

Competing in New Markets

and the Search for a Viable Business Model

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February 14, 2014

[1] This paper has benefited from discussions with Riitta Katila, Woody Powell, Steve Barley, Mark Granovetter, Tom Byers, and Chuck Eesley. We are grateful to seminar participants at Stanford, North Carolina State, the University of North Carolina, the University of Texas, the University of Colorado at Denver, Northwestern, and Harvard. Support for this research was generously provided by a Kauffman Foundation Dissertation Fellowship, a National Defense Science and Engineering Graduate Fellowship, and the Stanford Technology Ventures Program.

ABSTRACT

Prior research examines how firms compete effectively in established markets. This study investigates new markets, and traces how entrepreneurial rivals in such a market search for a successful strategy. Through an in-depth, multiple-case study of firms in the nascent online-investing market, we induce a theoretical framework to explain how firms win the race to find a viable business model. As the new market emerged, high-performing firms enacted three strategies in sequence that helped them achieve their objective quickly and efficiently. First, their executives focused primarily on substitutes but copied from rivals. Next, they actively tested their assumptions and made major resource commitments to the business model they identified as the most lucrative. Finally, they deliberately maintained a loosely structured organizational activity system in order to continue to accommodate emergent sources of value. For these firms, competition resembled neither economic rivalry nor collective action but a logic of interaction akin to *parallel play*. The resultant middle-range theory has implications for research on entrepreneurial competition in new markets and on the organizational processes of developing a business model.

LinkedIn's initial public offering in 2011 was the capstone of the highly successful startup's rapid rise. At the time of its founding, however, LinkedIn was merely one of several ventures, such as Ryze, Plaxo, Visible Path, and Spoke, in the new professional-networking market (Piskorski, 2007). LinkedIn quickly developed a successful strategy that catalyzed subsequent growth and carried the firm well beyond these rivals. The LinkedIn story is not unique. New markets are typically contested domains in which a handful of firms strive to develop a better strategy sooner than rivals.

Scholars of strategy and organization theory have long been interested in how firms develop strategies, and have advanced several theories to explain why some firms are more successful than others. With an emphasis on generic strategies, the industry-structure perspective maintains that competitive advantage derives from differentiation (Porter, 1996; Bingham and Eisenhardt, 2007). That is, a firm should stake out a unique market position and attract customers with valuable products that competitors cannot match (Gavetti and Rivkin, 2007). In contrast, the strategic-action perspective prioritizes moves over position. One strand emphasizes the benefits of competitive aggressiveness (Smith, Ferrier, and Ndofor, 2001), asserting that firms that move early and rapidly, and outmaneuver rivals, will capture market opportunities first (Chen and MacMillan, 1992; Ferrier et al., 1999). Another strand emphasizes the benefits of bold, resource-intensive moves (i.e., strategic commitments) that bind firms to given courses of action (Saloner, Shepard, and Podolny, 2001). By reducing their own flexibility, firms can change competitors' actions by shaping their expectations about the future. Jointly, these theoretical perspectives on position and action outline the underlying principles believed to guide firms to develop successful strategies.

But theories generated by observing established markets may not apply to new markets. New markets differ in significant ways that are likely to affect the very nature of competitive interaction and the effectiveness of specific strategic moves. First, new markets are characterized by undefined structures, competitors, technologies, and products (Rindova and Fombrun, 2001; Chen et al., 2010; Rindova et al., 2010) and extreme ambiguity about opportunities (Santos and Eisenhardt, 2009; Benner and Tripsas, 2012). Thus while differentiated strategic positions can be valuable in structured industries, executives in new markets may have difficulty identifying both the relevant foils for comparison (since competitors' identities remain unknown), and the relevant dimensions on which to differentiate (since both customers and products are still unspecified). Similarly, though aggressive moves may be effective when pursuing well-known opportunities, patient approaches can enable executives to be selective and efficient when pursuing ambiguous opportunities (Murray and Tripsas, 2004). Finally, though strategic commitments can deter or delay rivals, major resource investments can prematurely lock firms into specific paths and prevent them from adapting to better strategies as new markets evolve (Rindova and Kotha, 2001).

Second, new markets create conflicting tensions for firms engaged in competitive interaction. Both classic conceptualizations of strategic interaction (e.g., Goffman, 1969; Schelling, 1960) and contemporary theories assume sharply antagonistic relationships between rivals. However, sometimes firms act collectively to legitimate a new market (Navis and Glynn, 2010), but ultimately they must compete and attempt to win that market (Lounsbury and Glynn, 2001; Santos and Eisenhardt, 2009). In sum, prior theories of strategy and organizations are unlikely to generalize fully to new markets. This study explores how firms compete in new markets and asks: *How does a firm develop a successful strategy in a new market?*

To address this question, we conducted a longitudinal field study of five firms in the nascent online-investing market. We selected entrepreneurial firms because their limited resources make a successful strategy a pressing imperative (Baker and Nelson, 2005; Martens, Jennings, and Jennings, 2007; Hallen and Eisenhardt, 2012). Using a multiple-case inductive design (Eisenhardt and Graebner, 2007), we closely tracked the five rivals over three years, beginning at market inception, as they searched for successful strategies. Fortuitously, two distinct strategies emerged, enhancing the richness of our study, and the rivals took very different approaches and achieved vastly different degrees of success.

We contribute at the nexus of strategy and organization theory. A key insight that shaped our study emerged early in our fieldwork: a core component of developing a successful strategy in a new market centers on getting to a viable business model. Building on this insight, we developed a new theoretical framework to explain how firms achieve this aim more efficiently and quickly than rivals do. Our framework clarifies how competition in new markets differs substantially from established markets. Instead of the intense competitive interactions that characterize economic rivalry in established markets, successful firms engage in *parallel play*—that is, they see rivals as useful stepping stones rather than antagonistic opponents. Unexpectedly, we also found that successful firms make large commitments, but test their assumptions first. Finally, successful firms move slowly, not quickly, as they wait patiently for market ambiguity to resolve. Our framework contributes insights to existing perspectives in strategy and extends prior work on industry structure, competitive dynamics, and strategic commitment. We also provide conceptual clarity about, and measurement of, an important theoretical construct for new markets: business models.

THEORETICAL BACKGROUND

Several lines of existing research explore how firms develop successful strategies and though drawn from established markets, each has implications for new markets. According to the industry-structure view, a firm should stake out a unique market position (Bingham and Eisenhardt, 2007). This position asserts that it is unique, tightly linked activities, difficult for rivals to imitate, which drive superior performance (Rivkin, 2000). For example, in a multi-industry study of 1090 Greek firms, Spanos and Lioukas (2001) found that firms whose marketing and innovation activities departed from industry norms achieved greater market performance and profitability. Similarly, Dess and Davis (1984) showed that firms that pursued generic strategies based on differentiation were more likely to outperform their peers in the paint-and-allied-products industry. Collectively, these and other studies point to a strategic *logic of differentiation*. Applied to new markets, this logic implies that a successful strategy depends on quickly creating differentiated activities to serve particular customers in unique ways.

A second line of research, competitive dynamics, investigates how firms develop successful strategies via competitive moves and countermoves. According to the view, firms respond to the observable actions of rivals (Smith et al., 2001) and create performance heterogeneity via sequences of moves (e.g., pricing, advertising). Studies have found that firms that move more frequently and rapidly, and carry out more diverse moves, achieve superior performance (Miller and Chen, 1996; Young et al., 1996; Ferrier, 2001). For example, Chen and Hambrick (1995) found that airlines performed better when they engaged in frequent pricing and advertising moves; Ferrier, Smith, and Grimm (1999) showed that market leaders were "dethroned" by aggressive challengers' quick and frequent moves. Jointly, these studies give rise to a strategic *logic of aggressiveness*. By acting early, often, and rapidly, firms outmaneuver

rivals, rendering retaliation difficult and making pre-emptive exploitation of opportunities likely (Ferrier, 2000). This logic implies that in new markets successful strategies are likely to arise from aggressive actions to capture fleeting opportunities.

Finally, the strategic-commitment perspective examines how firms develop successful strategies to take advantage of their strategic interdependence with rivals. Strategic interdependence means that all firms' outcomes depend on the actions of each firm (Saloner et al., 2001). Using theoretical models and case studies, research has analyzed such resource-intensive actions as market entry, capacity expansion, major pricing initiatives, and product introductions (Ghemawat, 1997). Studies show that successful strategies can emerge from costly and bold actions that simultaneously commit a firm to a given path and deter rivals (Weigelt and Camerer, 1988; Ghemawat, 1991). For example, Dixit (1980) has shown that incumbent monopolists preemptively install additional manufacturing capacity to deter entry by rivals. Even if rivals enter, the incumbent still enjoys a cost advantage from increased scale of production. In the aggregate, this research highlights a strategic *logic of commitment*. Commitment strategies reduce a firm's freedom of action, but they can also change rivals' expectations about how the firm will act in the future, influencing those rivals to the firm's benefit (e.g., delaying them). Applied to new markets, this logic implies that successful strategies arise from resource commitments that keep rivals at bay.

Overall, these theoretical lenses clarify how particular actions enable firms to develop effective strategies. But their implications for new markets may be misleading. For example, since new markets are characterized by uncertain technologies, products, and customers (Santos and Eisenhardt, 2009), and by poorly understood competitors (Rindova et al., 2010; Benner and Tripsas, 2012), firms seeking differentiation may lack adequate understanding of what product

features matter and of who the relevant competitors are. Furthermore, because new markets are highly ambiguous, aggressive firms may expend excessive time and resources mistakenly scaling inconsequential “local peaks” (Rindova and Fombrun, 2001). Similarly, major strategic commitments can destroy flexibility, rendering firms unable to experiment or to adapt to changing markets (Murray and Tripsas, 2004). Thus, it is likely that these theories from established markets cannot simply be applied to new markets.

A smaller body of research has recently begun to examine how firms enact strategy in new markets. In this work, rivals sometimes cooperate with rivals and may undertake actions intended to attract attention and favorably shape nascent contexts. For example, Navis and Glynn (2010) studied the competition between XM and Sirius in the emergent satellite-radio market and found that their early relationship was congenial: the two firms cooperated to establish the collective identity of their market category and only later did they compete. Other new market researchers have explored the advantage of attention-grabbing strategies like collective rhetoric (Lounsbury and Glynn, 2001), vivid stories (Santos and Eisenhardt, 2009), and simple products (Rindova et al., 2010) and have studied how shaping strategies can be used to structure the forces that shape nascent contexts to firms’ benefit (Gavetti and Rivkin, 2007; Ozcan and Eisenhardt, 2009). Much of this work is very recent, signaling a growing interest in understanding the origins of strategy in new markets.

But this recent work has not explicitly addressed how firms actually develop successful strategies, particularly viable strategies that generate revenue and profitability. Moreover, researchers have thus far overlooked the major strategic imperative of competing in new markets: how firms crystallize their approach for “how they do business”—in other words, their business models (Amit and Zott, 2012). Firms in new markets are less likely to focus on

traditional pricing, advertising, and capacity-expansion moves and more likely to pursue moves that address immediate imperatives like developing business models, generating revenues, and creating and capturing value from customers in a cost effective way (Nickerson, Silverman, and Zenger, 2007). And, more important, there may be theoretical purchase in conceptualizing new markets—as in the LinkedIn example—as a race among closely matched rivals to find a successful strategy. All these arguments point to the critical importance of examining the origins of strategies in new markets.

METHODS

Given the scarcity of theory and evidence on how firms compete in new markets, and specifically on how they develop successful strategies, we use an inductive multiple-case study design (Eisenhardt, 1989; Yin, 2009). Inductive studies are useful when theory is underdeveloped or nonexistent. Multiple-case studies allow for comparisons across cases, and often result in more robust, generalizable theory than single cases do (Eisenhardt and Graebner, 2007; Christensen and Carlile, 2009). A particular strength of our study is rich longitudinal field data, which can promote discovery of new mechanisms and tracing of novel processes. Field data also allow for observation of market emergence and of the origins of strategies, which are difficult or even impossible to observe in archival sources.

Our setting is online investing, a nascent market that emerged in 2007 at the convergence of social networking and financial investments. This is an attractive market for our research because it is sufficiently young to allow for examination of market emergence before winners, losers, and even market viability become apparent. Thus we can track a new market's evolution from inception, and examine how firms compete more (or less) successfully. It is also an

attractive setting because multiple entrepreneurial firms entered at the same time. Entrepreneurial firms are useful for our study because creating a successful strategy quickly is imperative for them. Inspired by social networks (e.g., Facebook, MySpace) and Web 2.0 technologies, several entrepreneurial teams recognized the opportunity to combine social networking with financial investing to create an online social platform for investors. Though the firms began without clear strategies, they all identified essentially the same initial opportunity: each sought to attract customer-investors to a website, to identify the talented or skilled subset of investors, and to “monetize” those investors’ investment strategies. Since online investing was a highly ambiguous concept, the media used contest analogies to help people make sense of it: *"Fantasy Football Meets Investing"* and *"American Idol investor talent discovery"* to convey the idea of a talent marketplace in which stock pickers compete with one another to “rise to the top.” Some observers were skeptical about combining social networking with investing. As one investment industry analyst observed, *"The openness, trust and honesty that is kind of implicit in the ethos of social networking does not mesh well with the cutthroat mentality of a trader."*

Our sample is all five entrepreneurial firms founded as the market emerged in 2007 (see Table 1). We use pseudonyms for the firms, having promised our informants anonymity. Such a small number of firms is common in new markets since they are typically a domain characterized by “pioneering activities of a few firms” (Agarwal and Bayus, 2004). At the outset, fortuitously, all five firms had similar financial resources and human capital, and the shared goal of building a significant and profitable firm. These similarities are advantageous because they rule out important alternative explanations like differences in goals and endowments. Pilot interviews confirmed that the firms’ executives were aware of one another and saw each other as competitors. Early on, it became apparent that our informants all saw rapidly getting to a viable

business model as a core component of developing a successful strategy in a new market. Serendipitously, two viable business models emerged—one based on advertising-supported web content, the other on collecting fees from assets under management—and the firms pursued a rich range of actions.

Data Sources

We used several data sources: (1) two waves of semi-structured interviews with firm executives, investors, and board members; (2) interviews with industry experts and journalists from the Internet and finance communities; (3) a third set of follow-up conversations and emails with firm informants and relevant others; (4) archival materials, including business and technical publications, Internet resources, company press releases, internal corporate documents, emails, and company blogs; and (5) analyst reports on the nascent market. Such varied data enables triangulation among sources, strengthening data accuracy and the quality of inferences. One particularly useful data source was company blogs, which provided real-time data free of retrospective bias.

Our primary data source was semi-structured interviews. Between 2009 and 2011, we conducted two waves of interviews (78 in total) with company executives about their firms' strategic actions (see Table 2). We selected two types of informants. Our internal informants were the executives most familiar with their firms' search for a successful strategy, including all five founder/CEOs, the majority of their co-founders, and functional-area managers like VPs of marketing and engineering. Some external informants were connected to one of the firms but not directly involved (e.g., VCs and angel investors). Others were industry analysts, financial

journalists (e.g., the *Wall Street Journal*), and technology journalists (e.g., Techcrunch), who provided an outsiders' perspective.

The goal of the internal interviews was, in the words of Smith and colleagues, to get “inside executives' heads” and to glean “primary data directly from managers who actually make decisions and implement competitive actions” (Smith et al., 2001: 46). The interviews had three sections. In the first wave of interviews, we asked about the informant's background and the firm's strategy, competitors, and performance. We then solicited a detailed narrative of the firm's history from its founding through the present. We focused on specific actions, and on why and how those actions contributed (or not) to developing a strategy. We also identified actions that were contemplated but not carried out (counterfactuals) and probed managers' reasoning as they pursued some actions but not others. Interviews lasted between 45 minutes and two hours, and were recorded and transcribed within a day. In the third section, we gathered more detail about a subset of strategic actions that arose during the interview, and the interviewee's assessments of competitors at different points in time. The second wave of interviews employed a similar structure but concentrated on the time period since the last interview. For external informants, the interview guide was similar but it covered the entire sample of firms.

We took multiple steps to ensure data validity. First, we collected both retrospective data (efficient for gathering many observations) and real-time data (relatively free of informant bias). It is particularly noteworthy that we began data collection before outcomes were known, thus limiting retrospective sense-making (Huber, 1985). We further reduced retrospective bias by collecting data at different points in time. Second, we structured the interviews to gather specific information, and compiled firm histories using nondirective questioning focused on facts and events rather than informants' speculations (Huber and Power, 1985). Specifically, we asked

informants to describe their personal experience of significant events in the life of the firm, proceeding forward chronologically. They typically began with founding and then described specific subsequent actions. We avoided both leading questions (e.g., Did you cooperate with your rivals?) and speculative questions (e.g., Why did your rival make a particular move?), a tactic that improves the accuracy of interview data. Third, we interviewed a wide range of individuals, inside and outside the firms, including representatives of various functional areas and hierarchical levels (e.g., CEO, VP, director). This approach provides a more complete and accurate picture than any single informant can offer (Kumar et al., 1993). Fourth, we triangulated our data with archival sources, including company blogs written as events were happening. Finally, anonymity enabled our informants to speak openly.

To complement the interview data, we collected in-depth archival data, including real-time data. Such secondary materials included articles in the popular and financial press, technology blogs, company press releases, emails, conference presentations, analyst reports, and third-party websites. As noted earlier, a particular strength of our data is blogs that provide a real-time window on firm executives' and observers' thinking. With these data, we compiled a precise timeline for each firm and used these timelines as complements to the histories obtained in interviews. The archival documents usually confirmed the interview-based histories, but they also often generated new insights. In combination, these data comprise a comprehensive and accurate longitudinal database.

Data Analysis

We began the data-analysis process by synthesizing the interview and archival data into a comprehensive case history for each firm. We focused in particular on actions and themes that

emerged from multiple data sources and were emphasized by several informants (Jick, 1979). When details were missing or vague, we obtained additional information from informants. The resulting cases were 50–90 pages long, including quotes, tables, and timelines. The same author wrote all of the initial cases; a second author revisited the original data to ensure the cases' accuracy and comprehensiveness. We then identified emergent relationships and patterns by analyzing each case through the lens of our research question.

After completing the within-cases analysis, we turned to cross-case analysis to compare emergent themes and constructs (Eisenhardt and Graebner, 2007). Using Excel tables and charts (Miles and Huberman, 1994), we listed tentative theoretical constructs and compared them across cases. As we cycled between emergent theory and data, we clarified key constructs, developed measures, and strengthened logical arguments. As our theoretical insights crystallized, we consulted prior literature to compare our emerging insights with existing research. In sum, we used an iterative process of refining our insights, relating them to existing theories, and further clarifying our contributions. Once we had achieved a strong correspondence between the data, the literature, and theory, we concluded the analysis.

Measures

We learned from our informants early on that our research question—how firms develop a successful strategy—meant, to them, how to build a viable business model quickly. In keeping with our inductive approach, we adopted this perspective. We conceptualized strategy in terms of getting to a business model, and defined a business model as a set of interconnected organizational activities that create and deliver value, part of which is captured by the firm. Fortunately, this definition coincides with previous definitions widely known in the fields of

management and strategy (e.g., Johnson, Christensen, and, Kagermann 2008; Zott et al., 2011). We characterized each firm's business model by identifying its core activities, underlying profit logic, and primary sources of revenue.

Serendipitously, an unexpected bifurcation added to the richness of our study. One group of firms (Zeus, Hercules, and Icarus) pursued a higher-potential but more difficult business model (assets under management) while a second group (Narcissus and Phaethon) adopted an easier business model with less potential (advertising-supported web content). Unsurprisingly, the first group raised more capital than the second.

We assessed the viability of each firm's business model at multiple junctures during the study and again after the study ended in early 2011, using several objective indicators. First, we used the quantitative indicators that executives and analysts designated as most relevant for success in the online-investing market, (1) assets under management and (2) number of customer accounts. We drew the latter data from analyst reports, and, for the firms that adopted the assets-under-management model, we drew them from the SEC's Investment Advisor Public Disclosure (IAPD) website. We also measured (3) web traffic as the number of unique visitors to firm websites, using data from Compete.com for the advertising-supported business model. Prior work has found that web traffic is an appropriate indicator of business-model success, especially for Internet companies (Goldfarb et al., 2009; Kerr, Lerner, and Schoar, 2011). Jointly, these three measures capture customer "traction" and proxy likely revenue. Second, we measured how long each firm took to develop a successful model, which informants told us is an important aspect of performance. Finally, we recorded post-study outcomes, including IPOs and acquisitions.

We also used several subjective indicators of success. First, we polled financial and technology analysts about the firms and computed an average of their rankings. Second, we compiled representative qualitative assessments from financial and technology news outlets and from our informants. We also asked internal informants to evaluate their firms' success in light of the founders' original goals. Overall, consistency was high across all measures.

Despite similar initial endowments, the firms achieved very different degrees of success (see Table 3). In the first group, consistent with its name, Zeus enjoyed the highest performance. The firm was the quickest to develop a viable assets-under-management business model, and it was ranked highest by analysts. Six months later Hercules reached a viable business model (also assets under management). Both firms attracted more than \$100 million in assets, and their business models were widely hailed in the media as "*changing the rules of investing*" and "*reinventing financial services*." In contrast, Icarus initially soared but burned through \$11 million, generated little revenue, and exited the market via a meager asset sale without ever achieving a viable assets-under-management business model.

In the second group, Narcissus's advertising-supported-web-content business model generated modest revenue and profitability, but stalled growth led executives to "hibernate" the firm; it was modestly successful. In contrast, the once high-flying Phaethon crashed back to earth when the firm failed to develop a viable advertising-supported business model.

EMERGENT THEORETICAL FRAMEWORK

Focusing on Substitutes and Copying from Rivals

"Strategy is about being different" (Porter, 1996: 64). From the industry-structure perspective, being different implies a close focus on competitors in order to create distinctive products

(Gavetti and Rivkin, 2007) using a strategic *logic of differentiation*. As Porter (2001:19) asserts, writing about new Internet markets, "Dotcoms, first and foremost, must pursue their own distinctive strategies, rather than emulate one another."

In keeping with this perspective, some firms began by consistently seeking differentiation from their entrepreneurial rivals. Unexpectedly, they were low performers. By contrast, high performers began by focusing on substitutes—incumbent firms that performed the same or similar functions by different means, such as money managers like UBS and mutual funds like Fidelity—and aiming to create products with superior value to those of the substitutes. These high performers also borrowed from and even copied (rather than differentiating themselves from) their entrepreneurial rivals.

We used interview data and real-time firm blogs to measure *competitive focus*—that is, to identify the firms to which focal-firm executives paid the closest attention and against which they benchmarked their own performance. We recorded the percentage of founding executives who benchmarked their firms against substitutes and compiled representative quotes documenting that interpretation. As the market emerged, differences in competitive focus became apparent across firms, and shaped their executives' initial actions (see Table 4).

Zeus, Hercules, and later Narcissus (the three firms that developed viable business models) all had a competitive focus on substitutes. A founder's description of Zeus's genesis illustrates the nature of that focus:

Cedric [co-founder] has a cousin who lives in Kuwait and works for an oil company. He's a great individual investor, and he invests his own money and he happens to know local oil and gas stocks well. Whenever he would tell Cedric what he was [investing in], Cedric would love to call him. But actually, what Cedric wanted to say was, "Listen, here's \$10,000. Whatever you're doing with your money, do it with mine."

This vignette suggesting how talented amateur investors might supplant traditional money managers aimed Zeus's competitive focus at substitutes from the outset. Because they defined their primary task as replacing substitutes, the three founders identified the "real" competition as existing firms that offered traditional products for which Zeus was creating an alternative. *"Our competitors are other people with money,"* said one of Zeus's founders. *"So it's the UBSs and Morgan Stanleys, and when I say 'with money,' I mean with assets. . . It's people who have traditionally managed clients' money."* A board member elaborated: *"As the competition, I'm not so much focused on Hercules. I am much more focused on the many, many billions and billions of dollars that are sitting at more traditional asset-management firms. . . It's just figuring out how to crack the nut on getting folks who currently have their money at UBS and Morgan Stanley to put some of it with Zeus."* Early on, then, Zeus's executives were focused on substitutes, not rival online-investing startups, and they sought to create products for customers that surpassed those substitutes'.

Because these firms were primarily focused on substitutes, they were not concerned with differentiation from entrepreneurial rivals. Thus a key implication of a competitive focus on substitutes was willingness to copy from rivals. To assess *copying from rivals*, we determined whether executives knowingly adopted something (e.g., a product feature) that an entrepreneurial rival had previously used. To determine that copying had occurred, we required that multiple internal and external informants agree on what was copied and the source of copying.

Again, Zeus serves as an example. Beginning in its first year, Zeus copied from entrepreneurial rivals rather than trying to differentiate from them. In early 2007, for example, Zeus implemented a user interface (UI) copied from a rival. A short time later the firm contracted with the same financial-data service provider used by another rival to source

investment information for its products. Zeus even lured potential customers from a rival's website as beta users or "test customers" for Zeus's first product. These potential customers were ideal because their interest in online investing had already been vetted by the rival.

Zeus's approach was effective. Its focus on substitutes ensured that Zeus was pursuing a realistic opportunity (money management) for which customers were already paying. Moreover, its executives avoided worrying about differentiation from immediate rivals since *"the really big competition for Zeus are the existing asset-management firms—all the other places you could go with your money."* Instead, executives' attention was aimed more productively at comparing their product to substitutes and creating a better alternative to existing asset management. Consistent with this focus, a Zeus founder compared the firm's approach to golf. Like any good golfer, he noted, Zeus's main objective was to *"play the course, not the players"* (that is, to engage with the new market opportunity, not the entrepreneurial rivals).

Zeus's willingness to copy rivals lowered the costs of product prototyping and development, and Zeus developed its first product and supporting organizational activities quickly and cheaply. By copying product features, for example, Zeus avoided the expense of building a product from scratch. Copying also contributed to the speed and efficiency of Zeus's search for a viable business model. By late 2007, according to a VP, *"We were way ahead of schedule, and we quickly got a critical mass of people together."* Even at this initial stage Zeus had made significant progress toward developing a viable business model with a product that VP deemed *"pretty good."*

In contrast, Phaethon and Icarus (firms that never developed a viable business model) consistently focused on rivals, not substitutes. Their executives worked to differentiate their

products from rivals and actively avoided copying. A founder of Icarus described its origin, which, unlike Zeus, was not inspired by existing substitutes:

Social networking was taking off, or at least it was very clear just from paying attention to the internet space that the Facebook, MySpace applications were going to be a very, very big trend. And so the idea was to take different verticals, which is literally how I came up with the idea for Icarus: how would those social applications be effective?

As the market emerged, Icarus's executives saw other entrepreneurial firms that were building similar products as the competitive benchmark for Icarus's products, a point expressed by the CEO: *"Zeus looked a lot like we did in the very beginning. It was almost identical . . . and we were compared a lot with them."* Executives focused on these rivals. *"For Zeus and other competitors, we would certainly go out and take a look at their sites, see how they were representing investment data,"* an Icarus engineering director stated, *"The impressive thing [at a startup rival] was the UI design."*

Preoccupation with similar rivals led Icarus's executives to emphasize creating unique products and thus to be unwilling to copy. Despite noticing a rival's impressive user interface, for example, Icarus did not copy it; they designed their own UI. Similarly, Icarus made a key decision in 2007 to build its own aggregation technology to "scrape" financial data directly from customers. Several rivals used a particular service provider to obtain such information, which Icarus's executives knew, but they decided that it was more important to differentiate. Even a VC investor emphasized Icarus's aggregation technology as an advantageous point of differentiation from entrepreneurial rivals: *"Icarus has its own technology for linking to accounts and getting source data. . . . Zeus has to use an intermediary. We think that makes Icarus a better service."*

But this approach was problematic. By focusing on rivals, Icarus failed to offer a realistic service for which customers would pay (e.g., traditional money management or mutual funds). For Icarus's executives, the goal was not to persuade customers to spend money they were already spending differently, but rather to get them to spend additional money on something new, and customers did not see why they should. *"If we just offered a sort of so-so tool to the masses—I didn't see how we were going to gain any traction,"* said the director of engineering. Icarus's preoccupation with rivals mired the firm in unproductive comparisons with others' products that were as vague as their own.

By not copying rivals, Icarus incurred significant time delays, managerial distractions, and costs. The firm ended up with a differentiated product—but one that was delayed, consumed substantial resources, and did not attract customers. *"[Our product] wasn't really resonating with [customers] out there,"* the CEO admitted. *"It just wasn't taking off to the extent that we thought,"*

The aggregation technology was part of the problem. The CTO explained: *"We were seven people at that time, and a big portion of what we had to do was build out our own aggregation technology, which was a pretty big undertaking."* The time-consuming project put Icarus behind in product development. By the time Icarus completed the prototype, most of its funding was spent and its product release was delayed by eight months (until early 2008). Icarus was now behind in the race to a viable business model. Its engineering director compared Icarus's approach to that of a rival: *"They did something smart, which is to outsource the aggregation part—which is the part I built—because it's really hard and labor-intensive to get it right . . . So they had a lot more resources to concentrate on things like the front end."* As the CTO later remarked ruefully, *"We could have done other things that would've been equally good,*

or gone with something like [the rival's service provider]. . . . We could have had cheaper startup costs."

Why is a focus on substitutes effective? Substitutes are already addressing an opportunity that is realistic in the sense that customers are paying for it. Keeping substitutes in the foreground channels resources and attention toward creation of a product that does the same job (i.e., the same functionality) as the substitutes but in a better way. Measuring against substitutes is useful, in other words, because it grounds the firm in a comparison with actual products that produce actual revenue. As one founder said, a focus on substitutes keeps executives from "*worrying about the wrong thing,*" In contrast, differentiation from entrepreneurial rivals is simply not necessary. As a Zeus executive noted, there is no point in differentiation from startups that are "*just as tiny and insignificant*" as one's own firm.

Copying from rivals complements a focus on substitutes and works for several reasons. First, copying from rivals is a fast, cheap, and reliable way to build products. Copying may not yield an optimal product, but it short-circuits the costs and time of building a product from scratch. Copying also frequently works better than other ways of developing products quickly. For example, in new markets, vicarious learning is often difficult because executives are rarely able to observe what others are learning since too little information is available. Similarly, prototyping products and eliciting customer feedback can be slow and very costly. As one industry expert put it, "*Engaging with and supporting users is anything but free. Observation can be cheaper.*" Finally, an emphasis on copying insulates executives from the fruitless task of trying to create an ideal product for a market that does not exist. As one VP noted, "*Nobody had the right product yet.*" By opportunistically copying what seems roughly right, executives avoid the temptation to pursue perfection.

In contrast, focusing on rivals channels executives' attention toward differentiation, magnifying the importance of small similarities to immediate rivals and diverting critical resources into creating differences that ultimately prove irrelevant. By adamantly not copying rivals, firms accumulate distractions, costs, and delays that can leave them behind their rivals. They can lose focus on what is essential to a product (and what is not). Jointly, these arguments constitute the underlying logic of effective navigation during the early stages of the race to a viable business model.

Proposition 1. Firms that focus on substitutes and copy from rivals are more likely to develop a viable business model quickly.

Testing Assumptions and Committing to a Business Model

The strategic-commitment perspective argues that a firm should bind itself to a given path. By deliberately limiting its own flexibility, a firm also changes rivals' expectations about how it will act in the future, thus influencing rivals' actions (Ghemawat, 1991; 1997). The classic example of commitment is the Spanish conquistador Hernan Cortez's invasion of Mexico in the sixteenth century: upon arrival Cortez burned his own ships, prompting his Aztec opponents to retreat (Dixit and Nalebuff, 1991: 153). Yet despite the deterrence benefits of commitment, the lack of flexibility it imposes would seem to hinder adaptation to changing circumstances in new markets.

Unexpectedly, our fieldwork confirms the *benefits of commitment* to a business model, even for firms in new markets—but it also underscores the necessity of first *testing assumptions*. In our study executives and other market participants shared several important assumptions. The high-performing firms actively tested those assumptions, which reduced key uncertainties about

the nascent market, yielded surprising new insights about products, and clarified the choice of business model.

We defined assumptions as taken-for-granted suppositions about the market that executives and others adhered to. We used interview data and real-time data to identify executives' assumptions about online investing, and corroborated them with external informants. The assumptions we pinpointed were widely held and fell into the three categories: (1) customer behavior, (2) the regulatory feasibility of gaining SEC approval for the assets-under-management business model, and (3) the technical feasibility of the product. For each firm, we assessed whether and how these assumptions were tested, and when executives learned that the assumptions were or were not valid. After testing their assumptions, the high-performing firms then committed to a particular business model. To assess this commitment, we tracked executives' explicit choice of business model and resource investments, especially those that locked them into the business model (see Table 5).

As the firms entered their second year (2008 through early 2009), executives at all five firms held almost identical assumptions about the online-investing market, and were considering the same two broad business model concepts. First, they assumed that customers would be unwilling to share their real investing track records online, and if this assumption was correct, the more lucrative assets-under-management business model was unlikely to be viable. The second assumption involved regulatory feasibility: executives assumed that winning SEC approval to manage financial assets would be costly and difficult (perhaps impossible). Again, if this assumption was correct, the assets-under-management business model would not be viable. A third assumption involved technical feasibility: executives assumed that building an online

investing platform would be technically easy. If so, the assets-under-management model would be preferable because it was the more lucrative model.

These assumptions were surprisingly similar from one firm to the next, but only Zeus and Hercules (the firms that developed the most successful business models) tested them. Zeus tested its assumptions using deliberate experiments; Hercules did so less deliberately via trial and error. Since Hercules's approach was slower, we will use Zeus as an example. In early 2008 it was widely assumed that customers would be unwilling to share their real investing track records with others online. This assumption arose from the presumption that sharing information, a core aspect of social networking, is fundamentally incompatible with the private nature of financial investing. *"The notion of social networking, at its base, is intended to be altruistic, and that is not typically the strategy of professional [financial] traders,"* one industry analyst reasoned.

Though this assumption was widespread (at Zeus and elsewhere), Zeus executives actively tested it with an experiment. In early 2008 the firm released a closed alpha product—an online product with a stripped-down feature set—to a few test users, including friends. The alpha product was intentionally designed to gauge users' willingness to share their investing track records. If at least some people were willing to share, Zeus executives reasoned, the firm could pursue the assets-under-management business model. *"The original objective was to demonstrate that there was an appetite for investors to come along and share their actual investment activity in public view,"* said a founder. *"Without people sharing their track records, we had nothing."* After a few months of testing, Zeus's executives determined that some people would indeed share their real investment track records online.

The experiment also yielded other unexpected insights. For example, the percentage of people willing to share was much larger than Zeus had anticipated, and many appeared to be

good investors. *"We are amazed by the quality of the people who are willing to share,"* one founder remarked. (Zeus used standard performance metrics, such as Sharpe Ratio, to measure excess return per unit of risk). Moreover, executives' initial belief that willingness to share was motivated purely by potential financial gain proved too simplistic: actual motivations were varied and complex. *"Our original hypothesis was that we were promising them, at some point in the future, to earn fees,"* a founder said, *"But what we actually found is that their motivations were different: people want to prove that they were good and rank themselves against others."* Zeus also discovered that people strongly preferred to use screen names, and were reluctant to reveal their actual net worth. These insights enabled Zeus to tailor its product to customers. Zeus also experimented with its two other assumptions, learning to its executives' surprise that SEC approval would be only modestly costly, especially relative to the revenue potential, and that an online investing platform would not be easy to develop.

After testing its assumptions, Zeus committed to a business model: assets under management. By mid-2008 a significant number of customer-investors were sharing their track records on Zeus's online platform. For customers who wanted to "follow" a particular customer-investor and invest their own money identically, Zeus would serve as the intermediary and manage the assets of these "followers" for a fee. *"You could see, along with people wanting to come along and follow that activity, there was the potential to bring a real business to that,"* the COO said. The assets-under-management model could potentially generate profits comparable to those of mutual funds, but Zeus's executives knew that they had to make a significant resource commitment to transform their Internet startup into a regulated financial-services company. For example, Zeus had to shoulder the cost and complexity of becoming a Registered Investment Advisor (RIA) with the SEC in order to charge fees for managing assets. *"We want to build a*

regulated business,” one founder said. “When you're touching real money, or any information-intermediary kind of site, it's just tough. There's just a lot more friction and working parts.” Executives also saw the decision as a major turning point for the firm. There was no going back. *“It was a go/no-go decision: becoming [an RIA],”* an angel investor explained. *“Should they cross the Rubicon into a whole other world of cost, complexity, and infrastructure?”*

Zeus had considered the alternative business model concept, and several executives wanted to pursue advertising-supported web content—an *“easy, unregulated version”* of Zeus’ product—as an interim step. Once the unregulated business model was generating revenue, they argued, Zeus could transition to the more difficult and lucrative assets-under-management business model. But the CEO viewed an interim business model as a waste of time. Another executive disagreed: *“To be honest, I fought tooth-and-nail. . . . I thought that was stupid. I thought, the advantage of [the alternative model]: it's money without regulations.”* Despite the cost and complexity of the assets-under-management model, the CEO argued that it was the highest-value opportunity, and the others came to agree. *“The only thing worth talking about in this whole world is [the regulated model],”* one executive acknowledged. *“That's where the money is. That's the opportunity. That's how people spend money.”* Thus Zeus committed exclusively to the more difficult but more lucrative business model and allocated its resources to developing it.

By contrast, Narcissus, Phaethon, and Icarus (the low performers) never tested their assumptions. Narcissus will serve as an illustration. Initially, Narcissus's executives considered pursuing the assets-under-management business model. *“There was one alternative we looked into, and there are a couple of competitors (Zeus and Icarus, to be specific) now who try to do that, which is actually using peoples’ real trading data,”* said the CEO. Narcissus’s executives

shared the prevailing assumption that customers would not share their real investing track records online. *"The barrier for people to input or put in their real trading accounts and login into our website would be too high,"* the CEO said. But Narcissus never tested this assumption, and thus did not learn early on that it was incorrect. The firm approached regulatory and technical-feasibility assumptions in the same way. For example, executives never tested how costly seeking SEC approval would be. As the CEO put it, *"We would have top performers on the site and have people invest in their portfolios. But then there are all the concerns with regulations in the U.S. securities law. So it made us say, 'Let's not worry about it,'"* So Narcissus took the easier path.

In early 2008 Narcissus built an online virtual-investing platform *"for people to basically trade in a virtual environment,"* as the CEO put it. The virtual platform was consistent with Narcissus's untested assumptions—that is, it required neither sharing real customer trading records nor SEC registration. The executives hoped to mine this virtual trading data for investing ideas and in the future to manage assets. But in the interim, as the CEO put it, *"We have a business model in between that brings in revenues through advertising, a very proven concept."* By mid-2008 Narcissus had settled into this model despite awareness of its inability to *"provide the majority of our revenues in the long run"* and had put the more difficult business model on the back burner.

Icarus did not test assumptions either. Unlike Narcissus, its executives chose the more difficult assets-under-management business model and raised venture capital to pursue it. But despite their fortunate choice of a business model, they failed at execution. Since they did not test their assumptions, they did not acquire the insights about customers that Zeus and Hercules did. For example, they never understood customers' varied motivations for using the product.

Though committed to the more lucrative business model, Icarus was out of touch. “*We were all very brazen about the idea,*” an engineering director recalled. “*We just didn’t give customers an opportunity to tell us what they wanted.*”

Similarly, Phaethon never tested its assumptions. Like the other firms, Phaethon executives debated both business models. But unlike Zeus, and even Narcissus and Icarus, they never resolved the dilemma. They sought advice from potential investors and other entrepreneurs, and ended up vacillating endlessly, spending resources on both models and never committing to either. Eventually Phaethon’s virtual-investing platform “*just fell into the advertising model.*”

Why is it effective to test assumptions? Testing assumptions can resolve key uncertainties in new markets. Explicit experiments, including hypotheses, enabled Zeus to learn more quickly than Hercules, which stumbled along in trial-and-error mode. Thus, a key insight is that trial-and-error can be an effective way to learn (Miner, Bassoff, and Moorman, 2001), but experiments are faster when the sources of uncertainty are identifiable as they were in the online-investing market. Finally, when important assumptions are not tested, executives misunderstand the situation and are likely to make less effective choices, including the choice of a less lucrative business model as in the case of Narcissus.

Testing assumptions can also reveal unexpected insights. For example, Zeus learned a lot about customer behavior and technical feasibility by testing assumptions. These insights led to fewer mistakes and faster progress toward a viable business model. In contrast, although Icarus chose the more lucrative business model, they lacked insight into customer motivation and technical pitfalls that it could have acquired from testing, slowing its progress toward a viable business model.

A subtler point is that testing assumptions grounds debate in facts. As prior research indicates, such grounding in information makes decision makers more confident about their choices, speeds up the decision process itself, and reduces emotional conflict (Eisenhardt, 1989). When debate is primarily based on opinion, by contrast, the process is slower and more antagonistic, a scenario that reduces both the quality of thinking and commitment to the decision. This was the situation at Phaethon, where executives' endless debate was grounded solely in opinions; they never explicitly chose a business model. Thus testing assumptions accelerates decision making, improves the quality of debate, enhances confidence, and creates commitment to the ultimate decision, in addition to producing a more accurate understanding of the situation.

More surprising to us was the effectiveness of commitment. We had expected that high performers would avoid big commitments in order to maximize adaptability in an uncertain, fast-paced, and ambiguous market (Sanchez, 1995; MacCormack, Verganti, and Iansiti, 2001; Hitt et al., 1998). Instead, trying to execute both models strained resources and created conflict, as we observed at Phaethon. The alternative of choosing an easier path as an interim step to a more difficult path was also ineffective. Narcissus executives reasoned that they could pursue the easier, less lucrative business model in the short run and then transition to the more difficult business model. But they became too caught up in the challenges of the initial business model and never shifted to the better model. Pursuing different business models sequentially can work, but it often entails so many choices that inertia results.

In contrast, the high performers fully committed to one business model. But the reasons for the effectiveness of this strategy are not those asserted in prior research. The benefit of commitment is not so much that it deters rivals and delays their efforts to poach a firm's customers (Dixit, 1980; Saloner et al., 2001) as that it marshals the entire firm and its limited

resources in the service of the business model that provides the best opportunity. Zeus aimed all its efforts at its chosen business model, which created focus and motivation within the firm and avoided wasting resources by straddling opportunities. But as the case of Icarus demonstrates, the necessary condition for commitment to be effective is testing critical assumptions in advance.

Jointly, these arguments suggest the following proposition:

Proposition 2. Firms that test their assumptions and then commit to the most lucrative business-model opportunity are more likely to develop a successful business model quickly.

Elaborating the Activity System and Slowing the Pace

The competitive-dynamics perspective suggests that firms should aggressively make multiple moves to outmaneuver rivals and outrace them to fleeting market opportunities. But this was not the case for the firms we studied. Indeed, in early 2010, there was significant attrition in the race for a successful business model. After burning through its substantial financial resources, Icarus held an asset sale; though on the path to a successful business model, the firm ran out of money and investor patience. Phaethon also failed. Both firms' competitive focus on rivals and failure to copy rivals (proposition 1) and failure to test assumptions and commit to a business model (Phaethon) (proposition 2) wasted resources and time. As 2010 began, Icarus and Phaethon were both gone.

By contrast, Zeus, Hercules, and Narcissus were still in the race. Each had committed to a business model. But the three firms differed in how they elaborated the activity system underlying their model. Hercules and Narcissus aggressively and quickly optimized their activity systems by developing highly elaborated critical activities (Rivkin and Siggelkow, 2006). In contrast, the highest-performing firm, Zeus, slowed down the pace of its moves and did not.

Following Zott and Amit (2010), we define an *activity system* as the set of interconnected organizational activities that jointly supports the firm's strategy. Since these systems are "difficult to untangle from outside the company" (Porter 1996: 74), we used interviews and company blogs to identify critical activities: (1) recruiting customers, (2) creating an attractive user interface, (3) developing algorithms to evaluate investment performance, and (4) adding valuable product features. We then measured the degree of structure that characterized these activities at each firm (see Table 6).

Zeus, the highest-performing firm, slowed the pace of its moves, and thus took a robust approach to elaborating its activity system with only modest structure. Even though Zeus executives committed to the assets-under-management business model, they did not see much value in moving quickly to optimize the firm's activities (interface, algorithms, and product features) for any particular type of customer. *"We are not trying to solve a specific problem for a specific group of people, but [rather to] make it as easy as possible for the best people [customers] to find us, no matter where they come from,"* a board member explained. *"The right people will eventually find us."* Zeus created a rough product platform that offered simple services like calculating customers' investment performance, letting customers link their brokerage accounts to the platform, and allowing them to follow others' investments.

Zeus's platform attracted an initial set of customer-investors, mostly amateur investors and day traders. But developing a user interface for them and quickly optimizing product features of particular interest to them would have signaled that Zeus was exclusively courting that segment. Instead, executives opted for a neutral interface meant to appeal to a wide range of customers. They also clearly communicated that the platform was open to anyone. This meant that professional investors, not just amateurs, could use the platform to make trades and track

their investment performance. As professionals requested product features, such as advanced performance-visualization tools, Zeus added them but did not tightly integrate them with the other elements of the activity system (e.g., the user interface, algorithms). A VC investor described the system as *“purposefully underdetermined—that is, open to being surprised about who the actual main adopters are, or by how people use [the product].* The firm sought to accommodate discovery so *“the fewer constraints we impose, the better, because there's more room for emergent behavior, more room to discover.”*

With time, Zeus executives gained several insights. The first was the discovery of new customers. By not settling on a single customer group, and by keeping its interface neutral, Zeus learned that many customer groups, some unanticipated, were interested in its online-investing platform. One described Zeus’s customers as *“the full spectrum of what one might expect to find in an open Internet casting call—professional money managers, amateur traders, and hobbyists,”* all of whom were potential paying customers, and some of whom were big surprises. *“We actually had a mix of individuals [amateurs] and professionals,”* a Zeus VP said. *“We had a good selection of small professionals come to the platform that we really hadn't envisioned.”*

The second insight was the discovery of novel product uses. Because the activity system was not optimized, Zeus could easily accommodate new opportunities created by professionals who were using the product in an unanticipated way. *“[We’ve] got a lot of professionals trying to get wider distribution,”* the COO explained. *“And most of these small professionals don't really leverage the internet, so most of their customer base comes from the local area.”* In other words, Zeus learned that small, geographically constrained professional investors, who usually attracted assets only from local customers, were using the online platform to gain wider access and to attract “followers” outside their local area. By linking these professionals with new

followers, Zeus was able to charge a fee on the assets they managed. This insight pointed the way to a viable business model.

Ultimately, Zeus' executives shifted their conceptualization of what they were offering from a platform for individuals who wanted a variety of financial services to a two-sided market that connected small professional investors previously constrained by geography to people who wanted those investors to manage their money. As the middleman, Zeus could collect fees from the money managers. Thus Zeus had a viable business model.

In contrast, Hercules attempted to quickly optimize the activity system underlying its preliminary approach to its business model. Like Zeus's, Hercules's platform initially attracted mostly amateur investors. Both firms' executives assumed that a viable business model would revolve around amateurs "following" other amateurs. But Zeus did not gear its initial platform to amateurs or any other group, whereas Hercules quickly integrated its activity system around amateurs. Specifically, the executives designed their online platform to resemble an extremely popular social networking website, and reinforced this choice with products that emphasized sharing stock trades with friends.

But this optimized approach created problems. First, as Hercules catered increasingly to amateur investors, other customer-investors hesitated to use a platform that was clearly not meant for them (an inference drawn by several analysts). Thus, while Zeus's slower pace and robust activity system allowed it to find the lucrative two-sided market between small professionals and amateurs quickly, Hercules was slow to recognize the importance of professional investors because its activity system inadvertently excluded them. Hercules executives eventually noticed Zeus's success and abruptly shifted direction to copy Zeus. According to an advisor, they "*pivoted the company*" to target professional investors. But this

move created a second problem: the optimized activity system made it difficult to for Hercules to change. Customers and analysts severely criticized changes they perceived as too abrupt and as a tacit acknowledgment of poor performance. For example, when Hercules re-optimized its activity system for professional investors (described by executives as an “*epic pivot*”), industry experts criticized its desultory business strategy, comparing the firm adversely to more consistent rivals. “*In comparison, Zeus is doing a good job of staying with its original approach and seeing how things are going to play out,*” one financial journalist observed. More strident amateur customer-investors lashed out at Hercules for abandoning them: “*Terrible idea with terrible execution (overnight with no advance notice?). Very amateurish move. . . . Looks like I must go back to [rivals] Narcissus or Zeus. It's a shame.*” So Hercules eventually arrived at the same place as Zeus, but its route was delayed and reputation-damaging.

Why was moving slowly with a robust activity system effective? First, it left firms flexible enough to exploit new opportunities and a changing market. Like other new markets, online investing was characterized by undefined products and extreme ambiguity about opportunities and customer demand. Opportunities often continue to arise even after a firm commits to a business model. “*It's common, perhaps the norm, for startups to discover that a product is catching on in unintended ways worth pursuing,*” one advisor noted. Executives are more likely to discover these unintended opportunities if they resist the inclination to move quickly to develop tightly connected activity systems. By moving more slowly and maintaining a robust activity system, they can accommodate new opportunities that may lead to a viable business model. Second, moving more slowly with such a system conserves resources. Overall, the most effective activity systems do not aggressively *surprise rivals* and quickly lock up opportunities. Instead, they are systems that *accommodate surprise*. Certainly Hercules could

have bet correctly. But the chances of doing so were low. Combining these arguments, we propose:

Proposition 3. Firms that move slowly to elaborate a robust activity system are more likely to quickly develop a viable business model.

DISCUSSION

Our study makes several contributions at the nexus of strategy and organization theory. First, we contribute a discovery that a critical component of strategy in new markets involves quickly creating a viable business model. While prior work has treated business models as an input factor for performance, we considered business models as an important outcome (as a key strategic objective of firms in new markets), and we studied the path by which firms arrived at their business model. More broadly, we contribute an emergent theoretical framework that explains how some firms quickly and efficiently achieve this objective ahead of their rivals. As this framework suggests, the nature of competition differs substantially in new markets and in established markets, and this difference has critical consequences for firms' strategic actions. Successful firms engage in parallel action, not competitive action: they treat entrepreneurial rivals as resources (not opponents) and focus on the primary task of seeking a viable business model. In the course of doing so, they oscillate between actions that reduce uncertainty and actions that put them on a fixed course. Overall, our framework sheds new light on classic perspectives in strategy and organization, including the industry-structure view, competitive dynamics, and strategic commitment. It also provides conceptual clarity and measurement of business models—an important theoretical construct for firms competing in new markets.

Parallel Play as the Logic of Interaction in New Markets

Our work contributes to theories of competition in strategy and organization theory by highlighting a novel logic of interaction that guides competitive behavior in new markets. Existing theories of competition are largely derived from studies of intense rivalries in established markets (e.g., major airlines, large manufacturing firms, and Fortune 500 companies), whose authors portray firms as calculating opponents that anticipate and respond to one another's moves (Young et al., 1996; Smith et al., 2001; Ferrier, 2001). Originating with early conceptualizations of one-on-one rivalry between hostile countries and competing individuals (e.g., Schelling, 1960; Goffman, 1969), research on competitive rivalry is replete with “gamester” imagery. More recently organization theorists have challenged this perspective by arguing that relationships between new-market rivals are often congenial, since firms act collectively to build new markets (Navis and Glynn, 2010). Using metaphors that evoke collective action, these theorists have suggested that competitors “run in packs” (Van de Ven, 2005), engage in “collective strategy,” (Pozner and Rao, 2006), and band together like “social movements” to legitimate a new market (Barnett, 2005).

Our data suggest that neither the gamester perspective (economics of rivalry) nor the collective-actionist view (organization theory) is an accurate portrayal of competitive interaction in new markets. Rather, the interactions among these rivals resemble *parallel play*. This term, introduced by sociologist Mildred Parten (1932), refers to a stage in human development when children play adjacent to one another but are primarily absorbed in their own activities; parallel play serves as a bridge to more complex cooperative activities (Rubin et al. 1998). Similarly, the successful executives in our sample were consumed by the task of developing a viable business model before they ran out of money, not by aggressively trying to outmaneuver their new-market rivals and respond to their every action. Although all the firms were aware of their rivals, the

most successful firms made few attempts to influence them or to “be different” from them. They played the course, not the players. Like precocious children, they watched the older children (substitutes) and selectively copied from their peers (rivals). They also tested their ideas before committing to a business model; and even when they did select a business model, they moved slowly to keep their activity systems open if more promising opportunities emerged. As an alternative logic of interaction, parallel play is inconsistent both with intense rivalry and with collective action. It does not imply, as others have argued, that firms ignore competitors or are simply unaware of their presence (Zajac and Bazerman, 1991; Porac et al., 1995).

Parallel play represents a realistic middle ground between strategists who emphasize intense rivalry and organization theorists who acknowledge the potential for collective action in new markets. To extend the metaphor further, this logic of interaction may serve as a bridge to more complex competitive behavior or relationships as firms mature and markets evolve. Our data pertain to the first three years in the life of a new market, and it thus remains unclear whether these relationships might still develop into cooperative play (collective-action strategies) or tip into intense competition (pure rivalry). Identifying the next stage in play is an intriguing avenue for future research.

Positioning, Competitive Dynamics, and Commitment in New Markets

In addition to re-conceptualizing competitive interaction, this study proposes several modifications to the industry-structure, competitive-dynamics, and strategic-commitment perspectives—all to fit the new-market context. First, we argue for a revision to the industry-structure view, which asserts that competitive advantage derives from a differentiated position (Porter, 1996; Bingham and Eisenhardt, 2007). Prior work on established markets documents the

benefits of differentiated activities (Spanos and Lioukas, 2001), and some theorists have suggested that differentiation should also apply to new markets (Porter, 2001). Research on new markets acknowledges, however, that both competitors and products are often poorly understood, implying that executives may be unable to identify the relevant dimensions to differentiate on or the right rivals to differentiate from (Rindova et al., 2010). Consistent with these arguments, firms that achieve a viable business model typically see little reason to avoid similarity to rivals with similarly vague products. Such firms focus instead on *improving their solutions in light of substitutes* (i.e., incumbents with related products that do the same job for customers), and on *selectively copying* product features and other offerings from entrepreneurial rivals. The strategic logic for new markets thus entails *copying* rather than *differentiating*.

Second, we extend competitive dynamics to new moves and new markets. Specifically, we find intriguing differences between moves (e.g., pricing, advertising) in new markets and those in established markets (Young et al., 1996; Smith et al., 2001). In our data, for instance, high-performing business models did not arise from rapid and frequent exploitation of every opportunity before rivals. Instead, they arose from *moving more patiently* to elaborate activity systems that were robust enough to allow for newly discovered opportunities. For new markets, the strategic logic is based more on *accommodating* unanticipated opportunities than on *aggressively exploiting* known opportunities. According to our data, the firms that most closely resemble the ideal established market competitor—viewing rivals as threats, intently focusing on them and monitoring their behavior, and obsessively differentiating from them—actually hurt their chances of quickly developing a viable, high-performing business model.

Third, the study contributes to our understanding of strategic commitment, a primary mechanism to explain competitive advantage in established markets. Research argues that major

resource investments—e.g., large capacity expansions and major pricing initiatives—are often advantageous because they keep rivals at bay (Saloner et al., 2001). The current study extends that classic construct to essence key component of strategy in new markets, namely business models. Our data identify *testing assumptions* as a critical antecedent to commitment, since firms that do so accumulate concrete facts on which to base action. Testing and commitment are thus effective as paired actions. Moreover, commitments are qualitatively different in new markets. Like capacity expansions and major pricing initiatives, business-model commitments involve significant sunk costs and opportunity costs. But they also fit another criterion that has been overlooked since the seminal work on the topic: symbolism (Ghemawat, 1991: 51). Recall that Cortez burned his own ships, prompting his opponents to retreat. But the act also *motivated his soldiers* to fight harder—it was a symbol of their resolve to win the battle. In new markets, commitments serve a symbolic role for those *inside the firm* because they are a pledge to pursue the most promising business model despite its challenges.

Boundary Conditions

The relevant scope for our findings is an important issue. We examine entrepreneurial firms searching for a successful strategy in a new market. An obvious question is whether the emergent theory generalizes to two related cases: (1) established firms in new markets and (2) new firms in established markets. Established firms are likely to face new-market challenges similar to those facing entrepreneurs: an undefined market structure, extreme ambiguity about opportunities, and poorly understood competitors and technologies. Thus we expect our framework to be applicable, though established firms may have a longer time horizon if they are less concerned about exhausting resources. But because established firms are likely to be competing with other

resource-rich established firms, their speed at developing a viable business model probably remains important. In the second case, new entrepreneurial firms in established markets, our framework may be less applicable. Developing a business model may not be a priority (since such models are already common knowledge), and thus traditional strategies that emphasize differentiation and aggressive competitive action may be more appropriate—though opportunities may exist to disrupt even established markets with new business models.

A second boundary condition has to do with whether our framework generalizes to markets where performance depends on technical breakthroughs (e.g., biotechnology, clean technology). In the emerging solar industry, for example, it could be that firms that focus on outperforming existing substitutes (traditional energy sources), that copy from others, and that test assumptions are more likely to quickly develop novel technologies. But since new customers for energy (or for prescription drugs) may not exist, robust activity systems may be less important. This is a possible direction for future research.

CONCLUSION

We conclude by repeating that the heart of strategy in new markets is quick development of a viable business model. Without such a model, firms will fail or exit the market. We also offer a theoretical framework for characterizing how firms can quickly and efficiently accomplish this objective. We re-conceptualize competitive interaction as “parallel play,” and shed light on theoretical perspectives that emphasize the logics of differentiation, aggressiveness, and commitment. Finally, we provide conceptual clarity and empirical measurement of the important construct of business models.

Table 1: Sample Firms at Founding

Firm	Location	Year Founded	Funding^a	Amount Raised	Number of Founders	Avg. Age	Startup Experience	Prior Industry Experience
Zeus	East Coast	2007	Top 50 VC, Angels	10.5 million	3	38	Yes	Internet, Financial services
Hercules	West Coast	2007	Top 50 VC, Angels	11 million	3	34	Yes	Internet, Financial services
Icarus	West Coast	2007	Top 50 VC, Angels	11 million	2	34	Yes	Internet, Financial services
Narcissus	East Coast	2007	Angels	3 million	3	30	Yes	Internet, Financial services
Phaethon	West Coast	2007	Top 50 VC, Angels	1.5 million	3	28	Yes	Internet

^aVC (venture capitalist) rankings are eigenvector centrality in network of early-stage investors at time of the study (Crunchbase).

Table 2: Overview of Interviews and Archival Materials

Firm	Number of Interviews	Insider Informants	Number of Interviews	External Informants	Number of Articles/ Pages	Sample Sources	Blogs and Press Releases
Zeus	12	CEO/ Founder VP Operations Chairman/ Founder	7	VC investor Angel investors Board member Industry analyst Finance journalist	43 articles 112 pages	Wall Street Journal New York Times Financial Times Techcrunch	150
Hercules	8	CEO/ Founder VP Bus. Devel. Director Sales	10	Company advisor Industry analyst Technology journalist Finance journalist	102 articles 185 pages	Wall Street Journal New York Times Investment News Techcrunch	42
Icarus	10	CEO/ Founder VP Engineering VP Product Chief Scientist Direc. Engineering	7	Angel investors Industry analyst Technology journalist Finance journalist	50 articles 92 pages	Wall Street Journal New York Times Financial Times Barron's Techcrunch	121
Narcissus	8	CEO/ Founder VP Product VP Marketing CTO/ Founder	4	Company advisor Technology journalist Consultant	30 articles 63 pages	Barron's Investment News VentureBeat	84
Phaethon	7	CEO/ Founder VP Marketing	5	Angel investor Board member Partner Technology journalist	23 articles 65 pages	Techcrunch Wall Street Journal Washington Post	19

Table 3: Business Model

Firm	Chosen Model	Profit Logic/ Revenue Source	Specific Indicators^a	Time to Develop	Sector Ranking^b	Poststudy Outcome	Qualitative Assessment
Zeus	Assets under management	Collect fees based on total assets managed	\$100M in 300 accounts	3 years	1st	Recognized as one of two market leaders	Zeus may just become the de facto, pay-to-play standard. (industry expert)
Hercules	Assets under management	Collect fees based on total assets managed	\$100M in 500 accounts	3.5 years	2nd	Recognized as one of two market leaders	Hercules is one of those businesses the finance world needs. (leading technology outlet)
Icarus	Assets under management	N/A	\$0	Never reached viability	Not in top ten	Exited through asset sale of \$800K in 2010	At the end of the day, it was an asset sale. Nobody made any money on it. (VP Engineering)
Narcissus	Advertising-supported web content	Generate revenue from advertising and referrals	50,000 uniques/month	3.5 years	Top ten	Remained a marginally profitable, private company	We managed to reach profitability, but the only possibility was to just hibernate the company. (CEO)
Phaethon	Advertising-supported web content	N/A	17,000 uniques/month	Never reached viability	Not in top ten	Acquired for less than \$1M in 2009	Phaethon had a lot of promise and the right people behind it. The redeeming fact is I didn't lose everything. (investor)

^aFor top three firms, business model specific indicator is assets under management and number of customer accounts.

For bottom two firms, business model specific indicator is web traffic measured with unique visitors to the site (Compete.com).

^bSector ranking was derived from poll of analysts and industry experts regarding firms' business models.

Table 4: Focusing on Substitutes and Copying from Rivals

Firm	Competitive Focus	Representative Quotes	Entrepreneurial Rivals	Period	Copying	Outcomes	Representative Quotes
Zeus	Existing asset management firms (UBS, Zeus Stanley) as primary source of competition Established substitutes (100% of executives)	The really big competition for Zeus are the existing asset management firms. All the other places you could go with your money. (Board member)	Actively keeps tabs on existing asset managers, and entrepreneurial rivals' key product features and major strategic decisions	Q1 2007 Q1 2007 Q3 2007	Copies user interface from entrepreneurial rival Uses same data provider as entrepreneurial rival Convinces rival's customers to try their site	Completes beta product ahead of schedule and with very few resource expenditures Seeds platform with good investors	[Zeus] has been going after people that they would like on their platform, and have actively tried to woo people away from [other sites]. (Angel Investor)
Hercules	No focus initially, but later considers actively managed funds, such as Fidelity and Vanguard Established substitutes (100% of executives)	Compare our service to its closest alternative, Actively Managed Mutual Funds. (CEO)	Actively keeps tabs on actively managed fund managers and entrepreneurial rivals	Q1 2008 Q1 2008 Q1 2008 Q3 2008	Convinces a potential rival to merge their userbase with Hercules's product Copies user interface from entrepreneurial rival Uses same data provider as entrepreneurial rival Tries to convince rival's customers to try their site	Gets to market quickly, 3 months after Zeus Expends few resources on beta product development Abandons due to difficulty	[Potential competitor's] product has nowhere near our functionality, but it's growing like crazy. Why don't I just call them up and see if they want to join efforts?...We didn't get any [investing] track record, but we got an audience (CEO)
Icarus	Similar startups (100% of executives)	For both [entrepreneurial rivals] we would certainly go out and take a look at their site. The impressive thing with one was the UI design. You're always curious to see what competitors are doing. (Director Engineering)	Aware of the product features and business model differences of entrepreneurial rivals	NA	Does not copy	Completes beta product after 8 month delay; Millions spent on development and engineering resources	Icarus has its own technology for linking to accounts and getting source data. Zeus has to use an intermediary to link to brokerage accounts; that means they can't get the entire account history. (VC Investor)
Narcissus	Similar startups Later, established substitutes (Yahoo Fin.) (50% of executives)	We consider every company that kind of was in the social investing space as a competitor: Icarus, Zeus. There were several others. (VP Product)	Aware of the product features and business model differences of entrepreneurial rivals	Q3 2007	Copies a little, Fidelity's UI	Completes well-designed beta product on schedule for launch, but simulation is plagued with bugs	Any company that had kind of a social investing idea, we saw as a direct competitor. We were very focused on how we can differentiate our product and strategy from them. (VP Product)
Phaethon	Similar startups (100% of executives)	We basically kept an eye on [our startup competitors]...I think we were paranoid about the wrong people too early. (VP Marketing)	Aware of the product features and business model differences of entrepreneurial rivals	NA	Does not copy	Never completes beta product; releases unfinished version	We could have paid more attention to competitor actions and been very strategic about how we built our product...and copy whatever they offer. (VP Marketing)

Table 5: Testing Assumptions and Committing to a Business Model

Firm	Period	Assumptions	Tests	Outcome	Commitment	Representative Quotes
Zeus	Q1 2007	People are not willing to share track records in public view	Experiment	Attracts a surprising number of people with varied motivations	<u>Big commitment</u> Commits to the more complex business model of becoming an RIA and managing real assets (Q1 2009)	<u>Testing</u> The original objective was to demonstrate that there was an appetite for investors to come along and share their actual investment activity in public view. Once we proved that, there was the potential to bring a real business to that. (CEO) <u>Commitment</u> It's a go/no-go decision: becoming [a registered] investment firm. Should they cross the Rubicon? into a whole other world of cost, complexity and infrastructure. (Investor)
	Q2 2008	Technology is easy to develop	Trial & error	Technology turns out to be complicated; forcing them to invest time, resources		
	Q3 2009	Regulatory approval is difficult	Experiment	Regulatory approval is moderately difficult compared to the opportunity		
Hercules	Q3 2007	People are not willing to share track records in public view	Trial & error	Allows people to invest virtually, but customers ask to share real track records	<u>Big commitment</u> Commits to the more complex business model of becoming an RIA and managing real assets (Q2 2009)	<u>Testing</u> We are changing the focus of our business. Our goal is to get to market quickly, observe how people use our product and then navigate to the most profitable business. (CEO)
	Q3 2008	Technology is easy to develop	Trial & error	Tries one technology and when it does not work, switches to another		
	Q3 2009	Regulatory approval is difficult	Trial & error	Seeks regulatory approval and realizes the opportunity justifies the difficulty		
Icarus	Q1 2007	People are not willing to share track records in public view	None	People appear willing to share, but their motivations for doing so remain unclear	<u>Big commitment</u> Commits to the more complex business model of becoming an RIA and managing real assets without knowing its viability (Q3 2007)	<u>No testing</u> We were all very brazen about the idea. [Customers] just don't get it yet, we thought. We just didn't give them an opportunity to tell us what they wanted. (Director of Engineering) <u>Commitment</u> We decided to create products around the aggregated data and make money off of that. (CEO)
	Q1 2007	Technology is easy to develop	None	Spends significant resources building a technology that customers do not value		
	Q2 2007	Regulatory approval is difficult	None	Never learns whether the complexity is justified by the opportunity		
Narcissus	Q1 2007	People are not willing to share track records in public view	None	Never learns that assumption is incorrect	<u>Small commitment</u> Settles for the easy, 'proven' business model based on advertising supported web content (Q3 2007)	<u>No testing</u> The barrier for people to input their real trading accounts login into our website would be too high...Then there's all the concerns with regulations in the U.S., securities law. (CEO) <u>Commitment</u> So we have a business model in between that brings in revenues [through] advertising, a very proven concept.
	Q3 2007	Technology is easy to develop	None, but minor probe	Technology remains a 'science project'		
	Q1 2007	Regulatory approval is difficult	None	Never learns whether the complexity is justified by the opportunity		
Phaethon	Q4 2006	People are not willing to share track records in public view	None	Never learns that assumption is incorrect	<u>Small commitment</u> Never commits to either model but 'falls into' business model based on advertising supported web content (Q2 2007)	<u>No testing</u> An assets under management model would've been a huge legal challenge, becoming a financial institution. (VP Marketing) <u>Commitment</u> We just fell into publishing [advertising model] because it was the straightforward way to go. (VP Marketing)
	Q4 2006	Technology is easy to develop	None	Considers several technologies but never develops any one of them		
	Q3 2007	Regulatory approval is difficult	None	Never learns whether the complexity is justified by the opportunity		

Table 6: Elaborating the Activity System and Moving Slowly

Firm	Locking onto Customers	Representative Quotes	Period	Elaborating Activity System	Opportunities Discovered	Representative Quotes
Zeus	Does not lock onto a specific customer identity. Maintains an 'underdetermined' approach, with several customer groups identified	We do not try to solve a specific problem for a specific group of people, but make it as easy as possible for the best people to find us, no matter where they come from. The right people will eventually find us. (Board member)	Q3 2009 Q4 2009	Loosely connected activities facilitate adaptation Opens online platform and keeps 'neutral' interface; Helps customers promote themselves with the product Adds product features to accommodate pros as they express interest in the product	Online platform is a two-sided market: Pros (large and small) use it as a platform for distribution while amateurs use it to develop a track record and have a small business	We are kind of purposefully underdetermined; that is, open to being surprised about who the actual main adopters are, or by how people use [the product]. So, the fewer constraints we impose, the better, because there're more room for emergent behavior, more room to discover. (Board Member)
Hercules	Quickly locks onto a highly focused set of customers. After gaining little traction, they 'pivot' to a different customer group	After our initial product launch, we were shocked that so few amateurs are good investors, that crappy investors were not willing to admit it and let others manage money for them, and that professionals would put up with transparency to get distribution. (CEO)	Q4 2009 Q2 2010	Tightly connected activities slow adaptation Aggressively targets amateurs, but gets interest from pros After gaining little traction, they abandon amateurs and re-optimize the activity system for professional investors	Online platform is a two-sided market: Pros (large and small) use it as a platform for distribution and growing their assets under management	Hercules's move to focus on hitching with professional investors rather than managing an open marketplace for investors raises some interesting questions. Zeus's doing a good job of staying with its original approach and seeing how things are going to play out. (Industry Expert)
Narcissus	Quickly locks onto a highly focused set of customers (student users); does not switch despite customer requests	We have a targeted audience...Whenever people ask, "Could I follow a person's trades in some way and just kind of copy them," we just said, "No, because that's not the way our business model works." (VP Marketing)	Q2 2007 through Q1 2010	Tightly connected activities inhibit adaptation Activity system optimized for advertising and does not accommodate users other than students	Online platform connects advertisers of financial products to young investors	We had our [monetization] strategy pretty much set in stone. It determined how we dealt with a lot of different things that came our way. It didn't give us the flexibility to iterate properly. (VP Marketing)
Phaethon	Exited the market before getting to the execution portion (underlying activity system) of a business model					
Icarus	Exited the market before getting to the execution portion (underlying activity system) of a business model					

References

- Agarwal, R. and B. Bayus
2002 "The market evolution and sales takeoff of product introductions." *Management Science*, 48: 1024-1041.
- Amit, R. and C. Zott
2012 "Creating value through business model innovation." *Sloan Management Review*, Spring: 41-49.
- Baker, T. and R. Nelson
2005 "Creating something from nothing: Resource construction through entrepreneurial bricolage." *Administrative Science Quarterly*, 50: 329-366.
- Barnett, M.
2006 "Waves of collectivizing: A dynamic model of competition and cooperation." *Corporate Reputation Review*, 8: 272-292.
- Benner, M., and M. Tripsas
2012 "The influence of prior industry affiliation on framing in nascent industries: The evolution of digital cameras." *Strategic Management Journal*, 33: 277-302.
- Bingham, C. and K. Eisenhardt
2008 "Position, leverage, and opportunity: A typology of strategic logics linking resources with competitive advantage." *Managerial and Decision Economics*, 29: 55-75.
- Chen, M. and I. MacMillan
1992 "Nonresponse and delayed response to competitive moves: The roles of competitor dependence and actions irreversibility." *Academy of Management Journal*: 35: 539-570.
- Chen, M. and D. Hambrick
1995 "Speed, stealth, and selective attack: How small firms differ from large firms in competitive behavior." *Academy of Management Journal*, 38: 453-482.
- Chen, E., R. Katila, R. McDonald, and K. Eisenhardt
2010 "Life in the fast lane: Origins of competitive interaction in new vs. established markets." *Strategic Management Journal*, 31: 1527-1547.
- Christensen, C. and P. Carlile
2009 "Course research: Using the case method to build and teach management theory." *Academy of Management Learning and Education*, 8: 240-251.
- Dess, G. and P. Davis
1984 "Porter's (1980) generic strategies as determinants of strategic group membership and organizational performance." *Academy of Management Journal*, 27: 467-488.

- Dixit, A.
1980 "The role of investment in entry-deterrence." *The Economic Journal*, 90: 95-106.
- Dixit, A., and B. Nalebuff
1991 *Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life*. New York, NY: Norton.
- Eisenhardt, K.
1989 "Building theories from case study research." *Academy of Management Review*, 14: 532-550.
- Eisenhardt, K., and M. Graebner
2007 "Theory building from cases: Opportunities and challenges." *Academy of Management Journal*, 50: 25-32.
- Ferrier, W.
2000 "Navigating the competitive landscape: The drivers and consequences of competitive aggressiveness." In R. Bresser, M. Hitt, R Nixon, and D Heuskel (eds.), *Winning Strategies in a Deconstructing World*: 163-189. New York: Wiley.
- Ferrier, W., K. Smith, and C. Grimm
1999 "The role of competitive action in market share erosion and industry dethronement: A study of industry leaders and challengers." *Academy of Management Journal*, 42: 372-388.
- Gavetti, G. and J. Rivkin
2007 "On the origins of strategy: Action and cognition over time." *Organization Science*, 18: 420-439.
- Ghemawat, P.
1991 *Commitment*. New York, NY: Free Press.
- Ghemawat, P.
1997 *Games Businesses Play*. Cambridge, MA: MIT Press.
- Goffman, E.
1969 *Strategic Interaction*. Philadelphia, PA: University of Pennsylvania Press.
- Goldfarb, B., D. Kirsch, and D. Miller
2007 "Was there too little entry in the dot com era?" *Journal of Financial Economics*, 86: 100-144.
- Hallen, B., and K. Eisenhardt
2012 "Catalyzing strategies and efficient tie formation: How entrepreneurial firms obtain investment ties." *Academy of Management Journal*, 55: 35-70.
- Hitt, M., B. Keats, and S. DeMarie

1998 "Navigating the new competitive landscape: Building strategic flexibility and competitive advantage in the 21st century." *Academy of Management Executive*, 12: 22-42.

Huber, G.

1985 "Temporal stability and response-order biases in participant descriptions of organizational decisions." *Academy of Management Journal*, 28: 943-950.

Huber, G., and D. Power

1985 "Retrospective reports of strategic-level managers: Guidelines for increasing their accuracy." *Strategic Management Journal*, 6: 171-180.

Jick, T.

1979 "Mixing qualitative and quantitative methods: Triangulation in action." *Administrative Science Quarterly*, 24: 602-611.

Johnson, M., C. Christensen, and H. Kagermann

2008 "Reinventing your business model." *Harvard Business Review*, December.

Kerr, W., J. Lerner, and A. Schoar

2011 "The consequences of entrepreneurial finance: Evidence from angel financings." *Review of Financial Studies*, forthcoming.

Kumar, N., L. Stern, and J. Anderson

1993 "Conducting interorganizational research using key informants." *Academy of Management Journal*, 36: 1633-1651.

Lounsbury, M., and M. Glynn

2001 "Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources." *Strategic Management Journal*, 22: 545-564.

MacCormack, A., R. Verganti, and M. Iansiti

2001 "Developing products on "Internet time": The anatomy of a flexible development process." *Management Science*, 47: 133-150.

Martens, M., J. Jennings, and P.D. Jennings

2007 "Do the stories they tell get them the money they need? The role of entrepreneurial narratives in resource acquisition." *Academy of Management Journal*, 50: 1107-1132.

Miles, M., and A. Huberman

1994 *Qualitative Data Analysis: A Sourcebook of New Methods*. Beverly Hills, CA: Sage.

Miller, D., and M. Chen

1996 "The simplicity of competitive repertoires: An empirical analysis." *Strategic Management Journal*, 17: 419-439.

Miner, A., P. Bassoff, and C. Moorman

2001 "Organizational improvisation and learning: A field study." *Administrative Science Quarterly*, 46: 304-337.

Murray, F., and M. Tripsas

2004 "The exploratory processes of entrepreneurial firms: The role of purposeful experimentation." In J. Baum and A. McGahan (eds.), *Business Strategy over the Industry Life Cycle*, 21: 45-75.

Navis, C., and M. Glynn

2010 "How new market categories emerge: Temporal dynamics of legitimacy, identity, and entrepreneurship in satellite radio, 1990-2005." *Administrative Science Quarterly*, 55: 439-471.

Nickerson, J., B. Silverman, and T. Zenger

2007 "The problem of creating and capturing value." *Strategic Organization*, 3: 211-225.

Ozcan, P., and K. Eisenhardt

2010 "Origin of alliance portfolios: Entrepreneurs, network strategies, and firm performance." *Academy of Management Journal*, 52: 246-279.

Parten, M.

1932 "Social participation among preschool children." *Journal of Abnormal and Social Psychology*, 28: 136-147.

Porac, J., H. Thomas, F. Paton, and A. Kanfer

1995 "Rivalry and the industry model of Scottish knitwear producers." *Administrative Science Quarterly*, 40: 203-227.

Porter, M.

1996 "What is strategy?" *Harvard Business Review*: 74: 61-78.

Porter, M.

2001 "Strategy and the Internet." *Harvard Business Review*: 79: 62-79.

Pozner, J. and H. Rao

2006 "Fighting a common foe: Enmity, identity, and collective strategy." *Advances in Strategic Management*, 23: 445-479.

Rindova, V., and C. Fombrun

2001 "Entrepreneurial action in the creation of the specialty coffee niche." In C. Schoonhoven and E. Romanelli (eds.), *The Entrepreneurship Dynamic*, Stanford University Press.

Rindova, V., W. Ferrier, and R. Wiltbank

2010 "Value from gestalt: How sequence of competitive actions create advantage for firms in nascent markets." *Strategic Management Journal*, 31: 1474-1497.

Rindova, V., and S. Kotha

- 2001 "Continuous morphing: Competing through dynamic capabilities, form and function." *Academy of Management Journal*, 44: 1263-1280.
- Rivkin, J.
2000 "Imitation of complex strategies." *Management Science*, 46: 824-844.
- Rivkin, J., and N. Siggelkow
2006 "Organizing to strategize in the face of interactions: preventing premature lock-in." *Long Range Planning*, 39: 591-614.
- Saloner, G., A. Shepard, and J. Podolny
2001 *Strategic Management*. New York, NY: Wiley.
- Sanchez, R.
1995 "Strategic flexibility in product competition." *Strategic Management Journal*, 16: 135-159.
- Santos, F. and K. Eisenhardt
2009 "Constructing markets and shaping boundaries: Entrepreneurial agency in nascent fields." *Academy of Management Journal*, 52: 643-671.
- Schelling, T.
1960 *The Strategy of Conflict*. Cambridge, MA: Harvard University Press.
- Smith, K., W. Ferrier, and H. Ndofo
2001 "Competitive dynamics research: Critique and future directions." *Handbook of Strategic Management*: 315-361.
- Spanos, Y., and Lioukas, S.
2001 "An examination into the causal logic of rent generation: contrasting Porter's competitive strategy framework and the resource-based perspective." *Strategic Management Journal*, 22: 907-934.
- Van de Ven, A.
2005 "Running in packs to develop knowledge-intensive technologies." *MIS Quarterly*, 29: 365-378.
- Weigelt, K., and Camerer, C.
1988 "Reputation and corporate strategy: A review of recent theory and applications." *Strategic Management Journal*, 9: 443-454.
- Yin, R.
2009 *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage.
- Young, G., K. Smith, and C. Grimm
1996 "Austrian and industrial organization perspectives on firm-level competitive activity and performance." *Organization Science*, 7: 243-254.

Zajac, E., and M. Bazerman

1991 "Blind spots in industry and competitor analysis: Implications of interfirm (mis)perceptions for strategic decisions." *Academy of Management Review*, 16: 37-56.

Zott, C., and R. Amit

2010 "Business model design: An activity system perspective." *Long Range Planning*, 43: 216-226.

Zott, C., R. Amit, and L. Massa

2011 "The business model: Recent developments and future research." *Journal of Management*, 37: 1019-1042.