

Trait-based Imitation among Entrepreneurial Market Entrants

RICHARD J. GENTRY

Ph.D. Student
Department of Management
Warrington College of Business Administration
University of Florida
Gainesville, FL 32611-7165
(352) 392-7326
(352) 392-6020 fax
Richard.Gentry@cba.ufl.edu

MARK A. JAMISON, Ph.D.

Director, Public Utility Research Center
Warrington College of Business Administration
University of Florida
Gainesville, FL 32611-7165
(352) 392-6148
Mark.Jamison@cba.ufl.edu

While strategy is the study of performance heterogeneity (Hoopes, Madsen, & Walker, 2003), there has been much research recently into the notable similarities between firms (Gimeno & Woo, 1996; Greve, 1998; Rao, Greve, & Davis, 2001). Dating back to DiMaggio and Powell (1983), researchers have noted that firms seem to be engaging in very similar actions when in fact they probably do not have to. Some of the most recent work looking at this phenomenon builds on social learning theory (Greve, 1998), other studies examine the tendency for firms to be influenced by similar external constituencies (Abrahamson, 1991). These arguments suggest that, in the presence of uncertainty, firms borrow best practices from one another and external forces encourage firms to follow similar strategies. No firm or group has perfect information regarding the optimal strategic choices in a given market context, and firms respond by borrowing practices from others. Scholars have examined firms' tendencies to make these kinds of 'mimetic' investments (Mitchell, 1989), the types of imitative investment firms undertake (Haunschild & Miner, 1997) and from whom the firm is most likely to borrow investment strategies (Greve, 1996). The tendency for firms to evolve into forms that closely resemble one another is isomorphism.

These studies build on the differences between firms in terms of prestige or size, but they often ignore the inherent differences that firms have when they enter into a new industry. Entrepreneurs, who have no historical basis for social comparison, are almost entirely ignored in studies of inter-firm imitation. Despite the acknowledged importance of origin in studies into population ecology (Carroll, Bigelow, Seidel, & Tsai, 1996; Klepper & Simons, 2000) and resources (Porter, 1991), the importance of origin and prior experience has not been translated into the isomorphism and mimetic investment research domain. Learning and mimicry in the isomorphism field has largely been based on the construction of social comparison groups

through the use of observable and verifiable divisions. However, these groupings understate the importance of social identity and the cognitive groupings managers form by using classifications which are not easily discernable *ex ante* (Reger & Huff, 1993). This study suggests that, within an industry, entrepreneurs should form a viable sub-group of firms that will identify with one another more strongly, for learning purposes, than they identify with other firms.

In addition, being an entrepreneurial firm may attenuate the effects of social learning and contagion. Firms whose managers do not view themselves as part of the industry field or who make a point to avoid following the same business strategy as other firms may be more resistant to social learning than firms who are more shaped by legitimacy concerns and will tend to behave isomorphically. Entrepreneurial firms, have already demonstrated a tendency to ignore the influence of social learning by taking the unusual step of starting a new business. Already, they perceive a great deal of opportunity where others do not and behave uninfluenced by the socially constructed value of the resources exploited in starting a new venture. Entrepreneurs, because they have entered a new market and started a new venture have already turned their back on social learning and should be less susceptible to the influence of social learning in the future (Eckhardt & Shane, 2003).

This study will expand this notion by suggesting that entrepreneurial firms are more likely to learn practices from each other and less likely than their established peers to gather information from these peer groups. While the market behaviors of established firms in an uncertain industry should be highly related to one another, as they try to gather legitimacy by borrowing the actions of competitors, entrepreneurs should not display this tendency to borrow behavior from other firms, as they will have less exposure to the contagion processes that shape established firm behavior. Using a sample of competitive telecommunications firms, this study

will compare the tendency of established and entrepreneurial firms to enter markets and explore differences in the kind of markets they enter. Such a contribution will broaden the imitation literature to incorporate the economic process of entrepreneurial behavior and provide an extension to how firms form their relevant comparison group. In addition, the use of social learning theories can offer an enhanced perspective to entrepreneurship research, which has focused a lot on why entrepreneurial firms fail without examining the antecedents for this failure, their market behavior.

Imitation

Firms imitate practices from one another. Imitation can be described along three dimensions: the traits of the firm being imitated, the traits of the action itself, and the results from the action. Thus, firms gather information about a possible course of action through three major outlets. The first, trait-based imitation, is supported by studies which have shown firms learn from other firms of similar size, similar geographic location, and similar market competence (Greve, 1995, 1996). The second predictor of imitation, one based on the traits of the action itself, is the frequency of a behavior through the population. Common market behaviors are more likely to be copied based on their prevalence throughout the market. The final major influence on the likelihood of imitation derives from the results of the market behavior. Market actions that resulted in positive outcomes for the firm are more likely to be imitated by other firms (Haunschild et al., 1997).

We will focus on the first type, trait-based imitation, among entrepreneurial market entrants and explore how these social and structural differences create grouping within the collection of new market entrants.

Trait-based imitation. To imitate other firms, firms first gather information by observing the behaviors of other firms. By watching these firms, managers at the focal firm get a better understanding of what is in the best interest of their firm. The more firms the manager watches, the better his or her understanding of their market environment becomes (Levitt & March, 1988). However, managers are boundedly rational and cannot watch every relevant firm (Cyert & March, 1963). They have to set boundaries and often end up focusing on firms who are very similar to their own. Managers employ a subset of firms within an industry as a comparison group, a group whose behavior managers deem most relevant. They monitor this group and set strategy according to the behavior of this group. Sometimes these groupings include the preeminent or most respected firm in an industry (Chen, 1996), but they often consist of firms in a local area or a tightly defined product space. Reference groups help managers define what firms are the most immediate competitive threat and are often defined by geographic proximity and size to identify these relevant sets.

Research, both recent and classic, has established the importance of reference groups to the development of trait-based imitation. Greve (1995) found that firms were likely to abandon a strategy if that strategy was also abandoned by firms in a focal firm's reference group. Other studies found that the presence of a large firm in a profitable market encourages other large firms to enter into that market (Haveman, 1993), suggesting that firms with similar resource pools imitate one another. The importance of resources as a driver of imitation further implies that firm history or origin leads to imitation, as resources are path-dependent. Firms with similar resources and thus similar histories tend to follow one another.

While no study has yet looked at the tendency to imitate market behaviors based on the origin of the firms, some studies have shown that origin can have a significant impact on an

entrant's likelihood of survival (Klepper et al., 2000). We suggest that this is the result of firms tracking and following the strategies of other firms. This imitation leads to clustering, some of which is due to the fact firms follow other firms with a similar history. This strategic clustering is the result of similar resources between firms of similar origin and also from the learning that results from imitation. These strategies have different success rates, which lead to the observed differences in survival likelihood.

Klepper and Simons (2000) were looking at new entrants into the television industry where most of the entrants were already established and successful in other industries. Research into entrepreneurship suggests several reasons why a look into entrepreneurial market strategies should find this clustering. First, when compared to other entrants or potential entrants, entrepreneurs face different opportunities. Individuals observed to be entrepreneurs are simply in the right place at the right time to take advantage of a market opportunity. According to this opportunities perspective (Ardichvili, Cardozo, & Ray, 2003), there is a population of individuals who have the resources to enter, but they are not observed to enter because they did not observe the opportunity at the same time as other potential entrants. By extension, if opportunity profiles are distributed around the population, it stands that some individuals will have similar profiles to others. Given similar resources and a similar perspective on the market opportunity, we could expect entrepreneurial firms, those firms we observe to enter, to follow similar strategies because they perceive the market similarly to one another.

Secondly, research suggests that entrepreneurial firms should strategically cluster because of the importance of capital resources and risk. Risk, always a key word in entrepreneurship research, has evolved recently. Instead of the swashbuckling business people conceptualized in prior research, research now suggests that entrepreneurial firms and entrepreneurs tend to avoid

high-risk market decisions when the outcome of that decision might be failure (Mullins et al., 2005). New conceptions of entrepreneurs place them into a relatively homogenous group when it comes to undertaking highly risky projects. In addition, entrepreneurial firms are extremely protective of their human capital. Managers in more established firms have an outlet back to the home company should the company fail, entrepreneurs on the other hand need to seek outside employment if their companies fail. Indeed, entrepreneurs with a lot of human capital tend to exit underperforming firms before other entrepreneurs while larger firms (Gimeno, Folta, Cooper, & Woo, 1997). Entrepreneurial firms share these goals, and the pursuit of these similar goals should lead to homogeneity in strategy.

Finally, there has been analytical analysis to suggest that the cost benefit analysis when choosing between an entirely new strategy and one that imitates another market participant depends on the mortality risk of the firm and the amount of information that a firm can learn by entering a new market. If a firm can learn a great deal by entering with a strategy of copying other market participants, it will do so if it will not learn substantially more by creating its own strategy (Levesque & Shepherd, 2004). We suggest that because the mortality risk and knowledge portfolio is more similar within a group of entrepreneurs than between a group of entrepreneurial firms and other kinds of entrants. Thus, we should find:

H1: The likelihood of market entry by entrepreneurial firms will be more related to other entrepreneurial firms than to established firm market entry

While identifying one another as a relevant group, there are some reasons to expect that entrepreneurial firms will be less likely than more established market entrants to imitate the behavior of other firms. Imitation is primarily a social phenomenon. Firms imitate other firms

in response to institutional and social pressures as much as to learn from other firms about a market. This process of socialization takes time. Entrepreneurial firms, who by definition, have not been in the industry as long as other firms should be less influenced by these forces and show more heterogeneity in their decisions than more established market entrants.

First, entrepreneurial firms, because they are new to the industry, will not have the network of board ties that encourage imitation amongst established firms (Geletkanycz & Hambrick, 1997; Haunschild, 1993). The fact that the entrepreneur has just entered the industry means that he or she will have fewer individuals to contact or interact with about particular markets. Certainly, a new entrepreneur will have some contacts in an industry, but a person who leaves a firm to establish an entrepreneurial entrant will not have contacts at the same levels as the CEOs of competitor companies.

Second, entrepreneurs do not gather information in the same ways as those documented at larger firms. While managers within larger firms tend to learn through their network of contacts both within and outside the company, entrepreneurs do not tend to go to their social networks for support as often as other managers. In fact, entrepreneurs who engage in weak ties across a broad network, rather than the strong learning ties within an organization, are more likely to be innovative than others. Ruef (2002) examined the tendency of entrepreneurs to use network ties to learn from one another; his study found mixed support for the idea of mimicry among entrepreneurs. The lack of formal learning ties amongst the organizations and the lack of convincing supporting evidence for peer learning among entrepreneurial firms suggests:

H2: Entrepreneurial firms will show lower levels of mimetic investment than established firms.

One of the most explored aspects of trait-based imitation is the tendency of firms to mimic firms who are geographically close (Baum & Lant, 2003; Greve, 1998). When competitors occupy the same markets with competitors, managers find it very easy to observe the competitor. The ease with which managers can observe the behaviors of competitors encourages learning. By observing the competitor and witnessing the outcomes of a particular market entry, firms will be better equipped to gauge the success of particular strategies. The need to maintain competitive parity with competitors and the tendency to learn from the experiences of others who are nearby will encourage firms to follow similar strategies.

H3a: The likelihood of entrepreneurial firm entry will be more related to geographic proximity with other entrepreneurial firms than to geographic proximity with established firms.

This tendency, however, as with the characteristics mentioned above will be different for entrepreneurial firms and established firms. Entrepreneurial firms will be less inclined to follow geographically close competitor firms. Hypothesis 3 suggests that social learning and bandwagon effects are less effective on entrepreneurs than more established rivals. We suggest that this phenomenon will carry over into the extent to which entrepreneurs mimic local competitors.

H3b: The market entry effects of geographic proximity will be lower in entrepreneurial firms than in established firms.

Finally, research suggests that firm size is an important consideration for managers when forming comparison groups. We suggest that entrepreneurs view the market using the same logic as other kinds of firms and will tend to imitate firms of similar size. Larger entrepreneurial

firms will be more likely to follow the behaviors of other large entrepreneurial firms while smaller firms will tend to imitate the behavior of other small entrepreneurial firms. Hauschild and Miner (1997) showed that this tendency operates in the corporate acquisition market, and this finding is extended here:

H4a: The likelihood of entrepreneurial firm entry will be more related to entry by similar sized entrepreneurial firms

H4b: The market entry effects of size similarity will be lower in entrepreneurial firms than in established firms

Industry context

To test these predictions, this study examined the competitive local telecommunications (CLEC) industry in the U.S. When examining the competitive behaviors of entrepreneurial and established entrants, it is important to examine the industry conditions of the context. The CLEC industry during the period under consideration was extraordinarily competitive with firms entering constantly throughout the period. Each entrant seemed to have a different entry strategy and their influence created significant turbulence during the study time.

The CLEC industry began with the development of the competitive access providers (CAPs), companies that provided high-speed telecommunications services in competition with Bell Operating Companies (BOCs)¹ – the so-called “baby bells” formed by the break-up of AT&T – and other incumbent local exchange companies. In the late 1970s, the Port Authority of New York City developed the concept of a high-speed telecommunications network that would compete with New York Telephone, the New York BOC. In partnership with Merrill Lynch and

¹ BOCs are also called Regional Bell Operating Companies (RBOCs) when referring to the regional holding company. For example, the RBOC NYNEX owned the BOC New York Telephone.

Western Union, the Port Authority formed Teleport Communications Group (Teleport) as a new venture in 1983 and began signing up customers in 1984. Teleport offered satellite uplink services, access to long distance companies such as AT&T, and data networking. Customers could obtain such services from New York Telephone, but customers often viewed Teleport's technologies as distinctive from New York Telephone's network because Teleport provided features and reliability that New York Telephone could not match. Customers valued Teleport's reliability because the large Wall Street firms that Teleport targeted could lose millions of dollars if they lost their communications services (Tomlinson, 2000).

Teleport's success in New York led the company to expand into other cities and to the development of the CAP industry. Within four years, there were eleven CAPs operating in ten U.S. cities. By 1993, there were thirty CAPs. The industry attracted entrepreneurs, such as Teleport, as well as established firms operating in such far flung industries as cable television, electric utilities and long distance telephony. Early CAPs were largely specialized to serving commercial customers who were willing to pay a premium for reliable service and who wanted an alternative to incumbent local exchange companies for access to long distance companies, such as AT&T.²

Also in the early 1990s, Teleport's customers began asking it to handle all of their telecommunications needs, including local telephone service, a service traditionally provided by monopoly incumbent local exchange companies, such as New York Telephone (now Verizon). Teleport complied with these customers' requests and in 1994 became the first competitive local exchange carrier (CLEC) by offering local telecommunications service in New York, Boston,

² Early in the development of the industry, this was known as "bypass" because the customers were able to bypass the monopoly local exchange companies. Regulations by the FCC and state public utility commissions kept the local exchange companies prices for long distance access well above the economic cost of providing the access (Jamison, 1995).

and Chicago to compete with the incumbent BOCs serving those cities.³ This entry constituted a new form of telecommunications where the traditional local exchange company would not be handling all phone calls made within the local telephone calling area assigned in the AT&T divestiture in 1984 (Tomlinson, 2000).

By the mid 1990s, regulatory policy in the U.S. began catching up with the development of the CLEC business. Some states began lifting legal barriers to CLECs offering local telephone service and culminating when Congress passed the 1996 Telecommunications Act. Among other things, the act made competition in most telecommunications markets a national policy.⁴

The act provides three methods of CLEC entry for local telephone service. Some CLECs use more than one method. Entrants can build their own facility-based network, lease portions of an incumbent local exchange company's network, or buy an incumbent's services and resell them.⁵ The 1996 Act requires incumbents and entrants to interconnect their networks to exchange calls. Exchanging calls between competing networks is necessary for customers of one company to be able to call customers of another company.

For CLECs, long distance companies, and incumbent local exchange companies, the essential trade-off in the act is that the BOCs and GTE were permitted to offer long distance service in exchange for giving up their local monopolies. GTE (which eventually merged with Bell Atlantic to become Verizon) was permitted to offer long distance immediately upon passage of the act. The BOC's could not provide long distance to customers in their traditional

³ In this context "switched" means that customers can dial one another by dialing (or pressing) telephone numbers.

⁴ See Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 15, 18, & 47 U.S.C.).

⁵ Traditional voice telecommunications networks consist of lines and switches. Lines either connect customers to the network or connect switches in the network. Switches route calls between customers. Switches are of two types: local switches (also called central offices) that customers connect to and that switch local calls, and long distance switches (also called tandem or toll offices) that route long distance calls from one local switch to another.

geographic markets until they satisfied certain preconditions, specifically, a 14-point checklist of items that Congress determined were essential to opening the BOCs' local monopoly markets to competition.

The passage of the act, strong investor interest in the information and communications sectors, and excitement about a new, competitive telecommunications market instigated a rapid expansion of the CLEC industry. The sector grew to 96 firms in June of 1997, to 129 firms by December 1997, and to 212 firms by the end of 1998 (FCC, 2004). In the two years following the act, the industry had grown nearly eight fold even though certification by state and local governments could take upwards of six months. Despite this CLEC growth and the 14-point checklist, BOCs continued for some time to hold the dominant market positions in every major market throughout the country.

There is evidence that some incumbent local exchange companies made entry difficult for CLEC firms. The FCC levied with over \$423 million dollars in fines against BOCs and other incumbents for failure to comply with rules on market entry (McDermott, 2002). Regulatory policies, designed to encourage CLEC entry, also encouraged incumbents to protect their traditional markets. Even though the act established a national framework for local telecommunications competition, the act gave state public utility commissions the power to establish state-specific rules and prices for CLECs to interconnect with and use incumbents' facilities. Giving states this authority meant that rules were different from state to state, which caused CLECs to follow different entry strategies across states. Nevertheless, over time CLECs expanded into most major markets with a broad selection of new and established firms to try their hand at the CLEC industry. Among the established firms, cable, electric utility, and long distance firms all tried to enter. These firms were all experienced at developing

telecommunications infrastructure and participating in at least some of the regulatory processes. Certainly, different firms were better at some qualities of competition than others, but most firms had the qualities that lead to success in their prior markets. Most of these firms had experience in a regulated environment and were in industries that required the development of infrastructure before any revenue could be generated. For example, the established Western Union guided Teleport through regulatory approval in New York while MCI, a long distance company, developed CLEC business in numerous states. Networks could be expensive to establish because all new CLEC providers had to either build their own network or develop their own business arrangements with the incumbent local exchange company. In short, although there certainly were some differences between the established firms, this paper ignores the individual differences between the entering established firms because the important distinction between the firms is in the stock of resources that established firms brought to the market. The diversity of the entrants suggests that firms were actively searching for ways to apply their existing resources to this industry.

The entrepreneurial firms in the CLEC industry derived from an equally diverse base. Notable entrants came from such diverse industries as satellite communications and building construction (Level 3)⁶. They acquired capital from banks, the stock market, and venture capital firms. This market explosion coincided with the beginning of the stock market run-up of the large 1990's, and CLEC firms found capital easy to acquire (McDermott, 2002). In the early days of the industry, investors pressured the new firms to quickly expand their networks into multiple cities. There was massive need for market growth and massive capital to finance it.

⁶ Level 3 began as a subsidiary of Peter Kiewit Sons, a 114-year-old construction, mining, information services, and communications company.

Sample

Data for this study was drawn from consultant reports generated by New Paradigm Research Group. These reports provide basic biographical information on the firms they cover as well as detailed operational and financial data. While it is possible that the reports we used to do not capture every firm within the industry, they do capture a large, representative sample of the various types of firms within this industry and have been used in other research on this industry (Greenstein & Mazzeo, 2003). Our reports cover every significant CLEC from small firms in Minnesota to major operators such as AT&T. We used data on 342 firms involved in the CLEC industry between 1996 and 2002. We limited our consideration to market actions that occurred after the telecommunications act of 1996 to ensure a relatively homogenous competitive group. In total, this was 2394 potential firm-years of data

Model

Although the definitions of the independent variables discussed above are widely used throughout the cited reference, their definitions deserve a brief discussion here. A market entry was defined as the establishment of a new telecommunication switch (voice or data) in a metropolitan service area (MSA) as defined by the census bureau. For the purposes of this sample, firms who enter a market under a strictly retail arrangement and do not build a switch were not counted as “entering” a market. However, in cases where the data reports that the firm has an operating switch in a market without reporting how many, we have counted the firm as operating or entering into that market. For the purposes of this study then, the data is at the MSA-firm level. Over the seven years we examine, there are 269 MSAs and 342 relevant firms. The sample employed in the analyses consisted of 20,216 potential firm entry events in which we observed 1,870 entry events.

We employed a logistic model for this study. This model estimates changes in the likelihood of market entry based on our study. In the models, we have included a variable to control for the influence of the year on the likelihood of entry. We did not employ firm-level fixed effects despite the panel nature of our data because our independent variable for entrepreneurs did not vary enough for the firm across the sample. Instead, we sought to characterize each market entry decision individually.

Entrepreneurial firms are defined as any firm who entered the industry de novo with no funding from an established market competitor and was still operated by the firm's founder. A firm that received funding from any source affiliated with a telecommunications, electric utility, cable company or other kind of going concern involved in consumer services or products was not classified as entrepreneurial. As a result, there were a few occurrences of firms in the sample switching from entrepreneurial to what might generally be called "established." This effect did not influence our study since we are not using firm-level fixed effects in our analysis.

Size was operationalized as the number of operating switches the focal firm has operating within the industry. For each market, this measure is the difference between the number of switches a firm owns subtracted from the number of switches competitors in the market have.

Geographic proximity was measured using a grand-circle route distance between the latitude and longitude of the focal MSA and all other MSA entries by comparison firms. A higher number is a larger average distance from the focal market to the other markets in which the firm focal operates.

The study controlled for the growth in the number of business establishments in the MSA. We also looked at the population growth and the growth in payrolls, but these variables are so highly correlated as to provide no extra information. Because it is less expensive to build

a telecommunications network when individuals are living in close proximity to one another, the model will include the population density of the MSA, measured as individuals per square mile.

Results

Table 1 displays the correlations and means for the entire sample. Although this is a panel dataset, we report the uncorrected correlations here because it is consistent with the way the we performed the regression models. Table 2 reports the log-odds ratios of our regression models.

Model 1 is the control model, which did not employ any of the variables of interest. It is presented for comparison. Model 2 presents the model that included the variable denoting origin. As shown, origin has a significant effect on the likelihood of entering a new market. Model 3 presents the interaction between firm origin and entry into markets where there are already many firms. The odds ratio less than one here indicates that the entrepreneurial firms are less likely to enter a market if there are significant numbers of firms in that market, supporting Hypothesis 1 and 2 which suggested the importance of origin in entry and the lower effect of social effects on entrepreneurial firms.

In addition, there is support, for mimetic behavior in this industry. Model 4 and 5 show that as the number of firms with the same origin increases, the likelihood of entry goes up. This effect is beyond the simple mimetic effect presented in Model 2. Indeed, when the count of same-origin competitors is interacted with entrepreneurial firms, there is a significant drop in the likelihood of entry. Entrepreneurial firms display a level of mimetic investment lower, in this model, than the more established firms who serve as a baseline. However, entrepreneurial firms do display a tendency to follow other entrepreneurial firms in this model. Thus, firms seem to copy one another, and that imitation is related to the firm's origin. Model 6 and 7 present the effect of competitor size on entry. Larger competitors from with the same origin tend to increase

the likelihood of entry. The entrepreneurial firms in this sample were less likely to follow the majority trend and tended to follow one another. This supports hypothesis 4a. However, hypothesis 4b was not supported. Model 7 suggests that entrepreneurial firms tended to follow the largest entrepreneurial firms. Contrary to our expectations, entrepreneurial firms tended to follow larger competitors even more than their established competitors.

Model 8 and 9 present the analysis of geographic proximities effects on entry. Model 8 suggests that the influence of proximity by other competitors of the same type actually decreases the likelihood of entry. This negative effect is stronger in the entrepreneurial firm group. Thus, hypotheses 3a and 3b, which suggested that geographic proximity to entry by other competitors increased the likelihood of entry, are not supported.

Discussion and conclusion

This study has suggested the origin, and social groupings based on firm histories, form an important determinant of mimetic behavior. To supplement the developing literature on firm learning and the established literature on isomorphism, this paper looked for history and origin to be one factor firms use when developing social comparison groups. Largely, our analysis supports this hypothesis. The results suggested a main effect for origin where the origin of a market competitor increases the likelihood of subsequent entry by a firm from similar origins. In addition, the results above offered several potential moderators which would interact with the importance of history. These results proved to be mixed. Size appears to be one variable that encourages mimetic behavior, as suggested in prior research Hauschild and Miner (1997). However, we did not find support for the importance of geography as a driver of mimetic investment in our sample.

The results from this study suggest a way to predict how firms create intra-industry groupings and what those grouping means for the market outcomes. Indeed, our findings of similar market strategies among like competitors suggest why research suggests different survival likelihoods. This study has embraced a social learning perspective on the behavior of firms, and its findings both support and extend the importance of social comparison in market strategy.

Clearly, this study is a first attempt to isolate a new way of grouping firms. Prior work suggests that history has an important influence on competitive advantage and market outcomes {Barney, 1991 #336;Klepper, 2000 #957} . This study extends that work by looking at a particular kind of history and its influence on market outcomes. We plan to extend this study by establishing more definitive guidelines on what constitutes an entrepreneurial firm in this context. While we have set guidelines consistent with the literature, the use of secondary data sources rather than coding of historical information might be more objective.

On a broader note, studies such as this one can help to isolate the definitional problem in entrepreneurship research. We have suggested here a separation between firms who enter new markets based on history. Several recent studies have tried to describe the characteristics that make a firm “entrepreneurial (Wiklund & Shepherd, 2003; Wiklund & Shepherd, 2005).” While this premise is generalizable, we feel that its application might aggregate two very different kinds of market participants. While the motivations for either might be the same on the surface, the means and outcomes of competition between purely entrepreneurial firms (those run by individual entrepreneurs) and established firms behaving entrepreneurially are probably very different. This study is a first step in that direction, one that will expand and clarify the role of entrepreneurship in the strategy domain.

References

- Abrahamson, E. 1991. Managerial Fads and Fashions: The Diffusion and Rejection of Innovations. Academy of Management Review, 16(3): 586-612.
- Ardichvili, A., Cardozo, R., & Ray, S. 2003. A theory of entrepreneurial opportunity identification and development. Journal of Business Venturing, 18(1): 105-123.
- Barney, J. 1991. Firm Resources and Sustained Competitive Advantage. Journal of Management, 17(1): 99-120.
- Baum, J. A. C. & Lant, T. K. 2003. Hits and misses: Managers' (mis)categorization of competitors in the Manhattan hotel industry. Advances in Strategic Management, 20: 119-156.
- Carroll, G. R., Bigelow, L. S., Seidel, M. D. L., & Tsai, L. B. 1996. The fates of de novo and de alio producers in the American automobile industry 1885-1981. Strategic Management Journal, 17: 117-137.
- Chen, M. J. & Hambrick, D. C. 1995. Speed, Stealth, and Selective Attack - How Small Firms Differ from Large Firms in Competitive Behavior. Academy of Management Journal, 38(2): 453-482.
- Chen, M. J. 1996. Competitor analysis and interfirm rivalry: Toward a theoretical integration. Academy of Management Review, 21(1): 100-134.
- Cooper, A. C., GimenoGascon, F. J., & Woo, C. Y. 1994. Initial Human and Financial Capital as Predictors of New Venture Performance. Journal of Business Venturing, 9(5): 371-395.
- Cyert, R. M. & March, J. G. 1963. A behavioral theory of the firm. Englewood Cliffs, N.J.: Prentice-Hall.
- Dean, T. J., Brown, R. L., & Bamford, C. E. 1998. Differences in large and small firm responses to environmental context: Strategic implications from a comparative analysis of business formations. Strategic Management Journal, 19(8): 709-728.
- Dimaggio, P. J. & Powell, W. W. 1983. The Iron Cage Revisited - Institutional Isomorphism and Collective Rationality in Organizational Fields. American Sociological Review, 48(2): 147-160.
- Dobrev, S. D. & Carroll, G. R. 2003. Size (and competition) among organizations: Modeling scale-based selection among automobile producers in four major countries, 1885-1981. Strategic Management Journal, 24(6): 541-558.
- Eckhardt, J. T. & Shane, S. A. 2003. Opportunities and entrepreneurship. Journal of Management, 29(3): 333-349.

Geletkanycz, M. A. & Hambrick, D. C. 1997. The external ties of top executives: Implications for strategic choice and performance. Administrative Science Quarterly, 42(4): 654-681.

Gimeno, J. & Woo, C. Y. 1996. Hypercompetition in a multimarket environment: The role of strategic similarity and multimarket contact in competitive de-escalation. Organization Science, 7(3): 322-341.

Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. 1997. Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. Administrative Science Quarterly, 42(4): 750-783.

Greenstein, S. & Mazzeo, M. 2003. Differentiation Strategy and Market Deregulation: Local Telecommunication Entry in the Late 1990s.

Greve, H. R. 1995. Jumping Ship - the Diffusion of Strategy Abandonment. Administrative Science Quarterly, 40(3): 444-473.

Greve, H. R. 1996. Patterns of competition: The diffusion of a market position in radio broadcasting. Administrative Science Quarterly, 41(1): 29-60.

Greve, H. R. 1998. Managerial cognition and the mimetic adoption of market positions: What you see is what you do. Strategic Management Journal, 19(10): 967-988.

Haunschild, P. R. 1993. Interorganizational Imitation - the Impact of Interlocks on Corporate Acquisition Activity. Administrative Science Quarterly, 38(4): 564-592.

Haunschild, P. R. & Miner, A. S. 1997. Modes of interorganizational imitation: The effects of outcome salience and uncertainty. Administrative Science Quarterly, 42(3): 472-500.

Haveman, H. A. 1993. Follow the Leader - Mimetic Isomorphism and Entry into New Markets. Administrative Science Quarterly, 38(4): 593-627.

Hoopes, D. G., Madsen, T. L., & Walker, G. 2003. Guest editors' introduction to the special issue: Why is there a resource-based view? - Toward a theory of competitive heterogeneity. Strategic Management Journal, 24(10): 889-902.

Klepper, S. & Simons, K. L. 2000. Dominance by birthright: Entry of prior radio producers and competitive ramifications in the US television receiver industry. Strategic Management Journal, 21(10-11): 997-1016.

Levesque, M. & Shepherd, D. A. 2004. Entrepreneurs' choice of entry strategy in emerging and developed markets. Journal of Business Venturing, 19(1): 29-54.

Levitt, B. & March, J. G. 1988. Organizational Learning. Annual Review of Sociology, 14: 319-340.

Mitchell, W. 1989. Whether and When - Probability and Timing of Incumbents Entry into Emerging Industrial Subfields. Administrative Science Quarterly, 34(2): 208-230.

Mullins, J. W. & Forlani, D. 2005. Missing the boat or sinking the boat: a study of new venture decision making. Journal of Business Venturing, 20(1): 47-69.

Porter, M. E. 1991. Towards a Dynamic Theory of Strategy. Strategic Management Journal, 12: 95-117.

Rao, H., Greve, H. R., & Davis, G. F. 2001. Fool's gold: Social proof in the initiation and abandonment of coverage by Wall Street analysts. Administrative Science Quarterly, 46(3): 502-526.

Reger, R. K. & Huff, A. S. 1993. Strategic Groups - a Cognitive Perspective. Strategic Management Journal, 14(2): 103-123.

Ruef, M. 2002. Strong ties, weak ties and islands: structural and cultural predictors of organizational innovation. Industrial and Corporate Change, 11(3): 427-449.

Wiklund, J. & Shepherd, D. 2003. Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. Strategic Management Journal, 24(13): 1307-1314.

Wiklund, J. & Shepherd, D. 2005. Entrepreneurial orientation and small business performance: a configurational approach. Journal of Business Venturing, 20(1): 71-91.

Table 1
Correlations and Means

	Mean	Std. Dev	1	2	3	4	5	6	7	8	9	10	11
1 Entry	0.00	0.11											
2 Origin	0.50	0.50	0.00										
3 Total Firms in Market	5.24	6.08	-0.04	0.00									
4 Market Total of Same Origin Firms in Geographic Proximity to Other	3.38	3.32	-0.03	-0.05	0.93								
5 Entry Events	1041.45	564.32	0.03	0.04	0.02	0.03							
6 Size of Firms in Market	173.95	211.71	-0.03	0.00	0.87	0.80	0.04						
7 Same Origin Size of Firms in Market with	111.60	137.81	-0.03	-0.38	0.67	0.59	0.01	0.80					
8 Total Switches of Focal Firm	18.79	32.45	-0.04	-0.13	0.01	0.01	-0.01	0.03	0.09				
9 Population Density in Market	11.36	7.85	-0.02	0.00	0.27	0.24	-0.22	0.25	0.18	0.00			
10 Firm Age	26.13	197.56	0.00	-0.12	0.00	0.00	0.00	0.00	0.04	0.32	0.00		
11 Area of focal market Growth in Business	104923.00	373710.70	-0.02	0.00	0.35	0.32	0.15	0.29	0.21	0.00	-0.14	0.00	
12 Established in Market	-0.01	0.05	0.00	0.00	0.03	0.04	-0.06	0.05	0.05	0.01	0.04	0.00	-0.03

Table 2
Logistic Regression Results

Entry	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Population Density	0.9973703	0.9973718	0.9973623	0.9981017	0.998351	0.9946869 **	0.9959553	0.9810183	0.9812863 **
	0.0031163	0.0034118	0.0032403	0.0032737	0.0029278	0.0025996	0.0029867	0.003341	0.0033006
Total Firms in Market	1.133766 **	1.133818 **	1.141963 **	1.056245 **	1.01802 **	1.082384 **	1.060052 **	1.149876 **	1.150585 **
	0.0035542	0.0030635	0.0044905	0.0071338	0.0102162	0.003761	0.0047479	0.0038851	0.0027599
Firm Age	1.015573 **	1.016049 **	0.0157449 **	1.017248 **	1.018316 **	1.018759 **	1.018369 **	1.017714 **	1.017265 **
	0.000617	0.0008463	0.0011309	0.0008981	0.0009138	0.0010508	0.000895	0.0009391	0.0006518
Area of market	1	1	1	1	1	1	1	1 **	1 **
	3.63E-08	3.72E-08	2.91E-08	2.97E-08	2.92E-08	3.17E-08	2.97E-08	3.54E-08	3.17E-08
Growth in Number Businesses	4.303962	4.32349 *	4.233935	4.864227	3.336812	1.398309	2.156887	0.2942739	0.3553274
	5.689217	3.548842	5.81567	6.408708	4.726183	1.889423	2.989987	0.3310161	0.415882
Total Switches of Focal Firm	1.010983 **	1.011215 **	1.011358 **	1.012756 **	1.013396 **	1.013119 **	1.013153 **	1.0125 **	1.012136 **
	0.0003749	0.0002642	0.0004432	0.0005925	0.0004773	0.000506	0.000421	0.0004653	0.0004263
Origin		1.132277 **	1.342788 **	0.8908425 **	1.626394 **	1.410838 **	0.9759898	1.153932 **	3.012114 **
		0.0499269	0.0903171	0.0479664	0.1304689	0.0776787	0.0689068	0.0579339	0.3526372
Count of firms in market from same origin				1.113057 **	1.287659 **				
				0.0141974	0.0347189				
Size of the firms in the market from same origin						1.001601 **	1.002137 **		
						0.0002064	0.0002029		
Geographic proximity to other entry by same origin								0.9981849 **	0.9987187 **
								0.0000601	0.0000791
Origin * Geographic proximity to other entry by same origin									0.9987928 **
									0.0001235
Origin * Size of firms from same origin							1.004744 **		
							0.0005934		
Origin * Total firms in market			0.985917 **						
			0.0044232						
Origin * Total firms of same origin					0.8947062 **				
					0.0131222				
Chi - squared	3871.71 **	9406.79 **	13776.56 **	3075.65 **	4393.9 **	2165.29 **	3015.93 **	3688.13 **	9947.76 **
Log likelihood	-7817.172	-7813.659	-7808.509	-7381.605	-7333.274	-7112.993	-7082.688	-7237.664	-7182.2
*	p < 0.1								
**	p < 0.05								
(Bootstrapped standard errors shown in parentheses)									