

A Study on Venture Companies' Decision-Making for Market Entry

- Focusing on Entry Barrier in Internet Venture Business

Tai Hoon Cha¹⁾, Ji Bum Jung²⁾, Seung Won Chae³⁾,

1) Hankuk University of Foreign Studies, Business Administration (tcha@maincc.hufs.ac.kr)

2) Electronics and Telecommunications Research Institute(jjb6340@etri.re.kr)

3) Hankuk University of Foreign Studies, Business Administration (nardis@hanmail.net)

Abstract

It is widely known that first movers in any industry have absolute advantages, which are mainly caused by barriers to entry. However, the advent of Internet, which now is the center of economy and business, poses a significant counterargument. That is, Internet-related markets are almost free of an entry barrier as they become complete information markets. As a result, existing companies hardly have an upper hand in the competition. The survival rate of those start-ups, however, is fairly low. This indicates that entry barriers do exist in the Internet-related business as well as in other markets.

The paper mainly deals with two questions regarding market entry barriers to venture companies. First, do market entry barriers exist in the Internet-related business? Second, if any, what kind of entry barrier exercises a bigger influence on new comers?

Bain (1956) identified three main sources of entry barriers: economies of scale, product differentiation advantages, and absolute cost advantages. Since then, many scholars have added a number of sources as entry barriers. Yet, most of the researchers didn't factor in the Internet, failing to disprove the argument that entry barriers are meaningless now that the Internet enables a perfect competition (Bakos 1997).

Therefore this paper selectively presented what is deemed significant as entry barriers in the Internet business environment, and examined whether they affect new entrants in the venture business. The selected entry barriers are the following ones : 1) R&D / Technology 2) Brand Power 3) Consumer Switching Costs 4) Founder's network 5) Strategic Alliance.

Based on the discussion, the following hypotheses are supported.

Hypothesis 1 : the 5 market entry barriers will influence the entry into the Internet industry.

Hypothesis 2 : there will be a difference in the effects of these 5 entry barriers on impeding the entry.

This study is meaningful because it presents evidence that there are market entry barriers to the Internet-related industry. The proposition that compared to other industries, the Internet industry is closer to perfect competition and therefore market entry barrier is meaningless is hard to accept at this point.

1. Introduction

It is widely known that first movers in any industry have absolute advantages, which are mainly caused by barriers to entry. Several scholars have already studied both conceptually (Lieberman & Montgomery 1988, Kerin et al. 1992) and empirically (Robinson 1988) the conception of entry barriers as relevant disadvantages for new entrants.

However, the advent of Internet, which now is at the center of economy and business, poses a significant counterargument. That is, Internet-related markets are almost free of an entry barrier as they become complete information markets. As a result, existing companies hardly have an upper hand in the competition (The Korea Economic Daily Jan. 15, 2001). The number of Internet-based venture companies soared to around 10,000 in late 2000 from 304 in May 1998 (when venture companies officially started to register), boosted by an easy entry to the market with low initial expenses and similar technologies (Kim Jeong-ho 2000). The survival rate of those start-ups, however, is fairly low. As of March 2000, out of 800 online shopping malls sprung up in the midst of an e-commerce boom, only about 50, a mere 6.4%, managed to generate operating profits. This indicates that entry barriers do exist in the Internet-related business as well as in other markets (Dong-A Ilbo March. 6, 2000).

The paper mainly deals with two questions regarding market entry barriers to venture companies. First, do market entry barriers exist in the Internet-related business? Second, if any, what kind of entry barrier exercises a bigger influence on new comers?

2. Theory and Hypotheses

Bain (1956) identified three main sources of entry barriers: economies of scale, product differentiation

advantages, and absolute cost advantages. Since then, many scholars have added a number of sources as entry barriers. Yet, most of the researchers didn't factor in the Internet, failing to disprove the argument that entry barriers are meaningless now that the Internet enables a perfect competition (Bakos 1997). Therefore, this paper will selectively present what is deemed significant as entry barriers in the Internet business environment, and examine whether they affect new entrants in the venture business.

1. R&D / Technology

Corporations that preoccupy the business enjoy benefits from switching costs and from product and processing technologies that induce demand for the product (Lee Hae-jin 2000, Lee Hoon 2000). Porter (1983) names the technological leadership 'first mover advantage', as it can be converted to an edge in a competition. Due to a short-term effect of the R&D entry barrier, Harrigan (1981) and Schmalensee (1983) said, existing companies invest efficiently in R&D aiming at increasing economy of scale so that they can block potential competitors from entering the market. Existing corporations with patent protection have an exclusive advantage. Conventionally, patents serve as a more effective defense in terms of product innovations than in processing because it is easy for new competitors to imitate products. And there is a new type of patent called a business model patent. Now a patent covers not only a new technology or a product but also an idea or a method. More and more governments, the U.S. in particular, recognize the exclusive rights of a new method in the Internet-related business. The business model patent, which focuses on an idea, will become a vital entry barrier along with patents protecting a technology or R&D.

2. Brand Power

Comanor & Wilson (1974) argue that there exist substantial gaps in the marginal effects of advertising of incumbent firms and in those of new entrants because of differences in consumer experience with the competing brands and inequality in consumer acceptance. In other words, when a first mover remains as a single supplier in the market, its advertisements are effectively delivered to consumers, and after new competitors enter the market, the increasing amount of advertising messages reduce the effect of advertisement. Advertising of first movers on TV or radio also have a huge influence on consumers, serving as an obstacle to entry (Cho Jae-gil 2000).

3. Consumer Switching Costs

Consumer switching costs play a role of an incentive that sustains an established relationship between a seller and a buyer (Porter 1985). There are two kinds of switching costs that consumers take into account when making a purchase. The first one is a contractual switching cost, which is caused by a long-term contract between a consumer and a supplier. And the second is non-contractual switching cost, the additional time and cost the consumer has to spend in order to switch from the current provider of a product or service to another provider. The new entrants must spend more money and resources in contractual and non-contractual switching costs to entice customers than the industry incumbents did in the first place. Therefore, switching costs are a market entry barrier that blocks customers from choosing another provider (McFarlan 1984; Porter 1980b). Switching costs commonly take place in the e-commerce. For example, the big players raise the switching costs by utilizing customers' familiarity (for example, with their menu and browsing service) and presenting more sophisticated royalty programs to customers. With switching costs, they can put up a barrier to entry (Kim Jae-yoon 2000).

4. Founder's network

Many scholars have long studied the role of the founder himself in the success of a start-up. (Baumol, 1968: Carland, Hoy&Carland, 1988 :McClelland, 1961). Many studies have repeatedly showed that among personal characters, the founder's close connection and informal network with movers and shakers played a critical role in the fate of the company. Just as informal network and innovation are significant market entry barriers in the small-and-medium sized companies, the venture entrepreneurs' connection is an entry barrier to new entrants. It means that a successful start-up entrepreneur's strong connection to people in high positions in society through school and social gatherings will be served as a high market entry barrier to a new comer. That is because a founder's connection plays a pivotal role in the finding of first-rate researchers at the early stage of the company and in the forming of the strategic alliance with other companies at its mature stage (Cha Byong-seok & Gil Jae 2000, The Korea Economic Daily).

5. Strategic alliance

Strategic alliance is a collaboration in manufacturing facilities, marketing, technology, network, and capital between multiple companies to create synergy. Now it extends to sharing of customers and market. In the world of dot-com startups, companies rapidly change their way of expanding their companies from mergers and acquisition to strategic alliance. Compared to other Internet businesses, strategic alliance as a market entry barrier is insignificant in the Internet Utilizer industry such as Daum Communications, and Nexon as well as Goldbank, Auction and other e-commerce businesses. But the strategic alliance between the Internet Enabler industry and other traditional industries is more significant than that of the Internet Utilizer industry and other traditional industries. That is because the Internet Enabler industry and other industries form one -to- one strategic partnership but the Internet Utilizer industry and other industries forms one -to- multiple strategic partnership like that of Intizen (The Korea Economic Daily Dec. 1999).

Based on the discussion, the following hypotheses are presented.

Hypothesis 1: the 5 market entry barriers will influence the entry into the Internet industry.

Hypothesis 2: there will be a difference in the effects of these 5 entry barriers on impeding the entry.

3. Methodology

The study was to investigate the effect of entry barriers on the market entry decision of Internet venture companies. The survey was carried out twice—the preliminary one and the major one. To examine the above propositions, 16 profiles were chosen to be examined among the total 32 profiles. And the survey was conducted on those profiles.

The survey was conducted based on the Karakaya & Stahl(1989)'s decision making framework and it was about the effect of the barriers into entry on the market entry decision of Internet venture start-ups, not of ordinary companies. The 5 factors were each manipulated at two levels (high, and low). The experiment was done in a one-half replicate of a full factorial design consisting of 16 profiles(table 1). To identify the relative significance of each barrier, each respondent's rating on the relative importance of the entry barriers was calculated and the resulting data was analyzed for this study (Karakaya & Stahl 1989, Stahl & Zimmerer 1984). Among those retrieved 68 questionnaires, 60 were used for this study. The other 8 were discarded as irrelevant.

4. Conclusion

Proposition 1 was examined through the t-test of the relative significance of each entry barrier. As was proven in the table 3, the proposition that entry barriers have nothing to do with venture start-ups' market entry decision turned out to be false and was abandoned. This showed that barriers into entry affected Internet venture companies' market entry decision process.

(table 3) The individual t-test on the relevant significance of the entry barriers.

Independent Variables	the Internet Enabler (n=60)		the Internet Utilizer (n=60)		the Internet Supporter (n=60)	
	Pioneer	Late Follower	Pioneer	Late Follower	Pioneer	Late Follower
R /D and Technology edge	.547010 (16.253)	.326489 (9.508)	.343537 (9.746)	.330900 (10.572)	.385439 (11.045)	.377859 (10.809)
Brand Power	.113368 (6.664)	.235852 (6.083)	.193063 (10.968)	.119664 (6.186)	.173857 (6.241)	.171478 (5.373)
Consumer Switching Costs	.188256 (8.934)	.179994 (10.078)	.28236 (9.222)	.192062 (8.174)	.173728 (7.197)	.148574 (7.902)
Entrepreneur's Network	.06121 (8.919)	.118605 (9.116)	.124923 (9.013)	.251121 (8.511)	.155485 (6.29)	.09203 (6.941)
Strategic Alliance	.07602 (6.424)	.139393 (6.742)	.05605 (7.358)	.104094 (7.106)	.162612 (6.479)	.219363 (7.422)

* All entry barriers are statistically significant. ($p < 0.1$)

The proposition 2 was examined through the MANOVA. In the MANOVA, the 5 entry barriers were put as independent variables and the 6 market entry decisions were put as dependent variables. The result was Wilks' $\lambda = .232$, $F = 21.921$, $P < .01$. It showed that there was a noticeable difference in the significance of the entry barriers. Besides the MANOVA, ANOVA and Tukey HSD were carried out 6 times on each market entry decision variable.

When a potential new entrant entered the Internet Enabler industry, including the network equipment and service industry as a pioneer, there was a big difference in the effect of the barriers on the company's market entry decision making process ($F = 99.02$, $P < .01$). The result of the Tukey HSD (table 4) showed that there was a significant difference in the relevant importance of the barriers. The analysis showed that the R&D/ technology edge, and consumer switching costs were ranked respectively as first and second in terms of their importance followed by brand equity, alliance, and entrepreneurs' connection to people in high position. Given the nature of the Internet Enabler industry relating to the Internet network, it was quite understandable that the switching costs and brand equity were more important than the factors of strategic alliance and entrepreneurs' network power.

When the prospective entrant entered the same industry as a late follower, the difference in the relative significance of the barriers was also significant ($F = 9.721$, $P < .01$). But the difference was that though the R&D/ technology edge and brand equity were the most predominant sources of entry barriers, there was no real difference in the significance between the two factors. In other words, in the case of the Internet Enabler industry, as the market matured, brand equity got increasingly important while the significance of other barriers greatly diminished (table 4).

(Table 4) The Internet Enabler

Significance	Independent variables	Independent variables				
		R & D	Brand Power	Consumer Switching Costs	Entrepreneur's Network	Strategic Alliance
Pioneer						
.547010	R /D and Technology edge					
.113368	Brand Power	●				
.188256	Consumer Switching Costs	●	●			
.06121	Entrepreneur's Network	●	◇	●		
.07602	Strategic Alliance	●	◇	●	◇	
Late follower						
.326489	R /D and Technology edge					
.235852	Brand Power	◇				
.179994	Consumer Switching Costs	●	◇			
.118605	Entrepreneur's Network	●	●	◇		
.139393	Strategic Alliance	●	●	◇	◇	

● : Difference is statistically significant ◇ : Difference is not statistically significant $\alpha = .05$

In the case of early entry into the Internet Utilizer industry, including digital contents and e-commerce, there was also a significant difference in the importance of the barriers ($F=24.542, p<.01$). Tukey HSD, too, produced the same result but the difference in the significance of the two factors, R&D / technology edge and consumer switching costs was quite dismissible (table 5).

(Table 5) The Internet Utilizer

Significance	Independent variables	Independent variables				
		R & D	Brand Power	Consumer Switching Costs	Entrepreneur's Network	Strategic Alliance
Pioneer						
.343537	R /D and Technology edge					
.193063	Brand Power	●				
.28236	Consumer Switching Costs	◇	●			
.124923	Entrepreneur's Network	●	◇	●		
.05605	Strategic Alliance	●	●	●	◇	
Late follower						
.330900	R /D and Technology edge					

.119664	Brand Power	●				
.192062	Consumer Switching Costs	●	◇			
.251121	Entrepreneur's Network	◇	●	◇		
.104094	Strategic Alliance	●	◇	●	●	

● : Difference is statistically significant ◇ : Difference is not statistically significant $\alpha = .05$

The Internet Supporter industry includes application services, business solution, and special services. In the early entry into the market, the 5 factors had significantly different influence on the market entry decision making ($F=12.645, P<.01$). Like the above results, the R&D/technology edge was the highest barrier into the market entry. But except the R&D/technology edge, there wasn't any difference in the significance of those barriers (table 6).

(Table 6) The Internet Supporter

Significance	Independent variables	Independent variables				
		R & D	Brand Power	Consumer Switching Costs	Entrepreneur's Network	Strategic Alliance
Pioneer						
.385439	R /D and Technology edge					
.173857	Brand Power	●				
.173728	Consumer Switching Costs	●	◇			
.155485	Entrepreneur's Network	●	◇	◇		
.162612	Strategic Alliance	●	◇	◇	◇	
Late follower						
.377859	R /D and Technology edge					
.171478	Brand Power	●				
.148574	Consumer Switching Costs	●	◇			
.09203	Entrepreneur's Network	●	◇	◇		
.219363	Strategic Alliance	●	◇	◇	●	

● : Difference is statistically significant ◇ : Difference is not statistically significant $\alpha = .05$

As noted above, the proposition that when it comes to the Internet industry, there is no entry barrier due to its perfect competition was proven false. In other words, there are barriers to entry for new Internet start-ups. Indeed, it was proven that new entrants experience market entry barriers. The fact that only 6% of the Internet start-ups survive implies that market entry barriers are one of the reasons why these start-ups went bust.

And it is also well-proven that the level of significance of these 5 barriers varies to a great extent from industry to industry. In overall, an established company's research, development and technology power was found as the highest market entry barrier, followed by customers' switching costs. The third was brand power and the fourth was founder's entrepreneurship and strategic alliance. The research, development and technology, the most significant market entry barrier, was proven that it heavily influenced a company's decision on entry both to the nascent and mature Internet market. This sits well with the conventional wisdom that a venture business, because of its nature, cannot succeed without any viable technology. On the other hand, in the Internet Enabler industry, switching costs were the dominant factor in determining a company's entry into the industry's entry-level market. But in the mature market, brand was the most decisive factor of the entry. It means that in the network-related Enabler industry, the brand power is getting increasingly important as a market matures. When it comes to the Internet Supporter industry, except the research, development, and technology barrier, there was no difference in the significance of the other 4 market entry

barriers. But as the market matured, strategic alliance played a more important role. As for the Internet Supporter industry which supports an Internet start-up with technical and business assistance, a mature market is all the more difficult to enter and survive in because existing partnership is played to a disadvantage to a new comer.

This study is meaningful because it presents evidence that there are market entry barriers to the Internet-related industry. The proposition that compared to other industries, the Internet industry is closer to perfect competition and therefore market entry barrier is meaningless is hard to accept at this point.

References

- Bain, J. S.(1956), *Barriers to New Competition*, Harvard University Press
- (1962), *Industrial Organization*, New York: John Wiley & Sons, Inc.
- Bakos, J. Y.(1997), "Reducing Buyer Search Costs: Implications for Electronic Marketplaces," *Management Science*, 43(December), 1676-1692.
- Baumol, W. J. (1968). Entrepreneurship in Economic Theory. *American Economic Review*, 58, 64-71
- Bollinger, L., K. Hope. and J. H. Utterback,(1983) "A Literature and Hypotheses on New Technology-Based Firms", *Research Policy*, 12.
- Carland, J. W., F. Hoy, and J. C. Carland, (1988). "Who is an Entrepreneur?" is a Question worth Asking. *American Journal of Small Business*, 12(4), 33-39
- Cha Byung Suk and Kil duk (2000) "Venture people in the alumni association", *The Korean Economic Daily*, 2000.8.29
- Choi Tae Kyung (2001), "Market Survey, network equipment industry in Korea : Strength Assessment", *The Korean Economic Daily*, 2001.1.10
- Comanor, W. S. and T. S. Wilson,(1974) "Advertising, Market Structure and Performance", *Review of Economics and Statistics*, 49,
- Cooper, A .C., (1971) "Spin and Technical Entrepreneurship", *IEEE Transaction on Engineering Management*, EM-18,
- Green, D. H., D. W. Barclay, and A. B. Ryans (1995), "Entry Strategy and Long-Term Performance: Conceptualization and Empirical Examination," *Journal of Marketing*, 59(October), 1-16.
- Harrigan, (1981), "Barriers to Entry and Competitive Strategies," *Strategic Management Journal*, 2(4)
- Jo Jae Kil(2000), "Key note address, Conversion of prior thought/model through internet", *The Korean Economic Daily*, 2000.5.11
- Karakaya, F. and M. J. Stahl (1989), "Barriers to Entry and Market Entry Decisions in Consumer and Industrial Goods Markets", *Journal of Marketing*, 53(April)
- Kerin R., R. Varadarajan, and R. Peterson (1992), "First-Mover Advantage: A Synthesis, Conceptual Framework and Research Propositions", *Journal of Marketing*, 56(October), 33-52.
- Kim Jae Yun (2000), "Internet : Does ideal economic come true?", *Samsung Economic Research Institute*, 2000.1.20
- Kim Jung Ho (2000), "Venture management in the unstable period", *Samsung Economic Research Institute*, 2000.6.21
- Lee Hae Jin (2000), "Exaggerated internet's death", *The Korean Economic Daily*, 2000.8.2
- Lee Hun (2000), "The survival rate of internet venture : 6%", *The Dong-A Ilbo*, 2000.3.6
- Lee Jin Joo (1984), "Venture company, Venture capital , Technique Entrepreneur" , *Korea Chamber of Commerce and Industry*, 1984
- Lieberman, M and D. Montgomery(1988), "First-Mover Advantages", *Strategic Management Journal*, 9 (Summer), 158-170
- McClelland, D. C.(1961). *The Achieving Society*. Princeton, NV: Van Nostrand.
- McDougall, P. P.(1987), "An Analysis of Strategy, Entry Barriers and Origin as Factors Explaining New Venture Performance," Doctoral Dissertation, University of South Carolina.
- McFarlan, W. F. (1984), "Information Technology Changes the Way You Compete", *Harvard Business Review*, 62,
- Na Jung Duk (1987), "The investment type and analysis of performance according to the type of venture capital company", Dissertation of University of Korea
- Orr, D.(1974), "The Determinants of Entry: A Study of Canadian Manufacturing Industries," *Review of Economics and Statistics*, 56(February), 48-66.
- Dubini, P. and H. Aldrich. (1991) "Personal and Extended Networks are Central to the Entrepreneurial Process" *Journal of Business Venturing*, 305-314.
- Porter, M. (1980), *Competitive Strategy*, New York: The Free Press.
- (1985) "Technology and Competitive Advantage", *Journal of Business Strategy*, 5,
- Rea, R. H (1989) "Factors Affecting Success and Failure of Seed Capital/Start-up Negotiations", *Journal of Business Venturing*. 4,149-158.1989
- Robinson, W.(1988), "Sources of Market Pioneer Advantage: The Case of Industrial Good Industries," *Journal of Marketing Research*, 25(February), 87-94.
- Robinson, W. T. and C. Fornell, (1985) "Sources of Market Pioneering Advantages in Consumer Goods Industries," *Journal of Marketing Research*, 22(August), 305-317.

- Sandberg, W. R. (1986), *New Venture Performance: The Role of Strategy and Industry Structure*, Toronto: Lexington Books.
- Schmalensee, (1982) "Product Differentiation Advantages of Pioneering Brands," *American Economic Review*, 72(3)
- Schanaars, S.(1994), *Managing Imitation Strategies*, New York: The Free Press.
- Stahl, M. J. and T. W. Zimmerer(1984), "Modeling Strategic Acquisition Policies: A Simulation of Executives' Acquisition Decisions," *Academy of Management Journal*, 27(June), 369-383.
- “World Issue, Dot com : Burble or settlement” *The Korean Economic Daily*, 2001.1.15