



CUSTOMER VALUE PROPOSITIONS IN DECLINING INDUSTRIES: DIFFERENCES BETWEEN INDUSTRY REPRESENTATIVE AND HIGH-GROWTH FIRMS

GAYLEN N. CHANDLER¹, J. CHRISTIAN BROBERG^{1*}, and THOMAS H. ALLISON²

¹W. Frank Barton School of Business, Wichita State University, Wichita, Kansas, U.S.A.

²College of Business, Department of Management, Information Systems, and Entrepreneurship, Washington State University, Pullman, Washington, U.S.A.

Using institutional theory and a business model perspective, we develop a framework and use content analysis of company Web sites to examine differences in customer value propositions among a sample of high-growth firms paired with two comparison samples of industry representative firms in 18 declining industries in the United States. Our results indicate that high-growth firms develop value propositions that differ substantially from industry representative firms. In addition, high-growth firms communicate their value propositions more clearly and aggressively than do industry representative firms. Copyright © 2014 Strategic Management Society.

INTRODUCTION

We compared the growth rates of individual companies on the Inc. Magazine list of the 5,000 fastest-growing private companies in the United States (2008) to the growth rates of their parent industries. We discovered that while the vast majority of the Inc. 5000 firms were competing in growing industries, there were 166 high-growth firms in declining industries. This sparked an interesting research question: how do firms grow rapidly when they are competing in declining industries?

To address this question we apply institutional theory in general and legitimacy arguments in particular (Oliver, 1997; Scott, 1995). We apply concepts from the ‘business model’ literature to analyze

institutional theory predictions. The central component of the business model is the value proposition for customers (Johnson, Christensen, and Kagermann, 2008; Morris, Schindehutte, and Allen, 2005; Zott and Amit, 2010). We argue that the most important institutions are those that directly impact the delivery of the value proposition to customers. We compare 166 high-growth firms to two matched samples of firms that are representative of the same industries. The first comparison is to firms matched by size, while the second comparison is to firms matched by age.

We make four significant contributions to the literature. First, we address an interesting question: how do individual firms grow rapidly in declining industries? Second, we use an institutional theory lens supplemented by a business model approach. There is a call to apply more institutional theory to entrepreneurship (Bruton, Ahlstrom, and Li, 2010; Tolbert, David, and Sine, 2011), and there has been abundant discussion in entrepreneurship practice about business models, but the concept of the

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*Correspondence to: Christian Broberg, W. Frank Barton School of Business, Wichita State University, 1845 Fairmount, Wichita, KS 67260-0147, U.S.A. E-mail: Chris.broberg@wichita.edu

business model analysis has only recently been discussed in the academic literature (Johnson *et al.*, 2008; Morris *et al.*, 2005). Third, we use company Web sites and other Internet sources, a source of data that is readily available, but has not been used extensively in the entrepreneurship literature. In doing so, we demonstrate the value of using company Web sites as a data source from which researchers can infer important entrepreneurship constructs, such as the value proposition. Finally, our results show that high-growth firms have value propositions that focus on customer benefits that are not addressed directly by industry representative firms. They also communicate value to customers more expertly and aggressively.

To begin, we synthesize institutional theory and the core components of a business model. We then select companies from three of the 18 industries in our sample and qualitatively describe differences in value propositions between the high-growth firms and a matching sample of representative firms in those same industries. Finally, we quantitatively assess differences between how rapid-growth firms and industry representative firms in all 18 declining industries communicate their value propositions to their customers through their Web sites.

THEORETICAL CONSIDERATIONS

Industry characteristics are important for understanding new venture emergence and performance (e.g., Cooper, Gimeno-Gascon, and Woo, 1994; Chandler and Hanks, 1994; McDougall, *et al.*, 1994; Dean and Meyer, 1996; Robinson and McDougall, 2001; Delmar, Davidsson, and Gartner, 2003), as well as their survival and exit (e.g., Brüderl and Schüssler, 1990; Thornhill and Amit, 2003; Bates, 2005). A recent variance decomposition study of emerging firms (Short *et al.*, 2009) provided evidence that while individual firm factors explain the greatest proportion of the variance in performance, industry still accounted for a significant amount. Indeed, the evidence is overwhelming that most high-growth firms reside in high-growth industries (McDougall *et al.*, 1994; Mata and Portugal, 1994). The fact that only 166 of the Inc. 5000 were competing in declining industries provides supporting evidence for that viewpoint. Thus, the question of how firms that enter declining industries achieve rapid sales growth is particularly intriguing.

To explore that question, we turn to institutional theory. Although institutional theory can be applied to many aspects of social life, it is particularly relevant for firms and industries (Zucker, 1987). Institutions are the cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to firms and industries (Scott, 2004). Institutional theory considers how patterns, rules, norms, and routines become established as socially accepted guidelines for behavior. Institutional theory is a key explanatory theory for how stability and order develop in organizations and industries (Zimmerman and Zeitz, 2002). The definition of institution implies permanency; yet institutions are subject to both incremental and radical change processes (DiMaggio and Powell, 1991).

In an emerging industry, innovative institutions that provide customer value efficiently and effectively in early adopting organizations are legitimized (Meyer and Rowan, 1977). Zimmerman and Zeitz (2002: 416) describe legitimacy as a 'relationship between the practices and utterances of the organization and those that are contained within, approved of, and enforced by the social system in which the organization exists.' An institutional theory perspective suggests that industries represent higher-order structures that define shared norms and rules that create varying logics of accepted economic behavior (Oliver, 1997). In growing industries, emerging firms tend to gain legitimacy by copying the successful institutions of other firms that are having initial success in the industry (Aldrich and Fiol, 1994). Within an industry, firm practices and behaviors will tend toward homogeneity over time because they share a common social context that exerts conformance pressures (Deepphouse, 1996; DiMaggio and Powell, 1983; Jepperson and Meyer, 1991; Meyer and Rowan, 1977; Oliver, 1988; Scott, 1987). Oliver (1997) notes that industries reduce firm heterogeneity by establishing shared norms, standards, and rules of conduct—such as industry product quality standards and industry-wide ethical codes of conduct—among competing firms. Homogeneity of practice and behavior within industries will tend to become more prominent as industries develop (Navis and Glynn, 2010). When firms conform to industry norms of accepted behavior, they are perceived to be legitimate (Meyer and Rowan, 1977; Scott, 1995). Legitimacy then endows firms with the social acceptance necessary to obtain valuable resources that make the achievement of a sustainable competitive advantage

and firm growth possible (Oliver, 1997). Industry logics of accepted behavior have been found to guide firm governance (Thornton, 2002) and executive succession (Thornton and Ocasio, 1999).

While legitimacy has been used frequently to address actions of emerging firms in emerging industries (e.g., Aldrich and Fiol, 1994), legitimacy is also a vital concept to explain actions of emerging or evolving firms in declining industries. Sources of legitimacy are not static. Swaminathan (1998) points out that as industries mature, the major players migrate toward the center of the market and focus on product characteristics that are likely to attract the largest market segments, thus becoming more efficient. This focus on greater firm efficiency leads to more stable, but less flexible, business models (Doz and Kosonen, 2010). Subsequent to this migration, researchers suggest that firms become less likely to change, update, and innovate their business models (Chesbrough, 2010; Doz and Kosonen, 2010). This occurs because of their focus on efficiency, their ownership of specific dedicated assets, and cognitive factors of decision makers (Chesbrough, 2010; Shane, 2003). As customer needs evolve, this leads to unfilled gaps on the periphery of the market.

As industries begin to decline, the quest for legitimacy stimulates the development of new practices that meet the evolving needs of customers (Zimmerman and Zeitz, 2002). It becomes necessary to go beyond institutionalized behaviors and seek to establish a new legitimacy through innovative practices and behaviors (Navis and Glynn, 2010). Although it is possible for incumbent firms to make the requisite changes, most frequently new firms fill these gaps (Hwang and Christensen, 2008) by diverging from established institutions. As they diverge successfully an entrepreneurial identity develops. An entrepreneurial identity is the ‘constellation of claims around the founders, organization, and market opportunity of an entrepreneurial entity that gives meaning to the questions of *who we are* and *what we do*’ (Navis and Glynn, 2011: 480). Firms with entrepreneurial identities that are judged legitimate by external stakeholders—particularly customers—will tend to receive the resources necessary for survival and growth (e.g., Lounsbury and Glynn, 2001). Thus, institutional theory not only describes the emergence of an industry as emerging firms jointly establish and norm toward the institutions of that industry, it can also describe how firms may emerge with new institutions as the remainder of the industry declines.

The value proposition

In our research, we integrate the business model literature with institutional theory. We propose that the core of a firm’s entrepreneurial identity is its value proposition. The value proposition responds to the questions, ‘How does the product or service help customers?’ and ‘Why would they buy our product rather than a competing alternative?’ (Johnson *et al.*, 2008; Morris *et al.*, 2005; Zott and Amit, 2010).

When the firm’s product or service provides greater benefit to customers than competing alternatives and the benefit is clearly communicated to customers, the firm develops a competitive advantage which, in turn, contributes to company growth and increased owner wealth through a long-term positive profit margin (Hoopes, Madsen, and Walker, 2003; Lounsbury and Glynn, 2001; Powell, 2001; Sirmon, Hitt, and Ireland, 2007). Successful companies use the value proposition statement to acquire those customers who will benefit most from using the company’s products.

Because customers judge value differently and change their value perceptions over time, successful companies base their value propositions on multiple and varying product and service elements (e.g., Smith and Colgate, 2007). According to Treacy and Wiersema (1993), these varying value proposition types can be classified into three broad value categories—product leadership (differentiation), customer intimacy, and operational excellence. Similarly, Kaplan and Norton (2004) state that value propositions can encompass product or service attributes such as price, quality, availability, and functionality, close company relationships with customers, suppliers, and other stakeholders, and the image a product or service lends to customers.

Although the value proposition may include elements that emphasize commonality or conformity to existing firms or categories (Suchman, 1995), we contend that for a value proposition to be judged favorably by customers and other stakeholders in declining industries it must highlight its distinctiveness from incumbent firms (Navis and Glynn, 2011). Distinctiveness is argued to be judged as especially legitimate in uncertain, turbulent, and complex environments that characterize declining industries (Zimmerman and Zeitz, 2002). We argue that emerging firms in declining industries achieve high growth through establishing an entrepreneurial identity based upon a legitimately distinctive value proposition.

In this article, we examine value propositions (e.g., Teece, 2010). The development of a distinctive value proposition is consistent with the concept of differentiation (Chamberlin, 1933) in that it is the process of distinguishing a product or service from others and making it more attractive to a particular target market. However, altering the value proposition may go beyond traditional differentiation. To grow, companies may be required to look outside their present paradigms and find new value propositions (Kim and Mauborgne, 2005). It has been suggested that firms must refine and redevelop their business models on an ongoing basis to remain competitive (Wirtz, Schilke, and Ullrich, 2010). The evidence suggests, however, that most incumbent firms in declining industries fail to make significant changes to their business models. The declining performance of incumbent firms in the face of market change has been observed repeatedly (Hill and Rothaermel, 2003). The existing research on declining industries suggests that firms either diversify to get out of the industry or consolidate their assets with a resultant intensification of focus on existing capabilities and markets. Consolidation and improved utilization of assets may improve efficiency and performance in the short term (Anand and Singh, 1997), but it also restricts the ability of the firm to adapt its business model in the future (Doz and Kosonen, 2010).

Most new business models emerge with new ventures and, with surprising consistency, new ventures with new business models are able to overwhelm firms that once dominated their industries (Hwang and Christensen, 2008). We propose that firms that are growing rapidly in declining industries are doing so because they have altered the value proposition significantly from that which is common in the industry; indeed, the literature suggests that 'more new business models are both feasible and actionable than ever before' (McGrath, 2010: 247).

Thus, according to institutional theory, in declining industries, the value propositions of high-growth firms will include elements that are viewed to be valuable by customers, but not currently addressed in the value propositions of incumbents (e.g., Navis and Glynn, 2011; Zimmerman and Zeitz, 2002). The exact nature of distinctiveness in value propositions will likely vary across firms and industries. That is, high-growth firms will be similar in that they will all address elements of customer value ignored by representative firms in the industry; however, the type of value difference will vary across high-growth firms.

For example, value proposition distinctiveness for one high-growth firm may originate from the firm distributing their products through online channels, while industry representative firms sell their products only in brick and mortar stores; whereas, value proposition distinctness for another high-growth firm comes from creating a unique product image in relation to industry representative products. In all, we expect that the value propositions of high-growth firms will include distinct elements, that is, elements deemed valuable by customers, but not currently addressed in the value propositions of industry representative firms. This leads to our first proposition:

Proposition 1: The value propositions of firms that are growing rapidly in declining industries will focus on customer benefits that are not addressed by industry representative firms.

Communicating the value proposition

Not only does a high-growth firm have to create a compelling value proposition, but it also has to clearly communicate that proposition to customers (Anderson, Narus, and van Rossum, 2006). In the modern business environment, Web sites are electronic storefronts that communicate an impression of the organization to external stakeholders (Winter, Saunders, and Hart, 2003). In fact, the Web site may be an integral part of the value proposition. The impressions communicated by the Web site are a means by which stakeholders judge the appropriateness, favorability, or legitimacy of the value proposition of an organization. Vital in influencing judgments of legitimacy are the use of visual symbols (Clarke, 2011; Zott and Huy, 2007). A symbol is something that stands for or represents something else and conveys socially created meaning beyond its practical use (Zott and Huy, 2007). Thus, the use of different Web site design dimensions (i.e., the use of graphics, pictures, layout, fonts, etc.) convey both practical ends (e.g., communicate information on company products and services) and symbolic meaning (professionalism and status). Accordingly, we argue that firms that embed symbolic elements into their Web site design influence customer judgments of firm legitimacy.

Researchers have identified several factors influencing the perception of a quality Web site. These factors revolve around issues such as the ease of use, usefulness in providing good information, usefulness in carrying out transactions, and aesthetic or

entertainment value (Loiacono, Watson, and Goodhue, 2002). Consistent with Cappel and Huang (2007), we focus on four factors that can be assessed by analyzing company Web sites that provide indicators about how well the company is communicating its value proposition to its customers. We argue that these four factors are not only mechanisms by which the firm communicates with customers, but more importantly, serve a symbolic purpose in signaling a distinct identity from industry representative firms.

Overall quality of the Web site

For companies to communicate their value propositions on their Web sites, they first need to attract customers and stakeholders to their Web sites and subsequently engage stakeholders such that they desire to interact with the site sufficiently to understand the intended value proposition. Web site quality is a means by which companies can effectively interact with stakeholders to communicate their value proposition. The e-commerce literature notes that quality Web sites create a positive impression for customers and stakeholders that, in turn, contribute to a positive perception of the company's brand (Schneider and Perry, 2000). Other studies in e-commerce suggest that the quality of a Web site impacts the trust and usage of consumers (e.g., van der Merwe and Bekker, 2003). Research on young, high-growth firms further demonstrates that high-growth firms engage in activities that seek to produce a positive impression or reputation for customers (e.g., Reuber and Fischer, 2005). Moreover, Gundry and Welsch (2001) found that high-growth-oriented entrepreneurs were more concerned with reputation and quality than low-growth oriented entrepreneurs. In view of this research, we expect that high-growth firms in declining industries will produce higher quality Web sites than industry representative firms.

Proposition 2: High-growth firms will have higher quality Web sites than industry representative firms.

Updatedness

An important aspect of Web site usefulness encompasses the degree to which Web site content is current or up to date. Indeed, Web site updatedness is

a common criteria used to evaluate top Web sites (Ghose and Dou, 1998). Having updated content on a Web site reflects an effort by companies to encourage customers to access their Web site regularly in order to interact with the new content. This regular interaction may facilitate a company's ability to build ongoing relationships with customers, and it may aid in firm growth (e.g., Christopher, Payne, and Ballantyne, 2002). We expect high-growth firms in declining industries to perform more frequent maintenance on their Web sites compared to industry representative firms.

Proposition 3: High-growth firms will keep their Web sites more up to date than industry representative firms.

Usability of Web site

Usability of the Web site refers to the perceived ease of navigating the site and finding desired information (Flavián, Guinalú, and Currea, 2006). Research suggests that perceived usability of a Web site influences user satisfaction and degree of Web site loyalty (Flavián *et al.*, 2006). Similar to maintaining up-to-date information on the Web site, usability potentially builds a relationship with customers and other stakeholders. Because we expect high-growth firms to have a greater focus on building impressions and communicating with customers than industry representative firms, we anticipate that high-growth firms in declining industries will have greater web site usability than industry representative firms.

Proposition 4: High-growth firms will have greater Web site usability than industry representative firms.

Social media

Constructing effective customer value propositions requires discovering what features of products and services customers actually value (Anderson *et al.*, 2006). One growing means by which companies are achieving this objective is through social media (e.g., Barnes and Mattson, 2009; Berinato, 2010). Social media is interactive communication via a variety of Web-based technologies that include such activities as blogging, microblogging (e.g., Twitter), and social networking (e.g., Facebook, LinkedIn, MySpace). Utilizing social media is argued to

benefit companies through facilitating the monitoring of customers (Berinato, 2010), increasing marketing communication effectiveness (Dholakia and Durham, 2010; Kozinets *et al.*, 2010), and increasing social interaction with stakeholders, all of which aid effectuation processes (Fischer and Reuber, 2011). The adoption of social media practices has been found to be steadily increasing in high-growth Inc. 500 firms and at larger Fortune 500 firms (Barnes and Mattson, 2009). These results are consistent with research that detects a relationship between social capital and performance, via ability to accumulate financial capital (Florin, Lubatkin, and Schulze, 2003). As such, social media may be a means by which high-growth firms seek to acquire resources (i.e., social resources) that aid in their performance and growth by allowing them access to resources inherent in the underlying network (Florin *et al.*, 2003). Because firms signal their use of social media via the display of linking social media icons on their Web site and due to our earlier arguments, we expect that high-growth firms will display linking social media icons on their Web site more frequently than industry representative firms in declining industries.

Proposition 5: High-growth firms will display icons of social media outlets on their Web sites more frequently than industry representative firms.

RESEARCH DESIGN

We examine our research questions through a two-part study. First, we qualitatively analyze company Web sites in three of the 18 declining industries we identified: periodical publishing, retail fixture manufacturing, and audio speaker manufacturing, which together comprise 28 percent of our sample. On the Web sites, we focus on the ‘about us’ section and the descriptions of products and services. We compare firms on the Inc. 5000 list to a sample of firms that are of similar size in the industry to identify qualitative differences in value propositions. These qualitative assessments demonstrate clear differences between high-growth and industry representative firms. They are presented and discussed in the first part of our study.

Second, we content analyze the Web sites to evaluate whether dimensions, such as the overall quality of the Web site, ease of customer contact,

ease of purchasing the product, and displaying social media icons such as Twitter, Facebook, and LinkedIn, differentiate between high-growth firms and industry representative firms. These quantitatively rated differences are presented in the second part of our study.

METHOD

We combine both qualitative and quantitative methodologies. The source dataset consisted of 5,003 high-growth privately owned companies. The data were compiled as a part of the annual Inc. 5000 survey conducted by Inc. Magazine. Data from Inc. surveys has been used in prior work (Eckhardt, 2003; Markman and Gartner, 2002) and while it is possible that some selection bias may develop from its use, ‘this bias is likely to be drastically less severe than those of other available measures’ (Eckhardt, 2003: 94). In addition, while the Eckhardt study employed the Inc. 500 survey over a 13-year span, the present study employs Inc.’s expanded dataset of 5,000 firms, which has been collected since 2006. We believe that this order of magnitude expanded sample will reduce any bias that might have heretofore existed. Further, by employing four different data sources (the Inc. survey, Dun & Bradstreet, the U.S. Census, and firm Web sites), we expect to minimize systematic biases.

High-growth firms included in the dataset must have 2004 revenues of at least \$200,000 and 2007 revenues of at least \$2 million and must provide sales data for those two years in addition to other company information. The dataset does not include assigned industry codes. Thus, our first task was to classify firms by industry, which we did by using the North American Industry Classification System (NAICS). NAICS codes are broadly accepted; however, there is no single source for assigning codes to establishments. To assign NAICS codes, we used a sophisticated data acquisition algorithm that gleaned NAICS codes from sources that provide industry classifications, such as Dun & Bradstreet, IBISWorld, Manta, and Goliath. Following prior work, when there were discrepancies, we reviewed the code assignment and resolved the discrepancy after reviewing company descriptions and Web sites (e.g., Eckhardt, 2003).

After assigning codes to each of the Inc. 5000 firms, we used data from the U.S. Census Bureau (U.S. Census Bureau, 2002, 2007) to determine the

relative rate of revenue growth in each industry. The literature on declining industries (e.g., Harrigan, 1980; Hambrick and D'Aveni, 1988) indicates that one objective way to determine if an industry is declining is to take the rate of change in industry revenue and subtract the rate of change in the GDP deflator (e.g., Grant, 1989; Wurgler, 2000). This yields a measure of real, inflation-adjusted change over time. There were 167 firms from the Inc. 5000 in 18 industries that were declining in real terms—industry revenues were growing slower than the rate of inflation. The average rate of decline for these industries was -1.2 percent per year in nominal terms, -4.0 percent per year in real terms. One firm had no Web site and was dropped, leaving us with a final sample of 166. Given our objective of understanding why some firms are able to grow rapidly in a declining industry, we selected two matching comparison samples of 166 firms each—one matched by size and the other by age. This matched-pair methodology is similar to the methodology used by Barringer, Jones, and Neubaum (2005) who performed a content analysis of 50 high-growth and 50 slow-growth firms (for the purpose of examining firm attributes).

For the qualitative part of the study, we selected three industries that each had several Inc. 5000 firms: (1) periodical publishers ($n = 16$, NAICS 511120); (2) retail store display fixtures manufacturing ($n = 7$, NAICS 337215); and (3) audio and video equipment manufacturers ($n = 9$, NAICS 334310). For this part of the study, we selected an equal number of firms that were of similar size to the Inc. 5000 firms in each industry and made qualitative comparisons of value propositions. After making the qualitative comparisons, we made quantitative comparisons between the high-growth firms and the industry representative firms. The sample selection process for matching firms proceeded as follows: for each case in the high-growth sample, two matching firms were selected from a Dun & Bradstreet database of approximately 20 million privately owned firms. One was matched by size in sales and the second was matched by age. Dun and Bradstreet listings have been used frequently as sampling frames for entrepreneurship studies. One limitation of the Dun & Bradstreet data is that it is not a complete census of firms. However, since we were seeking to provide industry representative comparisons to only the high-growth firms, the limitations associated with Dun & Bradstreet data are not likely to affect the results of this study (Aldrich *et al.*, 1989).

For the first sample, the selected comparison firms were private, from the same industry (by six-digit NAICS code), with year-over-year sales in line with the movements of their industry (i.e., declining or flat firm revenues) for at least three years, and were selected to provide substantially identical matches with regard to annual revenue figures and number of employees. When possible, the industry representative firms were selected from the same geographic region. To ensure the comparability of the firms, we preferentially selected for firms with similar revenues, then number of employees. When multiple firms presented an equally precise match, one firm was selected randomly. By virtue of the fact that comparison firms were representative of declining industries, all of the comparison firms were growing at a slower rate than their high-growth counterparts.

To mitigate the threat that our findings are simply a function of company age, we selected a second matched sample using age as the matching criterion. Once again, the selected firms were private, from the same industry (by six-digit NAICS code), with year-over-year sales in line with the movements of the industry. This time, however, we matched based on company age. When multiple firms presented an equally precise match, one firm was selected randomly. As in the first sample matched by annual revenue, all of the comparison firms matched by age were growing at a slower rate than their high-growth counterparts.

Following accepted content analysis procedures (e.g., Krippendorff, 2004; Weber, 1990), we then developed a rating form that included several items that assessed the overall quality of the Web site, the usability of the Web site, the degree to which content on the Web site is up to date, and whether social media icons were included on the company's Web site. Each pair of companies was then evaluated by two independent raters. We randomly assigned firm pairs to the raters and the raters were blinded as to which firm was high growth and which was representative of the industry.

Measures

Value proposition

A company's value proposition is the reason a customer would purchase the company's product and not that of a competitor. A firm's value proposition is, perhaps, the most fundamental aspect of its business model (Morris *et al.*, 2005). We expect the

value proposition of the company to be expressed in the 'about us' section of the Web site and in the description of their products. We perform a qualitative pairwise comparison of value propositions and present examples of differences in the way high-growth and industry representative firms communicate their value propositions by displaying the Web site text of paired companies in three of the 18 declining industries (see Tables 1–3).

Communication of the value proposition

We distinguish the value proposition from the overall effectiveness with which it is communicated. We do this by assessing each of the constructs described in the earlier conceptual development section. First we assess the overall quality of the Web site. To do this, we develop measures to assess the quality and usability of a Web site. We followed Cappel and Huang (2007), who conducted a usability analysis of Inc. 500 firm Web sites. Based on the literature, we develop five items, each measured with a five-point Likert-type scale: (1) overall quality of Web site design; (2) overall quality of color scheme; (3) overall organization of Web site; (4) home page layout; and (5) effectiveness of the use of images. The anchors were: low quality (1); average quality (3); and high quality (5), with 2 and 4 representing intermediate values. Internal consistency reliability (α) for the scale is 0.93 and interrater reliability is 0.73. The scores were averaged to provide a single indicator of Web site quality.

To measure Web site updatedness, we first captured when and how frequently content on our sample's Web sites were updated by accessing the Internet Archive Wayback Machine, which regularly captures the content of nearly every Web site on the Internet. This Web site data source has previously been validated in other literatures (Murphy, Hashim, and O'Connor, 2008). To obtain the final measure of updatedness, we then divided the number of updates to the Web site that contained content changes by the number of total visits (samples) to the Web site by a server-based webcrawler. This results in a measure of updatedness that is comparable across firms, as it is not inflated by differing page counts or by the length of time the firm's Web site has been in existence. In 25 cases, one of the two scores was missing, so mean replacement within the firm's class was used; this did not have a significant effect on the results.

To assess Web site usability, we measured two different items: ease of purchase and ease of con-

tacting the company. Based on pilot research, we created a near interval-level scale reflecting the least effort purchase and contact methods available on a given firm's Web site. This ease of purchase item was anchored with the following: one click (5); can be easily ordered online (4); you have to call 3); you have to go through a distributor (2); and you cannot tell how to get the product (1). Interrater reliability for the item was 0.74. Though not all business models require selling online, it is likely that the ability to purchase online will usually increase Web site usability, regardless of whether online selling is an important revenue stream for the firm. Web sites that perform more functions and have greater content, such as the ability to purchase online, have been suggested to enhance Web site usability (e.g., Chen, Hsu, and Lin, 2010). Moreover, even if the firm does not sell online, the Web site provides information about how to acquire the product; when this information is missing, ease of purchase is diminished. For the ease of contacting the company item, the anchors were: mouse click (3); e-mail (2); phone number (1); and no contact information (0). Interrater reliability for the item was 0.67. We had expected higher interrater agreement, yet as we reviewed pairs where there were discrepancies, we realized that sometimes the information was available, but not in obvious locations. We averaged the scores for both raters and believe it creates a reasonable assessment for how easy it is to find contact information and actually contact the company.

The fourth measure was a single item measured as a dummy variable: did the Web site contain social media icons (Twitter, Facebook, LinkedIn, Myspace, etc.) that signaled company use of social media? Initially the answers were the same on 93 percent of pairs. Subsequently, we went back and reanalyzed the discrepancies and rectified them so there was 100 percent agreement.

ANALYSIS

Stage one of the analysis

In the first stage of the analysis, we compare high-growth firms to representative firms in declining industries. We do this qualitatively. We focus on three specific declining industries: magazine publishing, retail fixture manufacturing, and speaker and headphone manufacturing (a subset of audio and

video equipment manufacturing), which together account for 28 percent of our sample.

Periodical publishing

The first industry analyzed was the periodical publishing industry, which is categorized under the 511120 NAICS (periodical publishers) code. In the United States, this industry has been in decline since the mid-1990s due to a reduction in advertising and subscription sales largely due to competition with other media, such as television and Internet-only publishers (who are categorized in a separate NAICS code). The industry is in long-term decline (IBISWorld, 2011) and recession has exacerbated this decline (IBISWorld, 2011). Industry revenue is derived 50 percent from advertising, with the balance from subscriptions, newsstand sales, and other sources (IBISWorld, 2011). Annual revenue has declined at a yearly rate of 3.5 percent to \$42.6 billion in the five years prior to 2011, with 2011 profit estimated at \$5.2 billion industry wide among an estimated 6,666 firms (IBISWorld, 2011).

Despite the declining nature of this industry, 16 firms or 9 percent of our sample of high-growth firms are periodical publishers. Comparing the high-growth firms to industry representative firms suggests that high-growth firms adopt a variety of unique value propositions. Indeed, in harmony with notions argued by Kim and Mauborgne (1999), these firms follow practices that are outside the conventionally defined boundaries of competition in their industry. Instead of adopting traditional business models based on advertising and subscription sales, high-growth firms in this industry offer a variety of value-added services to existing and new customers. These unique value propositions in the periodical industry include: (1) launching new businesses to new customers—for example, a publisher of local and state business magazines, *Journal Publication*, has developed and launched an events management company, an online marketing company, and a market research group that coordinates best places to work surveys nationwide; (2) offering additional services, such as consulting or extensive education and networking opportunities through Webinars and conferences that appeal to target markets; and (3) targeting niche market segments that are attractive to customers. For example, *Next Step* magazine which provides college preparation and selection information and planning advice to junior and senior high school students and their parents, a growing and

desirable market to advertisers, and *School Family Media*, which serves parent teacher organizations and, in particular, parents of K-12 students, another attractive segment to advertisers.

High-growth periodical publishers further project their value proposition in distinct ways on their Web sites. For instance, industry representative firms tend to describe their value proposition solely in terms of their product offering. Table 1 shows two examples of how industry representative magazine publishing firms describe themselves. High-growth firms, however, communicate their value proposition using expressive and even humorous language that more effectively appeals to and attracts consumers. The latter half of Table 1 shows two examples of how high-growth firms in this industry describe their value propositions.

Retail fixture manufacturing

The second industry we analyzed was retail fixture manufacturing. This activity is grouped in NAICS code 337215 (showcase, partition, shelving, and locker manufacturing). The industry sells primarily to other businesses and it is highly dependent on the health of retailers. Most sales—85 percent—are to retail stores; the remainder goes to libraries, hotels, and other non-retail businesses. In the late 1990s, there were approximately 2,300 companies engaged in this industry. The majority of companies—nearly 80 percent—were firms of less than 20 employees. As of 2000, industry revenues totaled \$8.66 billion. Most firms in the industry are small—about 60 percent of the firms post annual revenues of less than \$1 million (High Beam Research, 2011). By 2008, industry sales had declined to \$7.51 billion, with further declines in 2009 to \$5.51 billion as retail sales declined due to the recession (NAICS, 2009a), with an estimated gross profit of 24 percent. Imports were valued at \$3.4 billion from 92 countries and exports totaled \$900 million. Total domestic demand as of 2009 was approximately \$8 billion.

Historically, these firms have focused on manufacturing store fixtures, with little emphasis placed on research and development, customer support, and marketing (High Beam Research, 2011). Companies in this industry traditionally advertise in trade journals such as *Restaurant Hospitality*, *Chain Store Age Executive*, and other publications aimed at business owners and managers.

In spite of the general decline of the industry, there were seven companies in the industry that were

Table 1. Firm descriptions: comparison between industry representative and high-growth firms in the magazine publishing industry

| Firm class | Examples |
|-------------------------|---|
| Industry representative | <i>Vicon Publishing, Inc., located in Amherst, NH publishes ALN World™, ALN® Magazine, Controlled Environments Magazine®, Forensic Magazine®, and DFI News®. Vicon Publishing has an established history of producing quality publications with excellent editorial and attractive advertising opportunities. In addition to offering various trade magazines, Vicon offers exclusive Web conferences designed to help professionals expand their skillset in various areas. Vicon also offers a trade show event called The TurnKey Conference, an event designed for animal research professionals.</i> |
| Industry representative | <i>Every month On The Water covers both fresh and saltwater fishing in feature articles and in dozens of regular columns, offering readers more practical information than they can find anywhere else. Started by fishermen for fishermen, local anglers share their skills with our readers, making On The Water the 'go-to' guide for all that is fishing in New England.</i> |
| High-growth | <i>DC VELOCITY is the FIRST and ONLY business information vehicle in the market speaking to the specific informational needs of distribution center managers and executives. While some coverage in existing transportation- and warehousing-focused journals touch on the subtleties of successful DC operations, none does it as its core focus. DC VELOCITY is the first. It captures and holds the attention of business professionals with an editorial package specifically-tailored to their needs. Further distinguishing itself from existing business publications, DC VELOCITY's editorial voice is contemporary, and conversational, offering a refreshing change of pace from typically dry and non-compelling offerings currently in the market. Story starts are comparatively high, and story length is comparatively short when juxtaposed with existing business brands. Respect for the readers' time is paramount. The DC VELOCITY package offers them a trusted and reliable source of business intelligence that they can turn to and quickly draw the information that is of interest. Congruently, the brand's look and feel is highly stylized and contemporary in design. Heavy emphasis is placed in graphic presentation, further providing 'at-a-glance' opportunities for readers to secure information. In essence, DC VELOCITY is not just a new brand in a new market, but in fact, a new breed.</i> |
| High-growth | <i>For the record: Mental Floss magazine is an intelligent read, but not too intelligent. We're the sort of intelligent that you hang out with for a while, enjoy our company, laugh a little, smile a lot and then we part ways. Great times. And you only realize how much you learned from us after a little while. Like a couple days later when you're impressing your friends with all these intriguing facts and things you picked up from us, and they ask you how you know so much, and you think back on that great afternoon you spent with us and you smile. And then you lie and say you read a lot.</i> |

listed on the 2008 Inc. 5000 list. What were the value proposition differences between the high-growth firms versus those that were representative of a declining industry? First, the industry representative firms tended to focus on the product. See Table 2 for abstracts from the Web sites of two industry representative firms that emphasize their technical capabilities without specifically mentioning value provided to customers.

In contrast, the focus of the high-growth firms was not the product, but an integrated merchandising solutions. See the latter half of Table 2 for a description of the value provided to customers by three high-growth firms in this industry. The high-growth firms focused their value propositions on helping

their customers move product off the shelves and into the hands of consumers.

Audio speakers and headphones

The third industry we analyzed was audio speakers and headphones, which falls in the audio and video equipment manufacturing (NAICS 334310) category. Equipment manufactured by the broader industry is used for home entertainment (e.g., video recorders, TV, stereo equipment) and commercial/automotive purposes. Domestic production is declining largely due to cheaper imported products that meet most of the domestic electronics demand. In 2010, domestically produced goods were only 11

Table 2. Value-added statements: comparison between industry representative and high-growth firms in the retail fixtures manufacturing industry

| Firm class | Examples |
|-------------------------|---|
| Industry representative | <i>KMS is a non-union manufacturer of wire forms, welded assemblies, and powder coatings. KMS specializes in short to medium volume items, but is willing to review any production volume. Producing virtually every type of wire product (except springs), Kewanna utilizes a broad range of materials in a wide array of material sizes. From handle wires, shelving, hooks and hanger wires . . .</i> |
| Industry representative | <i>Skeeles Manufacturing Inc. has continued to expand and grow as a custom counter top fabricator, display and fixture company. Located in Columbus Ohio, our 40,000 square foot facility is easily accessible to all major highways. Quality and service are only two of the values you can expect to receive while working with us. We are most proud of our long term relationships with our excellent customers. You are welcome to visit our show room and production facility anytime. We look forward to working with you!</i> |
| High-growth | <i>MTI combines expert retail strategy and proven technological platforms to create innovative custom solutions that transform the retail space into a rich interactive experience. The result: engaging, brand-building merchandising solutions that get products out of their packages and into the hands of customers, leading them from 'Try' to 'Buy.' We stay on the cutting edge of what's happening in retail by creating the newest ways to do business. Our over 30 years of retail experience across a diversity of manufacturers helps us formulate a custom retail strategy especially for your brand. We sell solutions, not just products, integrating our retail expertise with custom design and cutting edge technology to produce the greatest results possible. While we don't share metrics between customers, we know what performs; some of our retailers increase their sales by up to 50%.</i> |
| High-growth | <i>Welcome to Convergence Marketing. Convergence Marketing has developed a reputation for helping our clients implement great merchandising programs. We care about the end result and that means earning our place as your trusted partner. Our wholly owned resources integrated with our advanced technology are delivering solutions that sell and programs that work. Let us tackle your most important and demanding merchandising initiatives.</i> |
| High-growth | <i>Whether developing a complete interior or the furnishings and fixtures to finish off a current project, Fixture Contracting can provide décor that is an asset to your business. Fixture Contracting provides a full range of maintenance services to keep your retail and commercial presentation fresh and functional. Fixture Contracting can also provide all the ongoing services necessary to create a smooth running retail/commercial environment.</i> |

percent of total goods sold in the U.S. In 2000, domestic manufacturer shipment values totaled \$7.7 billion, but that had declined to \$5.9 billion in 2008 and \$3.3 billion in 2009 (NAICS, 2009b). This is a very mature market—household penetration for products in this category is around 95 percent. The only segment of the broader audio and video equipment manufacturing market where U.S.-owned companies are recognized as market leaders worldwide is speaker systems. Substantially all other consumer electronic components sold in the United States are manufactured in foreign factories. As a result, we focus our analysis on producers of audio speakers and headphones.

Three manufacturers of audio speakers and headphones were in our high-growth dataset: *Skullcandy*, *H2OAudio*, and *Bay Audio*. These companies were

compared to industry representative companies that manufacture audio speakers and headphones. Traditionally, companies compete at different levels with sound quality and price trade-offs. Therefore, there is a lot of attention paid to the technical details of the speakers or headphones. This can be seen in the statements of two industry representative firms, which are shown in Table 3.

In contrast, the three high-growth firms in the industry focus on other features. For example, *Skullcandy* produces a wide variety of headphones and earbuds. The products are designed to appeal to customers on a basis other than speaker performance. *Skullcandy* has an NCAA-licensed line that incorporates colors and logos from universities and another line with team colors and endorsements from professional athletes. In other words,

Table 3. Basis for competition: comparison between industry representative and high-growth firms in the audio speakers and headphones industry

| Firm class | Examples |
|-------------------------|---|
| Industry representative | <i>Grado, one of the oldest family owned companies in the Audio Industry, has for over half a century been the leaders in design engineering for the high-end audio and recording industries. Grado is famous for their remarkable headphone and phono cartridge designs and hold over 48 patents. Company founder, Joseph Grado is credited as the inventor of the stereo moving coil phono cartridge. He is responsible for more innovations in phono cartridge design than any other person in our lifetime and was inducted into the Audio Hall of Fame in 1982. All Grado headphones have a vented diaphragm design that incorporates a large air chamber. This design concept lowers the frequency resonance (distortion) of the diaphragm and extends bass response. The diaphragm is made of a low mass polymer, carefully formed to broaden resonant modes to reduce their amplitude. The diaphragm mass is determined with the compliance of the suspension in mind so that the desired low frequency resonance is achieved. The diaphragm's total mass is calculated to provide a full 20 KHZ bandwidth, while avoiding break-up at lower frequencies.</i> |
| Industry representative | <i>Magico's three new woofers are complemented by a 6' Nano-Tec midrange and the MBE-1 Beryllium dome tweeter. Together, these drivers represent Magico's continued pursuit of developing and implementing some of the finest loudspeaker drivers. The Q3's continuous curve of the front baffle minimizes diffraction. Substantial collar-locking isolation feet are also a highlight in the pursuit of ultimate performance.</i> |
| High-growth | <i>Skullcandy has partnered with DWill to bring the first 'Player Series' headphone to the market. Deron himself directed the design of these limited edition headphones and assisted in the creation of the sick logo executed by the Skullcandy design team. Custom leather, patent leather, and mesh materials connect to make the DWill Hesh a one-of-a-kind. So scratch that singing toothbrush off your birthday list and volume up while expressing your fanhood with the Deron Williams headphone. Meet the unruly 50/50 bud, a composite earphone that's half mic, half bud, and all boom. With superb fit and a beastly 11mm driver, the 50/50 pumps bass deeper than your bag of kickflip variables, and sounds richer than your dirty uncle. And unlike a sketchy 50/50 varial heel-flip, our 50/50 polycarbonate backside mashes the aluminum frontside in perfect symmetry. The Skullcandy 50/50: composite bud, killer odds.</i> |
| High-growth | <i>The iLounge 2010 Headphone of the Year Award Winner, Surge Waterproof Headset combines the latest waterproof speaker technology with an innovative in-line waterproof microphone, allowing you to stay connected while you submerge yourself in the same great sound you've come to expect from the Surge line. Pair your iPhone, Droid, Blackberry or other music enabled phone with an H2O Audio Amphibx Waterproof Armband and you'll never have to worry whether you should go out and play or wait for that important call.</i> |
| High-growth | <i>Ira Friedman founded Bay Audio in 1998 with the sole purpose of designing audiophile speaker systems that looked good when integrated into home decor. It's one thing to build a good sounding speaker. It's another challenge to make it look elegant.</i> |

Skullcandy focuses not on product characteristics but rather on the image their products create for users. For the market segment Skullcandy pursues, the image created by the product is more important than the technical specifications of the product (Bloch, 1995). Typical product descriptions for Skullcandy can be found in Table 3.

H2OAudio, the second of the high-growth firms in the segment has differentiated the product in a functional way, with waterproof technology that allows

headphones to withstand heavy perspiration, rinsing after active use, and submersion to 12-foot underwater. Thus, H2OAudio does not focus on the tone and sound qualities of the headphones, but rather on the things you can do when you wear the headphones. This is reflected in the text of their Web site, which is reproduced in Table 3. Accordingly, H2OAudio has developed a unique market segment (e.g., Kim and Mauborgne, 2005). While they do sell through traditional outlets such as Best Buy and the Apple Store,

their products are also carried by many surf shops, swim shops, and sporting goods stores that would not traditionally sell audio equipment.

The third high-growth firm in this segment is Bay Audio. Bay Audio does produce high quality speakers, but as their Web site reflects (refer to Table 3), they have added the dimension of aesthetics, thus focusing on a market segment that the industry representative producers of speakers have not addressed.

Each of the three high-growth firms in the headphone/speaker market has created product and marketing characteristics that go beyond the traditional dimensions of competition in this industry. In summary, we have provided evidence to support our first proposition—that the customer value proposition for the high-growth firms is qualitatively different than those of the corresponding industry representative firms.

Stage two of the analysis

Comparison firms matched by size

In stage two of the analysis, we reviewed a paired sample of Web sites with regard to the overall quality of the Web site, the usability of the Web site, the degree to which information on the Web site is up to date, and the display of social media icons on the company Web site. For this analysis, we employ the entire set of 166 pairs (332 firms) from 18 declining industries. Means, standard deviations, and inter-item correlations are displayed in Table 4. Correlations are modest considering the nature of the data.

The matched-pair design of this study provides inherent controls on variations between the high-growth and industry representative firms. A two-tailed t-test indicated no significant difference between the high-growth and industry representative firms in final year revenue: ($t = 0.90$, $p = 0.367$) and no difference in number of employees ($t = -0.76$, $p = 0.448$). There was a significant difference in age among the firms, with the mean industry representative firm age being 33 years and the mean high-growth firm age being 15.5 ($t = 6.567$, $p < 0.001$). This difference is due to our selection of pairs with similar revenues which, in some cases, resulted in the industry representative firms being somewhat older since the declining industry context diminished the number of firms available in the industry to serve as comparisons. The growth rate for the high-growth firms was 50.8 percent (per year, compound annual

growth rate method). For the industry representative firms, the annual growth rate was negative: -4.8 percent. This difference, -55.6 percent per year, is significant ($t = 12.48$, $p < 0.001$).

We use multiple regression analysis to evaluate the evidence for our propositions. In addition to controlling for variation in Web site quality that may be due to firm size or age through our study design, we also included firm age (in years) and firm size (in sales and in number of employees) as control variables in the analysis to statistically control for any variance these variables may capture. Our multiple regression analysis is shown in Table 5.

Proposition 2 suggested that high-growth firms would have higher quality Web sites. We find support for this proposition—high-growth firms have Web sites that ranked 0.70 higher on our five-point composite scale, a difference of 22 percent ($B = 0.70$, $p < 0.001$). Proposition 3 suggested that high-growth firms would have Web sites which were updated more frequently. We find support for this ($B = 0.11$, $p < 0.001$)—the high-growth firms update their Web sites 44 percent more frequently than do their industry representative competitors of the same size. Proposition 4 asserted that high-growth firms would have more usable Web sites. We modeled two measures of Web site usability: ease of purchase and ease of contact. Both were significantly higher among the high-growth firms than the industry representative comparison firms (ease of purchase: $B = 0.28$, $p < 0.001$; ease of contact: $B = 0.25$, $p = 0.001$), a difference of 10 percent and 8 percent, respectively, in favor of the high-growth firms. Finally, Proposition 5 suggested that high-growth firms would display social media icons on their Web sites more frequently than industry representative firms. We tested this with a separate logistic regression. We found support for this ($B = 0.58$, $p = 0.026$), indicating that the high-growth firms were 58 percent more likely to use social media.

Comparison firms matched by age

To test whether our findings may be affected by age differences between the high-growth firms and the industry representative comparison sample, we drew a second sample of industry representative firms. In our initial analysis, industry representative firms were, on average, 17.5 years older than the high-growth firms in our sample. Because of the age difference, there is a potential threat that our observed differences are simply artifacts of firm age. While

Table 4. Descriptive statistics and correlations

| Variable | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| 1 Site quality—high-growth | 3.90 | 0.73 | | | | | | | | | | | | | | |
| 2 Site quality—representative firms, size matched | 3.18 | 0.84 | -0.08 | | | | | | | | | | | | | |
| 3 Site quality—representative firms, age matched | 2.46 | 0.81 | 0.01 | 0.02 | | | | | | | | | | | | |
| 4 Updatedness—high-growth | 0.38 | 0.23 | 0.08 | -0.09 | -0.02 | | | | | | | | | | | |
| 5 Updatedness—representative firms, size matched | 0.26 | 0.15 | -0.02 | 0.02 | -0.02 | -0.02 | | | | | | | | | | |
| 6 Updatedness—representative firms, age matched | 0.28 | 0.20 | 0.11 | -0.08 | -0.05 | -0.14 | -0.05 | | | | | | | | | |
| 7 Ease of purchase—high-growth | 3.16 | 0.89 | 0.30 | -0.12 | 0.03 | -0.01 | 0.00 | 0.11 | | | | | | | | |
| 8 Ease of purchase—representative firms, size matched | 2.88 | 0.86 | -0.19 | 0.19 | -0.11 | 0.12 | 0.05 | -0.10 | 0.16 | | | | | | | |
| 9 Ease of purchase—representative firms, age matched | 2.41 | 1.05 | 0.16 | -0.01 | 0.18 | 0.04 | 0.02 | 0.00 | 0.04 | -0.01 | | | | | | |
| 10 Ease of contact—high-growth | 3.37 | 0.69 | 0.22 | -0.07 | 0.00 | 0.11 | -0.12 | 0.07 | 0.17 | 0.01 | 0.08 | | | | | |
| 11 Ease of contact—representative firms, size matched | 3.14 | 0.66 | -0.10 | 0.07 | -0.04 | 0.08 | -0.03 | -0.05 | -0.13 | 0.09 | -0.01 | 0.13 | | | | |
| 12 Ease of contact—representative firms, age matched | 3.08 | 0.66 | -0.03 | -0.02 | 0.26 | 0.09 | -0.08 | 0.02 | -0.19 | -0.08 | 0.12 | -0.14 | -0.03 | | | |
| 13 Social media—high-growth | 0.31 | 0.47 | 0.34 | -0.03 | 0.00 | -0.04 | -0.06 | -0.04 | 0.23 | 0.03 | 0.13 | 0.12 | 0.00 | 0.05 | | |
| 14 Social media—representative firms, size matched | 0.20 | 0.40 | -0.15 | 0.32 | 0.02 | -0.02 | -0.02 | -0.02 | -0.04 | 0.07 | 0.05 | -0.08 | 0.04 | 0.03 | 0.05 | |
| 15 Social media—representative firms, age matched | 0.19 | 0.40 | 0.04 | -0.13 | 0.31 | -0.02 | 0.17 | 0.17 | 0.07 | 0.02 | 0.23 | -0.04 | -0.07 | 0.05 | -0.03 | -0.09 |

N = 166; Correlations whose absolute value exceeds 0.15 are significant at $p < 0.05$.

Table 5. Web site content comparisons of high-growth firms and industry representative firms in declining industries

| Variables | Firm size matched sample | | | | | Firm age matched sample | | | | |
|--|--------------------------|-------------------------|------------------------|-------------------------|---------------------------------|-------------------------|-------------------------|-------------------------|------------------------|---------------------------------|
| | 1. Web site quality | 2. Web site updatedness | 3. Ease of purchase | 4. Ease of contact | 5. Social media use on Web site | 1. Web site quality | 2. Web site updatedness | 3. Ease of purchase | 4. Ease of contact | 5. Social media use on Web site |
| Age | -0.004 | -0.0008 | -0.002 | 0.003 | -0.005 | -0.002 | -0.002 | -0.0006 | -0.003 | -0.01 |
| Revenue | 2.05×10^{-10} | 8.36×10^{-11} | 1.96×10^{-10} | -4.60×10^{-11} | 8.00×10^{-11} | 1.54×10^{-11} | -5.18×10^{-12} | -3.56×10^{-11} | 1.71×10^{-11} | -5.81×10^{-11} |
| Employees | -6.65×10^{-6} | -9.12×10^{-6} | 0.00003 | 0.00005 | -0.0002 | 0.0009* | 0.0002 | -0.0005 | -0.0004 | -0.0003 |
| Group (0 = Represent-ative; 1 = High-growth) | 0.70** | 0.11** | 0.28** | 0.25** | 0.58* | 1.41** | 0.09** | 0.80** | 0.28** | 0.52* |
| Constant | 3.25** | 0.27** | 2.89** | 3.07** | -1.28 | 2.44** | 0.30** | 2.42** | 3.08** | -1.11** |
| R ² | 0.178 | 0.094 | 0.034 | 0.037 | | 0.499 | 0.068 | 0.150 | 0.043 | |
| Pseudo R ² | | | | | 0.017 | | | | | 0.015 |

N = 332 (166 pairs).
 ** $p \leq 0.01$ * $p \leq 0.05$.

these differences should be captured by our statistical control variables, we conducted a secondary analysis with an additional industry representative sample to provide further evidence in support of our propositions. Using the same database, procedures, coding methodology, and coders as in the primary analysis, we drew a second sample of industry representative firms to conduct a robustness check. Our criteria were that the industry representative matching sample should be statistically indistinguishable from the high-growth firms in terms of age, as well as being identical to the high-growth firms in terms of ownership (private) and industry (by six-digit NAICS code), with revenue and number of employees matched as closely as possible.

The industry representative sample exhibited no statistically significant differences from our high-growth sample in terms of firm age ($t = 0.56$, $p = 0.576$). Similarly, total revenue for 2007 was not significantly different between the industry representative and high-growth firms ($t = -0.726$, $p = 0.468$). There was a significant difference between the samples in terms of number of employees—the high-growth firms averaged 93.4 employees while the second industry representative sample averaged 57.3 employees ($t = 3.21$, $p = 0.001$). Thus, we again include all three control variables in our analysis to ensure that any variance the control variables may explain is modeled. Interrater reliability was adequate and comparable to our main analysis, ranging from 0.96 for the presence of social media to 0.69 for Web site quality; the average interrater reliability across all items was 0.85. The sample consists of 166 firms with a negative average annualized growth rate of -1.3 percent, a difference from the high-growth firms of -52 percent, which is significant ($t = 11.80$, $p < 0.001$).

The only significant control variable when predicting Web site quality is number of employees ($B = 8.58 \times 10^{-4}$, $p = 0.037$), suggesting that firms with more employees have higher quality Web sites. Our results were identical in terms of sign and significance to our primary analysis, suggesting that our results are robust. The effect was stronger in the age matched sample for Web site quality ($B = 1.41$, $p < 0.001$), again supporting the proposition that high-growth firms had higher quality Web sites. Web site updatedness was very similar to our findings in the primary analysis ($B = 0.09$, $p < 0.001$). Similarly, our measures of Web site usability, ease of purchase ($B = 0.80$, $p < 0.001$), and ease of contact

($B = 0.28$, $p < 0.001$) were similar to our primary analysis in terms of sign and significance. Finally, display of social media icons on Web site was also significant and in the same direction as in the primary analysis ($B = 0.52$, $p = 0.044$). Overall, this secondary analysis suggests that our results are robust to variance due to firm age and generalizable to other samples of industry representative firms.

DISCUSSION

Our propositions are supported by our analysis. Institutional theory predicts that in declining industries, companies that establish a new legitimacy through creating a distinct identity will do so by having innovative value propositions for their customers. Our findings provide evidence that high-growth firms tend to develop value propositions that provide customer value beyond that which is provided by incumbents. In our analysis, it appears that high-growth firms in declining industries create unique value propositions by: (1) focusing on meeting the specific needs of an underserved market segment; (2) identifying a new market segment by focusing on product or service characteristics that appeal to customers who prefer the product innovation to the mainstream product; or (3) providing a total customer solution instead of focusing just on the product. Our content analysis revealed strong and consistent differences between the high-growth firms in our sample and industry representative firms. These differences manifest themselves at two levels. First, the high-growth firms have products and/or services that differ substantially from the products and/or services offered by the industry representative firms. Second, their communication of the value added is more aggressive, succinct, and timely. Although we recognize that a Web site is only one way firms can communicate their messages, it appears that a Web site may be an indicator of care the company takes to communicate its message to potential customers. Making sure the web site functions and that the content is up to date seems to make a difference.

Interestingly, none of the high-growth firms were attempting to compete through cost leadership. This is understandable, given that existing firms in mature and declining industries tend to focus on the largest industry group and compete with each other by driving down costs (Swaminathan, 1998) and seeking greater efficiency (Doz and Kosonen, 2010).

Thus, in Porter's (1980) terms, the high-growth firms are pursuing focused differentiation strategies, but the differentiation often goes beyond product differentiation.

Implications for researchers

This study has some interesting implications for researchers. First, although the practitioner press has embraced the 'business model' concept, given the implied importance of the concept, only a limited quantity of work has started to appear in the entrepreneurship literature, though more has appeared in the strategy literature (Amit and Zott, 2001; Casadesus-Masanell and Ricart, 2010; Chesbrough, 2010; Doz and Kosonen, 2010; McGrath, 2010; Teece, 2010; Wirtz *et al.*, 2010; Zott and Amit, 2008, 2010). Although there is some agreement about the major components of a business model, most of the work thus far is definitional and prescriptive (e.g., Hedman and Kalling, 2003; Johnson *et al.* 2008; Morris *et al.* 2005). We believe there is much work to do analyzing the content of business models and their fit. This article was a first step toward conducting such an analysis. Future work might analyze content and link it to performance to determine which business models work best in which situations. Overall we believe there remains much work to be done to better understand how value propositions are developed, crafted, and implemented.

For entrepreneurship researchers, this study demonstrates the usefulness of content analyzing company Web sites to infer useful constructs. Indeed, this study revealed that a company's value proposition can be inferred from text and images posted on a firm's Web site and that differences in Web site content exist between high-growth firms and industry representative firms in declining industries. While Web sites are often consulted in management research to collect company information, little research in entrepreneurship has employed Web sites to help reveal key company characteristics and behaviors. As such, this study represents an example of how company Web sites can be used to advance entrepreneurship research.

Implications for practitioners

This research has direct application for practitioners. All of the high-growth firms developed value propositions that were different and distinct from industry

representative firms. Thus, we believe that managers and founders of firms should pay close attention to their value proposition: why customers should buy from them and not from their competitors. In addition, it is important to pay attention to the way a value proposition is communicated. This study focused on Web sites, however even in industries where the Web site is not the predominant way to communicate with customers, high-growth firms paid more attention to the Web site than did industry representative firms. For example, some of the industry representative firms had Web site links that were not functional, pages that were under construction, and information that no signs of recent updates. In addition, the high-growth firms did a much better job of describing benefits to customers, while the industry representative firms tended to focus on product features and technical characteristics of the product. It appears that the way the message is communicated is important and may have a meaningful correlation with sales growth.

CONCLUSION

In conclusion, we believe this research provides a useful and interesting step toward understanding the question of how firms grow rapidly in declining industries. Through our qualitative methodology, we focus on the value proposition (which is the central component of the business model), we ground terminology being used by practitioners in institutional theory, and we provide insights beyond those available through a generic business strategy approach. Thus, we extend the academic research that focuses on business models (e.g., Johnson *et al.*, 2008; Morris *et al.*, 2005). By analyzing company Web sites and other Internet sources, we employ a source of data that is readily available, but has not been used extensively in the entrepreneurship literature. In addition, we provide examples and empirical evidence of differences between high-growth and industry representative firms with regard to their value propositions (how value is created) and how effectively those value propositions are communicated to customers and prospective customers. Finally, we suggest that Web site quality is an indicator of the care the firm takes in communicating its message. We found that high-growth firms had better Web sites than industry representative firms, even in industries where Web sites have traditionally not been very important.

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REFERENCES

- Aldrich HE, Fiol CM. 1994. Fools rush in? The institutional context of industry creation. *Academy of Management Review* **19**: 645–670.
- Aldrich HE, Kalleberg A, Marsden P, Cassell J. 1989. In pursuit of evidence: strategies for locating new businesses. *Journal of Business Venturing* **4**(6): 367–386.
- Amit R, Zott C. 2001. Value creation in e-business. *Strategic Management Journal* **22**(6/7): 493–520.
- Anand J, Singh H. 1997. Asset redeployment, acquisitions, and corporate strategy declining industries. *Strategic Management Journal*, Summer Special Issue **18**: 99–118.
- Anderson JC, Narus JA, van Rossum W. 2006. Customer value propositions in business markets. *Harvard Business Review* **84**(3): 91–99.
- Barnes NG, Mattson E. 2009. Social media in the 2009 Inc. 500: new tools and new trends. Available at: <http://www.umassd.edu/cmr/studiesresearch/socialmedia2009.cfm> (accessed 4 January 2011).
- Barringer BR, Jones FF, Neubaum DO. 2005. A quantitative content analysis of the characteristics of rapid-growth firms and their founders. *Journal of Business Venturing* **20**(5): 663–687.
- Bates T. 2005. Analysis of young, small firms that have closed: delineating successful from unsuccessful closures. *Journal of Business Venturing* **20**(3): 343–358.
- Berinato S. 2010. Six ways to find value in Twitter's noise. *Harvard Business Review* **88**(6): 34–35.
- Bloch PH. 1995. Seeking the ideal form: product design and consumer response. *The Journal of Marketing* **59**(3): 16–29.
- Brüderl J, Schüssler R. 1990. Organizational mortality: the liabilities of newness and adolescence. *Administrative Science Quarterly* **35**: 530–547.
- Bruton GD, Ahlstrom D, Li L. 2010. Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice* **34**(3): 421–440.
- Cappel JJ, Huang Z. 2007. A usability analysis of company Web sites. *International Association for Computer Information Systems* **48**: 117–123.
- Casadesus-Masanell R, Ricart JE. 2010. From strategy to business models and onto tactics. *Long Range Planning* **43**(2/3): 195–215.
- Chamberlin EH. 1933. *The Theory of Monopolistic Competition*. Harvard University Press: Cambridge, MA.
- Chandler GN, Hanks SH. 1994. Market attractiveness, resource-based capabilities, venture strategies and venture performance. *Journal of Business Venturing* **9**: 331–349.
- Chen Y, Hsu I, Lin C. 2010. Web site attributes that increase consumer purchase intention: a conjoint analysis. *Journal of Business Research* **63** (9/10): 1007–1014
- Chesbrough H. 2010. Business model innovation: opportunities and barriers. *Long Range Planning* **43** (2/3): 354–363.
- Christopher M, Payne A, Ballantyne D. 2002. *Relationship Marketing: Creating Stakeholder Value*. Butterworth-Heinemann: Burlington, MA.
- Clarke J. 2011. Revitalizing entrepreneurship: how visual symbols are used in entrepreneurial performances. *Journal of Management Studies* **48**(6): 1365–1391.
- Cooper AC, Gimeno-Gascon FJ, Woo CY. 1994. Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing* **9**(5): 371–395.
- Dean TJ, Meyer GD. 1996. Industry environments and new venture formations in U.S. manufacturing: a conceptual and empirical analysis of demand determinants. *Journal of Business Venturing* **11**(2): 107–132.
- Deephouse DL. 1996. Does isomorphism legitimate? *Academy of Management Journal* **39**(4): 1024–1039.
- Delmar F, Davidsson P, Gartner W. 2003. Arriving at the high-growth firm. *Journal of Business Venturing* **18**(2): 189–216.
- Dholakia UM, Durham E. 2010. One café chain's Facebook experiment. *Harvard Business Review* **88**(3): 26.
- DiMaggio PJ, Powell WW. 1983. The iron cage revisited: institutional isomorphism and collective rationality in institutional fields. *American Sociological Review* **48**: 147–160.
- DiMaggio PJ, Powell WW. 1991. Introduction. In *New Institutionalism in Organizational Analysis*, Powell WW, DiMaggio PJ (eds). University of Chicago Press: Chicago, IL: 1–40.
- Doz YL, Kosonen M. 2010. Embedding strategic agility: a leadership agenda for accelerating business model renewal. *Long Range Planning* **43**(2/3): 370–382.
- Eckhardt JT. 2003. *When the Weak Acquire Wealth: An Examination of the Distribution of High Growth Start-ups in the U.S. Economy*. University of Maryland: College Park, MD.
- Fischer E, Reuber AR. 2011. Social interaction via social media: (how) can interactions on Twitter affect effectual thinking and behavior? *Journal of Business Venturing* **26**(1): 1–18.
- Flavián C, Guinalú M, Currea R. 2006. The role played by perceived usability, satisfaction, and consumer trust on Web site loyalty. *Information & Management* **43**: 1–14.
- Florin J, Lubatkin M, Schulze, W. 2003. A social capital model of high-growth ventures. *Academy of Management Journal* **46**(3): 374–384.

- Ghose S, Dou W. 1998. Interactive functions and their impacts on the appeal of Internet presence sites. *Journal of Advertising Research* **39**: 29–43.
- Grant RM. 1989. Competing against low cost cutlery imports. *Long Range Planning* **22**(5): 59–68.
- Gundry LK, Welsch HP. 2001. The ambitious entrepreneur: high growth strategies of women-owned enterprises. *Journal of Business Venturing* **16**(5): 453–470.
- Hambrick DC, D'Aveni RA. 1988. Large corporate failures as downward spirals. *Administrative Science Quarterly* **33**(1): 1–23.
- Harrigan KR. 1980. Strategy formulation in declining industries. *Academy of Management Review* **5**(4): 599–604.
- Hedman J, Kalling T. 2003. The business model concept: theoretical underpinnings and empirical illustrations. *European Journal of Information Systems* **12**: 49–59.
- High Beam Research. 2011. Industry reports: wood office and store fixtures, partitions, shelving, and lockers. Available at: <http://business.highbeam.com/industry-/wood/wood-office-store-fixtures-partitions-shelving-lockers> (accessed 4 January 2011).
- Hill CWL, Rothaermel FT. 2003. The performance of incumbent firms in the face of radical technological innovation. *Academy of Management Review* **28**(2): 257–274.
- Hoopes DG, Madsen TL, Walker G. 2003. Guest editors' introduction to the special issue: why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal* **24**(10): 889–902.
- Hwang J, Christensen CM. 2008. Disruptive innovation in health care delivery: a framework for business-model innovation. *Health Affairs* **27**(5): 1329–1335.
- IBISWorld. 2011. Industry market research: 51112—magazine and periodical publishing in the U.S. Available at: <http://www.ibisworld.com/industryus/atagance.aspx?indid=1232> (accessed 4 January 2011).
- Jepperson RL, Meyer JW. 1991. The public order and the construction of formal organizations. In *New Institutionalism in Organizational Analysis*, Powell WW, DiMaggio PJ (eds). University of Chicago Press: Chicago, IL: 204–231.
- Johnson M, Christensen C, Kagermann H. 2008. Reinventing your business model. *Harvard Business Review* **86**(12): 50–59.
- Kaplan RS, Norton DP. 2004. The strategy map: guide to aligning intangible assets. *Strategy & Leadership* **32**(5): 10–17.
- Kim WC, Mauborgne R. 1999. Creating new market space. *Harvard Business Review* **77**(1): 83–93.
- Kim WC, Mauborgne R. 2005. *Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant*. Harvard Business School Publishing: Boston, MA.
- Krippendorff K. 2004. *Content Analysis: An Introduction to its Methodology* (2nd edn). Sage: Thousand Oaks, CA.
- Kozinets R, de Valck C, Wojnicki A, Wilner S. 2010. Networked narratives: understanding word-of-mouth marketing in online communities. *Journal of Marketing* **74**: 71–89.
- Loiacono ET, Watson RT, Goodhue DL. 2002. WebQual: A measure of Web site quality. *Marketing Theory and Applications* **13**(3): 432–438.
- Lounsbury M, Glynn MA. 2001. Cultural entrepreneurship: stories, legitimacy, and the acquisition of resources. *Strategic Management Journal* **22**(6/7): 545–564.
- Markman GD, Gartner WB. 2002. Is extraordinary growth profitable? A study of Inc. 500 high-growth companies. *Entrepreneurship Theory and Practice* **27**(1): 65–75.
- Mata J, Portugal P. 1994. Life duration of new firms. *Journal of Industrial Economics* **6**: 439–449.
- McDougall PP, Covin JG, Robinson RB, Herron L. 1994. The effects of industry growth and strategic breadth on new venture performance and strategy content. *Strategic Management Journal* **15**(7): 537–554.
- McGrath RG. 2010. Business models: a discovery driven approach. *Long Range Planning* **43**(2/3): 247–261.
- Meyer JW, Rowan B. 1977. Institutionalized organizations: formal structure as myth and ceremony. *American Journal of Sociology* **83**: 340–363.
- Morris M, Schindehutte M, Allen J. 2005. The entrepreneur's business model: toward a unified perspective. *Journal of Business Research* **58**(6): 726–735.
- Murphy J, Hashim NH, O'Connor P. 2008. Take me back: validating the wayback machine. *Journal of Computer-Mediated Communication* **13**(1): 60–75.
- NAICS. 2009a. Manufacturing & distribution USA: industry analyses, statistics, and leading companies (showcase, partition, shelving, and locker manufacturing, NAICS 337215). Available at: <http://www.highbeam.com/doc/1G2-3027900314.html> (accessed 24 March 2014).
- NAICS. 2009b. Manufacturing & distribution USA: industry analyses, statistics, and leading companies (audio and video equipment manufacturing, NAICS 334310). Available at: <http://www.highbeam.com/doc/1G2-3027900240.html> (accessed 24 March 2014).
- Navis C, Glynn MA. 2010. How new market categories emerge: temporal dynamics of legitimacy, identity, and entrepreneurship in satellite radio, 1990–2005. *Administrative Science Quarterly* **55**: 439–471.
- Navis C, Glynn MA. 2011. Legitimate distinctiveness and the entrepreneurial identity: influence on investor judgments of new venture plausibility. *Academy of Management Review* **36**(3): 479–499.
- Oliver C. 1988. The collective strategy framework: an application to competing predictions of isomorphism. *Administrative Science Quarterly* **33**: 543–561.
- Oliver C. 1997. Sustainable competitive advantage: combining institutional and resource-based views. *Strategic Management Journal* **18**(9): 697–713.
- Porter ME. 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press: New York.

- Powell TC. 2001. Complete advantage: logical and philosophical considerations. *Strategic Management Journal* **22**(9): 875–888.
- Reuber AR, Fischer E. 2005. The company you keep: how young firms in different competitive contexts signal reputation through their customers. *Entrepreneurship Theory and Practice* **29**(1): 57–78.
- Robinson K, McDougall P. 2001. Entry barriers and new venture performance: a comparison of universal and contingency approaches. *Strategic Management Journal* **22**: 659–685.
- Schneider GP, Perry JT. 2000. *Electronic Commerce*. Course Technology: Cambridge, MA.
- Scott WR. 1987. The adolescence of institutional theory. *Administrative Science Quarterly* **32**: 493–511.
- Scott WR. 1995. *Institutions and Organizations*. Sage: Thousand Oaks, CA.
- Scott WR. 2004. Institutional theory. In *Encyclopedia of Social Theory*, Ritzer G (ed). Sage: Thousand Oaks, CA; 408–414.
- Shane S. 2003. *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*. Edward Elgar: Cheltenham, U.K.
- Short JC, McKelvie A, Ketchen DJ, Chandler GN. 2009. Firm and industry effects on firm performance: a generalization and extension for new ventures. *Strategic Entrepreneurship Journal* **3**(1): 47–65.
- Sirmon DG, Hitt MA, Ireland RD. 2007. Managing firm resources in dynamic environments to create value: looking inside the black box. *Academy of Management Review* **32**(1): 273–292.
- Smith JB, Colgate M. 2007. Customer value creation: a practical framework. *Journal of Marketing Theory and Practice* **15**(1): 7–23.
- Suchman MC. 1995. Managing legitimacy: strategic and institutional approaches. *Academy of Management Review* **20**: 571–610.
- Swaminathan A. 1998. Entry into new market segments in mature industries: endogenous and exogenous segmentation in the U.S. brewing industry. *Strategic Management Journal* **19**(4): 389–404.
- Teece DJ. 2010. Business models, business strategy and innovation. *Long Range Planning* **43**(2/3): 172–194.
- Thornhill S, Amit R. 2003. Learning about failure: bankruptcy, firm age, and the resource-based view. *Organization Science* **14**: 497–509.
- Thornton PH. 2002. The rise of the corporation in a craft industry: conflict and conformity in institutional logics. *Academy of Management Journal* **45**(1): 81–101.
- Thornton PH, Ocasio W. 1999. Contingency of power in organizations: executive succession in the higher education publishing industry, 1958–1990. *American Journal of Sociology* **105**(3): 801–843.
- Tolbert PS, David RJ, Sine WD. 2011. Studying choice and change: the intersection of institutional theory and entrepreneurship research. *Organization Science* **22**(5): 1332–1344.
- Treacy M, Wiersema F. 1993. Customer intimacy and other value disciplines. *Harvard Business Review* **71**: 84–93.
- U.S. Census Bureau. 2002. Industry series: detailed statistics by industry for the United States: 2002 Economic Census. Available at: <http://factfinder2.census.gov/> (accessed 24 March 2014).
- U.S. Census Bureau. 2007. Industry series: detailed statistics by industry for the United States: 2007 Economic Census. Available at: <http://factfinder2.census.gov/> (accessed 24 March 2014).
- van der Merwe R, Bekker J. 2003. A framework and methodology for evaluating e-commerce Web sites. *Internet Research: Electronic Networking Applications and Policy* **13**(5): 330–341.
- Weber RP. 1990. *Basic Content Analysis* (2nd edn). Sage: Thousand Oaks, CA.
- Winter SJ, Saunders C, Hart P. 2003. Electronic window dressing: impression management with Web sites. *European Journal of Information Systems* **12**(4): 309–322.
- Wirtz BW, Schilke O, Ullrich S. 2010. Strategic development of business models: implications of the Web 2.0 for creating value on the Internet. *Long Range Planning* **43**(2/3): 272–290.
- Wurgler J. 2000. Financial markets and the allocation of capital. *Journal of Financial Economics* **58**(1): 187–214.
- Zimmerman MA, Zeitz GJ. 2002. Beyond survival: achieving new venture growth by building legitimacy. *Academy of Management Review* **27**(3): 414–431.
- Zott C, Amit R. 2008. The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal* **29**(1): 1–26.
- Zott C, Amit R. 2010. Business model design: an activity system perspective. *Long Range Planning* **43**(2/3): 216–226.
- Zott C, Huy QN. 2007. How entrepreneurs use symbolic management to acquire resources. *Administrative Science Quarterly* **52**: 70–105.
- Zucker LG. 1987. Institutional theories of organization. *Annual Review of Sociology* **13**: 443–464.