiba's fraudulent accounting in 2015 and examines its implications for setting accounting standards while considering the linkage between theory and practice. When we consider how to develop accounting standards, we should examine the consequences of their application in practice. Certainly, a generalized discussion regarding accounting standards as a social norm is important. Conversely, it is also significant that we discuss how accounting standards ought to be through individual cases. Using individual cases before discussing their generalization, we investigate the consequences of the application of accounting standards that function as a social system.

It is worthwhile to examine Toshiba's fraudulent accounting with academic theories because the scale of this case is extremely large and because Toshiba was ordinarily regarded as a company in good standing. Here, there is an issue as to whether this case is special or not. If it

is a special case, then all we have to do is to discuss Toshiba's case exclusively. However, if it is not a special case, then we cannot deny the existence of fraudulent accounting by other firms. Under these conditions, it is more important that we investigate how accounting standards behave as a social system. Many previous studies have examined fraudulent accounting from the perspectives of audit systems and governance; however, few studies refer to the influence of changes to accounting standards. If the Toshiba case is not an isolated case, then what is the problem with the existing accounting standards? The purpose of this study is to clarify this.

2. Toshiba's history

On February 12, 2015, the Securities and Exchange Surveillance Commission in Japan, on the basis of the Financial Instruments and Exchange Act (Article 26), gave Toshiba an order to report. To deal with the order, Toshiba set up an internal special investigation committee in April, which was followed by Independent Investigation Committee (hereinafter, referred to as IIC) in May. We confirm Toshiba's history before we consider the consequences of the operation with respect to accounting standards from this case. Because there might be special characteristics on its history.

According to Toshiba's homepage, a factory was built in Tokyo in 1875 that later became Shibaura Seisakusho. Meanwhile, Tokyo Denki was founded as Hakunetsusha in 1890¹. Toshiba was founded in 1939 by the merger of these two firms. Shibaura Seisakusho's strength lay in its being a major manufacturer of heavy electrical machinery, whereas Tokyo Denki's strength lay in the manufacture of incandescent electric lamps and other consumer products. Therefore, they could make use of each other's strengths to leverage the synergies. After that, Toshiba took the prosperity acquired during World War II a step further and advanced overseas. In 1984, they officially changed their trading name to Toshiba.

From 1999, Toshiba adopted an "in-house companies" structure, whereby the chief executive officer eventually evaluates each in-house company's performance, and directors of those companies are paid a bonus according to their achievement. In 2003, Toshiba adopted the "company with committees" (now, "company with nominating committee") structure, whereby eight out of the 16 members of the board are directors without executive officers and half the members are outside directors, i.e., they are specially hired to do the job, but they are not originally part of the team.

¹ It was the first producer of incandescent electric lamps in Japan.

In March 2015, Toshiba conducted business through six major divisions².

3. Toshiba's operations

In May 2015, Toshiba established IIC, which published an investigation report in July. On the basis of the report, Toshiba originally conducted a self-investigation by the special committee. However, Toshiba delegated it to IIC, as in the course of the investigation issues requiring further investigation were identified and conducting a detailed investigation of those facts and the cause would be time consuming³.

The study for the investigation report had the following as its objectives: (1) accounting in relation to projects in which the percentage-of-completion method was used; (2) accounting in relation to the recording of the Visual Products Business; (3) accounting in relation to parts transactions in the PC Business; and (4) accounting in relation to the valuation of inventory in the Semiconductor Business (p. 15). Therefore, IIC did not investigate the entirety of the fraudulent accounting by Toshiba (p. 19 (8)). In this section, despite recognizing such an inadequacy in this report, we consider the accounting treatments operated practically by Toshiba by estimated journalizing.

(1) Accounting in relation to the percentage-of-completion method

To begin with, we consider accounting treatments for contract work. Toshiba was sometimes said to have an over-riding current-term profit policy as opposed to a long-term policy (p. 277). However, according to the investigation report, Toshiba might have probably placed importance on receiving orders for projects (p. 47) and not on profit maximization in the shorter term because find some projects, where, to make competitive bidding advantageous, the bidding prices were set way too low (p. 106).

² The products of the Division of Energy and Infrastructure mainly consist of nuclear or thermal power generation systems, power distribution systems, government administration systems, etc. Data regarding this division are as follows: the number of employees is 54,382 (about 27% of the total); sales amount to 20,038 hundred million yen (about 27%); and the operating profit is 195 hundred million yen (about 9%). The products of the Division of Community Solutions mainly consist of broadcasting systems, water and sewage systems, LED lighting, POS systems, etc. Data regarding this division are as follows: the number of employees is 48,770 (about 25%); sales amount to 14,107 hundred million yen (about 19%); and the operating profit is 539 hundred million yen (about 25%). The products of the Division of Healthcare mainly comprise X-ray diagnostics, MRI equipment, etc. Data regarding this division are as follows: the number of employees is 9,601 (about 5%); sales amount to 4,125 hundred million yen (about 6%); and the operating profit is 239 hundred million yen (about 11%). The products of the Division of Electronic Devices mainly consist of small-signal devices, power semiconductors, NAND flash memory, etc. Data regarding this division are as follows: the number of employees is 34,171 (about 17%); sales amount to 17,688 hundred million yen (about 24%); and the operating profit is 2,166 hundred million yen (about 100%). The products of the Division of Lifestyle consist of mainly televisions, PCs, refrigerators, etc. Data regarding this division are as follows: the number of employees is 24,216 (about 12%); sales amount to 11,637 hundred million (about 16%); and the operating loss is -1,097 hundred million yen (about -52%). The Division of Other Products mainly provides IT solutions, distribution services, etc. Data regarding this division are as follows: the number of employees is 24,107 (about 12%); sales amount to 5,290 hundred million yen (about 7%); and the operating profit is 75 hundred million yen (about 4%). We find that Toshiba depends on the Division of Electronic Devices, whereas the Division of Lifestyle is under a lot of pressure.

³ See Toshiba (2015, p. 14). Hereinafter, if only page numbers are stated, those mean the pages of Toshiba (2015).

This may mean that Toshiba would expect the future's positive effects by receiving orders for projects. In general, however, the lower the bidding prices, the smaller the current-term profit they get. Aside from whether such strategies were good or not, if Toshiba did not relate these bidding prices and their total estimated costs, it would decrease the probability of occurring of this fraudulent accounting. Actually, the amount based on the bidding prices that were decided had to be the total estimated costs using inside information. Eventually, the effort to receive orders could be connected with the fraudulent accounting at Toshiba.

To apply the percentage-of-completion method, the contract income for the current period is calculated by the estimated total income multiplied by the extent of contract progress which is nearly the contract cost for the current period divided by the total estimated cost of contract work. Thus, the extent of contract progress increases when we understate the denominator of this ratio. Consequently, Toshiba could increase its income for the current period.

Naturally, one is required to estimate the total cost of contract reliably when using the percentage-of-completion method. However, in the Toshiba case, it was described in the investigation report that Toshiba applied estimated amounts in spite of a lack of any reasonable basis in some projects (pp. 173, 190). In addition, in some noteworthy cases, if it could estimate the increase of the cost of contract work in the future reliably, it did not modify their estimated amounts (p. 169).

When we reasonably calculate that the total estimated cost of contract work exceeds the total income from contract work, it is a general rule to record a provision for contract losses in the period in which the contract losses are identified because we can expect the possibility of losses in the future. Certainly, if the provision is recorded, then current-term profit decreases; even though we do not actually record it, the profit decreases in the end according to the occurrence of the contract cost thereafter.

For the provision concerned, although the total estimated cost of contract work expected initially was assumed to increase, in some cases, the directors did not admit the recording of the provision from their judgment of the lack of a cost reduction or of the possibility of the effort to make a cost reduction (p. 107). In addition, the actual cost incurred as a percentage of the total estimated cost for contract work was already 100% in some unfinished projects (p. 134). Moreover, the provision was not recorded according to the directors' vague instructions, such as "operate the costs that can be deferred" and "keep a target cost reduction" (p. 121).

Furthermore, the completed-contracts method was not applied to record the contract income for the current period even though the percentage-of-completion method originally should not have been applied to making a reliable estimate. By contrast, it is also noted that the total estimated cost for contract work recorded by applying the percentage-of-completion method exceeded the total income from the beginning.

(2) Accounting in relation to recording of the Visual Products Business

We confirm treatments that were operated mainly in the Visual Products Business. This department had performed poorly since 2011 in particular. It is regarded as the consequence of the shrinking of the domestic market with the switchover to digital ground waves and the end of a system based on “points for ecofriendly products” (p. 187). Additionally, it seems that there was considerable pressure on this department as the company’s president had that if the department’s performance became worse, then Toshiba would have no choice but to withdraw this business completely (p. 189). According to sales volume, sales, operating profit, and group profit in the investigation report, group profit and loss were always negative, and in the Visual Products Business, operating profit was only barely positive from 2008 to 2010 (p. 187).

It is considered that there were fraudulent accounting operations, or so-called carryovers (C/O), connected to the buy-sell in the Visual Products Business. We consider the C/O here, and the operation connected with the buy-sell will be mentioned later. Here, C/O is defined as overstating the apparent current-term profit by failing to record a provision that should be recorded in the current period or deferring the recording of operating expense until the next or a later fiscal period (p. 181). As is noted now, this department recognized that the C/O caused deterioration in profit in subsequent periods by such adjustments, and this department had managed it as C/O balances every quarter (p. 185).

Treatments that affect profit and loss in a subsequent period by deferring expense or recording early revenue, such as no recognition of a provision and overstated inventories (p. 183), are the so-called C/Os. Moreover, there were also C/Os that reduced the amount of provisions that had been overstated for overseas subsidiaries (p. 190). It is worth considering that treatments such as a cash-based method, even if the accrual-based method should be used, have little chance of being discovered in an accounting audit (p. 186). However, as a trigger of business restructuring, inappropriate C/O balances become zero at the end of 2014 (p. 195).

(3) Accounting in relation to parts transactions in the PC Business

In the PC Business, although there are operations on C/O as we confirmed before, the treatments used the operations on the buy-sell transactions were operated as the fraudulent accounting. Here, buy-sell transactions are defined as when a company outsources the manufacturing of its own products. The product parts are supplied for value to the outsourcing contractors by the company before it purchases the completed products made by the outsourcing contractors.

The manufacturing of Toshiba’s PC was outsourced to an original design manufacturer (ODM) in Taiwan, and then Toshiba’s subsidiary purchased the completed products from the ODM. In the end, the subsidiary shipped the products to Toshiba. This department manipulated its earnings by journalizing the following through such a series of transactions. We confirm this

journalizing according to the explanation in the investigation report (pp. 208–214).

Illustration

- ① The subsidiary purchases the parts for 50 by cash from an outsider.
- ② The subsidiary supplies the parts at 300 on credit to the outsourcing contractor.
- ③ The outsourcing contractor manufactures the products using the parts and delivers them to the subsidiary with an additional processing cost of 20. The subsidiary then pays 20 by cash to the outsourcing contractor.
- ④ The subsidiary delivers the products to Toshiba with an additional cost of 10 in credit.
- ⑤ Toshiba sells the products for 200 by cash to end-users.

The subsidiary has earnings of 10; the outsourcing contractor has earnings of 20; and Toshiba has earnings of 120 and manufacturing cost of 80 upon completing the sequence of those transactions. The journalizing regarding them in the investigation report is described below.

We journalize normally as follows: (1) “Purchased Goods 50/Cash 50” when the subsidiary purchases the parts; (2) then, the subsidiary supplies the parts for value to the outsourcing contractor. At this time, “Accounting available-others” 300 is recorded as a credit by supplying the subsidiary’s inventory assets and a reduction of “Inventory” is recorded. The difference between (1) and (2) – 250 – should be an adjust account and journalized as “Material Premium a/c,” which is an accounting treatment available to Toshiba.

Simultaneously, at Toshiba, “Accounting Available-others 250/Cost of Manufacturing 250” can be recorded using accounting available to the subsidiary. It might be difficult to find the meaning of the accounting available as recorded by Toshiba and the subsidiary substantially.

These issues should be eliminated in the adjustment entries for consolidation closing accounts; consequently, we can estimate the journalizing as follows. Here, the decreasing “Purchases 50” means the cost of the parts supplied to the outsourcing contractor. The decreasing “Cost of Manufacturing 250” means the decreasing cost of parts for value when the outsourcing contractor supplies to them in the future. This record seems to have a propensity to take the decreasing of the cost in advance, with Toshiba taking advantage of this effect to increase its stated earnings.

When the products are delivered from the outsourcing contractor, “Purchases 320” is recorded as the purchase price of the products at the time (3). Simultaneously, the decreasing of “Accounting available-others 300,” which was journalized at (2) and “Cash 20” are recorded. The subsidiary records 10 as the “receiving fee” and Toshiba records “Purchases 330” when the subsidiary delivers the products to Toshiba (4). If we deduct the cost of manufacturing 250 from 330, then we gain the true cost to Toshiba, i.e., 80. However, if the adjusting entries are done before the journalizing of (4) without any particular adjustment, then Toshiba could record decreased cost, which seems to be the case.

(4) Accounting in relation to the valuation of inventory in the Semiconductor Business

Let's move on to consider the operations that seem to be conducted in the Semiconductor Business. There are two types of treatments used in this division regardless of whether they are related to cost accounting. In the treatments with no relation to cost accounting, inventory was classified as finished goods inventories which is under the management of the Sales department, and raw materials or works in process which are under the management of Operations (p. 249) and thus, outside the scope of revaluation (p. 253). Furthermore, a part of the finished goods inventories did not devalue in conformity with the method of devaluing book value to the expected disposal value (p. 255). In the investigation report, it was said that for most of the inventory, losses were recognized for accounting purposes for the first time at the time of disposal (p. 245); to begin with, neither was there an accounting rule nor were there similar de facto rules (p. 254).

Conversely, the manufacturing of the Semiconductor Business is divided into two processes, and a standard cost is determined for each process (p. 246). In this case, it is natural that cost variances, which are differences between the standard cost and the actual cost accrued, are calculated for each process due to their individual cost variances. However, cost variance is not allocated to each process; instead, the total sum of the accrued cost variance for the frontend and backend processes is simply allocated in one lump sum to term-end intermediate products, term-end completed products, and the cost of sales (p. 264). Under this method, some of the accrued cost variances for the backend process are allocated to frontend term-end inventory.

On this point, the standard cost was sometimes revised when plant utilization was reduced too much. However, the revision was reflected only in the standard cost at the frontend and not in the standard cost at the backend. Consequently, when a large amount of cost variance was incurred in total, the amount exceeding what should have been allocated was charged to the frontend term-end inventory and a lower amount of cost variance than what should have been allocated was charged to the backend term-end inventory and the cost of sales. Thereby, the stated earnings of this department were increased (pp. 266–267).

4. Estimation by management – Percentage of completion basis and accounting treatment of goodwill

In the projects accounted for on the percentage of completion basis, even when (1) the total amount of estimated construction cost was undervalued and (2) future losses were expected, profits for the financial term were over reported by not allocating any allowance for construction losses. In these two scenarios, it can be said that accounting fraud was committed on the basis management's estimation.

In the case of Toshiba, apart from the accounting treatment of percentage of completion basis,

management's estimation caused problems even in the accounting treatment of goodwill¹. Impairment was reported in the non-consolidated financial statements of the subsidiary company that is handling Toshiba's nuclear power generation business. Despite of that, in the consolidated financial statements of Toshiba, impairment of goodwill that occurred at the time of acquisition of the nuclear power subsidiary company was totally avoided. Therefore, this management's decision to avoid impairment of goodwill that occurred at the time of acquisition of the nuclear power subsidiary company was subject to criticism by media. In this case, it can be said that Toshiba was making business plans that are unthinkable in normal course.

Apart from the decision of whether to record impairment of goodwill or not, accounting treatment of goodwill generally requires management's estimation, and it is an easy target for accounting frauds. In the case of Olympus that was in the limelight because of accounting fraud a little while ago, for incorporating the assets having unrealized losses in the consolidated financial statement, a large amount of goodwill was recorded, and this goodwill was immediately impaired after that. In Toshiba's case, Toshiba avoided booking losses on impairment of goodwill. Against this, in Olympus' case, Olympus aggressively booked losses on impairment of goodwill for incorporating items that didn't have any asset value. While these are two opposite cases of booking and avoiding impairment losses, there is a common thread in both these cases that the problem was overestimation by the management of future cash flows generated from subsidiary companies.

In this manner, apart from percentage of completion basis, management's estimation is required even in the accounting treatment of goodwill, and accounting fraud can easily occur in these cases⁵. With respect to the numbers calculated on the basis of such estimation by management, one can easily imagine that it would be difficult for accountants to raise objections. For external accountants, it would be necessary that they have significant amount of information before that can put forward a different opinion with respect to the estimation presented by the management, which has access to abundant information.

It can be said that such management's estimation is not only the problem of how accountants deal with the situation, but it is also the problem of recent accounting standards themselves. For example, the present situation, where estimation elements difficult to audit are quickly increasing in the recent accounting standards, can also be assessed as⁴ "reliability is somewhat ignored while emphasizing only one aspect of relevant of information".

Out of information's relevance and reliability, it is certain that so far the accounting standards have been inclined to lay emphasis on relevance. For example, in Barth (2004, pp. 323–329), after stating that the most relevant information for the users for financial statements is fair value, it is mentioned that even if volatility occurred because of errors that arose when estimating fair

⁴ See Wakita et al. (2016).

values, users still want to have such information⁵. In this viewpoint, recognition and measurement of assets and liabilities is given the prime importance, and it is assumed that measuring these at the fair values is useful for users. Therefore, measurement of fair values of assets and liabilities is considered to be the most relevant information. Furthermore, even if error occurred because of estimation of fair values, disclosing information about this error is considered to be useful for users.

This viewpoint of measuring fair values of assets and liabilities emphasizing the relevance of information in this manner is one of the rationales supporting the recent trends of international standards. Against this, accounting frauds as in the case of Toshiba are prompting a rethink of including management's estimation containing measurement on the basis of fair values as the information of financial statements.

Out of relevance and reliability of information, there are not many viewpoints that emphasize reliability. One of the reasons for this is perhaps the term reliability is difficult to use academically; however, in the present situation where accounting frauds are come to light very frequently, we may have to think more about reliability.

Stating that the abovementioned frameworks used as the underlying conditions by international standards have limitations, different frameworks have been proposed recently although these viewpoints are not necessarily emphasizing reliability. Out of these, one of the recent viewpoints worth nothing is that of Dichev (2016). In this paper, accounting is defined as the concept that shows how much cash the invested cash could earn (p. 2), and then it states that profit is a sum of cash flow and accruals (p. 9). This viewpoint is based on the concept of tradition profit calculation.

Even if it is there in Dichev's framework, whether to record accruals or not is based on the classic matching principle. Therefore, even in this framework, management's estimation is considered to be necessary. However, unlike the viewpoint of Barth, which calculates profit using the fair values of assets and liabilities as anchor, the viewpoint of Dichev uses cash flow as anchor. Therefore, the extent of management's estimation should become small. Moreover, rather than calculating profits from the estimation of fair values of assets and liabilities, estimating how much the company has earned would become the direct estimation for the accountant and it is liable to be treated⁶.

5. Conclusions

We could not judge that the case of Toshiba is unique insofar as we considered it in this study. Certainly, some sections of the media emphasize that the conflict of directors' interests caused Toshiba to conduct fraudulent accounting. However, we could not find a situation in which

⁵ See also Barth (2006).

⁶ As for this point, see ASBJ (2006), Barker and Penman (2016).

Toshiba was special, such as the intense competition between the units within and between firms or orders to increase earnings given by executives to their subordinates. Given the conditions that some sections of the media emphasized, if such situations existed within other firms, then many similar cases of fraudulent accounting would exist. It seems strange that directors' conflicts of interest only caused Toshiba to conduct fraudulent accounting.

Why, then, did Toshiba conduct fraudulent accounting? There may be a problem with the accounting standards. Generally, we are required to provide objective evidence in the recognition of revenue; however, the requirements to record expenses are less clear. As for most of the revenue, such as fictitious sales, we can judge with relative ease whether a treatment is appropriate or not. However, for some expenses, it might be difficult to judge their appropriateness in practice. If so, under the current condition, the judge with the appropriateness about some of the treatment of expense is effectively entrusted to the investors.

Some accounting treatments require the directors' judgment based on their prediction regarding the economic conditions in the future, and these treatments are intended to convey inside information to investors. However, if we require more judgment of the firm regarding the accounting treatment, it is all the more difficult to check the appropriateness of the information by external examination. In particular, when special techniques are needed in a new business, it is difficult for firms to predict their performance in the future and even more difficult to judge it through external investigation. If we try to judge whether an accounting treatment that is based on a firm's future expectations is right, we need to share at least the probability space that the firm assumes.

Of course, it cannot be said that impairment or allowance should not be provided for at all. However, would it be appropriate to overlook that fact that Toshiba, which was said to be a blue-chip company, manipulated its books using these items? Toshiba's case of accounting fraud is not a special case. If that is the situation, accounting frauds committed using these items would not be a problem of Toshiba only. It at least shows that there were top managers who think that figures in the financial statements can be manipulated to some extent the way they want. This case was more or less caused by accounting standards.

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