Bargaining Power of Suppliers, Customers and Enterprise Accounting Conservatism

Based on the Empirical Data of Listed Companies in China

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Abstract—Suppliers and customers lie in the upstream and downstream of the supply chain, and are the providers and exchangers of the essential resource which the enterprise's survival and development must depend on. Accounting conservatism is an important measure of the quality of corporate financial reporting, which can help coordinate the potential conflicts between suppliers and customers and promote the two sides to achieve mutually beneficial. In this paper, we studied the empirical data of the China's listed companies in 2011-2013 to explore the relationship between bargaining power of suppliers and customers and corporate accounting conservatism. The results showed that: bargaining power of suppliers and customers and corporate accounting conservatism significant negative correlation, that is, the stronger the bargaining power of customers, and corporate accounting conservatism weaker; however, there is no significant correlation between the supply and enterprise bargaining power accounting conservatism. This study not only broadens the fields of accounting conservatism factors, but also provides a theoretical and empirical support for the impact of suppliers' and customers' bargaining power on the accounting conservatism under China's market economy background. Besides, this study provides some helpful suggestions on accounting conservatism when they sign contracts with suppliers and customers.

Keywords—suppliers; customers; bargaining power; accounting conservatism

I. INTRODUCTION

Suppliers and customers need to assess their future operating capability and profitability according to the financial status and operation status of the enterprise, and determine the sustainable development and profitability of the enterprise and decide the continuation or suspension of the transaction or contract.

On the one hand, the enterprise is committed to establishing and developing stable customer relationship with suppliers and customers (Morgan and Hunt, 1994) [1]. According to the view of Resource Dependence Theory, Almost all companies are unable to achieve self-sufficiency and completely control all the resources that the enterprise operates well depend on. So, they need to exchange and integrate resources with other enterprises in the market

environment. Therefore, it is inevitable to have a certain degree of dependence on those enterprises which have the necessary resources for the survival and development of enterprises. Suppliers and customers as the enterprise in the supply chain upstream and downstream, play an important role for enterprises to achieve good operation and long-term development for which decide the supply of the raw materials, processed products and the sale of products.

Besides, on the basis of Transaction Cost Theory, enterprises maintain good relations with suppliers and customers may reduce the transaction cost to a large extent. Consequently, in order to reduce transaction costs and obtain sustainable resources, the enterprise has sufficient motivation to provide adequate and robust accounting information.

On the other hand, because of the existence of information asymmetry between suppliers, customers and enterprises, in addition, the overwhelming majority of enterprises at present are managed by the entrusted agent, so it is difficult for suppliers and customers to fully grasp the real situation of enterprise management. Hence, most managers tend to manage opportunistic earnings in order to achieve short-term goals.

So, what is the mechanism of the influence of bargaining power of suppliers and customers on the level of accounting conservatism? To explore the relationship between the bargaining power of customers, supplier and the Accounting Conservatism, this paper will sort out the current domestic and international research on suppliers, customers' bargaining power and accounting conservatism, and analyze disclosed financial data over the period 2011-2013 of China's listed companies.

Our study contributes to accounting literature in several dimensions. First, prior researches mostly studied the influence factors and influence degree of accounting conservatism from the perspective of shareholders, creditors, management, audit committee characteristics and so on, while relatively neglect of the influence of the suppliers and customers as the important external stakeholders on the accounting conservatism. In this paper, the impact of supplier, customer bargaining power and enterprise accounting conservatism is studied, which broadens the

research perspective of possible factors of accounting conservatism.

Second, at present, domestic and foreign research on suppliers and customers mostly focus on the relationship between suppliers, customer bargaining power and enterprise performance, capital structure, asset structure, business income, auditor selection and change, marketing channels and so on. Only Kai Wai Hui (2012)[2] directly studied the impact of suppliers and customers on accounting conservatism, however, there is a big difference between China's capital market and foreign capital market, and whether their conclusions are still suitable for China's economic and institutional background remains to be turned over. Domestic study only based on bargaining power of customers (Wang Xiongyuan and Liu Fang, 2014) [3], and there is no research on the relationship between enterprise supplier, customer bargaining power and accounting conservatism.

The remainder of the paper is organized as follows. Section 2 develops hypotheses. Section 3 describes the sample selection, model specification, variable definition and the empirical analysis. Section 4 presents conclusions and future research direction.

II. THEORETICAL ANALYSIS AND HYPOTHESIS DEVELOPMENT

A. Suppliers' Bargaining Power and Accounting Conservatism

The concept of "bargaining power" was first proposed 60 years ago, and Schelling (1956) [4] interpreted it as the ability of the two parties involved in the Negotiations to reach an agreement or influence the results via different negotiation strategies.

The suppliers lie in the upper reaches of the enterprise supply chain, which greatly affects the supply of raw materials and processed products. Suppliers will assess whether the enterprise can meet its business demand via the enterprise's accounting information when consider establishing short-term or long-term transactions with the enterprise. On the one hand, suppliers involved in short-term transactions will worry about whether it can be paid timely and sufficiently, and those involved in long-term trades will concern whether enterprises can fulfill the long-term contract and bring sustainable income for them. On the other hand, suppliers involved in long-term transactions may need to purchase special assets to produce unique products from the enterprise and maintain regularly, so the supplier will suffer great losses once the enterprise go bankrupt. Additionally, the earnings of suppliers is asymmetry with the enterprise's performance, which means when the enterprise's performance higher than expected, the supplier can only gain the corresponding revenue confirmed in the contract agreement based on the expected level; while the supplier will suffer the risk of being unable to get earnings or generate bad debts when the performance doesn't reach the expected level and even decline compared with last due to the poor management. Moreover, if the enterprise goes

bankrupt, the supplier will suffer huge conversion cost. As a result, the suppliers hope the company focuses more on the company's "bad news", that is, using more conservatism accounting policies and accounting methods. And the more strong the bargaining power of suppliers, the more sufficient strength to force enterprises to improve the level of accounting conservatism.

However, consist with Bowen (1995)[5] and Raman, Shahrur (2008)[6], the enterprise will carry out opportunistic earnings management within the scope of control and increase the assets, income and net profit of the financial report to show good operating ability and long-term financial prospects. And the stronger the bargaining power of suppliers, the more motivated the enterprise has to carry out earnings management to safeguard their own interests. Together with that the supplier can't implement effective supervision through its own or an independent third party, which will further the growth of the company's speculation.

Based on the above analysis, we put forward the first research hypothesis:

H1a: The bargaining power of suppliers is positively correlated with the accounting conservatism;

H1b : The bargaining power of suppliers is negatively correlated with the accounting conservatism.

B. Customers' Bargaining Power and Accounting Conservatism

Customers lie in the lower reaches of the enterprise supply chain and affect the sale of the enterprise's products. As well as suppliers, the customers will assess whether the enterprise can meet its business demand via the enterprise's accounting information when consider establishing short-term or long-term transactions with the enterprise. On the one hand, customers involved in short-term transactions will worry about whether the enterprise can provide goods timely and with quality and quantity guaranteed; and involved in long-term trades will concern that enterprises whether can provide continuous, high-quality spare parts and maintenance services for the products sold. On the other hand, customers may need special technology to produce unique products purchased from the firm. Similarly, due to the asymmetry between customer revenue and firm's business performance, customers will require company confirm "bad news" more rapidly. And the more strong the bargaining power of suppliers, the more likely the enterprise will provide cautious the financial report proactively.

However, in order to acquire the resources that enterprise realize survival and development must rely on sustainably, enterprises have the motivation of carrying out earnings management, and increasing income and profit, and reducing loss to signaling of enterprise with long-term financial viability to the outside world. Especially when the dependence degree on customers is higher, the enterprise is more likely to carry out earnings management to maintain the existing customer transaction relations or to attract a new customer to establish the new transaction relations.

Based on the above analysis, we put forward the first research hypothesis:

H1a: The bargaining power of customers is positively correlated with the accounting conservatism;

H1b : The bargaining power of customers is negatively correlated with the accounting conservatism.

III. MODEL SPECIFICATIONS AND VARIABLE MEASUREMENT

The empirical data from Chinese listed companies during 2011 to 2013 were collected from the CSMAR database. We eliminate 2646 observations with missing values on bargaining power of suppliers and customers. Consistent with prior studies, we discard samples of financial industry, which vary significantly in business operation and measuring method. The final samples include 988 firm-year observations.

A. Model Specifications

About the measure of accounting conservatism, the Basu model has often turned out that has high reliability (Zhang Zhaoguo, Liu Yongli, Li Gengqin, 2012)[7]. Basu (1997) [8] stated that under the market hypothesis, the timeless degree to the "good news" and "bad news" is asymmetrical. The regression model of the method is as follows:

$$EPS_{i,t}/P_{i,t-1}=\beta_0+\beta_1D_{i,t}+\beta_2R_{i,t}+\beta_3D_{i,t}*R_{i,t} + \xi \quad (1)$$

where $EPS_{i,t}$ means the earnings per share at tth year of firm i; $P_{i,-1}$ means the price at the end of the (t-1)th year of firm i; $R_{i,t}$ means the annual stock return at tth year of firm i; $D_{i,t}$ dummy equal to one if $R_{i,t}$ is negative, and zero otherwise.

β_2 captures the timeless to good news, and $(\beta_2+\beta_3)$ captures the timeless to bad news, and β_3 captures the incremental of timeliness to bad news compared to good news.

While Khan and Watts (2009) [9] pointed out that besides annual stock return, accounting conservatism is also influenced by the size, market-book ratio of equity and asset-liability ratio. They further improved the Basu model, proposed that use G-Score to represent the timeliness degree to "good news", and use C-Score to represent the timeliness degree to "good news", that is, the level of accounting conservatism.

$$G\text{-}Score=\beta_2=\mu_0+\mu_1Size_{i,t}+\mu_2MTB_{i,t}+\mu_3Lev_{i,t} \quad (2)$$

$$C\text{-}Score=\beta_3 =\lambda_0+\lambda_1Size_{i,t}+\lambda_2MTB_{i,t}+\lambda_3Lev_{i,t} \quad (3)$$

The formula (2) and (3) are brought into (1), and the following regression models were obtained:

$$EPS_{i,t}/P_{i,t-1}=\beta_0+\beta_1D_{i,t}+(\mu_0+\mu_1Size_{i,t}+\mu_2MTB_{i,t}+\mu_3Lev_{i,t}) *R_{i,t}$$

$$+ (\lambda_0+\lambda_1Size_{i,t}+\lambda_2MTB_{i,t}+\lambda_3Lev_{i,t}) D_i*R_{i,t}+ \xi \quad (4)$$

Where $Size_{i,t}$ equals natural logarithm of total assets; $MTB_{i,t}$ means the market-book ratio of equity, this paper use Tobin Q to measure it; $Lev_{i,t}$ means the asset-liability ratio.

We carried out annual regression to the model (4), and the regression results showed that $\lambda_0\sim\lambda_3$ are fixed value for the company, but it changed with the change of the year. Then brought $\lambda0\sim\lambda3$ into the formula (3), and the annual C-Score of each company can be calculated.

In order to test the 2 hypotheses proposed above, the linear regression model is established:

$$C\text{-}Score=\beta_0+\beta_1Supp+\beta_2Buyer+\sum\beta_3Yi+\beta_4State+\beta_5Year$$

$$+\beta_6Sh1+\beta_7INT+\beta_8Paid+\beta_9Prec+\beta_{10} Lev +\beta_{11} Size +\xi(5)$$

We follow prior studies on bargaining power of suppliers and customers (e.g. Tang Yuejun, 2007) that have estimated bargaining power of suppliers and customers as the proportion of procurement share of the top five major suppliers of the total share of the enterprise procurement and the sales share of the top five customers accounted for the proportion of total sales of enterprises disclosed in the foot-notes to annual financial statement of listed companies.

B. Variable Measurement

The definitions of variables in the model are shown in the "Table I": C-Score is the dependent variable, and bargaining power of suppliers and customers are the independent variables. Besides, we controlled the variables that may influence accounting conservatism such as the shareholding of the largest shareholder, inventory turnover ratio, accounts payable ratio, accounts receivable ratio, asset-liability ratio, and size and so on.

TABLE I.   VARIABLE DEFINITION

Variable	Definition
C-Score	Accounting conservatism calculated with C-Score model
Supp	Bargaining power of suppliers calculated by the the proportion of procurement share of the top five major suppliers of the total share of the enterprise procurement.
Buyer	Bargaining power of customers calculated by the sales share of the top five customers accounted for the proportion of total sales.
State	Dummy variable equals 1 if the company is state-owned.
Year	The year since the company IPO.
Sh1	The shareholding of the largest shareholder.
INT	Inventory turnover ratio calculated by operating cost scaled by average inventory, where average inventory equal to the arithmetic mean of initial inventory and final inventorys.
Paid	Accounts payable ratio calculated by accounts payable scaled by operating cost.
Prec	Accounts receivable ratio calculated by accounts receivable scaled by operating revenue.
Lev	Asset-liability ratio calculated by total liabilities scaled by total assets.
Size	Natural logarithm of total assets.
Y	Year dummy variables.
Indus	Industry dummy variables.

IV. EMPIRICAL RESULTS

A. Descriptive Statistics

"Table II" provides descriptive statistics. The maximum (max=3.07), minimum (min=-16.55) and mean (mean=0.08)

values of C-Score suggested that the accounting conservatism of sample firms is low and varied greatly among listed companies. The mean value of bargaining power of suppliers and customers were 0.37 and 0.32, respectively, which indicated the existence of bargaining power of suppliers and customers.

TABLE II.   VARIABLE DEFINITION

Variable	Minimum	Maximum	Mean	Median	St
C-Score	-16.55	3.07	0.08	0.09	0.55
Supp	0.00	1.00	0.37	0.32	0.24
Buyer	0.00	1.00	0.32	0.24	0.25
SH1	0.04	0.89	0.36	0.33	0.17
INT	0.00	45256.39	56.71	4.54	1441.04
Paid	0.00	4.52	0.21	0.15	0.26
Prec	0.00	2.40	0.16	0.09	0.23
Lev	0.00	8.26	0.45	0.44	0.34
Size	14.31	26.27	21.89	21.81	1.34
State	0.00	1.00	0.61	1.00	0.49

B. Correlations

Before the regression analysis, we test the Pearson correlation coefficient between each independent variable in the model. The majority of coefficients was less than 0.3, which showed that the multiple co-linearity between these variables is small and can be tested in one model. The significantly positive coefficient between C-score and buyer ("Table III", -0.065) support H2b preliminarily. While the coefficient between C-score and Supp is not significant.

TABLE III.   VARIABLE DEFINITION

Variable	C-score	supp	buyer	SH1	INT
supp	-0.051				
buyer	-.065*	.347**			
SH1	-0.041	-0.024	-0.013		
INT	0.001	0.036	.090**	-0.026	
Paid	0.044	-0.025	.074*	0.061	-0.016
	Paid	**Prec**	**Lev**	**Size**	**State**
Prec	.293**				
Lev	.070*	-0.013			
Size	-0.041	-.163**	.141**		
State	-0.032	-.074*	.118**	.257**	
Year	-0.023	0.015	0.013	.183**	-0.053

"Table IV" contains the results of regression analysis. The significantly positive coefficient between C-score and buyer (Sig. = 0.034<0.05) provides evidence for H2b, implying that accounting conservatism is significantly and negatively correlate with the bargaining power of customers. While the coefficient between C-score and supp is not significant (Sig. = 0.47>0.05), so we fail to find support for H1, which means that accounting conservatism is not associated with the bargaining power of suppliers.

TABLE IV.   VARIABLE DEFINITION

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**standard error**	**trial version**		
	12.372	9.665		1.28	0.201
Supp	-0.059	0.082	-0.025	-0.723	0.47
Buyer	-0.164	0.077	-0.074	-2.124	0.034
Year	-0.006	0.005	-0.042	-1.282	0.2
SH1	-0.133	0.114	-0.04	-1.167	0.244
INT	0	0	0.002	0.063	0.95
Paid	0.041	0.069	0.02	0.594	0.552
Prec	0.122	0.083	0.05	1.467	0.143
Lev	0.279	0.052	0.172	5.397	0
Size	0.005	0.015	0.011	0.315	0.753
State	0.013	0.038	0.011	0.342	0.732

V.   CONCLUSION

The purpose of this study is to explore the relationship between accounting conservatism and the bargaining power of suppliers and customers. By the analysis of client-agent theory, resource dependence theory and transaction costs theory, as well as the empirical analysis based on the listed companies in China, we draw the conclusions:

- There is no significant correlation between the bargaining power of suppliers and the accounting conservatism;

- Accounting conservatism is correlated with the bargaining power of customers significantly, that is, the stronger the bargaining power of customers, the lower the accounting conservatism of the enterprise.

The main reasons of the conclusion are as follows:

First, there is information asymmetry between suppliers, customers and enterprises, together with that most enterprises are managed by the agent, so the agent may tend to pursue short-term interests and neglect the long-term development relatively in order to maximize their own interests. Consequently, the enterprise may overstate assets and income, and understate liabilities and losses within the control range to make financial statements signaling good operating status and financial prospects to shareholders, suppliers, customers and other stakeholders.

Second, according to the theory of resource dependence, when the bargaining power of suppliers and customers is strong, for the sake of obtaining the resources which decide the enterprise's survival, the enterprise more likely has the motive to carry out earnings management to transmit the positive financial signal.

Finally, the board of directors and audit committee play the role in supervising of the internal control mainly. While under the specific background of China, the supervisory power of the board of directors and audit committee is limited, therefore, the extent of accounting conservatism on financial report has not increased correspondingly.

We offer several proposals to improve the level of accounting conservatism based on the aforementioned conclusions. On the one hand, the accounting laws and regulations need further improving to strengthen the accounting conservatism in financial reporting; on the other hand, the supervisory power of the board of directors, the audit committee need strengthening, specifically, enterprises need to improve the independence and the proportion of independent directors of the board of directors and audit committee, as well as the professional ability of the directors. In addition, stakeholders also can implement professional and effective supervision by the independent external supervision organizations. Simultaneously, for suppliers and customers, it is necessary to investigate and evaluate the operating conditions and prospects of the enterprises carefully when considering found transaction relationship with enterprises.

Some of the limitations also have to be noted as well. The results indicate that accounting conservatism is correlated with the bargaining power of customers significantly, while there is no significant correlation between the bargaining power of suppliers and the accounting conservatism. While this paper doesn't support evidence to unravel the black-box of the results. Besides, the data used to measure the bargaining power of suppliers and customers collect from the CSMAR database, but the data available were few. Thus, expanding sample size by collecting data by hand from the annual reports of listed companies might generate insights into further study.

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