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STRATEGIC POSITIONING OF BUSINESS BLOGGING FOR ENTERPRISES

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Abstract

Some experts concerned that blogging may be in conflict with other more controlled public relation activities and suspect that only those companies in bad financial shape would resort to business blogging as a cheap try. Through analysis of business blogging activities of Fortune 500 companies, we demonstrated that business blogging can be used as a new strategic tool for companies to sustain their existing competitive advantages. We found business blogging tend to correlated with higher sales, lower cost of goods and reduced advertising expenses for companies. We also found that those companies use product differentiation as their main competitive strategy could better utilize business blogging to sustain their competitive position thus maintain or increase their financial performances.

Introduction

Blogs represent one of the fastest-growing media of personal publishing and the newest method of individual expression on the Internet¹. Among all the Web 2.0 tools, blog is arguably the first to be widely adopted. In 2004, there were only 5 million bloggers worldwide [1]. By the start of 2005, that number grew to more than 50 million. This trend shows no sign of slowing down. By 2008, over 100 million blogs were indexed by Techorati, the leading search engine for blogs written in English. In early 2009, there were on average 50 to 60 thousands new blogs being created worldwide and more than 600 thousands new blog posts every day, according to statistics from blogpulse.com, a service of Nielsen. In January 2005, Fortune magazine featured a report titled "Why There is No Escaping the Blog" to call attention to the fact that bloggers have become a major force that businesses cannot afford to ignore. Blogs have the capacity to promote products and services, build customer communities, and serve as effective vehicles for the education of consumers. Sensing the power and influence of this new Internet application, many business leaders are exploring the strategic value of business blogging.

Executives are beginning to appreciate blogs as sources of information. A 2006 national survey of

According to blogpulse (www.blogpulse.com)

senior executives from the Fortune 1000 companies found that 21% of executives read business blogs at least once a week. Business leaders have also begun to blog and encourage their employees to open business blogs and promote their products and services. According to CEO of Bloglist, business blogging is an irreversible trend for companies and the number of blogs written by CEOs has increased dramatically from late 90's to 2005².

A wide range of companies, such as Microsoft, Google, General Motors (GM), and Disney, are adopting blogs for information disseminating, relationship building, and knowledge management, both internally and externally [1]. For example, GM has adopted FastLane Blog³ to spread news, provide information, and create an online community where its customers can exchange information and discuss on topics important to them. Similarly, Google has been using the Official Google Blog to make major announcements about the company and its upcoming products. More than one thousand Microsoft developers and product managers are communicating directly customers daily via blogs to understand how customers respond to Microsoft products and services [1]. In addition to using blogs for external communication, companies also use blogs to coordinate business operations internally. In Disney, there are more than 130 technicians working on various shifts to guard the smooth daily operation of the Disney Channel. To smooth the operation, Disney has adopted a blog solution for shift management. This is an excellent example of how innovative use of blogs can replace the traditional paper based log system to keep track of engineering changes and issues [1].

Among all this optimism about business blogging, industry experts also express concerns. According to David "Doc" Searls, the co-author of "The Cluetrain Manifesto," companies only blog under duress because the risks and uncertainties of public business blogging are great. Thus, if companies were on the way up, they don't want to risk their success by introducing blogging that isn't controlled by their public relations department. But

²

http://www.thenewpr.com/wiki/pmwiki.php?pagename=Resources.CEOBlogsList

³ URL of GM's Blog: http://fastlane.gmBlogs.com

companies on the way down are willing to try anything to regain the confidence of their customers ⁴ and business blogging became an easy-to-pick-up option in such cases as manifested by GM - according to Michael Wiley, the director of new media at GM⁵:

"We had to do something to humanize the company and create a fresh image for GM.... a few quick PR hits wouldn't do the job -- which it would take something like a Blog to really shake things up. But I could see the carcasses all over the place of companies that had tried to do gimmick Blogs. So I was insistent that our Blog had to develop a real conversation with our customers. That was the only way it would do any good."

Recent data compiled by Wired magazine on Fortune 500 companies also indicates some association between low stock price performance of companies and business blogging adoption. As of February 2009, there were 60 or 12% of Fortune 500 companies have business blogs. When comparing the recent 12-month stock performance of these 60 companies with the rest of Fortune 500, it was found that the stock of these 60 companies went up 4%, while the rest went up 19%.6 Though this is a very crude analysis because there are many factors could affect the stock performance of a company, it does indicate a possible correlation. So exactly what is the strategic value of business blogging to companies? Is it a last resort for companies in the spiraling downturn or an innovative strategic tool that should be adopted by all major companies? More importantly, does business blogging contribute to the bottom-line of the companies' operations for those adopted it? These are the research questions we address in this paper.

The paper makes three primary contributions: First, it identified the strategic value of business blogging by analyzing its contribution to the bottom-line of company operations. Second, through data analysis, it found the fact that those companies adopted business blogging tend to have better financial performances, thus refuting the claim being made by industry experts. After controlling for historical performance, using blogs lead to better future financial performance (higher return ratio, lower cost ratio, and lower advertising

⁴ The complete quote of David Searls was available at: http://www.longtail.com/the_long_tail/2005/12/announcing_the_.html

It was quoted from URL:

http://www.blogrevolt.com/archives/2005/12/gms_blogging_ex.htm

http://www.asia.socialtext.net/bizblogs/index.c

expense). Third, it found that companies that have a higher marketing emphasis and companies that are more open to the consumer community are more likely to adopt blogs, to enhance their performance because this communication channel enables the consumers to share their knowledge with the company.

The rest of the paper is arranged as following: section 2 reviews existing literature about business blogging and develops hypotheses, sections 3 explains the data and research model used for testing hypotheses, section 4 summarizes the results, section 5 discusses the paper's contributions and implications for theory and practice. Finally, section 6 concludes the paper.

Literature Review and Hypothesis

We define business blogging as active official public blogs by company employees about the company and/or its products. ⁷ Business blogging was mainly regarded as a public relation tool when it initially emerged, and it was recommended only when other solutions have failed because it could be out of control and interfere with other company public relation efforts. However, we argue that business blogging is more than a public relation tool. It is a malleable technology that a company can use to achieve multiple purposes, ranging from increasing sales, lower the cost of goods, and reducing advertising expense. Thus, simply relegating blogging under the PR category may overlook other important strategic value a business blog can bring to a company.

Next, we explore in details the malleable nature of business blogging in different strategic aspects of company operations. We then propose our research hypotheses.

How Business Blogging Contribute to Operational Performance

Business Blogging Increase Sales

Blogs enable two-way communication between an organization and its customers. Through blogs, it is much easier for a company to seek opinions, participations, and knowledge from its consumers. The challenge for most companies is not how to obtain feedback – it is how best to respond to the feedback [1]. Business blogging become a new channel for company executives to have a conversation with customers, suppliers, and partners.

Such conversation could lead to product and service innovation breakthroughs. Leonard-Barton [2] proposed the "modes of user involvement", in which users participated in developing new

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http://www.asia.socialtext.net/bizblogs/index.cgi

products for companies. She believes that organizations could gain important technical knowledge from their customers. Von Hippel [3] went one step further to claim that users were one of the major sources of innovation. Users, but not manufacturers, were the typical product initiators in product development, and the territory of innovation had slowly moved towards users [4]. With the two-way communication a business blog provides, loyal users would be able to involve more into different product development stages from early conceptual design to alpha or beta release. Some critical feedbacks from customers may provide important insights to product development that will lead to better sales. Such insights may not be obtained from the inside of the company or cost much more to obtain.

With important inputs from end users via business blogging, we expect the sales of the final product or service will be increased when all other things being equal.

Hypothesis 1: There is a positive correlation between business blogging adoption and future sales

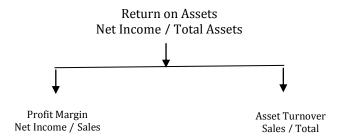
Business Blogging Increases Profit Margin and/or turnover

While business blogging has the potential to increase revenue for a company, it incurs little costs. From the technology point of view, a blog is not much more complicated than a traditional Web page. For companies with an existing infrastructure to support a corporate Web site, adding or enabling the blog feature on the Web site requires little or no additional investments; and once a blog is established, it requires nothing more than a few additional work hours for the executives to write the blogs. Therefore, assuming that the company's business model is reasonably scalable, the additional sales brought by business blogging come at minimal additional fixed costs. Taken together, business blogging would allow a company to better utilize existing assets and improve profitability. Therefore:

Hypothesis 2a: Business blogging in a period is positively associated with return on assets in future periods.

The Sloan or General Motors model used in financial analysis splits return on assets (ROA) into profit margin and asset turnover (Stickney and Brown 1999). For firms competing in an industry, higher profit margin and lower asset turnover are associated with a differentiation strategy whereas lower profit margin and higher asset turnover are associated with a cost leadership strategy (Porter 1985). Therefore, differentiating

investments such as expenditures on R&D or brand advertising tilt the balance towards higher profit margin, whereas cost leadership investments such as capital expenditures made to improve throughput or asset utilization tilt the balance towards higher asset turnover (Kothari et al. 2002).



In a similar manner to Kothari, we investigate differences in the associations of business blogging with these two different components of future earnings. We specify our second hypothesis to test whether decision about adoption of blogs is informative about future improvement in profit margins (differentiation) or asset turnover (cost leadership).

Hypothesis 2b: Business blogging in a period is positively associated with profit margin in future periods.

Hypothesis 2c: Business blogging in a period is positively associated with asset turnover in future periods.

Business Blogging Reduces Advertising Expenses

millions Companies invest on Customer Relationship Management (CRM) software to manage customer service and analyze customer needs. Unfortunately CRM does not allow a way for customers to interact with the company and statistics also indicated that about 50% of CRM implementations in the U.S. and about 80% in Europe fail⁸. Compared with the uncertainty of large investment of CRM to improve customer relationship, business blogging is a cost effective solution with little cost and simple implementation. Business blogging can also complement the public relationship efforts of the company and save product cost. Public relation is an important corporate activity and the cost of a PR activity range from hundreds to tens of thousands of dollars. Business blogging can provide an alternative channel for company to publish press release and conduct PR campaigns. Once clients

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⁸ http://www.oracle.com/industries/ government/crm_enabled_egov_trans.pdf

and business partners have the expectation to obtain important company information from its business blog, the company could save the cost of publishing incurred by third party channels. Blog broadcasting technologies like RSS feed can further reduce the cost and increase the effectiveness by delivering PR materials to interested parties.

Compared with traditional advertising media such as TV and online advertising media such as banner and search oriented advertisements, the cost of advertising and promotion via business blogging is almost negligible. On the other hand, blogging has the features of both traditional and online advertising media.

Leading IT companies such as Google and Microsoft are already using company blog as an additional advertising channel. They published their new product specs and features via the blog just like publishing in newspaper and TVs or other traditional advertising channel. Though its exposure depends on the number of blog readers, it has the competitive advantage of updating the information in real time.

Blogging also has similar features of other online advertising media such as interactive and multimedia functions to allow consumers to become familiar with the products or services. Usually such indirect advertising method can deliver the advertising message more effectively. For example, business blog site of a big company would appear in top rank of organic search results by major search engines such as Google and Yahoo. Thus, instead of paying additional advertising fee to get eyeballs, companies can attract consumers to their web sites naturally.

Blogging also has magnet effect to attract attention to its new product for free and loyal consumers or product fans may spread the words for the new product, thus Blogging has the word-of-mouth (WOM) effect. WOM is considered a major driver behind the consumer adoption and diffusion of new products, services, and sellers, particularly for late adopters [5-7]. Previous studies found that WOM forms like online product reviews have become a major information source for consumers and marketers to assess the quality of products and consumers act upon such reviews [8]. Thus, business blogging may bring similar effect or even more impact on consumers.

From above discussion, we conclude that business blogging can potentially save considerable amount of cost to reach customers, compared with getting the same attention from customers with traditional paid channels. Therefore, we have the following hypothesis:

Hypothesis 3: There is a negative correlation between the business blogging and advertising expense.

Business Blogging Increases Market Valuation

Our first two hypotheses address the operational performance, as measured using traditional accounting metrics, of firms adopting business blogs. Scholars have found market based measures such as stock market returns to be more reliable measures of a firm's future performance, because they are forward-looking, risk-adjusted, and less susceptible to accounting rule changes (Bharadwai et al., 1999; Chatterjee et al., 2002; Hitt et al., 2002). In principle, the stock price of a firm reflects the discounted value of its expected future cash flow. Therefore, a company's market valuation is determined by the collective perceptions of all of its shareholders on the company's expected future performance. For a company adopting business blogs, there are a number of reasons investors might view such initiatives favorably and increase their valuation of the company. First of all, the improvements in operational and financial performance brought by business blogging would lead to positive gains in the company's future cash flow, thus enhancing market valuation. Second, business blogs may also help companies communicate the value of other initiatives such as new product development to investors, hence boosting market valuation.

In addition, business blogs written personally by a company's executives also signal top management's commitment achieving to competitive advantage and improving shareholder's value. The added transparency may also reduce investors' risk perception for owning the company's stock. Therefore, investors would have more confidence in the company's future prospect and value its stock with a premium.

There are multiple ways to measure firm performance, including accounting performance and stock market performance. The reasons for including stock market performance indicators are the belief that market based measurements might be more appropriate than accounting-based measures [20] because they are forward looking and considering all the intangible asset value. Especially, we believe successful adoption of blog can impact multi-dimensions of firm financial situation, which might not be captured by the contemporary accounting performance because of the intangible asset value created. For example, through interacting with consumers, company can do reverse-knowledge to learn consumers'

evaluations of their products and services. Based on that, companies can co-create their products with their consumers, leading to improved future cash flow, will ultimate lead to increasing firm

Hypothesis 4: There is a positive correlation between the business blogging and market valuation.

What Type of Companies are More Likely to Adopt Business Blogging

In the previous section, we discuss how business blogging can contribute to the performance of companies. Different companies, however, may value different aspects of performance due to variations in their strategic positioning in the market. In this section, we explore the *relationship between conventional company strategic profile and the adoption of business blogging*.

In general, companies with a focus on broad market are either product leaders, competing based on product differentiation, or cost leaders, competing with low cost [9]. So in this section we intend to explore this research question: how companies' strategic profile influences adoption of business blogging.

Product differentiation is the process of distinguishing a product or offering from competitors as well as one's own, to make it more attractive to a particular target market [10].

Business blogging is compatible to product differentiation strategy because it provides an innovative medium for companies to demonstrate its new products and services to interested parties. Compared to traditional media, business blogging has rich interactive functions such as dynamic HTML, RSS feed and feedback aggregation, etc. These interactive functions allow companies to highlight the differentiation features of their products that are superior to or lacking in the rival brands, thus capturing a greater proportion of the value created by blogging [10].

Companies can also collect product differentiation information by soliciting user inputs via the business blogs. For example, companies such as Google are posting their beta stage products on their company blogs so users can try-out and provide their comments and suggestions for improvements. These user inputs collected through business blogs could be used by the designers to tailor the products and further differentiate them from the offerings of competitors. Thus, we have hypothesis 5:

Hypothesis 5: Companies using product differentiation strategy are more likely to adopt blogs.

We discussed earlier that business blogging could improve at least three aspects of business operations. Thus, we could also argue that low cost leadership companies are more likely to use business blogging to further strengthen their position.

Business blogging may also be an innovative technology for companies to reduce the cost of operation through company internal blog or blogging targeted to business partners. For example, some companies are using internal blog as a replacement of internal email and this not only reduces email overload but also makes the communication more structured and organized 9. Meanwhile, business blogging for partners could potentially reduce the information asymmetry and increase the supply chain efficiency. Thus, we have hypothesis 6:

Hypothesis 6: Companies using cost leadership strategy are more likely to adopt blogs.

Methodology

Data Source

To verify the research hypotheses, we collected a list of fortune 500 companies that were using blogs from Fortune 500 Business Blogging Wiki¹⁰. In collaboration with Socialtext, this wiki was created by Chris Anderson, editor-in-chief of Wired magazine, to keep track of Fortune 500 companies that have business blogs. According to their research, 4% of the Fortune 500 companies were blogging as of 2005. For each of the identified companies, we collected their related financial information from Compustat from 1997 to 2005¹¹. We consider 2005 to be a year of interest for business blogging adoption because it was immediately preceded by rapid growth of popularity and mainstream acceptance of blogs. In fact, the Merriam-Webster dictionary selected the word "blog" as its number one Word of Year for 2004 based on the number of searches received on its Web site, and included the word in its printed version in 2005

 $^{^{9}\,}$ An article by CIO Magazine give a more detailed explanation, see URL:

http://www.cio.com/article/120301/Seven Reasons for Your Company to Start an Internal Blog

http://www.asia.socialtext.net/bizblogs/index.cgi

¹¹ Because the financial data of these firms of 2006 is not publicly available in CompuStat, for this study, we concentrate on the firms that own Blogs till 2005.

(http://www.merriam-webster.com/info/04words.ht m).

Research Model and Test

To access the relationship between business blogging adopters and firm performance, the "matched sample comparison group" methodology was used. Our method is a combination of the method proposed by Bharadwaj [13] and Santhanam and Hartono [14]. For each of the IT leader firm, Bharadwai [13] identified its industry peer as a single corresponding matching sample coming from the same SIC code and with similar size, while Santhanam and Hartono [14] used all the firms in the industry (4-digit SIC code) as their matching sample group. While the matching sample method used by Hartono [14] reduces the selection bias introduced by the method of Bharadwaj [13], Hartono [14]'s does not control the size effect, which might influence their performance. Thus for the study, we follow Albuquerque's method [18], comparing blog adopters to their peers which are composed of firms within the same industry and similar size as the blog adopters.

Since firms with better historical financial performance tend to have better present and future financial performances. To control this potential confounding "halo-effect", we also adopt a regression model that controls the past financial performance when we link the blog adoption to future financial performance.

$$FP_{t+1} = \beta_0 + \beta_1 FP_t + \beta_2 E \ (1)$$

FP denotes financial performance, E=1 means firms use blog according to Fortune 500 Blog Wiki. Using earning as an example, the blog adoption variable for year t is incrementally informative about earnings in the year t+i if the blog adoption variable conveys information about future performance not conveyed by the time-series of earnings for years t. Thus, a positive coefficient on the blog variable would mean that firm performance in year t+1 was higher relative to performance in years t for firms that adopt a corporate blog in year t, consistent with a positive association between blog and future firm performance (hypothesis 1-4).

We use logistic regression (model 2) to formally test hypothesis 5 and 6. Here Use_Blog=1 means that firms use blogs according to Fortune 500 Blog Wiki at time t-1. We use the average operation income to sales and average asset turnover ratio over the past five years, to predict the company blog adoption decision at time t. A significant positive β_1 plus a non-significant β_2 mean that it is

more likely for product differentiators to adopt blogs.

$$Use_Blog_t = \beta_0 + \beta_1 Avg_OIS_{(t-1)-(t-5)} + \beta_2 Avg_Sale/Asset_{(t-1)-(t-5)}$$

$$(2)$$

Results

Blogs and Future Financial Performance

Because past financial performance might impact future performance, to control for the "halo" effect, we link the blog adoption dummy to future performances by controlling the past performances and present the results in table 4. Table 4 reveals that using blog is significantly positively associated with future ROA, OIS, and MKTB; while it is significantly negatively associated with COGS and ADS.

Results of multivariate regression estimations of the performance models are presented for all firms in table 2. The estimated mean coefficients on the blog variables are significantly positive for both return and cost ratios with values of 0. 0220 (p < 0.05) for earnings in future period t+1, 0.0969 (p < 0.10) for operation income to sales in period t+1, -0.0936 (p < 0.01) for cost of goods sold to sales in period t+1, -0.0063 (p < 0.10) for advertising expense to sales. The mean coefficient on blog is also significantly positive with a value of 0.1279 (p < 0.10) for the market to book ratio at period t+1.

These support our hypothesis 1 and 2 that using blogs leads to a better financial return, a lower cost, a decreasing spending on advertisement, and increased market value as well as book value. So hypothesis 1, 2a, 3, and 4 are supported. Hypothesis 2b is not supported.

Furthermore, we found that the future performance impact of blog might pertain specifically to firms in the servicing industries. For example, Table 1B shows that for a firm adopts corporate blogs, if that firm belongs to a servicing industry, then its future cost of goods sold to sales and advertising expense to sales will decrease 0.0977 and 0.0117 respectively. However, that firm is from manufacturing industry, then there will be no such an impact, which is consistent with our argument before that blogs help decrease the cost of reach people and the cost of providing services.

Blogs and Strategic Position

We notice that comparing to their industry peers, blogging firms have a better OIS performance, but not asset turnover. This supports our hypothesis that that it is more likely for product differentiator to adopt Blogs. To formally test this hypothesis, we use logistic regression to estimate model 2 and present the results in Table 5. Average operation income over sales ($\beta = 0.3414$, p < 0.001) of the past five years is significantly positive related to firm Blog adoption decision, while sales over asset is not. This validates our second hypothesis that companies using product differentiation strategy are more likely to adopt Blogs, which in turn will have better future financial performance. Thus, hypothesis 5 is supported and hypothesis 6 is not supported.

Discussion

Key Findings

Our goals in this study were to study the value relevance and strategic position of Blog adoption. We use data on the Blog adoption data drawn from the fortune 500 companies to test our hypotheses. We found no evidence for the claim that firms only adopt blogs when their financial performances go bad. Instead, Consistent with our hypotheses, we found business blogs are value relevant and are associated with better financial performance. Companies adopt business blogging have comparatively higher sales, lower cost of goods, and reduced advertisement expenses. All these positive correlations indicate the potential contribution of business blogging to the bottom line of the companies.

In terms of strategic positioning, we found that it is more likely for the product differentiators to adopt Blogs compared with low cost leader. We also found adoption decision is more likely to impact the operation income to sales instead of sales over asset.

Limitations and future research

Academic Research

Research on blog has been mostly focusing on individual and social aspects. However, the popularity of Blogs in companies is calling for deep understanding of their impact on business daily operation, long-term performance, and valuation. This research expands our understanding of blogging in industry sector. We found that the adoption of business blogging has significant correlation with better operational performance for companies. The econometric results suggest that blogs are value relevant. There are several limitations of this research lead to further studies in the future:

First, this paper is based on a small sample of firms. Future research could examine the

correlation effect with a large sample of firms from different industries to see whether there is any value difference for Blogging within different industrial sectors.

Second, this paper does not consider the reputation of the blogs. Merely adopting blog may not necessarily contribute to the bottom line and competitive strength of the company. It is how the blog is used that matters. Future research could take in consideration of such information when attempting to document the market valuation of blogs.

Third, we only investigated establish Fortune 500 companies in this paper. The strategy and value propositions of blogging for small to medium sized companies may be both different from Fortune 500 and more critical. Considering the large number of SMEs, we need considerable more investigation in this aspect.

Implications to Industry Practitioners

Our research has at least twofold implication for industry practitioners:

First, companies should pay more attention to the strategic use of blogging in public relation, customer relationship management as well as research& development. Business blogging could be used as an effective public relation platform to disseminate product and service information. It could also be used as a tool to interact with their customers to solicitude knowledge and feedback from their consumers and benefit their R&D activity. Internal business blogging can be managed and mined as part of the knowledge management system of the organization. It could be used to manage and report project status, reinforce corporate culture, and brainstorming new ideas.

Second, companies should not only manage and utilize their own blogs but also identify and monitor the leading blogs in their industry that discussing about their products and services. They need to watch and, if possible, Web mining those blogs to obtain new industry trends and customer needs. In many cases, external helps are needed in this aspect and there are many Blogging analysis companies provide such services.

Beyond the above implications, our finding also suggests that those low cost leaders may consider use or better utilize business blog as a new competition tools though the strategy may more emphasis on how to contributing to the bottom-line of the operations.

Conclusion

Some experts concerned that blogging may be in conflict with other more controlled public relation activities and suspect that only those companies in bad financial shape would resort to business blogging as a cheap try. We demonstrated that business blogging can be used as a new strategic tool for companies to sustain their existing competitive advantages. We found business blogging tend to correlated with higher sales, lower cost of goods and reduced advertising expenses for companies. We also found that those companies use product differentiation as their main competitive strategy could better utilize business blogging to sustain their competitive position thus maintain or increase their financial performances.

Appendices

Table 1A: Future performance impact of business blogging

$$FP_{t+1} = \beta_0 + \beta_1 FP_t + \beta_2 E$$

FP denotes financial performance, E=1 means firms use blogs according to Fortune 500 Blog Wiki.

Financial Ratios	N	R-Square	FP2004	Dummy E
ROA	54	0.3100	0.3063***	0.0220**
OIS	54	0.2589	0.0926***	0.0969***
Sales/Asset	54	0.8394	0.9961***	-0.0549
COSG	54	0.7487	0.9342***	-0.0936***
ADS	36	0.9074	0.9593***	-0.0063*
MKTB	54	0.6851	0.7134***	0.1279*

Notes: P-Value 0.01 *** 0.05 ** 0.10*

Table 1B: Future performance impact industry difference of business blogging

	COGS		ADS	
Parameter	Estimate	Pr > t	Estimate	Pr > t
Intercept	0.0834	0.1428	0.0012	0.7981
FP	0.9314	<.0001	0.9335	<.0001
Е	-0.0386	0.3950	0.0017	0.7780

Service Dummy	0.0764	0.0913	0.0121	0.0442
E*Service Dummy	-0.0977	0.0570	-0.0117	0.0520
N	54		36	
Adj R-Square	0.7727		0.9679	

^{*}Service Dummy=1 for firms in the service industry; otherwise 0

Table 2: Strategic Position of Blogs

$$\begin{aligned} Use_Blog_t &= \beta_0 + \beta_1 Avg_OIS_{(t-1)-(t-5)} \\ &+ \beta_2 Avg_Sale/Asset_{(t-1)-(t-5)} \end{aligned}$$

Use_Blog=1 means firms use blogs according to Fortune 500 Blog Wiki at 2005.

Items	Coefficient
Intercept	0.5650***
Avg_OIS	0.3414***
Avg_Sale/Asset	0.0099
Adj-R=0.1639	N=56

Notes: 0.01 *** 0.05 ** 0.10*

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^{*}ROA=Return on Asset

^{*}OIS=Operation Income/Sales

^{*}Sales/Asset=Asset Turn Over Ratio

^{*}COGS=Cost of Goods Sold/ Sales

^{*}ADS=Advertisement Expense/Sales

^{*}MKTB=Market Value/Book Value