OFF-BALANCE SHEET FINANCING, THE LEVEL OF ACCOUNTING KNOWLEDGE AND INVESTORS' CORRECTION ABILITY.

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ABSTRACT

Abstract— Off-balance sheet financing refers to the accounting methods management use to keep their debt-equity and leverage ratios low and cause investors to draw wrong conclusions. The literature reveals that off-balance sheet arrangements is incomprehensible to investors due to limited and obscure disclosure, and thus incur great costs on them. The objective of this research is to examine the effect of the level of accounting knowledge and off-balance sheet financing types on investors' correction ability. An experimental approach was adopted to achieve this objective, using186 MBA students as a representative for non-professional investor. The research provides evidence that (1) investors' knowledge of creative accounting is positively correlated with their correction ability (2) off-balance sheet types significantly influenced the investors' ability to correct the off-balance sheet financing transactions. The finding suggests that knowledgeable investors could make use of relevant disclosures in the footnote to account for the off-balance sheet financing arrangements.

Keywords— Off-balance sheet financing, Accounting Knowledge, Correction ability

INTRODUCTION

Firms are motivated from various economic reasons to engage in off-balance sheet financing as these tools provide them with high debt rating, tax shelter, and impressive financial performance. Besides, off-balance sheet financing sometimes even resolves underinvestment problems arising from agency cost of debt (Mills and Newberry, 2005, Zhang, 2006, John and John, 1991, Shah and Thakor, 1987, Lim et al., 2003)

Enron, which was found to create over 3,000 off-balance sheet special-purpose entities (SPEs), was one of the most notorious examples involved in such a dishonest practice (Klee and Butler, 2002). Following the collapse of Enron, investors' trust in the publically available financial reports has eroded and the stock markets plunged due to accounting manipulation. Previous studies showed that audit quality and audit reputation moderate opportunistic behavior of management in manipulating accounting number. Examples of the conventional concealing methods are the unconsolidated subsidiaries and lease accounting; nevertheless, even the users of the financial statements can refer to the accounting footnote for verification, the investors sometimes are met with limited disclosure, thus making the off-balance sheet arrangements even more incomprehensible to investors. The inability to detect hidden financial risk could misdirect investment and thus incur great costs on investors.

Therefore, this study investigates the effect of level of accounting knowledge and off-balance sheet financing types on investors' correction ability.

LITERATURE & THEORY

Ketz (2003) categorized off-balance sheet techniques into two groups according to their available disclosures. The first group consists of those methods by which users of financial statements could use relevant footnote disclosures to reconcile the accounting numbers by reintroducing debts to the balance sheet (e.g. making analytical adjustment). The accounting techniques under this group are the unconsolidated subsidiaries (the equity method) and lease accounting since it is compulsory that disclosures pertinent to these accounting items be provided in the footnote and this information in turn enables the investors to make adjustments to the reported numbers. The second group comprises those methods without disclosures to assist users of financial statements with analytical adjustment. The accounting techniques belonging to the second group include debt hiding through asset securitization, special purpose entity (SPE) borrowing and synthetic lease since firms employing these complicated techniques rarely make available adequate information to aid investors in analytical adjustment.

This study restricts analysis to two types of off-balance sheet techniques, i.e., operating lease and unconsolidated subsidiaries. Operating lease is regarded as a surrogate for transparent (less complex) off-balance sheet financing while unconsolidated subsidiaries as a surrogate for non-transparent (more complex) off-balance sheet financing.

Corporate managers use operating lease as a tool to hide debt off-balance sheet because of its legitimate advantages (Edman, 2011). When a company acquires an asset through debt financing, a liability present in its financial statements tells investors of the claims against the company's future revenue. However, if the asset is leased, no debt is posted on balance sheet even though the company has entered into lease contract and is committed to making lease payments in the future.

The unconsolidated subsidiaries (equity method) is one of accounting tricks that firm use to hide liabilities. When a company controls the operation of another entity, it tend to structure voting power or percent of shares holding to be less than significant portion to avoid consolidation and apply equity method instead. Under equity method, firm reports its investment in an affiliates company as a single line item in the balance sheet; net debts of the investee with its assets in the parent's investment account. Since asset are almost always greater than liabilities, this net amount show balance on left-hand side, thus exclude investee's debts from analysis.

The different levels of complexity in transaction and disclosure of information related to the transactions between operating lease and unconsolidated subsidiaries allow for test of the usefulness of the current footnotes. Prior research suggested that investors relied on footnote information for off-balance sheet transactions. Davis-Friday et al (1999) suggests that investor value obligation information provided in footnote; however, it is not adequate to substitute for the obligation recognized on balance sheet. Bauman (2003) found that currently provided disclosures related to equity method accounting are not sufficient for investors to make accurate and useful analytical adjustment. Therefore, the usefulness of disclosure related to off-balance sheet transactions is of interest in this paper.

In the study, two types of OBS arrangements, i.e. operating lease and unconsolidated subsidiaries, were respectively used as proxies for less complex and more complex OBS. Disclosure levels of different kinds of off-balance sheet accounts are diverse. It is anticipated that investor facing with more complex schemes (unconsolidated subsidiaries) tend to perceived higher credibility in financial reporting than are less complex schemes (operating lease). I thus posit the following hypothesis:

H1: Investors facing transparent OBS (operating lease) have greater propensity to correct financial ratios than those facing non-transparent OBS (unconsolidated subsidiaries).

Maines and Macdaniel (2000) suggests that a certain level of accounting knowledge is a necessary condition that dictates the investors' willingness to reconcile the information in the footnote of a financial statement. Therefore, it is anticipated that highly knowledgeable of creative accounting tend to exhibit a higher ability to correct off-balance sheet financing than those less knowledgeable. I thus posit the following hypothesis:

H2: Highly knowledgeable of creative accounting have greater propensity to correct financial ratios than those less knowledgeable.

METHODS

The Participants used in the research were 106 MBA students and 80 Master of accounting students of a Thai leading university. Elliott et al (2015) suggested that MBA students were able to detect different accounting policies which consequently led to different financial performance and that they also adjusted key financial ratios according to their findings.

This research is of 2 x 2 full factorial between subject design that manipulates (1) the type of off-balance sheet financing (operating lease vs. unconsolidated subsidiaries) and (2) the level of accounting knowledge (high knowledge vs. low knowledge). The conceptual framework of the study are as follow:

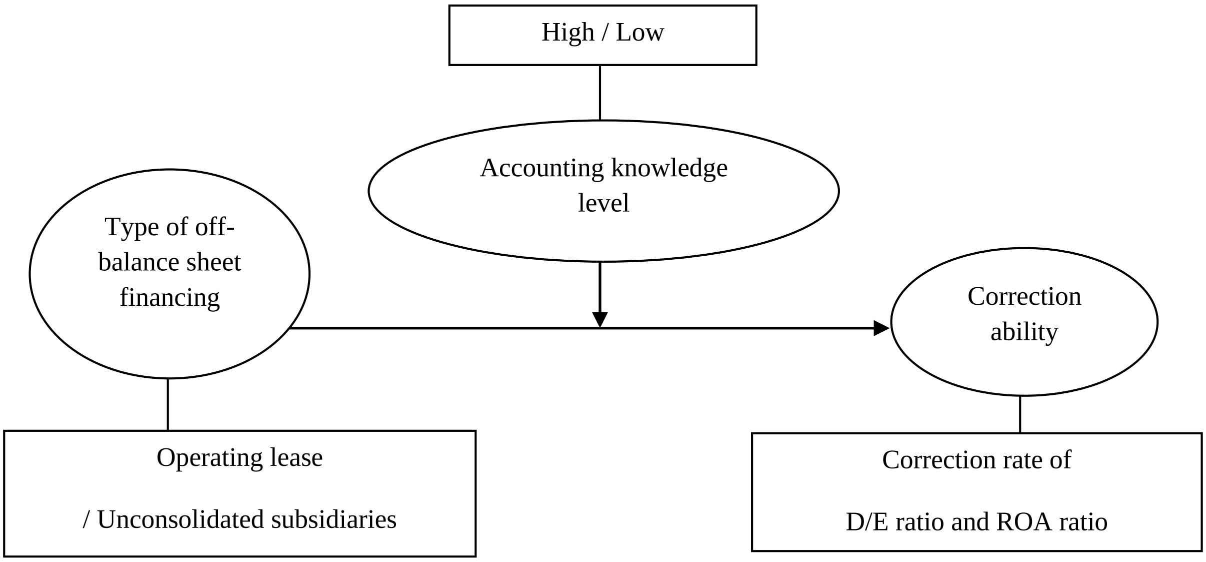

Figure 1 The conceptual framework

The experiment begins with training about investment and compensation criteria. Participating subjects were divided into the highly knowledgeable and low knowledgeable groups using the mean knowledge level as the cut-off point. Then, all participants will be presented with the same information about the firm, presented good financial performance, except for information related to off-balance sheet transaction. The participants then go over the company's financial information. In general, the information includes overview of the company, financial statements (i.e., both balance sheet and income statement), key financial ratios, analysts' report containing analysts' consensus of EPS forecast and some analysts' comments. Afterward, the participants were asked to adjust debt to equity ratio and return on asset ratio to determine the participants' ability to correct off-balance sheet financing. The experiment ends with the participants completing their demographic profile and providing answers to the manipulation check.

RESULTS

Participants reported taking an average of 1.4 accounting classes, as well as having an average of 5.9 years of total work experience. Their mean investment experience was 0.6 years and 28% had invested in the stock market.

It was found that the investors' knowledge of creative accounting is positively correlated with their correction ability (Pearson's correlation = 0.137, p = 0.09). By comparison, those highly knowledgeable of creative accounting exhibit a higher ability to correct off-balance sheet financing than those less knowledgeable.

Table 1 Descriptive statistics for correction ability (split sample)

Panel A : For high knowledge group (N=106)a

Condition	Unconsolidated subsidiaries	Operating lease	Row mean
High knowledge	35.08	53.40	44.93
Low knowledge	34.36	33.63	33.99

[a] *participating subjects were divided into the highly knowledgeable and low knowledgeable groups using the mean knowledge level as the cut-off point*

The ANOVA result are tabulated in Table 2. The results show that the off-balance sheet financing types influenced on investors’ correction ability. Table 2 indicates that the type of off-balance sheet financing is statistically significant (p = 0.01). Independent sample t-test also shows that the investors under the operating lease condition (mean = 53.40) exhibit a higher correction ability than those under the unconsolidated subsidiaries condition (mean = 35.08; one–tailed p = 0.01). the investors under unconsolidated subsidiaries condition possessed a lower ability to make analytical adjustments than those under the operating lease condition since an equity-method transaction is typically more complex in terms of both the nature of the transaction and the relevant disclosures in comparison with that of operating lease.

In Table 2, the overall ANOVA results indicate that the level of accounting knowledge is marginally significant (p = 0.08). The finding is according to the researcher’s prediction in which investor with different level of accounting knowledge exhibit a different level of ability to correct off-balance sheet financing. The findings also validate the prediction on the interaction effect between off-balance sheet types and level of accounting knowledge on the correction ability. This suggests that the effect of off-balance sheet types on OBS correction ability is conditional upon level of accounting knowledge.

Table 2 ANOVA results for correction ability

ANOVA results

Source of variation	SS	df	MS	F	p
Model	26510.92	3	8836.97	6.10	0.00
OBS	17200.89	1	17200.89	11.87	0.01
Knowledge	4250.33	1	4250.33	2.93	0.08
OBS * Knowledge	7912.29	1	7912.29	5.46	0.02
Error	214311.05	148	1448.04		
Total	594410.29	152			

CONCLUSIONS AND FUTURE WORK

This study examines how off-balance sheet financing types and the level of accounting knowledge affect investors’ ability to correct off-balance sheet financing in manipulated financial reporting. Overall result supports my prediction. It was determined that the level of correction ability is subject to the complexity of OBS transactions (i.e. OBS types). The implication of the findings is for the relevant regulatory bodies to revisit the disclosure format related to complex OBS (i.e. unconsolidated subsidiaries) so as to lessen the complexity burden borne by the investors. Moreover, this research is expected to raise investors’ awareness on the usefulness of disclosure information in the footnote section. Furthermore, the research results showed that the investors’ knowledge of creative accounting is positively correlated to their correction’s ability. While previous research documented that footnote disclosure is insufficient and less useful than the recognized information (Bauman, 2003; Maines & McDaniel, 2000), this current research findings indicated that, given the investors’ knowledge of creative accounting, even the non-professional investors could avail themselves of disclosure information pertaining to the OBS transactions whereby the concealed debts are re-introduced into the balance sheet. The implication of the findings for accounting researchers is that investors’ knowledge of creative accounting should be treated as a control variable in accounting research on investors’ ability to correct off-balance sheet financing.

REFERENCES

[1] Bauman, M. P. (2003). The impact and valuation of off-balance-sheet activities concealed by equity method accounting. Accounting Horizons, 17(4), 303-314.

[2] Davis-Friday, P. Y., Folami, L. B., Liu, C.-S., & Mittelstaedt, H. F. (1999). The value relevance of financial statement recognition vs. disclosure: Evidence from SFAS No. 106. The Accounting Review, 74(4), 403-423.

[3] Edman, B. R. (2011). Leases: Off-Balance Sheet Financing and the Strive for Transparency Today.
[4] Elliott, W. B., Rennekamp, K. M., & White, B. J. (2015). Risk Perceptions, Directional Goals and the Link between Risk and Value.
[5] John, T. A., & John, K. (1991). Optimality of project financing: Theory and empirical implications in finance and accounting. Review of Quantitative Finance and Accounting, 1(1), 51-74.
[6] Ketz, J. E. (2003). Hidden financial risk: Understanding off-balance sheet accounting: John Wiley & Sons.
[7] Klee, K., & Butler, B. (2002). Asset-backed securitization, special purpose vehicles and other securitization issues. Uniform Commercial Code Law Journal, 35(2), 23-68.
[8] Lim, S. C., Mann, S. C., & Mihov, V. T. (2003). Market Evaluation of Off-Balance sheet financing: You can run but you can't hide. Paper presented at the EFMA 2004 Basel Meetings Paper.
[9] Maines, L. A., & McDaniel, L. S. (2000). Effects of comprehensive-income characteristics on nonprofessional investors' judgments: The role of financial-statement presentation format. The Accounting Review, 75(2), 179-207.
[10] Mills, L. F., & Newberry, K. J. (2005). Firms' Off-Balance Sheet and Hybrid Debt Financing: Evidence from Their Book-Tax Reporting Differences. Journal of Accounting Research, 43(2), 251-282.
[11] Shah, S., & Thakor, A. V. (1987). Optimal capital structure and project financing. Journal of Economic Theory, 42(2), 209-243.
[12] Zhang, S. (2007). Economic consequences of off-balance sheet financing: the case of equity method investments. University of Minnesota, 2007. Major: Business administration.