

THE EFFECTS OF CUSTOMERS' BARGAINING POWER ON CAPITAL EXPENDITURE AND EARNINGS MANAGEMENT

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ABSTRACT

This paper examines the relationships between suppliers and customers to affect the degree of earnings management (EM) and the effects of accrual-based and real-activities EM on capital expenditure (capex) of a company (as the supplier). We also examine the influence of the bargaining power of major customers on EM of a company and how this bargaining power intervenes in the relationship between capex decisions and EM. The results indicate that the greater a company's current capex, the more pronounced accrual and real EM is. The greater the current major customers' bargaining power is, the weaker the real EM. There is an inverse correlation between real EM and the interaction between bargaining power of major customers and capex of company, but this relationship hold only when the sale concentration as a proxy for the bargaining power of major customers for accrual-based EM. Regardless of methods of EM, the more aggressive the previous EM, the higher the current capex is.

INTRODUCTION

Companies tend to concentrate strategic efforts on a few select partners to ensure cooperation, nurture innovations, and boost product quality. According to Banerjee, Dasgupta, and Kim (2008), a supplier may be more concerned with multi-year maintenance contracted revenues, whilst a customer may be worried whether a supplier is able to provide high quality's components, products, or services on a continuous basis. Long-term cooperative relationships are mostly implicit contracts that create benefits and cost advantages for suppliers. Despite the growing importance of this type of upstream-downstream relationships, only limited literature addresses how the costs and benefits of such relationships affect the financial policies of companies, and therefore, it induces this paper's research motivation.

Transactions in the input/output market may involve investment in relationships with suppliers and customers. As these investments are belong to specific-firm, the value between suppliers and customers hinges on the future prospect of the commercial relationships. It is understandable that the perspectives of stakeholders concerning the commercial relationship have influence over the incentives to invest in these specific relationships. Same as the covenants between companies and creditors, contracts between suppliers and customers may also be complicated by the agency problem resultant from information asymmetry. If a company experiences financial distress or exits from the market, its suppliers may suffer from higher production costs due to the default or inability of the company to honor its obligations. Customers are also faced with the problem of reward asymmetry as a consequence of the company's performance.

While there is extensive literature regarding the motivations of EM in the capital market, few studies examine the role of suppliers and customers in the context of financial reporting decisions. Bowen, DuCharme, and Shores (1995) argue that the implicit requirements of stakeholders affect the choice of accounting methods to boost net incomes. In other words, stakeholders have influence on accounting policies.

The majority of literature measures EM with discretionary or abnormal accruals, while few reports discuss real-activities EM. As different EM tools have different cost and benefit profiles, the characteristics of different tools are only considered for decisions over EM. Therefore, this paper measures accounting quality with real activities and accrual-based EM. We attempt to validate the determinants of EM in the context of the relationship with suppliers and customers. First, we examine whether the relationship with suppliers and customers affects the degree of EM. Second, this paper analyzes whether accrual-based and real-activities EM affects capex by considering the relationship with suppliers and customers.

Hui, Klasa, and Yeung (2012) contend that if suppliers or customers boast greater bargaining power, companies will recognize losses at a faster pace. Watts and Zimmerman (1986) believe that creditors often have an upper hand in bargaining, as they determine loan terms and conditions and adopt conservative accounting policies. This statement is also valid when accountants have stronger bargaining power. For instance, Basu (2001) find that the Big Eight accounting firms hold greater bargaining power than non-Big Eight firms. Therefore, the companies audited by Big Eight show stronger accounting conservatism. This study also considers the influence of companies' bargaining power on EM, as well as the moderating role played by bargaining power in the correlation between capex and EM.

LITERATURE AND HYPOTHESIS DEVELOPMENT

Francis, LaFond, Olsson, and Schipper (2005) and Aboody, Hughes, and Liu (2005) use the quality of accounting earnings as the proxy variable for information risks. Their studies indicate a correlation between earnings quality and expected returns. Rajgopal and Venkatachalam (2011) posit that step-up in EM compromises the accuracy of earnings quality. However, some scholars have put forth the exact opposite argument. According to Watts and Zimmerman (1986), if investors are able to detect EM, they will be able to gain additional information. Subramanyam (1996) also believe that discretionary accruals have positive value. The study shows a positive correlation between discretionary accruals and returns during the same period, and a predictive power of discretionary accruals on future profitability and dividend changes. Hence, managerial discretion can improve the earnings informativeness. Badertscher, Collins, and Lys (2008) suggest that accruals may be accretive or dilutive to the informativeness implied by future cash flows. This depends on the motivations for EM, i.e. whether it is for speculation or for informativeness purposes.

Transactions with suppliers and customers often incorporate specific relational investments, and such specific investments are company specific, and therefore, the investment yields a lower value outside the relationships. The value of specific relational investments to suppliers and customers depend on the future prospects of the companies, as the future size of transaction depends on the company's outlook. If the prospect is bright, the expected returns of investment will be high for suppliers and customers. The information asymmetry between managers and external providers of capital causes adverse selection and moral hazard, and both affect investment efficiency. Under adverse selection, managers are better informed than investors about the true value of firm assets and the growth opportunities of the firm. Doyle, Ge, and McVay (2007) indicate that compared to controlled samples, the companies with poor internal control yield poor quality in financing reporting. Ashbaugh-Skaife et al. (2009) and Dhaliwal et al. (2011) argue that, companies with poor internal control pay higher capital costs for financing.

Prior literature also points out that managers are motivated to manage earnings for IPOs, SEOs, issue convertible debts, or take out long-term loans from banks, in an attempt to issue shares at a high price or reduce the cost of debts. We expect that, under information asymmetry between companies/managers and suppliers/customers, companies /managers have the incentives to manage earnings to attract

suppliers/customers as long-term partners, in order to raise external funds and to increase capital investments. Existing literature focuses on discretionary or abnormal accruals when examining EM methods, while few studies look at real-activities EM. Cohen and Zarowin (2010) indicate that real-activities EM causes more negative effects to firm performances than accrual-based EM. In practice, companies often consider the characteristics of different EM tools and hence, are likely to engage in different styles of EM. We incorporate accrual and real EM in the validation of their relationship with capital expenditure and develop hypotheses:

H1a: The higher the current capital expenditure, the greater the accrual-based earnings management.

H1b: The higher the current capital expenditure, the greater the real-activities earnings management.

The presence of major customers depends on whether any customers account for a high percentage of sales. The higher a percentage a customer accounts for, the greater bargaining power this customer has regarding part or all of the transaction terms. Meanwhile, Watts and Zimmerman (1986) argue that creditors usually have stronger bargaining power, as they determine loan covenants and dictate conservative accounting policies, and thus reduce their loan costs. The same is also applicable to the situation where auditors have bargaining power. For example, Basu (2001) find that Big Eight firms have greater bargaining power in auditors' fees than non-Big Eight firms because the companies audited by Big Eight tend to be conservative. Hui, Klasa, and Yeung (2012) indicate that there is a positive correlation between accounting conservatism and the bargaining power of customers and suppliers.

Regarding the correlation between equity financing and EM, DuCharme, Malatesta, and Sefcik (2004) believe that companies are likely to report positive abnormal accruals during stock issuances; however, these accruals will turn negative after issuances. Cohen and Zarowin (2010) contend that real-activities EM employed during SEOs causes more drastic decline in firm performances after SEOs than accrual-based EM. In other words, what goes around comes around. Accrual items will reverse and real-activities EM will lead to future performance deterioration. In terms of the correlation between debt financing and EM, Chou, Wang, Chen, and Tsai (2009) suggest that companies resort to discretionary accruals to boost reported earnings before the issue of convertible debts.

We expect that major customers have greater bargaining power than other customers, and they are very important contribution for revenue of the company. The greater the bargaining power customers have, the less necessary it is for suppliers to window dress its financial statements with EM. We develop the following hypothesis:

H2a: The greater the bargaining power the major customers have in current period, the smaller the accrual-based earnings management.

H2b: The greater the bargaining power the major customers have in current period, the smaller the real-activities earnings management.

Hui, Klasa, and Yeung (2012) indicate that the stronger bargaining power suppliers or customers have, the faster a company recognizes bad news than good news. This means the bargaining power of suppliers or customers affects accounting conservatism of the company. Graham, Harvey, and Rajgopal (2005) argue that managers prefer real-activities EM to accrual-based EM. Although real-activities EM causes more adverse economic consequences, it is less likely to be detected by auditors or regulators. Roychowdhury (2006) posits that real-activities EM is deemed to be a deviation from the normal management activities of a company, with the purpose of meeting a certain earnings threshold. Hence, we develop the following hypothesis:

H3a: The greater the bargaining power the major customers have in current period, the smaller the accrual-based earnings management.

H3b: The greater the bargaining power the major customers have in current period, the smaller the real-activities earnings management.

Suppliers and customers have a vested interest in the future prospect of a company, as their benefits are built upon transactions with the company. As the perception of suppliers and customers regarding the incentives provided by the company is subject to its financial position, the company can achieve profitability by creating a good financial profile. Barton (2001) and Lin, Radhakrishnan, and Su (2006) indicate that companies sometimes employ two or more EM tools to make financial reports more attractive. In fact, some companies often engage in EM before financing or investment decisions, hoping to reduce capital costs of financing or raise funds for capital expenditure with window dressing of financial reports. The following hypothesis is developed:

H4: The greater the previous earnings management, the higher the current capital expenditure. The greater the current capital expenditure, the larger the current earnings management. Hence, there is a correlation between capital expenditure and earnings management.

RESEARCH DESIGN

The data is from 2007 to 2013. The data for some control variables has to go back two years before, and hence, the real research period is 2005~2013. Samples must have upstream/downstream relationships and annual data must be available in the Taiwan Economic Journal. After elimination of companies of financial and insurance industries and companies with missing data, this paper gathers a total of 19,157 observations. We use OLS model and OLS fixed effects model to examine the correlation of EM with bargaining power and capex. The interaction term is used to verify whether the greater the bargaining of major customers and the higher the current capex, the smaller the accrual-based EM. It also verifies whether the stronger the bargaining power of major customers and the higher the current capex, the smaller the real-activities EM.

$$EM_{it} = a_0 + a_1CapitalExp_{it} + a_2CusBarPow_{it} + a_3CapitalExp_{it}CusBarPow_{it} + a_4MB_{it} + a_5CFOSD_{it} + a_6Leverage_{it} + a_7Dividend_{it} + a_8DefaultR_{it} + a_9OCF_{it} + e_{it} \quad (1)$$

$$EM_{it} = a_0 + a_1CapitalExp_{it} + a_2CusBarPow_{it} + a_3CapitalExp_{it}CusBarPow_{it} + a_4MB_{it} + a_5CFOSD_{it} + a_6Leverage_{it} + a_7Dividend_{it} + a_8DefaultR_{it} + a_9OCF_{it} + Industry + Year + e_{it} \quad (1a)$$

This paper further uses simultaneous equations to explore the causal relationship between capex and EM.

$$CapitalExp_{it} = a_0 + a_1EM_{it-1} + a_2CusBarPow_{it-1} + a_3EM_{it-1}CusBarPow_{it-1} + a_4MB_{it} + a_5CFOSD_{it} + a_6Leverage_{it} + a_7Dividend_{it} + a_8DefaultR_{it} + a_9OCF_{it} + Industry + Year + e_{it} \quad (2)$$

$$EM_{it} = a_0 + a_1CapitalExp_{it} + a_2CusBarPow_{it} + a_3CapitalExp_{it}CusBarPow_{it} + a_4MB_{it} + a_5CFOSD_{it} + a_6Leverage_{it} + a_7Dividend_{it} + a_8DefaultR_{it} + a_9OCF_{it} + Industry + Year + e_{it} \quad (1a)$$

where EM_{it} = EM of company i (as supplier), EM1 as accrual-based EM and EM2 as real-activities EM. $CusBarPow_{it}$ = proxy variable for bargaining power of company (as customer). MB=market to book ratio. CFOSD= cash flows volatility, which is operating cash flows deflated by total assets at the beginning of the years t, t-1 and t-2, and then taking standard deviation of three years values. Leverage= financial leverage. Dividend= dummy variable of dividend payout. DefaultR=default risks. OCF=operating cash flows, deflated by total assets of beginning-year. CapitalExp= capital expenditure, the change in the net fixed

assets plus fixed assets disposed, deflated by total assets of beginning-year.

Measurement of Key variables

We refer to Hui, Klasa, and Yeung (2012) using two variables to measure the bargaining power of major customers. (1) Key Stakeholders: two dummy variables: (i) the variable is set as 1 if a customer's purchase account for at least 5% of sales of a supplier, 0 if not; (ii) the variable is set as 1 if a customer account for at least 10% of sales of a supplier, 0 if not. (2) Concentration: Herfindahl-Hirschman Index (HHI) is used to measure the concentration of major customers. On the other hand, earnings management has two variables: (1) Discretionary accruals (EM1): follow Rajgopal and Venkatachalam (2011) to measure accrual-based earnings management. (2) Real earnings management (EM2): follow Cohen and Zarowin (2010).

EMPIRICAL RESULTS AND CONCLUSIONS

The findings show that if the bargaining power of major consumers is measured with the HHI Index, there is a positive correlation between company's capex and company's accrual-based EM, supporting H1a. There is a positive correlation between capex and real-activities EM if the bargaining power of major customers is measured by the threshold of 5% or 10% which is the percentage that the supplier sells to its customer (i.e. the purchase of customer from its supplier), supporting H1b. Moreover, the stronger the bargaining power of major customers, the greater the accrual-based EM of companies (as the suppliers). There is an inverse correlation between the bargaining power of major customers and the real-activities EM, supporting H2b. If the bargaining power is measured by sale concentration, the result is the same as before results, indicating varying influence over accrual-based and real-activities EM when major consumers enjoy significant bargaining power. About the impact of capex of a company (as the supplier) and bargaining power of major customers using OLS fixed effect models, the results are consistent with those in OLS models, supporting H1a, H1b, and H2b.

There is a negative correlation between the interaction term of capex of a company and the bargaining power of major customers and company's accrual-based EM when the bargaining power of major customers is measured by the HHI Index, supporting H3a. Also, the stronger the bargaining power of major customers and the higher the capex of company, the smaller the real-activities EM is. H3b is supported. The results of OLS fixed effect models still support H3a and H3b. Moreover, the results of the simultaneous equations show that the greater EM in previous period, the higher the capex in current period. The higher the capex in current period, the greater EM in the same period is. There is an interrelation between capex and EM and therefore, these results support H4

We further examine whether previous real-activities EM affects next capex or whether the current capex affects EM in the same period. The greater the previous real-activities EM, the higher the capex becomes. The greater the previous real-activities EM and the stronger the previous bargaining power of major customers, the lower the capex. Meanwhile, the higher the current capex, the greater the real-activities EM is. The stronger the current bargaining power of major customers, the smaller the earnings management. The stronger the bargaining power of major customers and the higher the capex, the smaller the real-activities EM is. In sum, there is an interrelation between real-activities EM and capex.

Basu (1997) and Watts (2003) indicate that relative to other stakeholders, managers have incentive through their information advantages to obtain bad news and which is faster than good news. Hui, Klasa, and Yeung (2012) indicate that the accounting conservatism is positively related to both bargaining powers of customers and supplies. In robustness check, this paper divides samples as high and low subsamples based on accounting conservatism. The evidences are similar to those in Table 4 regardless of high or low

subsamples of accounting conservatism.

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