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Planning for the market: business planning before marketing and the continuation of organizing efforts

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Abstract

Drawing on goal setting theory, we argue that writing business plans before undertaking marketing activities should enhance the continuation of venture-organizing efforts. We examine 223 new venture-organizing efforts initiated in the first 9 months of 1998 by a random sample of Swedish entrepreneurs and show that those organizing efforts in which entrepreneurs completed business plans before talking to customers and beginning marketing or promotion had a lower hazard of termination than other organizing efforts.

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1. Introduction

Should entrepreneurs complete business plans before engaging in marketing activities, like talking to customers or initiating promotion efforts? Several authors have argued that writing a business plan offers little value to entrepreneurs (Bhide, 2000). Specifically, prior

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researchers argue that writing a business plan (1) interferes with the efforts of time-constrained entrepreneurs to undertake more valuable firm-organizing actions like initiating marketing and promotion (Carter et al., 1996); (2) gives entrepreneurs a potentially harmful illusion of control over information, such as that obtained from customers (Mintzberg, 1994; Weick, 1979); and (3) leads to decision-making errors in estimating such things as customer needs (Kahneman and Lovallo, 1993).

However, these arguments conflict with the basic principles of goal setting theory, which hold that planning improves most subsequent human action (Locke and Latham, 1990). Goal setting theory would suggest that writing business plans should enhance marketing activities.

In this study, we empirically examine the effect of writing a business plan—a document that summarizes how an entrepreneur will create an organization to exploit a business opportunity (Stevenson and Van Slyke, 1985)—before undertaking marketing activities on the termination of new ventures. We define a new venture as an effort by an entrepreneur or team of entrepreneurs to create a new independent organization. We analyze a unique data set capturing the life histories of 223 new ventures initiated by Swedish entrepreneurs in the first 9 months of 1998 and followed over the subsequent 30 months. We control for the effects of the entrepreneurs' human capital, the new venture strategy, venture development, and the industry. We show that the new ventures for which the entrepreneurs complete business plans before talking to customers and beginning marketing or promotion have a lower hazard of termination than other new ventures during their first 30 months of life.

Several theoretical and practical issues suggest the importance of examining the relationship between business planning and marketing activities on the termination of new ventures. Initial contact with potential customers and the initiation of marketing and promotion efforts are major milestones in new venture creation (Venkataraman, 1997). In addition, rapid initiation of marketing and promotion and early contact with potential customers facilitate the new product or service launch (Schoonhoven et al., 1990). Furthermore, faster establishment of customer relationships facilitates access to capital (Venkataraman et al., 1990). Finally, marketing activities are a necessary condition to the development of new ventures.

This study provides two valuable contributions. First, we use goal setting theory to explain why writing a business plan is a useful precursor to marketing activities. We then test this explanation on a sample of new ventures. Our effort fills a void in the literature, which currently offers no theoretical explanation (and consequently no empirical support) for any explanation of why undertaking business planning before undertaking marketing-related organizing actions should be beneficial. Second, we offset a recent action bias in the entrepreneurship literature. Because business planning imposes an opportunity cost on the time of entrepreneurs (Gifford, 1992), one school of thought holds such activities are not worthwhile (Bhide, 2000; Allinson et al., 2000). By demonstrating that writing business plans before taking marketing-related organizing action reduces the likelihood that these efforts will be terminated, we hope to offset this bias and show the value of business planning.

2. Theory development

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One school of entrepreneurship researchers argues that undertaking business planning before engaging in marketing activities will hinder the development of new ventures. First, given time constraints, some researchers have argued that business planning precludes entrepreneurs from engaging in marketing activities that demonstrate the reality of a new business to customers and other stakeholders (Carter et al., 1996). Second, other researchers have posited that the downside risk from incorrect marketing activities is too small to justify prior planning. As Bhide (2000, p. 57) explains, “entrepreneurs do not have much to lose from an erroneous forecast of . . . market size. . . . They usually do not put much capital at risk.” Third, other researchers have stated that entrepreneurs do not need to plan because their intuition allows them to know how to effectively serve their chosen market without planning first (Allinson et al., 2000). Fourth, still other researchers have proposed that uncertainty and time constraints make planning ineffective in meeting market demand in new ventures (Bird, 1988).

However, this set of arguments conflicts with the basic principles of goal setting theory, which suggests that undertaking business planning before undertaking marketing activities will enhance the performance of new ventures. Mental processes guide human action (Bandura, 1986, 1997; Locke and Latham, 1990; Mischel and Shoda, 1995; Pervin, 1989). One of the most important of these mental processes is goal setting because most human behavior involves forethought about desired future states and the ways to achieve those goals (Bandura, 1986). As Locke and Latham (1980, p. 3) explain, “in purposeful action, it is the individual’s idea of and desire for the goal or end that causes action.”

Planning facilitates the integration of goals into people’s behavior (Bandura, 1997). Planning helps people to form instrumental thoughts about a desired future (Nuttin, 1984). Moreover, plans identify the necessary skills and information to achieve goals (Simon, 1997), as well as providing a framework for actions to lead to goal achievement (Miller et al., 1960).

Plans are particularly useful when tasks are fuzzy or uncertain, and the decision maker cannot rely on experience or habit (Campbell, 1988). Forming a plan mediates the relationship between intention and actions because the plan specifies where and when one should act to achieve the intended goal (Gollwitzer, 1999). When complex activities are undertaken under uncertainty, people find it difficult to figure out how to best achieve their goals. Planning helps people to understand the relationship between action and performance, thereby mitigating misdirected effort (Campbell, 1988).

Although much planning occurs solely in mental form, goal setting theory also holds that written planning improves human action. First, writing a plan clarifies goals and permits people to set more specific objectives, which facilitate the achievement of those goals (Locke and Latham, 1980; Rousseau, 1997). Second, writing a plan enhances the ability to learn information necessary to act upon the plan (Langer and Applebee, 1987) by focusing the decision maker’s attention on the most appropriate tasks (Locke and Latham, 1980). Third, writing a plan allows a decision maker to better analyze complex activities in which many

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factors interact.² Fourth, writing a plan helps a decision maker to communicate information to others about how to pursue actions (Simon, 1997), an important dimension of achieving goals in complex activity.

Despite the importance of planning to goal setting theory, researchers have not explored the value of planning in new venture creation. In particular, they have not explored the sequence between planning and more action-oriented venture-organizing activities. This study examines the effect of the sequence between planning and marketing-related firm-organizing actions on the termination of new ventures.

When creating a new venture, people can engage in marketing-related firm-organizing actions, such as talking to customers, with or without first writing a business plan. The choice to plan first imposes an opportunity cost on the entrepreneur's time. Unlike the organizing activities of initiating marketing or talking to customers, planning itself does not bring a new organization into existence. As a result, the time spent planning limits the amount of time that the entrepreneur can spend on firm-organizing actions.

The population of entrepreneurs varies in their approaches to the organizing process. Some entrepreneurs complete business plans before engaging in marketing-related firm-organizing activities, whereas others do not. This variation provides the basis of our test of undertaking business planning first. We develop specific hypotheses about why completing a business plan before undertaking two marketing activities—talking to customers and initiating marketing and promotion—reduces the likelihood that a new venture will be terminated.³

3. Hypotheses

Writing a business plan prior to talking to customers reduces the likelihood that a new venture will be terminated for four reasons. First, writing a business plan allows an entrepreneur to improve his or her efforts to gather information from customers about their needs. For example, by developing a business plan that specifies what type of product the new firm will produce, the entrepreneur can better determine what questions about product features would best meet customer needs.

Second, by writing a business plan, the entrepreneur can make better use of customer feedback because the business plan provides a framework in which it can be used. For

² Decision making about complex tasks is difficult because human beings lack the cognitive capacity to mentally compare the potential values that result from analyses based on multiple variables (Simon, 1955). As a result, they engage in a variety of decision-making biases. By allowing people to manage greater amounts of information, to better connect that information, and to incorporate feedback into decision making, written planning makes analysis possible in ways that are not possible otherwise (Tolchinsky and King, 1980). Moreover, writing a plan reduces decision-making biases, such as framing effects (Miller and Fagley, 1991), by leading people to justify the logic behind their decisions (Ablum-Heath and Di Vesta, 1986) and by allowing for broader consideration of alternatives than decision making in situ.

³ Our argument does not imply that firm founders will foresee all the consequences of their planned goals nor does it imply that they will achieve all goals that they set through planning. Rather, we only argue that the benefits of planning before action will exceed the costs.

example, using a business plan to project hiring of new employees allows an entrepreneur to incorporate feedback from customers into the overall venture model. This allows the entrepreneur to obtain a more accurate understanding of the complex relationship between hiring and customer feedback than would be the case without writing a plan.

Third, writing a business plan specifies the action steps to be taken to solicit feedback from customers, thereby facilitating its acquisition. For example, writing a business plan helps entrepreneurs to select the target customers to talk to and determine how and when they should be contacted. For this reason, writing a business plan reduces the waste of time and effort targeting inappropriate targets in inappropriate ways.

Fourth, writing a business plan facilitates the entrepreneur's efforts to communicate information about his or her business. Because the feedback gained from customers depends on the assumptions made by the entrepreneur, the acquisition of accurate information from customers is facilitated by accurate communication of the new venture's strategy and product offerings to potential customers. Written planning facilitates the entrepreneur's understanding of the logic of his or her strategy for venture creation and product offering, thereby enhancing his or her ability to explain it to others. These arguments lead to the following hypothesis:

H1: The completion of a business plan prior to talking to customers will lower the likelihood that the new venture will be terminated.

The completion of a business plan before beginning marketing and promotion will reduce the likelihood that the new venture will be terminated for four reasons. First, writing a business plan facilitates the process of gathering necessary information. For example, an entrepreneur might consider different marketing efforts, such as the amount and type of advertising to undertake, and writing a business plan identifies which approach to take before initiating efforts. By writing a business plan that outlines the new venture's business model, the entrepreneur can choose a more appropriate approach to marketing and promotion than would be the case if the entrepreneur attempted to make the choice without a plan.

Second, writing a business plan improves the process of specifying the correct resources (in nature and quantity) for marketing and promotion by integrating marketing information with information about other aspects of the firm-organizing effort. For example, the marketing plan might demand certain approaches to hiring sales staff or prototype development, creating a complex dynamic relationship among marketing, hiring, and product development. Because human beings have a hard time analyzing complex, dynamic relationships in their heads, they make better estimates of these problems through written analysis (Simon, 1997). Therefore, by developing a business plan prior to initiating marketing and promotion, entrepreneurs can engage in marketing and promotion more efficiently and effectively.

Third, writing a business plan specifies the action steps necessary to market the product or service. For example, if the business plan indicates that the entrepreneur should first produce a prototype for demonstration to customers before attempting to sell the product, the entrepreneur can make his or her sales effort more efficient by waiting to undertake the

demonstration of the product to the customer until after it has been produced. By helping an entrepreneur to plan the marketing process, writing a business plan facilitates an entrepreneur's effort to identify the correct action steps to market a new product or service, reducing the waste of time and effort on inappropriate approaches to marketing.

Fourth, writing a business plan enhances communication about the venture. To create a new venture, the entrepreneur needs to explain his or her vision to other people (Baum, 1994). Writing a business plan facilitates the transmission of an entrepreneur's vision by facilitating its understanding and by making its communication clearer and more specific (Van de Ven, 1980). These arguments lead to the second hypothesis:

H2: The completion of a business plan prior to beginning marketing and promotion will lower the likelihood that the new venture will be terminated.

4. Methods

4.1. Design and sample

A test of the effects of completing business plans before undertaking marketing-related firm-organizing activities on the likelihood that a new venture will be terminated imposes several difficult data collection requirements. First, because business plans and firm-organizing activities are undertaken very early in the venture-organizing process (but not instantaneously at the point at which opportunity exploitation begins), exploring the relationship between the two variables requires the collection of data on new ventures longitudinally from the initial point of opportunity exploitation forward in time. Second, examining this research question requires the collection of real time data because entrepreneurs rationalize the organizing process when asked about it retrospectively. Third, archival sources cannot be used to generate a sample for such an investigation because these sources do not record the existence of organizing efforts until new firms have been legally registered or have begun production (Aldrich, 1999; Carroll and Hannan, 2000) producing survivor bias (Aldrich and Wiedenmayer, 1993). Fourth, data on new ventures must be obtained from initiation until termination or censoring to avoid left-censoring, which will generate biased parameter estimates in event history analyses (which are necessary to analyze these types of research questions) (Tuma and Hannan, 1984). Fifth, random sampling of a known population is necessary to generalize our results to that population.

Overcoming these obstacles requires a large sample research effort in which researchers first identify members of the general population who are creating a new venture at a particular point in time. This approach allows for the identification of a sample of new ventures that represents the population of all new ventures at the point at which an opportunity is first exploited. Therefore, in the first 9 months of 1998, we first randomly sampled by telephone 35,971 Swedes between the ages of 16 and 70 and asked them to participate in our study. We received agreement from 30,427 individuals (84.6%).

To determine which individuals were starting a new venture, we then asked the respondents if they were creating a new business either alone or as part of a team. To mitigate differences in the perception of the definition of a new business, we provided a definition of a new business to the respondents. To be inclusive, this definition included a variety of new businesses including farms, consultancies, and home-based businesses.

If the answer to the screening question was affirmative, we subsequently asked the respondent if the effort to create the venture was on behalf of an existing organization. If the answer to this question was negative, we then asked if the respondent was a member of the venture team rather than a consultant or investor. As a result of this process, we found 453 people who were starting an independent business in 1998.

Because we were concerned that many of the respondents might have started the new venture before we began our observation period, we also asked the respondents to tell us the month and year when they first began work on the new venture. We defined starting work on the new venture as any action taken in the pursuit of the opportunity that they had identified (e.g., gathering inputs). In this way, we differentiate between people who have merely thought about starting a new venture and people who have taken action to create a new venture.

We limit our empirical analysis to the cohort of 223 new ventures that were first started between January and September 1998, the period during which we conducted our initial survey to avoid selection bias. Those individuals who had started new ventures in prior years, but were still in the process of establishing a venture, are not representative of the new ventures for the cohort of new ventures for those years. Other individuals who had also initiated new ventures in those earlier years, but had completed the effort either positively or negatively, would indicate they were not in the process of starting a business when surveyed in 1998. As a result, our screening questions capture all of the new ventures initiated in 1998 but only “long-in-process” organizing efforts from earlier years. Because “long-in-process” organizing efforts would not represent the population of new ventures started in earlier years, their inclusion would bias our sample and they are therefore excluded.

We follow these 223 new ventures over the next 2 1/2 years through the use of a biannual telephone survey in which the entrepreneurs served as key informants.⁴ The response rate for the successive survey waves was high: 90.5% at 6 months, 91.9% at 12 months, 98.5% at 18 months, and 96.1% at 24 months.

Our looks like the typical set of new ventures established in Sweden. The sample includes software ventures, manufacturers, farms and other agricultural ventures, home-based ventures, consultancies, and other business service ventures. However, the ventures can be easily classified in a small number of categories. Roughly half (46.6%) pursued low-technology

⁴ Although we ask the respondents questions about both the independent and dependent variables, common method variance is not a problem here for two reasons. First, respondents are asked the questions about the independent variables at different points in time. As a result, the individual-level response tendency would have to be stable over time for common method variance to bias estimators, a much less likely scenario than if a cross-sectional single time point design is employed. Second, many of our independent and dependent variables objective measures, which are much less likely to be affected by common method bias than continuous subjective measures, such as Likert-type scales of attitudes.

service opportunities; whereas 39% pursued high-technology services, such as software design, and 14% were manufacturing efforts. 254
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For approximately half of the sample (48%), at least the start-up team included someone who had previously started a company; and for over three-quarters of the sample (76.2%), the team included someone with at least 1 year's experience in the new venture's industry. 256
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We observe the ventures during the period when most organizing activities take place. Virtually none of the ventures (2%) completed their business plans during their first month of life. Approximately 83% had no employees in the first month. Only one venture (0.4%) received funds from an external source in their first month of life. Roughly 53% of the ventures did not complete product development during their first month of life, while 65% of the ventures did not obtain inputs during that period. 259
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4.2. Analysis 266

We use event history models to analyze our data because these models allow us to treat those new ventures that have not yet been terminated as censored in the month of last observation, which is important to overcome a methodological problem that plagues research on entrepreneurship. It is impossible to define a period of time that all observers will believe is long enough to indicate that a new venture will not be terminated or can be considered to have completed the organizing process. New ventures that are 1 month, 1 year, 10 years, or 100 years old all face a risk of termination and also may not have completed the organizing process. Because the category "continuing" is always contingent and no time period can be established to ensure that termination is no longer a risk, statistical techniques that account for the censoring of observations need to be employed. Logistic regression or other techniques that fail to take censoring into consideration generate biased results that depend on the length of the observation period. 267
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We examine the hazard of termination of the new ventures over time using piecewise exponential hazard rate models with robust clustering on each new venture. Each month is a spell in the life histories of the organizing efforts. We select the piecewise exponential specification of the event history model because it allows the hazard rate to vary with age (with the assumption that they are constant within each piece) without demanding parametric assumptions. The age pieces we use are: less than 12 months, 12 to 24 months, and greater than 24 months.⁵ 279
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4.2.1. The dependent variable 287

Our dependent variable is the termination of the new venture. We focus on this dependent variable for two reasons. First, continuation of the organizing effort is a necessary condition for all other activities in new ventures. A new venture can achieve no other performance goal (achievement of first sale, positive profits, or the acquisition of financing) if it has been 288
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⁵ We conducted supplementary analyses with other distributions to confirm that our results are not artifacts of the distribution chosen. Our results are qualitatively the same with different distributions, suggesting that the choice of distribution is not substantive in our case.

terminated. Therefore, explaining termination of new ventures is a necessary characteristic of any theory of entrepreneurship. Second, no “positive” measure (e.g., achievement of first sales, acquisition of financing, positive profitability) can provide an accurate test of the continuation of the new venture because these milestones are not terminal events.⁶ Efforts to define the continuation of new ventures by the achievement of positive milestones require implicit assumptions as to the time horizon during which that milestone should be achieved. Such assumptions are quite problematic, as certain milestones are never achieved during the lives of many new ventures. For example, pharmaceutical firms frequently acquire new biotechnology firms before the latter ever create new products. Moreover, new biotechnology firms can take over a decade to bring a new product to market, with the achievement of that milestone often occurring long after the new company has gone public.⁷

We define termination of the organizing effort as termination by all members of the venture team because venture teams are often quite fluid, leading a venture to proceed with only part of the group that initiated the effort. Therefore, defining termination solely by the decision of one member of the team to terminate would confound termination of the venture with the decision of the respondent to terminate participation in the new venture.

We identify the termination event by asking respondents at each survey wave whether everyone pursuing the venture has terminated and if so in what month. If the new venture was terminated by all members of the team pursuing it, we code the new venture with a “1” for termination in the month identified by the respondent. Otherwise, we code this variable as “0.” Those organizing efforts not terminated at the end of 30 months were treated as censored. We predict termination as a function of several time-varying and time-constant covariates described below. By the end of 30 months, 82 of the new ventures in our sample had been terminated.

4.2.2. The predictor covariates

To create our predictor variables, we ask respondents at each wave of the survey if each of the three activities (completed a business plan, talked to customers, and initiated marketing and promotion) had been undertaken. If they answered yes about an activity, we asked them what month that activity was first undertaken. We coded each activity as “0” in each month that the activity had not been undertaken and “1” in each month that the activity had been undertaken. For example, of the 223 ventures, 13 had completed a business plan at 6 months, 56 had completed a plan at 12 months, 132 had completed a plan at 18 months, 143 had completed a plan at 24 months, and 147 had completed a plan at 30 months.

We then constructed two dummy variables (−1, 0, and +1) to indicate in each month whether the venture had a completed business plan but had not undertaken the other activity

⁶ While a new venture organizing effort that has achieved first sales can be terminated subsequently, a terminated venture organizing effort cannot achieve first sales subsequent to termination.

⁷ Readers should note that the “not terminated” category includes significant variation in the status of the venture organizing effort, including such things as still trying, in hiatus, or succeeded in getting a firm established as defined by the founder’s cognition, achievement of first sales, or entering the effort into a formal business registry. What this category has in common is that the venture organizing effort has not been terminated.

(+1), had neither completed the business plan nor undertaken the other activity (or had undertaken both activities) (0), or had undertaken the other activity but not completed a business plan (−1). We do this by subtracting the monthly variable for each of the organizing action variables from the completed business plan variable.

Completed plan before talking to customers. This variable took a value of +1 for each month that the new venture had a completed business plan but had not yet talked to customers; a value of 0 for each month that the venture either had a completed business plan and had talked to customers or had neither a completed business plan nor had talked to customers; and a value of −1 for each month that the venture had talked to customers but did not have a completed business plan.

Completed plan before initiating marketing and promotion. This variable took a value of +1 for each month that the venture had a completed business plan but had not yet initiated marketing or promotion; a value of 0 for each month that the venture either had a completed business plan and had initiated marketing and promotion or had neither a completed business plan nor had initiated marketing and promotion; and a value of −1 for each month that the venture had initiated marketing and promotion but did not have a completed business plan.

4.2.3. Control covariates

4.2.3.1. *New venture development.* We control for three dimensions of new venture development: number of activities undertaken, number of employees, and receipt of external capital.

Number of activities undertaken. Commitment theorists (e.g., Salancik, 1977) believe that the more activity a person takes toward a course of action, the less likely that they will be to abandon that course of action. This argument suggests that the more firm-organizing activity an entrepreneur engages in, the less likely the termination of a new venture will be (Aldrich, 1999; Reynolds and White, 1997). We measure the level of firm-organizing activity with a time-varying count of firm-organizing activities adapted from a list of firm-organizing activities that prior researchers (Carter et al., 1996) have found to be undertaken by many firm entrepreneurs. The activities include obtaining required tax documents to create a new venture in Sweden; registering the venture with government authorities (a requirement for starting a business in Sweden); asking for funds from financial institutions or other people; obtained inputs and raw materials, seeking intellectual property protection, such as a patent, copyright or trademark; seeking licenses or permits for the venture; and initiated sales of the product or service. Each of these activities is updated monthly by asking the respondents at each survey to indicate if these activities had been undertaken and if so in what month. The variable ranges from a minimum of 0 to a maximum of 7.

Number of employees. Larger organizing efforts are less likely to fail than smaller organizing efforts (Aldrich and Auster, 1990; Bruderl and Schussler, 1990; Carroll and Hannan, 2000; Hannan and Freeman, 1989). Therefore, we include a time-varying count of the number of employees, measuring a part-time employee as one half of a full-time employee.

Received external capital. Arguing that new ventures face capital constraints, Holtz-Eakin et al. (1994) and Taylor (2001) found that the receipt of external capital reduced the

hazard of venture termination. We control for the receipt of external capital with a time varying dummy variable indicating each month after which the venture has received external capital. 370
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4.2.3.2. *Human capital.* We control for three dimensions of human capital: the founders' start-up experience, founders' industry experience, and venture team size. 374
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Founders' start-up experience. Entrepreneurs who have started more companies previously are less likely to terminate their new ventures (Bruderl et al., 1992) because they have greater knowledge of the firm-organizing process. We measure prior start-up experience as a time-invariant count of the number of prior firms founded across the venture team. 376
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Founders' industry experience. Entrepreneurs with more industry experience are less likely to terminate their new ventures (Bates, 1990; Schoonhoven et al., 1990) because they have greater knowledge of the key characteristics of their industry. We measure industry experience as a time-invariant count of the number of years of experience in the new venture's industry across the team venture team. 380
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Venture team size. New ventures undertaken by larger teams are more likely to be terminated (Bruderl and Preisendorfer, 1998). We measure venture team size as a time-invariant count of the number of members of the initial venture team. 385
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4.2.3.3. *Venture strategy.* We control for five dimensions of the venture opportunity and strategy: whether the venture involved the purchase of an ongoing firm, and the importance of having more attractive products, better price, serving those missed by others, and a good location. 389
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Purchased venture. New ventures initiated through the purchase of a business should be less likely to be terminated than greenfield ventures (Gimeno et al., 1999). We use a time-invariant dummy variable of one to indicate the purchase of an existing venture. 393
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Attractive products. New ventures whose founders perceive they have more attractive products or services than other ventures should be less likely to be terminated (Shepherd et al., 2000). We measure the entrepreneur's perception that it is important to have more attractive products and services than its competition by employing a time varying scale in which "1" equals "insignificant," "2" equals "marginal," "3" equals "important," and "4" equals "critical." 396
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Price competition. New ventures that compete on price are less likely than other new ventures to be terminated (Reynolds and White, 1997). We measure the founders' perception of price competitiveness with a time invariant scale in which "0" equals "no importance," "1" equals "marginal importance," "2" equals "moderate importance," and "3" equals "critical importance." 402
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Serving those missed by others. New ventures that exploit opportunities missed by other firms will be less likely to be terminated than other new ventures (Reynolds and White, 1997). We measure this variable with the founders' time invariant response to the question "how important is serving those missed by others to be an effective competitor?" Responses were "1" equals "insignificant," "2" equals "marginal importance," "3" equals "moderate importance," and "4" equals "critical importance." 407
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Superior location. New ventures that obtain superior locations will be less likely to be terminated than other new ventures (Reynolds and White, 1997). We measure this variable with the founders' time invariant response to the question "how important is having a superior location to be an effective competitor?" Responses were "1" equals "insignificant," "2" equals "marginal importance," "3" equals "moderate importance," and "4" equals "critical importance."

4.2.3.4. Industry. The new ventures in our sample fall into three primary categories: low-technology service firms, high-technology service firms, and manufacturing firms, leading us to include two industry dummy variables. The first dummy, high-technology service, takes a value of 1 if the new venture is a high-technology service venture; otherwise it takes the value of 0. The second dummy, low-technology service, takes a value of 1 if the new venture is a low-technology service venture; otherwise it takes a value of 0. The omitted category is manufacturing.

We also control specifically for four dimensions of industry: number of firms, average firm age, market size, and exit rate.

Number of firms. Industry concentration is a barrier to the entry that might lead entrepreneurs to terminate their new ventures (Geroski, 1995). Therefore, new ventures are less likely to be terminated in industries composed of more firms (Acs and Audretsch, 1990). We control for the number of firms in the industry with data from Statistics Sweden⁸ that measures the number of new firms in the new venture's five-digit Standard Industrial Code in that year.

Average firm age. Industry maturity is a barrier to the entry of new firms that might lead entrepreneurs to terminate their new ventures (Utterback, 1994). Therefore, new ventures are less likely to be terminated when the average age of firms in an industry is younger (Carroll and Hannan, 2000). We control for average firm age in the industry with data from Statistics Sweden that measures the average age of firms in the new venture's five-digit Standard Industrial Code in that year.

Market size. Market size attracts entrepreneurial entry (Geroski, 1995). Therefore, new ventures are less likely to be terminated if they take place in industries with higher levels of sales (Romanelli, 1989). We control for the level of sales in the industry with data from Statistics Sweden that measures the revenues of firms in the new venture's five-digit Standard Industrial Code in that year.

Exit rate. High firm exit rates indicate an industry that has reached its carrying capacity (Carroll and Hannan, 2000). Therefore, new ventures are less likely to be terminated if they take place in industries with lower exit rates (Aldrich, 1999). We control for the exit rate of the venture's industry with data from Statistics Sweden that measures the percentage of firms in the new venture's five-digit Standard Industrial Code that exited in that year.

⁸ Statistics' Sweden's business register includes all firms operating in the legal economy and is updated every 2 weeks with information from the Swedish tax authorities. We create the industry variables by dividing the business register data into five digit standard industrial codes and updating the measures annually using data for 1998, 1999, and 2000.

t1.1 Table 1

t1.2 Descriptive statistics and the correlation matrix

t1.3	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
t1.4	< 12 months	0.48	0.50	1.00																				
t1.5	12–24 months	0.36	0.50	.71*	1.00																			
t1.6	Industry experience	16.88	22.76	-.04*	.02	1.00																		
t1.7	Start experience	2.61	11.79	-.02	.01	.10*	1.00																	
t1.8	Team size	1.98	1.16	-.02	.01	.54*	.00	1.00																
t1.9	Purchase	0.10	0.31	-.03*	.02	.12*	-.04*	.01	1.00															
t1.10	Serve missed	2.59	0.76	-.01	.01	-.03*	.04*	.03*	-.02	1.00														
t1.11	Price competition	2.33	0.75	.03*	-.02	-.07*	-.05*	.05*	.02	.15*	1.00													
t1.12	Attractiveness importance	2.48	0.95	.04*	-.02	.03*	.01	.09*	.01	.21*	.11*	1.00												
t1.13	Location importance	2.10	0.94	-.01	-.00	-.08*	-.08*	.09*	.11*	.21*	.09*	.15*	1.00											
t1.14	Average firm age	6.57	2.60	-.03*	.00	.09*	-.05*	.01	.16*	.07*	.03	-.08*	-.01	1.00										
t1.15	Exit rate	1.21	5.31	.13*	-.09*	.03*	-.00	.09*	-.06*	-.08*	-.01	.05*	.03*	-.34*	1.00									
t1.16	Market size (mil)	160.08	213.75	-.04*	.01	.16*	-.04*	.01	.03	.02	-.13*	.01	-.10*	-.01	-.12*	1.00								
t1.17	Firms (000)	1.87	2.22	-.02	.00	.03	-.02	-.08*	-.03*	-.00	-.12*	-.01	-.06*	-.14*	-.10*	.65*	1.00							
t1.18	Activities	3.36	1.91	-.43*	.27*	.16*	.01	.12*	.14*	-.01	-.09*	.02	.04	.09*	-.08*	.10*	.02	1.00						
t1.19	Employees	1.15	2.92	-.06*	.05*	.02	.00	.04*	-.02	-.02	-.05*	.08*	-.03	-.02	-.01	.06*	.02	.12*	1.00					
t1.20	Finance	0.20	0.40	-.28*	.17*	.06*	-.02	.00	.17*	.00	-.09*	-.07*	.06*	-.00	-.02	.06*	.06*	.48*	.13*	1.00				
t1.21	Plan/customer	0.19	0.61	-.02	.00	.05*	.03	.05	.01	-.08*	-.00	.14*	.10*	-.03	.04	-.03	-.02	.11*	-.03	.04	1.00			
t1.22	Plan/marketing	0.30	0.56	-.15*	.10*	-.03	-.06*	-.00	.09*	-.07*	-.05*	.01	.02	-.02	.01	-.01	.07*	.08*	-.07*	.05*	.50*	1.00		
t1.23	High-technology service	0.39	0.49	.01	-.01	-.10	.08*	-.12*	-.22*	-.00	-.05*	.03*	-.16*	-.11*	-.13*	.17*	.17*	-.09*	.04*	-.02	.04*	-.01	1.00	
t1.24	Low-technology service	0.47	0.50	-.02	.01	-.02	-.07*	.05*	.23*	.03*	.11*	.03*	.14*	.00	.05*	.19*	-.12*	.13*	-.05*	.10*	.04*	.05*	-.76*	1.00

t1.25 * $P < .05$.

5. Results

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Table 1 presents the descriptive statistics. Table 2 shows the event history models to predict the likelihood of termination as a function of order that completing a business plan and

Table 2
Piecewise exponential models to predict venture failure

Variable	Model 1 hazard (S.E)	Model 2 hazard (S.E)	Model 3 hazard (S.E)	Model 4 hazard (S.E)
<i>Age pieces</i>				
Less than 12 months	2.36 (1.11) [#]	2.41 (1.14) [#]	1.99 (0.92)	2.13 (0.99) [#]
12–24 months	1.37 (0.70)	1.34 (0.69)	1.31 (0.67)	1.30 (0.67)
<i>Firm development</i>				
Activities undertaken	0.73 (0.06) ^{****}	0.74 (0.06) ^{****}	0.72 (0.06) ^{****}	0.72 (0.06) ^{****}
Number of employees	0.47 (0.26)	0.50 (0.24)	0.47 (0.23)	0.49 (0.23)
Received external finance	1.29 (0.59)	1.18 (0.55)	1.30 (0.57)	1.22 (0.55)
<i>Human capital</i>				
Start-up experience	0.77 (0.08) ^{**}	0.76 (0.08) ^{**}	0.76 (0.07) ^{**}	0.76 (0.07) ^{**}
Industry experience	1.01 (0.01)	1.00 (0.01)	1.01 (0.01)	1.00 (0.01)
Venture team size	0.99 (0.10)	1.02 (0.11)	1.03 (0.10)	1.04 (0.11)
<i>Venture strategy</i>				
Purchased firm	0.22 (0.16) [*]	0.22 (0.18) [#]	0.25 (0.19) [#]	0.24 (0.19) [#]
Missed by others	0.81 (0.11) [#]	0.75 (0.10) [*]	0.78 (0.10) [*]	0.75 (0.10) [*]
Price competition	1.23 (0.19)	1.25 (0.19)	1.19 (0.18)	1.23 (0.19)
Attractive products	1.05 (0.12)	1.11 (0.13)	1.03 (0.12)	1.07 (0.13)
Superior location	1.06 (0.14)	1.10 (0.15)	1.10 (0.14)	1.12 (0.15)
<i>Industry</i>				
Average firm age	1.06 (0.05)	1.06 (0.05)	1.06 (0.05)	1.06 (0.05)
Number of firms	0.99 (0.00)	0.99 (0.00)	0.99 (0.00)	0.99 (0.00)
Industry sales	1.00 (0.00)	1.00 (0.00)	1.00 (0.00)	1.00 (0.00)
Exit rate	1.01 (0.01)	1.01 (0.01)	1.01 (0.01)	1.01 (0.01)
High-technology service	1.08 (0.35)	1.14 (0.38)	1.10 (0.37)	1.14 (0.38)
Low-technology service	1.17 (0.37)	1.29 (0.43)	1.23 (0.39)	1.31 (0.43)
<i>Order of activities</i>				
Plan before customers		0.44 (0.10) ^{****}		0.54 (0.13) ^{**}
Plan before marketing			0.46 (0.11) ^{***}	0.59 (0.15) [*]
Log likelihood	– 206.45	– 199.30	– 200.20	– 196.98
χ^2	78.11 ^{****}	93.60 ^{****}	89.58 ^{****}	93.26 ^{****}

The analysis file contains 5093 firm-month observations, 223 cases, and 82 terminations.

* $P < .05$.

** $P < .01$.

*** $P < .001$.

**** $P < .0001$.

[#] $P < .10$ in two-tailed tests.

undertaking marketing activities takes place. Model 1 shows the base model in which the control variables alone are included. Model 2 shows the effect of completing a business plan before initiating marketing and promotion. Model 3 shows the effect of completing a business plan before talking to customers. Model 4 shows the effect of completing a business plan before initiating marketing and promotion and completing a business plan before talking to customers.

We describe the results from the full model (Model 4). Overall, the model is significantly different from zero ($\chi^2 = 93.26, P < .0001$). Several of the control variables predict termination in ways consistent with previous research. Each prior start-up founded by the venture team reduces the hazard of termination by 24%. In addition, firms purchased from others are 76% less likely to be terminated than greenfield new ventures. Furthermore, each scale score of importance of serving customers missed by others reduces the hazard of termination by 25%. Finally, each additional venture-organizing activity undertaken by entrepreneurs reduces the hazard of termination by 28%.

The results also support both hypotheses. Consistent with Hypothesis 1, completing a business plan before talking to customers reduces the hazard of termination by 46%. Consistent with Hypothesis 2, completing a business plan before initiating marketing and promotion reduces the hazard of termination by 41%.

One criticism of our results is that they confound terminations for personal and organizational reasons. This distinction is important because termination for organizational reasons provides a stronger test of our hypotheses than overall termination because it is an indication of a failed organizing effort. For this reason, we reanalyzed our data to predict separately the termination of the 45 ventures that did so for “organizational” reasons. We conducted this analysis by asking the respondent to explain the major reason for terminating the venture. Examples of reasons given were “lost interest,” “got another job,” “did not have the time,” “unable to fund,” “team conflict,” “competition too strong,” or “not a good idea.” We coded the reasons for termination into two categories: entrepreneur-specific personal reasons (e.g., “got another job”) and venture-organizing-specific reasons (e.g., “not a good idea”). We then reran our analysis on the subset that provided organizational reasons for termination. Our results are qualitatively the same for this regression as for the overall model.

6. Discussion

We argued that completing a business plan before initiating marketing activities would reduce the hazard of termination of new ventures. We analyzed a unique data set capturing the life histories of 223 new ventures initiated by Swedish entrepreneurs between January and September 1998 and followed over the subsequent 30 months. Controlling for a variety of factors that capture the entrepreneurs’ human capital, venture strategy, the development of the venture, and the venture’s industry, we show that new ventures are less likely to be terminated if the entrepreneurs complete business plans before initiating marketing and promotion and before talking to customers.

Our approach enhances our confidence in our findings. Our sample accurately represents the population of Swedish new ventures initiated between January and September 1998, allowing us to generalize to the broader population of new ventures in Sweden. In addition, the sample faces no selection bias because all of the new ventures are observed from the point at which work on them was initiated until they were terminated or were censored after 30 months. Finally, our data do not suffer from hindsight and recall bias because they examine planning and firm-organizing actions over the period during which they are actually taking place.

6.1. Theoretical implications

Our results provide implications for several strands of entrepreneurship research. First, this study provides empirical support for the school of entrepreneurship research that argues that explaining what entrepreneurs do is a useful area of investigation (Aldrich, 1999; Carter et al., 1996; Katz and Gartner, 1988). Theorists have proposed that the evolution of new ventures will be influenced by the activities that entrepreneurs undertake during the organizing process (Aldrich, 1999). As Carter et al. (1996, p. 163) argue, “What entrepreneurs do in their day-to-day activities matters. The kind of activities that nascent entrepreneurs undertake. . .and the sequence of these activities have a significant influence on the ability of nascent entrepreneurs to successfully create new ventures.” Our results are consistent with this perspective.

Second, our results suggest that the order in which firm-organizing activities are undertaken also matters to the evolution of new ventures. New ventures do not come into existence instantaneously in the form of established organizations (Gartner, 1985). Rather, they are created through organizing processes that take place over time after the entrepreneur has initiated efforts to exploit an opportunity. Some researchers have argued that the order in which these different organizing activities are undertaken does not influence the probability that the venture will continue (Carroll and Hannan, 2000; Hannan and Freeman, 1989). In contrast to this argument, our results show that the hazard of termination of new ventures is influenced by the order in which planning and marketing activities take place.⁹

Third, our results indicate that the action bias of some of the entrepreneurship literature is inconsistent with empirical evidence about new venture formation. The predictions of goal setting theory (Locke and Latham, 1990) hold with respect to the value of planning to the new venture-organizing process. Completing business plans before undertaking marketing activities reduces the hazard of termination of new ventures. This result is important because some entrepreneurship scholars have argued that entrepreneurs are better off taking action without planning first. For instance, Carter et al. (1996, p. 154) explain, “Behavior such as buying facilities and equipment might be a more significant indicator to others that a nascent business is real than undertaking a behavior such as planning. Buying facilities may show others that

⁹ We suspect that the benefits of the order of firm-organizing processes are not limited to the relationship between planning and marketing activities but is also affected by the order of other processes. We believe that future researchers should empirically test Hannan and Freeman’s (1989) assertion that the order of firm organizing subprocesses does not matter.

the entrepreneur has made a significant commitment to creating a new business compared to what might be a less public demonstration of commitment like planning.” Our results suggest that planning is an important precursor to action and that entrepreneurship researchers would do well to consider this relationship in theory development.

6.2. *Methodological implications*

Our study also provides useful methodological contributions to research on new ventures. We show how researchers can examine the effects of the order of venture-organizing activities on the hazard of termination of organizing efforts by comparing the timing at which different activities are undertaken. We believe that the use of an ordering methodology will help to examine more subtle questions about the evolution of new ventures than is the case if researchers look at only the presence or absence of characteristics. In particular, we believe that the examination of the order and timing of activities is particularly useful in explaining the effects of those processes that do not take place instantaneously when the organizing effort is first initiated but instead are undertaken over time.

Finally, we believe that our study provides an example of how researchers can examine venture organizing in ways that overcome the problems of existing research on new ventures. By looking at the process of new venture creation longitudinally, we show how researchers can avoid having to assume (unrealistically) that static characteristics present at the time of sampling explain the formation process. We also show how the collection of data in real time overcomes the hindsight and recall bias present in retrospective studies of new venture formation.

6.3. *Implications for practitioners*

The study provides practical implications for people interested in creating new ventures. Our results demonstrate that entrepreneurs should complete business plans before talking to customers or initiating marketing and promotion. Although many entrepreneurs may want to move directly to marketing activities upon the identification of an opportunity, our results show that there is a better approach. By developing a business plan first, an entrepreneur will reduce the likelihood of termination of his or her new venture.

6.4. *Limitations*

Our study has an important limitation. We measure only the ordering of marketing-related firm-organizing activities. We have no information about the quality of the completed business plans or marketing-related firm-organizing actions. This limitation was necessitated by the complexity of measuring organizing activities longitudinally and the absence of prior evidence on this question. Nevertheless, the evidence presented in this study suggests the importance of considering the concept of sequencing. Because both the order and the quality of business plans and organizing actions likely influence the termination of new ventures, future research should examine both order and quality in the same study.

7. Uncited references

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Cressey, 1996

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Roberts, 1991

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