

Market Value Added and Internet-Dependent Firms (Some Empirical Evidence from Asian Region)

R Shanti D Ottemoesoe.,SE

Lecturer of Finance Program
Economics Faculty-Petra Christian University
shanti@peter.petra.ac.id

Abstract- The choice to being an Internet Firms may impact the firm's performance. Good performance can be seen by the market value added (MVA) that had been created. The market value added was influenced by many sectors such as liquidity and solvability. Therefore, the MVA, liquidity and solvability in Internet Firm should different between non-internets Firm.

Keywords- Internet Firm, non-Internet Firm, MVA, Liquidity, Solvability.

I. INTRODUCTION

As the world move rapidly after we enter new millennium, information technology (IT) is the powerful tool in order to get a higher level of competitiveness. IT helps most of the firm to create an excellent strategy in business because IT allows them to explore many ways of business strategies. Reality shows that Internet technology is the most form of Information Technology used (Ferguson, 1996). Internet provide more benefit to facilitate get easiness in information without limitation in time, high-interaction and also cost saving (Asbaugh et al.,1999). Internet becomes effective instrument to share important information, data, together with attractive pictures, tables, videos, ect. Actually, internet helps many firms accomplish the new level of efficiency and effectiveness (Molloy and Schwenk, 1995). Many of the companies that succeed will be ones that use the Internet as a complement to traditional ways of competing, not those that set their Internet

initiatives apart from their established operations (Porter, 2001).

In the future, most of the experts estimate that the Internet usage will continue increase. As in the internetstat.com, reported that internet user's increase more than 336.1% since 2000 or approximately 1.5 billion users in the world. The highest growth in internet technology stimulates firms to serve using this field. However, the exceptional increasing report invites a question, is the internet usage contribute a good performance significantly in Internet firms compare with non-Internet firms?

Many papers investigated the success of applied Internet using the term of user satisfaction, information system quality, or another survey regarding an implementation of internet technology in the field of Management Information System. Actually, this area has not explored too much in economics and financial perspective. Therefore, many researchers in economics field interested to find the correlation between Internet dependent Firms with firm performance whether it has relationship (Capon, Farley, and Hulbert, 1994; Oh and Kim, 200) or still inconclusive (Tam, 1998).

Based on corporate finance theory said that, the primary objective of the corporation is how they can maximize the stockholders wealth (Brigham and Ehrhardt, 2005). Therefore, we can say that good performance of the firm should be correlated with the market value of the firms instead. Then the aims of this paper are to explore whether there are different of MVA

significantly between Internet Firm and non Internet Firm and would like to see which factors contributes significant market value between two groups.

II. INTERNET TECHNOLOGY AND MARKET VALUE

For thousand years, the buyer and seller tried to find many ways to create a good mechanism of production and hence transaction. Efficiency could be realized by breaking up different functions along the chain of production (Smith, 1776). Throughout Industrial Revolution, most of the firms enabled to make many items in mass-produced, standardized, and offered at a lower price.

Business became driven by a product's list price, which was in turn influenced by how cheaply a manufacturer could produce it. Those with the lowest cost could offer their product at a lower list price, capture market share, and in turn reap higher profits because products were not as highly differentiated from each other as they once were. Industrial Revolution is closely linked to a small number of innovations made in the second half of the 18th century. Some machines were created such as textile, steam power and iron that lead to improve efficiency and finally better return to their business. Therefore, technology inseparability from economics, which is become continually engagement for the future.

Nowadays, people understand that reduce cost with the aid of technology can create gain from the competitive advantage. How well the implementations of technology specify the return itself. According with the most current attractive technology, Internet become fundamentally improves the bottom line by reducing cost (Potter, 2001). The reality of the Internet era is that the companies that integrate Web technology into core business processes are the ones who will succeed over the long run. Meanwhile, Internet technology gives us

power to accomplish extraordinary amounts of work in extraordinarily short intervals of time (DeLong, 2003).

Actually, efficiency is the integrity methods that combine many ingredients together. Efficiency imply how performs the firms itself. Efficiency not only focus in price only, but also how to applying the vision and mission through the real system. Using technology of internet should help firms to create more cash (liquidity) and avoid them from disability to pay all just debt (solvency risk). Finally, bring the firm to get more value in their assets.

Financial perspective said that the primary goal of most firms is to maximize shareholder's wealth (Brigham and Ehrhardt, 2005). This goal obviously benefit shareholders, but it also helps to ensure that scarce resources are allocated efficiently, which benefit the economy. Shareholders wealth is maximized by maximizing the difference between market value of the firm's stock and the amount of equity capital that was supplied by shareholders. This difference is called Market Value Added (MVA). The higher the MVA, the better. A high MVA indicates that company has created substantial wealth for the shareholders. A negative MVA means that the value of the actions and investments of management is less than the value of the capital contributes to the company by the capital markets, meaning wealth of value has been destroyed(Griffith, 2005).

Hypotheses 1 (H1). The mean of Market Value Added (MVA) is different significantly between Internet Stock and Non-Internet Stock .

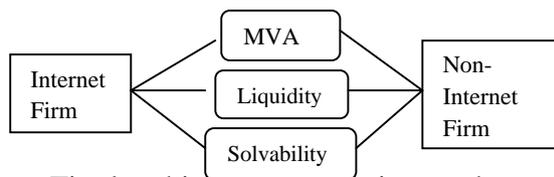
Hypotheses 2 (H1). The mean of Liquidity ratio is different significantly between Internet Stock and Non-Internet Stock.

Hypotheses 3 (H1). The mean of Solvability ratio is different significantly between Internet Stock and Non-Internet Stock.

III. METHODOLOGY

Decision to being an internet firm contains expectation about future return. Reported in www.internetstats.com, the usage of Internet increases more than 100% since 2000 depict that this industry promise good prospect definitely. Therefore, this paper used Asian Market that is the data from Nikkei (Japan Stock Indices) from 2000 up to 2008.

This paper would like to see the differences between Internet stock and Non-Internet Stock in boom economy and crisis time. The boom economy will use 2000 data and the crisis economy will use 2008 data. The data to be explored cannot be extended because of the limitedness. Following table shows the frame of this paper:



Firstly, this paper investigates the mean between three factors (MVA, liquidity and solvability) in good condition and bad condition and next step is to see the difference with non-internet firm in good condition and bad condition using one sample t-test.

Market Value Added (MVA) is calculated as follow:

$$MVA = (p \times q) - TCE$$

Where, p= stock price; q=share outstanding; TCE =Total Common Equity.

For liquidity, this paper use Cash Ratio (cash/total assets), Current Ratio (total current assets/total assets), Quick ratio (total current assets exclude inventory/total assets), Account Receivable Turnover (days). For solvability, this paper employs Total Debt/Total Assets, Long term debt/capital, Total debt/EBITDA (earning before interest tax depreciation and amortization.).

IV. EMPIRICAL RESULT

Table 1, 2 and three reported the result of one sample-t test for Market Value Added, Liquidity and Solvability. Difference is the change of year 2008 minus year 2000 (internal internet firms comparison) and change in non internet firm minus internet firms.

TABLE 1
MARKET VALUE ADDED

	Internet Firms	Non Internet Firms	Difference
Market Value Added			
Year 2000	187635.1331	95057.4715	-92577.6616
Year 2008	181657.0239	10813.7728	-170843.2511
Difference	-5978.1092		

The Market Value Added in good economic condition is higher than in bad economic condition for internet and non internet firms. However, the difference in 2008 and 2000 for internet firms is not significant. The result also prove that in bull market, the Internet stock in Japan performs better and when the recession comes the internet firms still maintain their MVA higher (>80%) than non-Internet firms even though not significant.

TABLE 2
ONE SAMPLE T-TEST FOR LIQUIDITY RATIO

	Internet Firms	Non Internet Firms	Difference
Cash Ratio			
Year 2000	6.6062	1.1491	-5.4571
Year 2008	2.2952	1.9862	-0.3090
Difference	-4.3110***		
Quick Ratio			
Year 2000	7.4398	1.9617	-5.4781
Year 2008	2.9834	3.1392	0.1558
Difference	-4.4564***		
Current Ratio			
Year 2000	7.9301	2.2296	-5.7005
Year 2008	3.6034	3.5228	-0.0806
Difference	-4.3267**		
Account Receivable (days)			
Year 2000	69.2649	102.4563	33.19**
Year 2008	52.8574	85.0319	32.1746
Difference	-16.4076		

*Statistically significant at 90% confidence level.

**Statistically significant at 95% confidence level.

***Statistically significant at 99% confidence level

The result shows that the change of liquidity between good and bad condition for internet firms quite far. The mean of cash ratio for internet-firms drop 4.3110 or more than 100% (99% level of significance). Quick ratio and current ratio also drop more

than 100%. This condition is different with non-Internet Firms where the liquidity ratio between good and bad condition not fall too much.

This result implies that Internet firms create more liquidity than non internet firm in good condition but cannot persist it if the bad condition happen.

TABLE 3
ONE SAMPLE T-TEST FOR SOLVABILITY RATIO

	Internet Firms	Non Internet Firms	Difference
Total Debt/ Total Assets			
Year 2000	25.4625	15.1309	-10.3316
Year 2008	32.6556	12.9048	-19.97*
Difference	7.1932		
Long term debt/Capital			
Year 2000	15.8523	4.1009	-11.7514
Year 2008	19.6397	9.4237	-10.2160
Difference	3.7874		
Total debt/EBITDA			
Year 2000	2.2616	2.4122	0.1506
Year 2008	1.1662	3.3954	2.2292
Difference	-1.0954*		

*Statistically significant at 90% confidence level.
 **Statistically significant at 95% confidence level.
 ***Statistically significant at 99% confidence level

Even though total debt/ total assets, long term debt/ capital is not significant but this result show that the asset backup for total debt is increase in internet firms compare with non internet firms. In 2008 the mean of total debt over total asset is higher 19.97 for internet firm compare with non-Internet firms (significance 90%). However, the backup from operational income is decrease 1.0954 when recession comes for internet firms and this variable is significant at 90%. This result implies that the earning to backup debt reduced more for internet firms than non-Internet firms.

V. SUMMARY AND CONCLUSION

This study has attempted to provide empirical evidence in order to link the Market Value Added on the Internet Firms and the Firms Performance that reflect from particular ratios. The basic hypothesis is the Internet firms will perform better in good economic condition because the price of Internet stocks has risen faster than control firms (Kamssu, Reithel, Ziegelmayr, 2003).

Therefore the market value added should be higher than non-Internet firms because of higher market value of the stock.

Internet firms appears to have higher market value compare with control firm both in bad and good condition, although not significant. In recession time, the MVA of internet firms decrease slowly than non-internet firms or the effect of past good performance help the firm to do not fall too far in recession.

The higher MVA is supported by many factors, such as liquidity and solvability. Most of the internet firms have higher liquidity than non-internet firms. In recession time their performance reported that not below than non-internet firms, however the problem comes when the change between good and bad condition is bigger in internet firms than non-internet firms. We can conclude that the sensitivity of the internet firm is higher than non-internet firms.

Generally, the condition of being solvent or the ability to pay all liabilities for internet firms is higher than non-internet firms. Internet firms protect themselves through increase of their backup assets and capital although their earning reduced compare with non-Internet Firms.

This study proves some advantages and disadvantages to being an internet firms and traditional firms from financial perspective. However, there are some limitations that must be addressed. The first limitation comes from the incompletely data from sources. Different horizon data from different countries in emerging market make the focus of the year to be required can not be attained. Another limitation is using 2008 as a poor economic condition example might be too young therefore creating bias prediction.

Given the purpose and limitation, there are issues that can be explored in future research. For instance, it may be useful to investigate more than one emerging market, and compare the result with Europe or America market in order to see the behaviors of internet firms in each market.

REFERENCES

1. Barton S, Gordon P. Corporate., (1998) "Strategy and capital structure" Strategic Management Journal, September 1998.
2. Biddle G., Bowen, R. & Wallace, J.(1997) "Does EVA beat earnings? Evidence on associations with stock return and firm values". Journal of Accounting and Economics, Vol.24, p.301.
3. Brigham E F., Ehrhardt M C. (2005) Financial Management, Theory and Practice., International Edition.
4. Dos Santos BL, Peffers K, Mauer DC (1993) "The impact of information technology invest announcements on the market value of the firm" Information System Research, April 1993.
5. Delong J B.(2003) "The High Cost of Efficiency." On Newsstands Now, July 2003.
6. Ferguson R., Leistikow D (1998) "Search for the best financial performance measure: Basic are better". Financial Analysts Joournal 1998;54 (1): 81-85
7. Gapenski LC. (1996) "Using MVA and EVA to measure financial performance." Healthcare Financial Management 1996;50(3):56-58
8. Kamssu A J., Reithel B J., Ziegelmayr J L.(2003) "Information Technology and Financial Performance: The Impact of being an Internet-dependent Firm on Stock Returns". Information System Frontiers 5:3, 279-288, 2003.
9. Porter M. (2001) "The Value of the Internet". Havard Business Review., March 2001.
10. Paglia, R. (2000) "Economic Value Added: It Works for Technology Firms, Too" *PriceWaterHouseCoopers*, March 2000