Perceptions of the Internet as a technology expected to revolutionize the way business was done, led to rapid wealth creation by Internet firms despite the fact that many of these firms were new ventures with unproven business models. In this paper we follow the Austrian school of economics and action-based research in strategy and propose that to the degree that strategic actions are a key mechanism through which new ventures affect the market process, and as such are related to their ability to create wealth. We explore these ideas in a sample of leading US pure Internet firms. Our results support the general idea that the wealth creating ability of new ventures is related to their strategic actions. More specifically, we find that Individuation actions—that is, actions related to establishing a firm identity, branding, and reputation building—were positively and significantly related to market value. In contrast, Schumpeterian actions—that is, actions related to new product introductions—were not related to market value. Finally, Ricardian actions, which we define as actions that exploit rare resources in alliances, were positively and significantly related to market value only in the case of content alliances. The paper discusses the implications of these findings for future research and practice.
INTRODUCTION

Although the Internet has existed since the 1980s, until its opening for commercial use in 1995 it had remained an esoteric communication technology used primarily by scientists and computer enthusiasts to exchange data (Reid, 1997). The activities of hundreds of entrepreneurs who created and exploited opportunities for social and economic exchanges, transformed the Internet from a communication technology into a market space. In its business applications, the Internet is viewed as a disruptive technology (Christensen & Tedlow, 2000), which creates tremendous economic opportunities associated with the economics of information (Bettis & Hitt, 1995; Shapiro & Varian, 1998). The interactivity and unprecedented level of information exchange, which the Internet enables were believed to create a fundamental shift in buyer-supplier relationships (Hagel & Armstrong, 1997). The new business models of Internet firms based on flexible information products and increasing returns to scale were believed to transform the basic competitive paradigms (Shapiro & Varian, 1998). The perceptions of opportunity related to the Internet, however, were paralleled by perceptions of uncertainty—uncertainty commensurate in magnitude with the perceived opportunity. The following excerpt from The Boston Globe captures both the perceptions of opportunity and the perceptions of uncertainty surrounding the Internet.

The Internet is here to stay. It is a transforming technology. It will alter the way business, commerce, medicine, science, communications, the law, politics, and government are conducted. The Internet changes everything it touches, and it touches almost everything. No one really knows which Internet companies will thrive and prosper, but there is no question that some of them will. (Ellis, 1999, p. A19)

Perceptions of uncertainty are typical for new industries, especially those based on new technologies (Aldrich & Fiol, 1994). In such an environment both entrepreneurs and their stakeholders are uncertain about the effective means to compete in the new industry—which technologies will prevail, what business models will generate superior returns, and what level of demand will emerge at what price points. Whereas these questions reflect typical technological, market, and organizational risks associated with new venture creation, on the Internet, the risks were magnified by arguments that fundamentally different principles of competition may apply in the virtual, information-rich, frictionless market space of the Internet (Bettis & Hitt, 1995).

To investigate the relationship between the competitive actions of Internet ventures and their ability to create wealth we conducted an exploratory study of the actions undertaken by the top 50 pure Internet firms between
1995 and 1998. Our approach is based on the Austrian School of economics (see Jacobson, 1992, for a review), which views the strategic actions of firms as the key drivers of market process, and investigate the degree to which the strategic actions of new ventures explain their relative ability to create wealth, as reflected in their market valuations.

We argue that understanding the role of different strategic actions is central to understanding the entrepreneurial and competitive process because actions constitute the mechanism through which firms disrupt the current bases of competitive advantage found in the status quo of the marketplace. Through actions firms also convert opportunities to competitive advantages for their firms (Young, Smith, & Grimm, 1996, p. 243). Thus, by adopting an action-based perspective we explore how entrepreneurial firms engage in the market process and exploit opportunities. Further, we argue that not only the level of competitive activity—which has been found to be one of the key determinants of firm performance (Young et al., 1996)—but also the specific types of actions, which new ventures undertake are central to their ability to create wealth. Grimm and Smith (1997) argued that different actions afford firms differential access to economic rents. More specifically, they distinguished between Schumpeterian actions, which are associated with access to rents based on innovation, Ricardian actions associated with rents derived from exploitation of scarce resources, and monopoly rents, associated with rents based on protection of favorable market positions. We extend their argument to an entrepreneurial context, where limited resources may require a new venture to choose among different types of actions because it needs to specialize its activities and routines. Therefore, understanding the relative importance of different types of actions, and the differential access to rents they provide, are particularly important to new ventures. Further, we examine these ideas in the context of the Internet, where information-based products and network effects may lead to a pattern of associations between actions and rents different from those that are likely to exist in traditional physical contexts.

To explore these ideas, we collected data on the action undertaken between 1995 and 1998 by the top 50 Internet firms in 1998. We chose this time period because in this period some of the business models that converted the Internet from a communication technology into a market space were first developed. Also, in this period the top Internet firms made a transition from start-ups to public ventures. On average, Internet firms tended to make this transition more rapidly than new ventures in established industries. For example, a traditional venture takes usually more than seven years to go public. With some exceptions, the majority of the Internet firms in our sample went public within 1 to 3 years of their creation. This evolution of Internet ventures provided a unique opportunity to study the relationship between competitive actions of new ventures
undertaken to gain market positions early in their lives, and their ability to create wealth as reflected in their market values.

Thus, the study extends the research on competitive dynamics in the entrepreneurial context of the Internet. However, whereas the primary focus of the research on competitive dynamics is to understand how attacks and counterattacks enable competitors to gain or undermine each other’s competitive positions and performance outcomes, our focus is on the wealth creation potential associated with different types of actions. More specifically, we examined the effect of three types of actions on the market value of Internet ventures—actions related to innovation, to resource exploitation, and to individuation. The first two types are consistent with Grimm and Smith’s (1997) classification of actions as Schumpeterian and Ricardian, and the third type captures the pursuit of monopoly rents in the frictionless—that is without locational constraints and advantages—market space of the Internet.

The paper proceeds as follows: First, we discuss the theoretical ideas underlying our study. Next we describe the methodology and the results. We conclude with a discussion of the results and implications for future research.

THEORY DEVELOPMENT

Entrepreneurship research has been traditionally concerned with the role and the characteristics of the entrepreneur—the person or the team that creates a new venture. Austrian economists, who set the agenda for the field, highlighted the entrepreneur as the bearer of risk and uncertainty (Knight, 1921), as the innovator who transformed industries (Schumpeter, 1948), and as an alert, knowledgeable actor who discovered unfilled market niches (Kirzner, 1973). A significant amount of subsequent research has been dedicated to investigating the individual attributes that make the performance of these entrepreneurial functions likely (Miller, 1983; Brockhaus & Horwitz, 1985).

Gartner (1985) drew attention to the organizational nature of the entrepreneurship process and suggested that understanding entrepreneurship requires analysis of firm-level behavior. Entrepreneurship research on firm behavior has been concerned primarily with the strategic scope of new ventures: Whereas early research has recommended a niche focus entry strategies (Vesper, 1980), later studies have found a positive relationship between survival and aggressive entry including high capacity, promotion, sales and advertising expenditures (MacMillan & Day, 1987; McDougall & Robinson, 1990). Overall, an industrial organization perspective has guided the research on new venture management where the primary focus
has been on achieving and protecting competitive positions in industries. More recent research in entrepreneurship has adopted the resource-based view of strategy to explore the role of resources and capabilities embodied in the entrepreneur (Mosakowski, 1998) or the firm (Deeds, DeCarolis, & Coombs, 1998).

Our approach draws on action-based research in strategy (Gannon, Smith, & Grimm, 1992), which studies competition through the pattern of competitive interactions over time. The action-based approach focuses on market actions defined as “newly developed market-based moves that challenge the status quo of the market process” (Jacobson, 1992, p. 787; Ferrier, Smith, & Grimm, 1999). Whereas the action-based approach has focused on competitive interactions, several researchers have found that the level of all actions taken by a firm influence its competitive position. For example, Ferrier, Smith, and Grimm (1999) found that aggressive firms, which take more actions, are better able to defend their market positions. Young et al. (1996) found that higher levels of both competitive and cooperative activity are positively associated with firm-level financial performance.

Competitive moves include product introductions and marketing and promotion campaigns (D'Aveni, 1994; Young et al., 1996). Cooperative moves include mergers, technology alliances, equity arrangements, and acquisitions (Chen & Hambrick, 1995; Young et al., 1996). Taking both types of actions enhances a firm's competitive advantage, and contrary to the predictions of industrial organization economics, taking cooperative actions does not reduce, but increases the degree to which a firm takes competitive actions (Young et al., 1996). For example, nine Internet retailers, including CDNow and eToys, engaged in joint branding of an online mall (ShopperConnection) to respond to Amazon.com's foray into their product categories. Thus, competitive and cooperative actions are often the two sides of the same coin, since firms use cooperative actions to enhance the strength of their competitive moves, and both types of actions can be deployed to achieve the same market purpose, such as entry in a new market or defending a market from a new entrant. Therefore, in order to further our understanding of the role of different types of actions, in this paper we examine the effects of actions that differ in their market purpose. Grimm and Smith (1997) offer a useful guideline—different actions are necessary to exploit different sources of rent. Grimm and Smith (1997) distinguished among Schumpeterian actions geared to capture rents associated with innovation; Ricardian actions geared to exploit the value of scarce and rare resources; and entry deterrence actions are geared to exploit the rents of superior industry positions, protected by industry and mobility barriers. In this paper, we examine three types of actions because all of them can affect the ability of a new venture to create wealth.
Schumpeterian actions, or actions related to innovation, are at the heart of entrepreneurship, and have long been recognized as the engine of economic growth and wealth-creation (Schumpeter, 1948). The Austrian economist Joseph Schumpeter, after whom these types of actions were named, argued that the main source of value creation in society is the innovative activities of entrepreneurial firms, which “strike at the very foundations” of established firms by making their ways of doing business obsolete.

Research on the effect of innovation on firm performance has demonstrated in general a positive relationship between innovation and wealth creation (Chaney & Devinney, 1992). Similarly, innovation has been shown to have a positive relationship with the survival of new ventures, up to a point, after which the relationship reverses (Barnett, 1990). This relationship is particularly clear in the case of radical, or competence destroying, innovation, such as the Internet, which enhances the performance of new entrants relative to established firms (Tushman & Anderson, 1996; Christensen & Rosenbloom, 1995).

Therefore, in the context of the Internet, we would expect actions of innovation to be positively related to wealth-creation. Indeed the novelty of the business models of Internet firms (and the variations in products, services, interfaces, relationships, and interactions these models include) is one of the key value drivers for e-businesses (Amit & Zott, 2000). These ideas lead us to expect that Internet ventures that take high number of actions related to innovation—such as new product announcements—are likely to have greater access to Schumpeterian rents and to create more wealth. Therefore, we suggest that:

**Hypothesis 1.** The greater number of Schumpeterian actions, that is, actions related to introduction of new products and services, an Internet new venture takes, the more wealth it will create.

Ricardian actions, or actions related to the exploitation of scarce resources, have been the main focus of recent strategic thinking with regard to how firms sustain their access to economic rents (Barney, 1991; Peteraf, 1993). In particular, the resource-based view in strategy has emphasized the importance of resources that are rare, immobile, difficult to trade or imitate as underlying a firm’s sustained access to economic rents.

New ventures face a resource constraint to a greater degree than established firms (Aldrich, 1999). Their resource base may also be more skewed toward a single rare and valuable resource, such as a proprietary technology or talented founder. In order to deploy this resource into valuable new products and services, new ventures often must gain access to other complementary resources, necessary to develop the new products and services. Rothaermel (2001), for example, found that new biotech ventures tend to
form alliances with established pharmaceutical firms in order to gain access to their marketing and distribution capabilities.

Abundant anecdotal evidence suggests that Internet firms rely heavily on alliances to gain rapid access to technologies and other resources they do not control (Gardner & Scannell, 1998). Toole (1995) observed that alliances are central to managing technological uncertainties on the Internet, and that Internet firms seek partnerships as a means for leveraging technologies and expanding user bases.

Thus, based on the general evidence regarding resource leveraging through alliances and their use in the context of the Internet, we expect that Internet new ventures that take high number of alliancing actions to leverage resources are likely to have greater access to Ricardian rents and to create more wealth. Therefore, we suggest that:

**Hypothesis 2.** The greater number of Ricardian actions, that is, actions related to leveraging resources in alliances, an Internet new venture takes, the more wealth it will create.

Finally, industrial economics research and strategy (until recently) has dedicated the greatest amount of attention to extraction of monopoly rents, and to the strategies designed to protect these rents (Caves & Porter, 1977; Porter, 1980). Entrepreneurship research has followed suit by seeking to propose how new ventures secure favorable positions relative to formidable competitors (Vesper, 1980). For example, pricing strategies for entering and protecting a niche can be viewed as strategies geared to exploit monopoly rents.

Taking into consideration the characteristics of the Internet as a market space, however, suggests that the actions that Internet ventures need to take in order to gain access to monopoly rents are likely to differ from those of traditional firms. Given the low barriers to entry on the Internet, the lack of locational advantages, entry deterrence through price competition or locational preemption is unlikely to be effective. In contrast, since demand on the Internet is driven by awareness and attention, actions that establish the visibility and reputation of a firm are likely to provide protection against competitive entry (the latter should be understood as entry in the awareness of consumers.) For example, *The Wall Street Journal* (Andres, 1998, p. R4) observed that the Amazon.com experience has convinced many that “brand building is a key strategy,” and *Business Week* (Baker, Warner, & Dawley, 1998, p. 48) called the firm’s reputation “the one plausible defense against competitive attacks.”

Overall, actions that establish the identity of an Internet firm and enable consumers to notice and remember the salient attributes of the firm (Fombrun & Shanley, 1990) are likely to provide Internet firms with access to
monopoly rents. We term these type of actions “individuation actions” to highlight their links to establishing organizational identity, communicating memorable symbols, and creating perception of unique and inimitable value (Rindova & Schultz, 1998; Gioia, 1998).

Thus, in contrast to the general focus on entry deterring actions in traditional strategy research, we expect that in the context of the Internet, new ventures that take high number of individuating actions related to establishing their identity and reputation, are likely to have greater access to monopoly rents and to create more wealth. Therefore, we suggest that:

**Hypothesis 3.** The greater number of individuation actions, that is, actions related to establishing its identity and reputation, an Internet new venture takes, the more wealth it will create.

**METHODS**

**Sample**

To undertake the study, we collected data on the Top-50 publicly traded pure Internet firms listed on NASDAQ and New York Stock Exchanges published by *Internet World* (www.internetworldnews.com). The Top-50 list, based on revenues for the previous 4-quarters, was first published in September 1998. We focused on the Internet World Top-50 firms for the following reasons. These firms capture 82% (50/61) of the “pure” Internet firms that were public by the 3rd quarter of 1998, when the list was published. Given the novelty of the Internet and the lack of performance histories of Internet ventures, our sample from the better-established Internet firms enabled us to collect more reliable longitudinal accounting and action data. Despite our efforts, ten firms were removed from the original listing because complete accounting data about them was unavailable. Thus, the final sample consisted of 40 pure Internet firms.

**Data Collection**

We matched the data from *Internet World* with financial data from the *Compustat Database*. From the *Compustat* database we collected market value data for each quarter for the period between 1995 to the 3rd quarter of 1998 (the last quarter prior the publication of the list by *Internet World*). We focused on this period because the Internet was opened for commercial activities in 1995. Between 1995 and 1998 the evolving technologies and
entrepreneurial activities converted it from communication technology into a medium for social and economic exchange (Evans & Wurster, 1999).

Next, we collected all press releases issued by each of the 40 firms in the final sample in order to code their actions. Approximately 1,800 actions were reviewed and coded. Past action-based research has used various media publications to trace the stream of competitive actions. Using press releases provides a more comprehensive list of actions than those reported in the press because the media sources select actions based on their own organizational agendas (Gans, 1979).

To ensure the comprehensiveness and the validity of our action data set, we collected the data from multiple wire services included in the Lexis/Nexis online data base: PRNewswire, Business Wire, the Associated Press Service, M2Presswire, Newsbyte News Service, Canadian Newswire, and Gannett news service. These multiple sources ensured that our list of actions was as comprehensive as possible, and that we are using valid information about company activities. When multiple sources reported the same action, it was recorded only once. Thus, we examined approximately 1,800 actions undertaken by the firms in our sample between 1995 and 1998.

**MEASURES**

**Dependent Variable**

We used a firm's market value as a measure of wealth creation because it is the most strongly recommended measure of shareholder wealth creation in the area of finance (Fama, 1991). Entrepreneurship researchers have also recommended it as a measure of the wealth created by entrepreneurs (Deeds et al., 1998).

We operationalized market value (MV) as the share price of a firm on the last date of 3rd quarter of 1998 multiplied by the number of outstanding shares at that time. The market value of the firm on the last day of the data collection period captures all available information about the firm, on which investors' expectations about its wealth-creating potential are based. This value also reflects our premise that the cumulative effect of a firm's strategic actions on investors' expectations about its wealth-creating potential will be reflected in its MV at the end of the time period over which these actions have been undertaken.
Independent Variables

From all the actions reported by Internet firms we focused on three types of actions that were most closely related to innovation, leveraging resources, and individuation.

Schumpeterian actions were measured as the total number of new product announcements a new venture has announced in its press releases between 1995 and 1998. Ricardian actions were measured in three separate categories: total number of content alliances, total number of technology alliances, and total number of distribution agreements, a new venture has announced in its press releases between 1995 and 1998. We used different measures of Ricardian actions because resources differ in how valuable and rare they are, and therefore, are likely to have differential effect on access to rents and wealth-creation. Individuation actions were measured as the total number of communication efforts (e.g., marketing and public relations campaigns) a new venture has announced in its press releases between 1995 and 1998. Table 1 provides a list of the categories with definitions and examples actions from the database.

**Table 1. A Summary of the Categories of Strategic Actions—Definitions and Examples**

<table>
<thead>
<tr>
<th>Action Type</th>
<th>Definition</th>
<th>Examples in the Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Product and Service Announcements</td>
<td>Introduction of new site features, services, and products to customers/users.</td>
<td>• AOL introduces “Download Sentry.”&lt;br&gt;• Excite launches “Webcrawler.”&lt;br&gt;• Concentric launches high-speed DSL services aimed at small to medium-size business market.</td>
</tr>
<tr>
<td>Marketing and Public Relations Initiatives</td>
<td>Efforts to associate certain meanings and symbols with the firm, such as promotional campaigns, retaining advertising or public relations agencies, sponsorship of certain thematic events.</td>
<td>• AOL launches first TV branding Campaign&lt;br&gt;• Snap! Selects Saatchi &amp; Saatchi to be its agency of record.&lt;br&gt;• Amazon.com announces $100K online competition for the greatest tale ever told with the participation of John Updike.</td>
</tr>
<tr>
<td>Content Alliances</td>
<td>Partnership with another company for using their content or for creating new content jointly.</td>
<td>• AOL to use Warner Brothers’ cartoon productions and&lt;br&gt;• PC Quote to provide stock quotes for CNET’s Snap!&lt;br&gt;• GKS Net partners with Quote.com to provide top financial market information to sites worldwide.</td>
</tr>
</tbody>
</table>
### Table 1. A Summary of the Categories of Strategic Actions—Definitions and Examples (Continued)

<table>
<thead>
<tr>
<th>Action Type</th>
<th>Definition</th>
<th>Examples in the Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Alliances</td>
<td>Partnership with another company for using their technology or developing jointly new technology.</td>
<td>• Broadvision with Verisign to integrate authentication technology into Broadvision’s 1-1 software</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Harris will integrate VASCO Data Security’s Access Key II technology into CyberGuard.</td>
</tr>
<tr>
<td>Distribution</td>
<td>Arrangements with an outside company to distribute products or services.</td>
<td>• CKS Group and Interwoven Announce Reseller Agreement to Support Enterprise Web Production</td>
</tr>
<tr>
<td>Arrangements</td>
<td></td>
<td>• Amazon to offer services through AOL’s web site</td>
</tr>
<tr>
<td>New Product and</td>
<td>Introduction of new site features, services, and products to customers/users.</td>
<td>• AOL introduces “Download Sentry.”</td>
</tr>
<tr>
<td>Service Announcements</td>
<td></td>
<td>• Excite launches “Webcrawler.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Concentric launches high-speed DSL services aimed at small to medium-size business market</td>
</tr>
</tbody>
</table>

### Control Variables

Since we were interested in the effects of actions of new ventures on market performance, we controlled for the effect of accounting measures that financial theory has posited as explainatory of market value (Ohlson, 1995). We used book value (BVE) of the firm’s equity and net income before taxes and extraordinary items (IBEX) as control variables.

BVE also controls for the effects of size that past research has associated with firm performance and survival (Das, Pradyot, & Sengupta, 1998; Fowler & Schmidt, 1988; Kotha & Nair, 1995). Additionally, we used the number of quarters that a firm has been public to control for age—another variable that has been associated with the performance and survival of new ventures (Aldrich, 1999).

### MODELS

To assess the impacts of different types of actions on market value, we first estimate a baseline model using the control variables. The baseline model assesses the impact of financial measures on firm value. To this end we used a model proposed by Ohlson (1995). Ohlson posits that the market
value of firm is linear combination of book value of equity, earnings and nonaccounting information. Therefore, we use the following specification:

\[ MV_{it} = \gamma_0 + \gamma_1 \text{Qtrs} + \gamma_2 \text{BVE}_{it} + \gamma_3 \text{EARN}_{it} + \gamma_4 \text{Non-accounting Information}_{it} + \text{error}_{it} \]  

(1)

In the equation above, \( MV_{it} \) captures the market value of firm \( i \) equity at time \( t \), \( \text{BVE}_{it} \) the book value of equity at time \( t \), and \( \text{EARN}_{it} \) represents the net income earned by the firm, for the period ended at time \( t \). Nonaccounting measures \( \text{Information}_{it} \) capture various intangibles, including expectations about the future growth potential of a firm.

To model the impact of the action variables on market value, we employed the following specification:

\[ MV_{it} = \gamma_0 + \gamma_1 \text{Qtrs} + \gamma_2 \text{BVE}_{it} + \gamma_3 \text{EARN}_{it} + \gamma_4 \text{Schumpeterian}_{icum} + \gamma_5 \text{Ricardian} + \gamma_6 \text{Individuation} + \text{error}_{it} \]  

(2)

We employ a heteroscedasticity—consistent variance covariance matrix, as discussed in White (1980), for hypotheses testing. To ensure that no firms among these “top performers” are outliers, we scanned the R-student scores for influential observations. We found that no firm had a R-student score greater than the threshold level of 3 (Belsley, Kuh, & Welsch, 1980). In addition, we also checked for heteroscedasticity. We found that White’s (1980) test comfortably rejected the presence of heteroscedasticity in all the models tested. Finally, because our independent variables had univariate correlations of above .5, we checked for multicollinearity problems using VIF statistic, which showed no indication of multicollinearity problems.

**RESULTS**

Table 2 provides the descriptive statistics and the correlation matrix for all variables in the study. According to these statistics the average firm in our sample has been public for a little less than 9 quarters and it has lost approximately $46M in total. In terms of strategic actions, the average firm undertook approximately 16 announcements of new products, services, and features, entered 22 alliances, and launched 3 marketing or public relations initiatives. The descriptive statistics also indicate a significant positive correlation between Market value and Individuation actions, while Ricardian and Schumpeterian actions have somewhat lower initial correlation with Market Value. These univariate correlations indicate preliminary evidence in support of Hypothesis 3. To assess the robustness of these relationships, we use a multivariate regression analysis.
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Market Value ($M)</td>
<td>609.61</td>
<td>548.58</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Qtrs. Public</td>
<td>8.90</td>
<td>3.90</td>
<td>-0.104</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Earnings ($M)</td>
<td>-46.64</td>
<td>74.46</td>
<td>-0.089</td>
<td>-0.248</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 B.V. of Equity ($M)</td>
<td>64.60</td>
<td>42.28</td>
<td>0.186</td>
<td>-0.115</td>
<td>-0.102</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Schumpeterian Actions</td>
<td>15.54</td>
<td>15.26</td>
<td>0.161</td>
<td>0.603***</td>
<td>-0.142</td>
<td>-0.169</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Ricardian Actions (including all three types of alliances)</td>
<td>21.88</td>
<td>19.52</td>
<td>0.194</td>
<td>0.476***</td>
<td>-0.194</td>
<td>-0.061</td>
<td>0.710***</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>7 Individuation Actions</td>
<td>3.02</td>
<td>2.54</td>
<td>0.287*</td>
<td>0.154</td>
<td>-0.027</td>
<td>-0.021</td>
<td>0.484***</td>
<td>0.446***</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note: *p < .10; **p < .05; ***p < .005
The results of the regression models are presented in Table 3.

### Table 3. Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MVE</td>
<td>MVE</td>
<td>MVE</td>
<td>MVE</td>
</tr>
<tr>
<td><strong>Intercept</strong></td>
<td>567.85**</td>
<td>376.12**</td>
<td>477.01***</td>
<td>426.99***</td>
</tr>
<tr>
<td></td>
<td>(2.057)</td>
<td>(2.720)</td>
<td>(3.038)</td>
<td>(2.887)</td>
</tr>
<tr>
<td><strong>Baseline Models/Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Public Life</strong></td>
<td>0.1512</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.641)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Earnings</strong></td>
<td>-0.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.588)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Book Value</strong></td>
<td>2.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.980)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Schumpeterian</strong></td>
<td>-8.89</td>
<td>3.88</td>
<td>2.95</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-1.167)</td>
<td>(.566)</td>
<td>(.424)</td>
<td></td>
</tr>
<tr>
<td><strong>Ricardian</strong></td>
<td></td>
<td>22.55**</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Content Alliances</strong></td>
<td></td>
<td>(2.193)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ricardian</strong></td>
<td></td>
<td></td>
<td>-32.22</td>
<td></td>
</tr>
<tr>
<td><strong>Technology Alliances</strong></td>
<td></td>
<td></td>
<td>(-1.090)</td>
<td></td>
</tr>
<tr>
<td><strong>Ricardian</strong></td>
<td></td>
<td></td>
<td></td>
<td>-6.15</td>
</tr>
<tr>
<td><strong>Distribution Agreements</strong></td>
<td></td>
<td></td>
<td></td>
<td>(-0.689)</td>
</tr>
<tr>
<td><strong>Individuation</strong></td>
<td>76.67**</td>
<td>60.48</td>
<td>68.61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.023)</td>
<td>(1.558)</td>
<td>(1.635)</td>
<td></td>
</tr>
<tr>
<td><strong>Adjusted R-square</strong></td>
<td>0.00</td>
<td>0.125</td>
<td>0.037</td>
<td>0.018</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

*Note: *p < .10; **p < .05; ***p < .005*

Model 1 is the baseline model, in which the financial measures of firm value are introduced as control variables. The results suggest that the accounting/financial variables and the control variable for age are not significantly related to the dependent variable in our sample of pure Internet new ventures.
Model 2 investigates the effect of the independent variables (i.e., Schumpeterian, Ricardian, and Individuation actions) of interest and market value. Table 3 shows the results of Model 2 using only the independent variables as predictors. The reason for this is that the control variables investigated in Model 1 did not reach statistical significance; however, if included in the predictor model (Model 2 as originally specified, not reported here) they reduced the degrees of freedom. When all control variables were included in Model 2 as originally specified, the structure of the relationships between the independent and the dependent variables remained unchanged, but the overall model failed to reach significance due to lost degrees of freedom to control variables lacking in explanatory power. Thus, the results reported below are drawn from a predictive model including the independent variables only.

Hypothesis 1 predicted a positive relationship between Schumpeterian actions and market value. The results from the regression analysis show that our measure of Schumpeterian actions—new product announcements—was not significantly related to the creation of wealth in the top pure Internet firms in 1998. Thus, Hypothesis 1 was not supported.

Hypothesis 2 predicted a positive relationship between Ricardian actions and market value. We ran the model using three operationalizations of Ricardian actions—technological alliances, content alliances, and distribution agreements. The results of the analysis suggested that only one of the operationalizations—content alliances—was significantly related to market value ($\beta = 22.55; p < .045$). In contrast, the other two operationalizations (reported in Models 3 and 4) failed to reach statistical significance ($\beta = -32.22; p < .28$ for technology alliances; and $\beta = -6.15; p < .49$ for distribution alliances). Therefore, Hypotheses 2 is partially supported.

Hypothesis 3 predicted a positive relationship between individuation actions and market value. The results of our analysis suggested that individuation actions, operationalized as communication efforts through marketing and public relations campaigns, was significantly related to market value ($\beta = 76.67; p < .05$). Therefore, Hypotheses 3 is supported.

The overall predictive model based on these variables explains 13% ($F = 2.805, p < .05$) of the variance in the dependent variable. Overall our findings suggest that whereas accounting measures of performance, do not explain the market value of pure Internet new ventures in 1998, the types of actions these ventures undertook explain a significant proportion in the variance in market value. These findings extend and refine findings of earlier action-based research (Young et al., 1996) and shed light on the market processes through new ventures exploit and magnify the opportunities associated with the Internet.
DISCUSSION AND IMPLICATIONS

The purpose of this study was to examine how new Internet ventures create wealth as a function of their strategic actions. We argued that understanding the relationship between a new venture’s stream of actions and its ability to create wealth is critical to entrepreneurship research because strategic actions are the building elements of the market process. Through actions, the entrepreneurship functions of acquiring, combining, and deploying resources in markets are performed (Schumpeter, 1948).

Drawing on the ideas developed by action-based research in strategy (Chen, 1996; Grimm & Smith, 1997; Gannon et al., 1992), we identified more than 1,800 strategic actions taken by a sample of top 40 Internet firms over a course of 15 quarters between 1995 and 1998. We hypothesized that three types of actions will contribute to wealth creation by Internet firms: Schumpeterian actions related to innovation, Ricardian actions related to exploitation of rare resources, and individuation actions related to carving unique market positions in the minds of consumers. Broadly, we found support for the argument that different types of actions have differential impact on wealth creation.

Specifically, we found no significant relationship between announcements of new products and services, and market value. Several reasons could potentially explain this result. One reason might be that we used new product announcements, as a measure of Schumpeterian actions. There is some empirical and anecdotal evidence that not all announcements of new product introductions and improvements materialize into new products. Announcements, from this perspective, are viewed as signals made to preempt competitors in a particular product space. Even if not all new product announcements materialize in new products, however, it is likely that firms that seek to compete on innovation are more likely to use this action strategy. Therefore, our measure is likely to adequately capture the reliance of a new venture on Schumpeterian actions for its access to rents.

Another possible explanation for the lack of findings with regard to Schumpeterian actions may be that innovation by new ventures has been found to be positively related to new venture performance only in some, but not in all industries (Acs & Audretsch, 1988). Similarly, new product introductions and improvements may be positively related to wealth-creation in some industries but not in others. Indeed as some authors have argued that in industries with network externalities such as the Internet, early product adoption is more critical in future product adoption and firm competitive success, than product introductions and improvements are (Shapiro & Varian, 1998). Therefore, future research should also examine the effect of actions that stimulate product adoption.
In contrast to the lack of findings regarding Schumpeterian actions actions intended to establish the identity and the reputation of a new venture were positively and significantly related to market value. Interestingly this type of actions may also contribute to new product adoption. Marketing research has found that established company reputation enhances the speed of new product adoption (Yoon et al., 1990). Thus, since individuation actions both establish the firm in the mind of users as distinct from competitors, but also may facilitate new product adoption, individuation actions can be seen as central to the competitive strategies of Internet new ventures. In this study we did not distinguish between communication efforts at the product level and at the firm level. However, product branding and corporate branding may have differential effects on establishing the identity of the firm and on product adoption, and therefore, to have differential effects on market value. Future research on the topic should seek to provide more refined conceptualizations and measures of individuation actions. Such conceptualizations may prove particularly valuable for Internet firms given their significant levels of marketing expenses.

Another interesting finding of this study is that one type of Ricardian actions—content alliances—had a significant relationship with the market value of Internet new ventures, whereas others, such as technology alliances and distribution agreements—did not. A cursory examination suggests that content may not meet the requirements laid out by resource-based theorists as a rare, difficult to substitute, or imitate resources. Yet, when leveraged in alliances, this resource seems to have the strongest relationship to the market value of new ventures. Whereas resource-based theory looks at resources very broadly, it is also important to understand the potentially industry specific value of particular resources in relation to creating competitive advantage (Priem & Butler, 2001). For example, Amit and Schoemaker (1993) argued that strategic industry factors determine which resources of a firm will constitute a strategic asset. Our analysis suggests that in the context of the Internet, content may be such a strategic industry factor. Future research should focus on more fine-grained understanding of what content is, how is used by Internet firms and their users, and how it creates value within the context of a single firm, as well as within the context of the value net spanning firms, users, and strategic partners.

Finally, our findings are consistent with the ongoing discussion in the media and the financial community that traditional financial/accounting measures of performance (e.g., financial/accounting variables) were not the adequate means for gauging how the market values the actions of Internet firms. In our study accounting measures of performance did not exhibit a significant relationship with market value.

Our results validate the usefulness of action-based approaches in understanding the role of strategic conduct in wealth creation on the Internet.
The study also extends action-based research by demonstrating that different types of actions have different consequences for a firm's ability to create wealth. Most action-based research has focused on the competitive effects of speed and timing of actions (Chen, 1996; Chen & Hambrick, 1995), of their intensity, impact, effort, and strategy versus tactics (Chen, Smith, & Grimm, 1992), and on the performance effects of overall level of competitive activity (Smith et al., 1996; Young et al., 1996). In contrast, our study is concerned with the content of actions. The content of actions is important because these actions have different impacts on key stakeholders, and as a result, different consequences for the relative access of new ventures, and competing firms in general, to resources.

Overall, the study focuses on understanding issues of strategy as they pertain to Internet-based new ventures. It also contributes to entrepreneurship research an action-based approach, which focuses on strategy processes. Such action-based approach enables the study of “process-based rather than content-based attributes of strategy” (Chen & Hambrick, 1995, p. 453) and in doing so, brings entrepreneurship research closer to its theoretical roots in the Austrian school of economics, which emphasized market processes (Kirzner, 1973; Knight, 1921; Schumpeter, 1948). To strategy research the study contributes an investigation of the strategic behaviors of Internet firms, which operate in what strategy scholars have characterized a “new competitive landscape” (Bettis & Hitt, 1995). These firms have emerged as significant wealth creators despite their short performance histories and lack of traditional performance metrics. Understanding how their strategic behaviors relate to their abilities to create wealth is an important agenda for strategy research and this study makes a step in that direction. In particular, the results of the study show that the market discriminates between different types of actions. The important implication of these findings is that the market rewards strategic behaviors differentially resulting in different abilities for Internet new ventures to create wealth.

Limitations of the Study

Several limitations of the study should be noted. First, the generalizability of the findings is limited due to the use of a relatively small sample of top 40 Internet firms. Our primary consideration was to be able to collect longitudinal data both about accounting performance and action strategies. To meet these requirements we looked for a sample of better established firms. Although all firms in the sample are leading Internet firms in terms of revenues, they represent nine different segments of the Internet, such as portals, e-commerce sites, Internet security firms, Internet service...
providers (ISPs), etc. Second, these firms exhibit significant variation in market value. Thus, overall we believe that the sample was adequate for investigating differences in wealth creation by Internet ventures as a function of their actions.

Another limitation of the study derives from the use of market value as a measure of wealth. Whereas both strategy and entrepreneurship researchers have argued in favor of using market value as a measure of performance, and in particular, of incremental wealth creation (Deeds et al., 1998), the measure does not discriminate among wealth created for different stakeholders. Potential fruitful extensions of our approach are studies that break down the wealth creation among founders, early investors (such as the lead venture capital firm), employees (who have been increasingly compensated on the Internet through employee stock options), and public investors. Such examination will contribute to a more comprehensive theory of the relationship between the strategies of new ventures and payoffs for various stakeholders.

Finally, both some of the findings, and the lack of findings, in this study may be affected by the empirical setting. The study captured relationships between strategic actions and market value at a time when the excitement of the financial market with the Internet has lead to notable valuation anomalies (Evans & Wurster, 1999).

CONCLUSION

In this study we address a question of paramount practical importance for entrepreneurs, managers, and investors on the Internet: How do the strategic actions of Internet ventures enhance their ability to create wealth? The study draws on ideas from the Austrian school of economics, which emphasizes the role of actions as drivers of the competitive process. It demonstrates that different types of actions may be of greater or lesser importance in wealth creation and that entrepreneurs need to understand the relative value of actions. In particular, whereas entrepreneurship is often equated with innovation, in our study, actions that enable a new venture to establish its identity and reputation bore the strongest relationship with market value. Thus, our finding suggests some interesting ideas about the ways in which Internet firms compete, about differences in stock market interpretations of Internet growth strategies, and about individuation as an important aspect of the market process, through which market opportunities are created, exploited, and magnified. Our study suggests that new ventures competing in a novel and complex environment of the Internet, need to understand the value of different types of actions.
ACKNOWLEDGMENT

We thank Anu Wadhwa for assisting with the data collection and Gary Hansen and Luis Martins for their helpful comments and suggestions.

REFERENCES


