



The impact of XBRL on firms' voluntary disclosure

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ABSTRACT

Based on the data of 100 listed companies of China from 2009 to 2013, we analyze the impact of XBRL technology on the accounting information system. We found that the implementation of the XBRL had improved the information disclosure.

Keywords: XBRL, the accounting information system, Impact

INTRODUCTION

XBRL is the open international standard for digital business reporting, XBRL makes reporting more accurate and more efficient. XBRL is used around the world, in more than 50 countries. Millions of XBRL documents are created every year, replacing older, paper-based reports with more useful, more effective and more accurate digital versions. In China, the implementation of the XBRL and the research about it is getting more prosperous. Although most of recent research focus on technical advantages of XBRL [1] [2], valuation of the XBRL taxonomy[3] [4], the impact on the cost of capital[5], we focus on the directly impact on the accounting information system.

In 2010, the Ministry of Finance (MOF) of China had issued the national taxonomy and financial taxonomy of XBRL, and chose 13 companies to implement these standards in information disclosure. Thereafter, the Ministry of Finance (MOF) of China chose more companies to implement these standards every year. These give us an opportunity to analyze if the implementation of the XBRL general standard had some impact on the disclosure behavior of these companies.

2.research design

2.1 research hypothesis

How does the application of the XBRL technology affect the company's information disclosure behavior?

There are two reasons to support that the application of the XBRL technology will improve the Voluntary Disclosure:

Firstly, company can get the following benefits through information disclosure: reduce the information asymmetry, improve liquidity and reduce the cost of capital [6], on condition that the investors can handle these information and implement them into their investment decision. But the existence of information processing costs would obviously hinder the investors in information processing and integration, so that weaken the benefits of information disclosure. XBRL technology can reduce the cost of information processing [1], so that prompt companies to increase the voluntary disclosure.

Secondly, XBRL can enhance the comparability between financial statements of different companies, so that the companies that disclose information lower than average will be exposed more obvious to investors, so that prompt companies to increase the voluntary disclosure.

Based on the above consideration, we put forward the research hypothesis:

The companies that had implemented XBRL technology will increase the voluntary disclosure.

2.2. Sample

In 2010, the Ministry of Finance (MOF) of China had issued the national taxonomy and financial taxonomy of XBRL, and chose 13 companies to implement these standards in information disclosure. Thereafter, the Ministry of Finance (MOF) of China chose more companies to implement these standards every year. There are totally 30 listed companies be chose, including 19 financial companies (all the listed financial companies in China) and 11 non-financial companies.

For each non-financial company, we chose 3 companies in the same industry and similar asset. For the financial companies, we chose 37 companies in the csi 100 index as comparison. So that we get 100 companies in total. Our sample covers 5-years period from 2009 to 2013, 473 company-year data. All the data are derived from the service center of TAI-AN data.

2.3. variables

2.3.1 explained variable

Info: the information be voluntarily disclosed, take natural logarithm (base e) of the company's annual report notes page for each company-year;

2.3.2 explaining variables

List: if the company be chose by the Ministry of Finance (MOF) of China. take 1 for chose company, otherwise 0.
Xbrltime, how many years has the company been chose by the Ministry of Finance (MOF) of China; take 0 for non-chose company;

Year: the Year of annual report;

2.3.3 The control variables

Shareholder: take natural logarithm of the number of shareholders of a company;

Z, take ownership concentration index Z value;

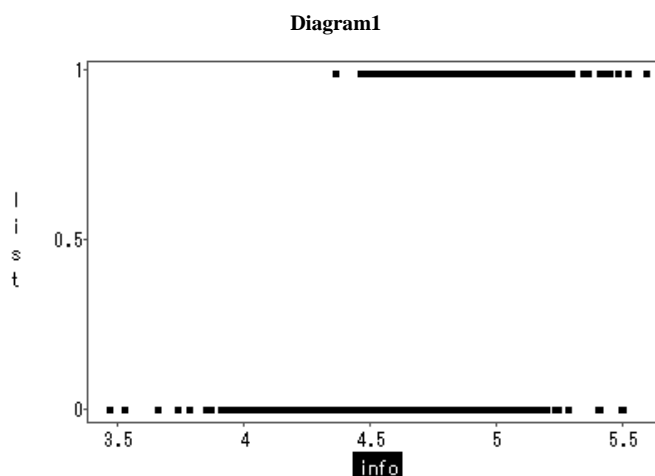
Asset, take the natural logarithm (base e) of the company's total assets;

Roa;

Growth, the company's revenue Growth rate r

3 empirical analyses

3.1 scatter diagram



We can see that the chosen company has a better disclosure level.

3.2 regression analysis

Regression model:

$$\text{info} = \alpha_0 + \alpha_1 \text{shareholder} + \alpha_2 Z + \alpha_3 \text{year} + \alpha_4 \text{xbrltime} + \alpha_5 \text{roa} + \alpha_6 \text{growth} + \varepsilon$$

Regression results:

List 1

variable	coefficient	significance
shareholder	0.20904	<.0001
Z	-0.00340	<.0001
Year	0.00351	0.7284
xbrltime	0.04013	0.0220
roa	-0.51581	0.0054
growth	0.00817	0.3417

We can see that the companies that have more shareholder and less ownership concentration made a better disclosure. Being chosen by the Ministry of Finance (MOF) of China made the companies disclose more information. The companies that have a low roa level disclose more information, this is because these company need more information disclosure to make up for the negative effects of bad earnings.

3.3 robust test

We take out the financial companies, and make regression analysis for the rest company-year data.

Regression results:

List 2

variable	coefficient	significance
shareholder	0.18991	<.0001
Z	-0.00274	<.0001
Year	0.01269	0.2354
xbrltime	0.04081	0.0273
roa	-0.30872	0.0967
growth	0.00973	0.2520

The regression result has no substantial differences, our conclusion is verified again. The implementation of the XBRL significantly improve the company's voluntary disclosure.

CONCLUSION

Based on the data of 100 listed companies of China from 2009 to 2013, we analyze the impact of XBRL technology on the accounting information system. We found that the implementation of the XBRL had improved the information disclosure for both financial and non-financial companies.

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