Int. J. Production Economics 156 (2014) 169–179

Contents lists available at ScienceDirect

Int. J. Production Economics

journal homepage: www.elsevier.com/locate/ijpe

The immediate impact of purchasing/sales contract announcements on the market value of firms: An empirical study in China

Jun Yang [a], Wei Lu [a,*], Chunhui Zhou [b]

[a] School of Management, Huazhong University of Science and Technology, Wuhan 430074, China
[b] Department of Industrial and Systems Engineering, National University of Singapore, Singapore

ARTICLE INFO

Article history:
Received 2 April 2013
Accepted 28 May 2014
Available online 13 June 2014

Keywords:
Empirical research
Market value management
Contract announcement
Stock market return

ABSTRACT

With the progressive realization of split share structure reform, China's stock market has undergone a fundamental change. The interests of major shareholders and minor shareholders are the same, resulting in greater attention to the market value management of listed firms. Therefore, the study of the relationship between firms' operational decisions and their stock market returns is of practical significance. In this study, we empirically investigated the reaction of the stock market to announcements of purchasing or sales contracts. Based on 318 such announcements made by publicly traded firms in China from 2001 to 2012, we used the event study method to investigate the economic impact of purchasing or sales contract announcements on shareholder wealth. The results indicate that several factors—contract type effect, industry effect, trade partner effect, scale effect, and capital structure—have positive and significant effects on firms' reactions in terms of market value. However, the lack of detailed descriptions in contracts about risk information, along with investors' limited risk awareness, causes risk prompts to have surprisingly little influence on the market value of firms. Furthermore, growth prospects and the ratio of the contract value to operating income have not been found to enhance firm value.

1. Introduction

Purchasing and sales contract announcements are important components of stock market information disclosure; they may offer some signals of future firm performance. Previous studies of supply chain contracts have focused on profit maximization of related firms or the supply chain's coordination mechanism. However, in recent years, most major firms in each industry sector are listed firms owned by shareholders, and operational performance has a pronounced effect on shareholders' value. Investors and analysts are becoming more interested in measures that are closely tied to operations. Many academicians and practitioners increasingly focus on the link between supply chain management, profitability, and shareholder value. For instance, Hendricks and Singhal (2005,2009) analyzed the impact of supply chain disruption on shareholder wealth and empirically investigated the negative reaction of the stock market to excess inventory.

With the progressive realization of split share structure reform since 2005, China's stock market has undergone an important change. As a result, the goals of listed firms have changed from appreciation in asset value and profit maximization to market value maximization. Since the implementation of split share structure reform, the relationship between major shareholders' interests and performances of listed firms has become increasingly close. Thus, management of real earnings (Schipper, 1989) plays an important role in listed firms' operations management.

Because their understanding about internal management of operations is better than that of external investors, managers may alter their operating decisions deliberately to influence investors' valuations; thus, managers may sign a new contract or increase/decrease their production lines, R&D expenditures, and new product launches. On the other hand, they can also influence the expression of firms' financial information by utilizing accounting and earnings management (Healy and Wahlen, 1999) to affect investors' decisions. Investors cannot observe true performance of listed firms; they can estimate their performance according to public announcements such as financial bulletins, periodic reports, and important event announcements. According to a Bloomberg report, when Apple—the world's largest market capitalization firm—announced that the company had signed a new contract with Hynix to increase the purchase of NAND flash memory (used in the manufacture of the iPhone and iPad in April 2010), the firm's stock price rose 8.48%. Hynix's stock price increased by 7.19% the following week.

* Corresponding author Tel.: +86 13871448204.
E-mail addresses: Jun_yang@mail.hust.edu.cn (J. Yang), lwhust@gmail.com (W. Lu), joeych1126@gmail.com (C. Zhou).

http://dx.doi.org/10.1016/j.ijpe.2014.06.002
0925-5273/

In this study, our aim has been to understand the effects of purchasing/sales announcements on the market values of firms. Evidence has been based on an analysis of contract announcements released from 2001 to 2012 by publicly traded firms in the Shanghai Stock Exchange and Shenzhen Stock Exchange. We used event study methodology to investigate stock market reactions to contract announcements. In addition, we developed and tested hypotheses concerning market reactions to various factors such as industry type, trade partners, risk prompts, firm size, growth prospects, and capital structure of the announcing firm.

The structure of the paper is as follows: previous related research is reviewed in Section 2, and the issues examined and hypotheses proposed are explained in Section 3. Section 4 describes the samples collected from China's two stock exchanges. Following a brief description of the samples, the event study methodology for estimating abnormal returns is described in Section 5. Then, Section 6 presents the tests of hypotheses and an explanation of the estimated results on stock market reactions to contract announcements. Finally, managerial insights and conclusions are provided in Sections 7 and 8.

2. Literature review

Research on factors related to stock price has been conducted vigorously since the 1990s. Fama and French (1993), important researchers in this field, identified several stock market hazards such as the overall market conditions, firm size, and book-to-market ratio; then, they proposed the three-factor model, which is used widely in empirical models for estimating stock market returns. Fisher et al. (2003) studied the influence of the change in management efficiency measures, such as return on assets and growth rate of return on assets on a firm's long-term market value. In the US, Section 409 of the Sarbanes–Oxley Act of 2002 (SOX) compels firms to promptly disclose any events that may impair their operations. Because of the close correlation between stock prices and business operating decisions, many academicians pay close attention to this field.

Disclosure of information about firms' management of operations may be positive or negative signals of future performance in the stock market. Information disclosure may affect the confidence of investors in firms and cause abnormal fluctuations in stock prices. This paper builds on the growing literature regarding operations management based on empirical research using secondary data. A number of researchers in this field have used event studies to apply accounting and stock market data in their investigations of the impact of operational issues on firm performance. First, some literature probes the impact of inventory on reactions to stock price. Chen et al. (2005) found that firms have good market performance if their inventory level is below average; their findings are based on data from 7433 manufacturing enterprises from 1981 to 2001. Lai (2005) indicated that inventory level is a vital signal to investors, and the stock market may punish those who hold excess inventory. Singhal (2005) studied the impact of inventory announcements on firms' stock price changes one year before the announcement and two years after, based on data from 700 firms. Raman (2006) found that inventory turnover rate has a strong impact on firms' market returns. Roumiantsev and Netessine (2007) have shown that effective inventory management can lead to better stock returns, based on data from over 700 firms. Oyer (1998) and Lai (2006) pointed out the rise in sales and the significant drop in inventory level at the end of the fiscal year. The authors showed that managers might offer a misleading signal to investors regarding high market demand. Hendricks and Singhal (2009) viewed excess inventory as a sign of supply and demand mismatches; they examined the relationship between market return and excess inventory, based on a sample of 276 announcements. Kesavan and Mani (2012) pointed out that firms' investment strategies based on abnormal inventory growth lead to significant abnormal stock market returns. Lai et al. (2012) explained buyer's market value concern may lead to ordering quantity distortion.

Other scholars have focused on the relationship between disruption to the supply chain and the reaction of the stock market. Fisher and Raman (1996) indicated that market value results in loss of revenue when the supply chain is affected by an unexpected incident (e.g., inaccurate forecasts, inappropriate plans, out-of-stock accessories, quality problems, production problems, and equipment failure). Hendricks and Singhal (1997, 2003) estimated the negative impact of delays in new product introduction on market value and studied market reactions to production and transport delays. By analyzing 827 announcements about disruption, Hendricks and Singhal (2005) further indicated that firms do not recover quickly from the negative effects of supply chain disruption. Recently, Schmidt and Raman (2012) have stated that the type of disruption influences the magnitude of impact on a firm's stock price.

In addition, stock price reactions to other kinds of announcements about operations management have been analyzed. Brian et al. (1993) studied the impact of announcements regarding information technology investments on a firm's market value. Dobija et al. (2012) also investigated stock market reactions to such announcements in Poland. Based on 69 announcements from 2002 to 2009, they found that the reaction is more positive when products are offered mainly to the international market. Hendricks and Singhal (2001) found that listed firms implementing total quality management generally attract positive reactions from investors. Kedia and Philippon (2009) have indicated that firms may announce a more aggressive investment plan to signal good performance if they have negative news. Wiles et al. (2012) has examined the impact of brand acquisitions and disposals on the firms' stock returns in 31 consumer industries. Results indicate that the stock market reaction to these announcements depends crucially on three complementary factors: marketing capabilities, channel relationships, and brand portfolios. Zhao et al. (2013) explored the financial impact of a product recall announcement on firm's market value.

To our knowledge, there are only a few papers that address the impact of outsourcing strategies on shareholder wealth. Hayes et al. (2000) focused on the positive effects of information technology outsourcing on stock market value with a sample size of 76 announcements. Jiang et al. (2007) investigated the relationship between firms' market valuations and outsourcing decisions using a cross-sectional valuation approach. Based on their examination of 441 publicly traded Japanese manufacturing firms between 1994 and 2002, core business-related outsourcing, offshore outsourcing, and short-term outsourcing have positive effects on outsourcing firms' market values. Obviously, these research studies were focused only on market valuations of buyers in the supply chain system.

Although there is an extensive body of operations management literature that examines contract issues using normative models, there are very few studies that empirically link contract announcements to financial performance measures. Little work has been completed on the direct bilateral impact of contract announcements on external financial metrics in the supply chain. Our study differs from previous empirical efforts in that it compares the market value reactions of two components in the supply chain system and surveys a variety of industries for listed firms in China. More specifically, we have considered the effects of different factors such as firm size, growth prospects, risk prompts, capital structure, etc.; in this sense, our research fills the literature gap by