

RESEARCH NOTES AND COMMENTARIES

STRATEGIC REPERTOIRE VARIETY AND NEW VENTURE GROWTH: THE MODERATING EFFECTS OF ORIGIN AND INDUSTRY DYNAMISM

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New ventures (companies eight years or younger) face an important choice in attempting to achieve growth: Should they follow “strategic simplicity” by relying on a few similar competitive actions, or emphasize “strategic variety” by implementing multiple different competitive actions? Data from 140 new ventures in Spain suggest that new ventures benefit from pursuing strategic variety, especially when their industries are highly dynamic. Further, although new ventures in general gain from strategic variety in highly dynamic industries, independently owned ventures achieve higher growth rates than their corporate counterparts. Copyright © 2013 John Wiley & Sons, Ltd.

INTRODUCTION

New ventures have been frequently able to challenge and undermine the strong competitive positions of leading established companies and redefine their industries' competitive landscape. To benefit from their market positions, new ventures have to grow their operations and build requisite scale. This has prompted researchers to examine the competitive actions that lead to the growth of new ventures—companies eight years or younger (McDougall, Robinson, and

DeNisi, 1992). An unsolved issue in the literature is the extent to which new ventures should use a small number of similar competitive actions (i.e., strategic repertoire “simplicity”) rather than apply a large number of different competitive actions (i.e., strategic repertoire “variety”) in pursuing their growth goals. Both the simplicity and variety of strategic repertoire have their advantages and disadvantages, making it essential to explore the conditions under which each is conducive to new venture growth.

In this study, we examine two conditions under which the choice between strategic simplicity and variety is beneficial for new ventures' growth. The first is their origin, whether they were created by independent entrepreneurs or established corporations. The second is the degree of industry dynamism the ventures face. We do so because independent (IVs) and corporate ventures (CVs)

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often have different knowledge bases, resources, and capabilities (Shrader and Simon, 1997). They also differ in their goals, which can lead to significant differences in their selection of markets and competitive strategies, potentially influencing new ventures' sales growth (McDougall *et al.*, 1992).

Research also suggests that a firm's external environment, especially its industry, could influence the performance payoff from its different competitive actions. Dynamism, which refers to the magnitude of change in a firm's industry and market conditions, influences the number of opportunities and threats new ventures might experience (Dess and Beard, 1984). Industry dynamism drives other key facets of the environment such as complexity, hypercompetition, and hostility. As industries grow in dynamism, they become more heterogeneous, which increases their complexity and the difficulty managers face in pursuing growth opportunities (Gavetti, Levinthal, and Rivkin, 2005). Dynamism creates hypercompetition, which challenges existing rules of competition (D'Aveni, 1994; Wiggins and Ruefli, 2005). It also attracts new entrants to the industry, intensifying the hostility of the business environment. Thus, industry dynamism serves as a key contingency that determines new ventures' potential gains from strategic simplicity vs. variety.

It would be natural to assume that new ventures will follow strategic simplicity because they often lack the resources to support more varied competitive actions. Simplicity also enables new ventures to develop distinct competencies and identities (Hamel and Prahalad, 1994). Yet, simplicity can lead to myopia if these ventures fail to evaluate different alternatives as they exploit growth opportunities (Miller, 1993). Myopia creeps into these ventures' strategic actions when managers do more of the same things in which they excel even if they no longer fit their external environment. Thus, while simplicity may benefit short-term growth, it can also hinder long-term success by limiting variety, a strategy that can negatively influence a company's long-term performance (e.g., Ferrier and Lyon, 2004; Ferrier, Smith, and Grimm, 1999; Miller and Chen, 1996).

Relying on prior findings, researchers have advised new ventures to narrowly focus their strategic actions and avoid making broad strategic choices (e.g., Carter, Stearns, and Reynolds, 1994; McDougall *et al.*, 1992). Some recent research also suggests that the simplicity of a sequence of

strategic actions positively influences new venture performance (Rindova, Ferrier, and Wiltbank, 2010). However, prior research in this area has two serious shortcomings. First, existing evidence on the merits of strategic variety is largely based on the experiences of established companies (Chen and Miller, 2012; Lumpkin and Dess, 2006), which have the resources to support the use of multiple competitive actions. This raises a question about the applicability of prior findings to new ventures. A second shortcoming is confusing strategic scope (i.e., the market scope over which the firm could compete), strategic action sequence (i.e., the uninterrupted sequences of competitive actions that constitute competitive attacks), and strategic repertoire (i.e., the aggregate number of a firm's competitive actions at a given point in time). Although a broad strategic scope usually requires multiple strategic actions, some ventures may use a simple set of strategic actions to address the diverse needs of different parts of that broad market, with a view to achieving growth. These ventures could also apply a sequence of simple strategic actions over a given period of time, moving back and forth between simple and varied strategic repertoires. Confusing the implications of strategic scope and strategic action sequence with strategic repertoire leaves us unsure about how strategic simplicity and variety relate to new venture growth. Our study hopes to bring clarity to these issues contributing to research on competitive dynamics among new ventures by highlighting the contingent nature of the relationship between strategic simplicity and variety and new venture growth.

THEORY AND HYPOTHESES

Strategic variety and venture growth: the moderating effect of origin

The use of strategic variety makes it possible for new ventures to address the needs of different market segments, learn about their rivals and customers, hone their capabilities (Lumpkin and Dess, 2006), and achieve growth (Ferrier *et al.*, 1999). However, CVs' and IVs' variations in their goals, resources, and capabilities (Bradley *et al.*, 2011) would influence their potential gains from strategic variety.

IVs often rely on borrowed funds. They are typically more constrained in their resources than

CVs, which enjoy their parents' support. As a result, IVs are likely to deploy their limited resources to target a few niches (Shrader and Simon, 1997). By experimenting with and using a variety of strategic repertoires in a limited set of niches, these IVs can learn and acquire new knowledge (Zahra, Ireland, and Hitt, 2000). With owners at the helm of these ventures and the prevalence of nonhierarchical organizational structures, it is easier to share and exploit the knowledge that IVs gain through learning as they pursue growth.

CVs typically target broadly defined markets as they benefit from having access to their parents' resources (McDougall *et al.*, 1992; Zahra, 1996). While a repertoire of varied competitive actions that is applied across different market segments may broaden these ventures' perspective, it may not lead to "actionable" learning; such learning happens when new ventures use newly acquired knowledge in their operations. Learning gained from interactions with customers, markets, and competitors may also conflict with the knowledge transferred from the corporate parents, which can complicate the integration of external knowledge with CVs' internal (existing) knowledge. CVs are also subjected to stringent reviews and controls by their parents (Burgelman, 1983), which can slow down their use of knowledge gained from the market. Overall, CVs may not gain as much from this learning as do their IV counterparts, thereby limiting their capacity to grow. Given the resources they receive from their parents, CVs may also lose focus and discipline in pursuing market share, potentially undermining their growth (Clayton, Gambill, and Harned, 1999). Therefore,

Hypothesis 1: Strategic variety is positively related to higher new venture growth among independent rather than corporate ventures.

Strategic variety and venture growth: the moderating effect of industry dynamism

New venture managers who learn and apply the recipes of their successful competitors are likely to succeed (e.g., growth) in stable industry environments (Miller, 1993). In these industries, new ventures' use of simple formulae can lead to superior performance (Miller *et al.*, 1996). In contrast, industry dynamism challenges venture managers because of the rapid and frequent changes that

occur in technologies, customer groups, products, and the mix of competitors. These changes make it difficult for venture managers to learn and apply successful competitors' recipes (Aldrich, 1979; Dess and Beard, 1984; Wiggins and Ruefli, 2005). Success, therefore, depends on remaining attuned to changing market forces by trying out a range of competitive actions (D'Aveni, 1994) that would increase strategic variety.

Indeed, some research indicates that, when industries are highly dynamic, strategic simplicity at given points in time (Ferrier and Lyon, 2004; Ferrier *et al.*, 1999; Miller and Chen, 1996) and the use of simple strategic sequences over an extended period of time (Ferrier, 2001; Ferrier and Lee, 2002) may lower a company's performance. Industry dynamism creates new forces that can erode any gains that new ventures might achieve through strategic simplicity.

The issue of matching industry conditions and the simplicity vs. variety of strategic repertoires has not been studied well among new ventures. Yet, some studies suggest that industries characterized by rapid changes require new ventures to pursue a broad scope of strategies to survive (e.g., Carter *et al.*, 1994; Robinson and McDougall, 2001) and grow. This leads us to expect those ventures that compete in highly dynamic industries to perform better when they emphasize strategic variety rather than simplicity. Variety allows these ventures to match their resources and capabilities with different growth opportunities. Therefore,

Hypothesis 2: Strategic variety is positively associated with new venture growth in industries with higher rather than lower levels of dynamism.

Strategic variety and venture growth: the interaction of origin and dynamism

Resources and goals influence the fit between new ventures' strategies and the conditions that determine growth in their industries (Dess and Davis, 1984; Miller and Friesen, 1983). These differences in resources and goals often lead to variations in how changes in an industry's competitive conditions might impact IVs and CVs.

IVs, because of their limited resources, need to quickly establish fit between their strategic actions and industry conditions (McDougall *et al.*, 1992; Shrader and Simon, 1997). Yet, when this

alignment with industry conditions is achieved, the results would be more pronounced for IVs than for CVs because of IVs' more effective use of limited resources when responding to environmental changes (Bradley *et al.*, 2011). IVs have greater flexibility than CVs to learn by experimentation, and their simple structures facilitate absorbing and using new knowledge. Thus, in highly dynamic industries, IVs may benefit more than CVs from trying out a wide range of strategic actions. When dynamism is low, IVs that deploy simple strategic actions may also have higher growth rates than those CVs operating in a similar context. When the industry offers few growth opportunities, strategic simplicity seems the most appropriate approach for IVs to maximize their growth potential.

In contrast, CVs usually design their strategies guided by their parents and profiting from their market expertise. This approach enables CVs to achieve their goal of building strong market positions and creating revenues for their parents (Burgelman, 1983). Yet, this approach may limit CVs' freedom in making strategic decisions in rapidly changing industry conditions. The ambitious growth objectives that the corporate parents typically set might drive their ventures to pursue a variety of strategies regardless of the prevailing industry conditions. Still, dynamic industries will reward CVs' pursuit of strategic variety by allowing them to grow rapidly, albeit at slower rates than IVs. Therefore,

Hypothesis 3: Strategic variety is more highly and positively associated with independent than corporate ventures' growth in more dynamic industries.

METHOD

Sample and data

To test our three hypotheses, we collected data from a sample of 140 Spanish new ventures using archival sources, interviews with senior executives, and data from industry experts. To select the companies we studied, we used the SABI/AMADEUS database to identify firms eight years or younger (McDougall *et al.*, 1992). These ventures were located in seven different regions in Spain and competed in seven different industries

that were considered strategic by the Spanish government for future national growth and development. These included biotechnology, agro-alimentary, aerospace, tile and ceramics, modern furniture, energy and environmental, and information and communications technology. These industries were heavily populated by new ventures. We studied these industries also because they varied in their technological characteristics and stage of development, offering a natural setting in which companies were apt to use different strategic repertoires (Chen and Miller, 2012). From a total of 201 ventures that matched our search criteria, 140 represented our sample, for a response rate of 70 percent. Data were collected between September and December 2006.

We conducted face-to-face interviews with new ventures' senior executives to ensure data reliability. These interviews enabled us to clarify issues with respondents and to ask follow-up questions, giving us the opportunity to understand managers' interpretations of key decisions and events. The respondents were CEOs and other senior company officials (e.g., R&D managers). These interviews provided a broad view of new ventures' strategic actions. We also addressed the reliability issues associated with using data collected from a single informant by surveying an additional member of the 140 new ventures in the sample. This follow-up yielded 25 responses (17.85% of the sample). We calculated an inter-rater agreement score (r_{wg}) resulting in median inter-rater agreement scores ranging from 0.84 to 0.90, indicating that single informant bias was not a problem (James, Demaree, and Wolf, 1993). Next, we examined the intraclass correlations among the study's variables, finding strong inter-rater reliability (ranging between 0.46 and 0.41).

We also contacted 14 industry experts, two for each of the seven industries studied, aiming to avoid the potential for mono-method bias (e.g., Chen, Farh, and MacMillan, 1993). Several other factors suggested that common method variance (CMV) is not a major concern in our study. First, data for the measures came from different sources, as reported later in the "Variables and measures" section. Second, none of the correlations among the independent variable (strategic simplicity vs. variety) and the other variables also gathered from managers' responses (the control and the moderator variables) was significant. Third, we tested for complex nonlinear relations among the

study's variables, examining two- and three-way interactions. To further validate this conclusion, we tested for the presence of CMV in our study using Lindell and Whitney's (2001) correlational marker technique. The results suggested that the likelihood of CMV in our data was low. Therefore, we did not apply any analytical techniques using different marker variables to correct for CMV because this would generate inaccurate results.

We also examined potential nonresponse bias by comparing the responding new ventures to nonrespondents based on age, size, origin, and performance, among others. The Kolmogorov-Smirnov test showed no significant differences between responding and nonresponding ventures on these variables ($p < 0.05$ or better).

Variables and measures

We extracted some of the study's measures from the literature, using instruments with proven validity and other psychometric qualities. The final questionnaire we used in the data collection was also revised based on the feedback of ten venture managers. We further improved the phrasing of the items by asking several academic colleagues to provide their comments and suggestions, resulting in a final version of the questionnaire.

Dependent variable

We used sales growth figures, averaged over the two-year (2006 and 2007) period following our survey data collection, thus avoiding the reverse causality problem. We obtained sales growth data from the SABI/AMADEUS database.

Independent and moderator variables

Our analysis covered three key constructs, measured as follows:

1. *Strategic repertoire variety and simplicity.* We measured new ventures' repertoire of strategic actions with the index developed and validated by Miller and colleagues (e.g., Miller and Chen, 1996; Miller and Toulouse, 1998; Miller *et al.*, 1996). The index covered 34 competitive actions, identified from the literature (see Appendix). We asked managers to rate each action on a 5-point scale ranging from 1 (*not a part of our strategy at all*) to 5 (*a key part*

of our strategy). We developed the index by counting the number of items (out of the 34) that the respondent scored 3 or higher on the 5-point scale. Thus, a higher score indicated higher strategic variety, and vice versa. A score of 3 was chosen as a threshold because it indicated that a given competitive action was a key part of a firm's strategy.

To establish the validity of the strategic variety measure, we interviewed two experts who specialized in each of the seven industries we studied. We asked the 14 experts to assess the extent to which the new ventures they closely followed in their analyses showed variability in their range of competitive actions. We explained to these experts that we were trying to determine the extent to which these ventures have shown a great deal of variability in the competitive actions they undertook (e.g., new product introductions, advertising campaigns, and entry into new markets). Expert responses varied between 1 (*no or little variation*) and 5 (*a great deal of variation*). The 14 experts rated 42 new ventures, representing 30 percent of our sample. The correlation between expert responses and the overall index of strategic variety developed using venture managers' responses was 0.639 ($p < 0.001$).

2. *Venture origin.* We collected information about venture origin by asking respondents directly, following the literature (McDougall *et al.*, 1992; Shrader and Simon, 1997). Our sample included 68 CVs and 72 IVs, which we coded 0 and 1, respectively.
3. *Industry dynamism.* Dynamism indicates the speed at which opportunities emerge (velocity), the number of contingencies managers need to address successfully (complexity), the difficulty of predicting the probability of specific outcomes (uncertainty), and the likelihood of confusion and multiple potential interpretations of cause-effect relations (ambiguity) (Davis, Eisenhardt, and Bingham, 2009). Whereas Eisenhardt and colleagues (Davis *et al.*, 2009; Eisenhardt, Furr, and Bingham, 2010) examine several of these dimensions and Rindova *et al.* (2010) focus exclusively on ambiguity, we adopted a broader definition of industry dynamism. Our definition captures market and industry changes that are hard to predict and difficult to plan for and, as a result, increase

managers' uncertainty (Aldrich, 1979; Dess and Beard, 1984). This uncertainty influences venture managers' strategic choices and how they implement these strategies. As such, we focus on overall industry dynamism—which we captured using measures taken from the literature (Khandwalla, 1977; Miller and Friesen, 1983; Zahra and Bogner, 2000).

To gauge the dynamism of each of the seven industries we studied, we used industry experts' responses to Baum and Wally's (2003) 5-item scale. This measure is a refinement of prior established measures of the construct (e.g., Khandwalla, 1977; Miller and Friesen, 1983). We asked the panel of 14 industry experts to rate the seven industries that they followed on a 5-point scale. We averaged the responses of the two experts for each industry and used that value for every venture in that industry. This provided a consistent assessment of dynamism for all the ventures in a given industry in our sample.

Control variables

The analyses also controlled for several variables that could affect new venture growth (McDougall *et al.*, 1992; Shrader and Simon, 1997); Zahra and Bogner, 2000): industry growth, industry concentration, company size, percentage of employees with university degrees, and previous performance. Industry growth was measured by the average growth in sales for the companies competing in each given industry. Industry concentration was captured using Herfindahl indexes; summing the squares of the market shares of the 50 largest firms in each given industry. We measured size by the number of full-time employees. Finally, we controlled for sales growth for the year prior to data collection (2005), using data from SABI/AMADEUS.

ANALYSIS AND RESULTS

To test our hypotheses, we used hierarchical regression analysis. Table 1 provides the means, standard deviations, range, and correlations for all the study's continuous variables.¹ The data in

¹ We ran a *T*-test to test for significant differences between CVs and IVs in their emphasis on strategic variety. The differences

Table 1. Means, standard deviations, range, and intercorrelations among the study's variables

	Mean	SD	Range	1	2	3	4	5	6	7	8
1. Size	36.26	53.74	3–275	1							
2. % Employees with university degree	48.64%	36.63%	0–100%	–0.333*	1						
3. Sales growth 2005	52.49%	98.67%	–62.1–828.1%	–0.075	0.110	1					
4. Industry concentration	0.0422	0.0578	0–0.16	0.296*	–0.072	0.226*	1				
5. Industry growth	51.77%	62.08%	0.16–204.81%	–0.272*	0.515*	0.139	–0.235*	1			
6. Strategic variety	25.48	5.38	7–34	–0.003	0.157	0.023	–0.130	0.185*	1		
7. NV origin (IVs)	0.51	0.50	0–1	–0.310*	0.175*	0.110	–0.154	0.214*	0.033	1	
8. Industry dynamism	3.22	0.51	2.50–3.90	–0.172*	0.468*	–0.038	–0.611*	0.576*	0.215*	0.117	1
9. Sales growth (06 + 07)	49.51%	93.71%	–54.7–526.5%	–0.187*	0.381*	0.059	–0.153	0.650*	0.273*	0.138	0.348*

*Correlations significant at least at $p < 0.05$ (one-tailed test).

Table 1 show that new ventures' sales growth is positively and significantly correlated with new ventures' size, percentage of employees with university degrees, strategic variety, industry dynamism, and sales growth. Table 1 also shows that industry dynamism and strategic variety are positively and significantly correlated but relatively independent from each other.

Table 2 presents the results of the joint effect of strategic variety, origin, and industry dynamism on sales growth.² The base model (control variables only) explains 35.1 percent of the variance in new ventures' sales growth ($p < 0.001$). The main effects model (control plus independent variables) does not make a significant contribution over and above the base model. Moderated Model 1, which tests the interaction among strategic variety and origin, does not make a significant contribution over and above the main effects model. Thus, Hypothesis 1 is not supported. Moderated Model 2, which tests the interaction between strategic variety and industry dynamism, makes a significant contribution over and above the main effects model ($\Delta R^2 = 0.017$; $p < 0.05$). The interaction of variety and industry dynamism is positive and significantly related to sales growth ($p < 0.05$). Thus, Hypothesis 2 is supported, as confirmed by Figure 1, which provides the plot for this significant interaction.

Finally, moderated Model 4 also makes a significant contribution over the previous moderated Model 3 ($\Delta R^2 = 0.021$; $p < 0.05$). The interaction among strategic variety, venture origin, and industry dynamism is positive and significantly related to sales growth ($p < 0.05$), supporting Hypothesis 3. Plots of these results appear in Figure 2.

DISCUSSION AND CONCLUSIONS

Should new ventures use a wide range of different competitive actions (strategic variety) to position themselves for growth, or is it better for them to use fewer similar actions (strategic simplicity)? Our study addresses this question, proposing that

the effect of variety vs. simplicity on sales growth is contingent on these ventures' origin and the dynamism of their industries. Our findings add to theory and practice, as discussed next.

Implications for theory

The results add to strategic management research on competitive dynamics by showing that new ventures gain differential benefits from strategic variety when their resources, motivations, and industry's conditions are aligned (Bradley *et al.*, 2011; Zahra and Bogner, 2000). Specifically, strategic variety is more positively associated with sales growth when industry dynamism is high than when dynamism is low. At first glance, our results appear to contradict some prior findings that suggest that a strategy of using simple rules in decision making can positively influence established firms' performance in hypercompetitive industries (e.g., Davis *et al.*, 2009; Eisenhardt and Sull, 2001). Other research also indicates that in highly ambiguous environments the simplicity of a sequence of strategic actions influences firm performance positively (Rindova *et al.*, 2010). While firms may follow a few simple rules in their decision making, they still need to choose between varied and simple competitive actions; these actions may also have a more tactical than strategic character in hypercompetitive industries (D'Aveni, 1994). Similarly, firms could follow a sequence of simple strategic actions by employing simple and varied strategic repertoires at different points in time, building up a sequence of strategic actions.

Moreover, as indicated earlier, industry dynamism is a multidimensional construct (Dess and Beard, 1984), and different researchers have examined select dimensions (Davis *et al.*, 2009; Eisenhardt and Sull, 2001; Rindova *et al.*, 2010). Our study adopts a broader definition of dynamism that captures the level of uncertainty, complexity, and velocity of the industry environment, and it may be that complexity is the dimension that creates the need for variety as a means of addressing the challenges that the environment poses to venture managers. Consequently, differences between our results and prior studies may stem from our use of a broader definition of industry dynamism.

We did not find significant differences between CVs and IVs in how they benefit from strategic variety. However, we found that CVs and IVs benefit differently from different strategic actions

among the two groups of ventures in their average values of strategic variety were not significant.

² We ran a variety of alternative models to test for a curvilinear effect of strategic variety on venture growth. We also measured strategic variety using different action groupings (operational, market, and corporate-oriented). None of these analyses were significant.

Table 2. Independent and moderated models of strategic variety, venture origin, industry dynamism, and sales growth

Step	Variables	Base model		Independent model		Moderated Model 1		Moderated Model 2		Moderated Model 3		Moderated Model 4	
		β	<i>t-value</i>	β	<i>t-value</i>	β	<i>t-value</i>	β	<i>t-value</i>	β	<i>t-value</i>	β	<i>t-value</i>
1	<i>Control variables</i>												
	Size	-0.007	-0.091	-0.012	-0.147	-0.001	-0.014	-0.009	-0.112	0.003	0.037	0.000	-0.004
	% Employees with university degree	0.096	1.161	0.098	1.085	0.109	1.204	0.121	1.347	0.127	1.404	0.154	1.705
	Past performance	-0.035	-0.479	-0.040	-0.556	-0.044	-0.608	-0.045	-0.635	-0.046	-0.643	-0.057	-0.814
	Industry concentration	0.559***	6.722	0.562***	6.155	0.561***	6.142	0.530***	5.789	0.549***	5.804	0.537***	5.745
2	<i>Main effect variables</i>												
	Industry growth	0.003	0.035	-0.013	-0.133	-0.039	-0.378	-0.028	-0.273	-0.021	-0.206	0.032	0.304
	Variety			0.167*	2.394	0.176*	2.504	0.192**	2.740	0.183*	2.568	0.170*	2.420
3	<i>Interaction</i>												
	Origin (IVs)			0.002	0.033	0.001	0.018	0.020	0.279	0.021	0.287	-0.004	-0.055
	Industry dynamism			-0.068	-0.592	-0.079	-0.680	-0.047	-0.410	-0.052	-0.452	-0.035	-0.304
4	<i>Three-way interaction</i>												
	Variety \times origin \times dynamism					0.070	0.967	0.057	0.789	0.067	0.918	0.075	1.039
	Model							0.138*	1.965	0.140*	1.984	0.163*	2.321
	Adjusted R^2	0.351***	—	0.365	—	0.364	—	0.378*	—	0.376	—	0.384*	—
	F -statistic	—	16.011	—	10.972	—	9.852	—	9.445	—	8.623	—	8.527
	ΔR^2	—	—	0.027	—	0.004	—	0.017	—	0.003	—	0.021	—
	ΔF	—	—	—	1.984	—	0.935	—	3.846*	—	0.657	—	4.714*

Standardized coefficients (β) are reported; significance levels based on one-tailed *t*-tests or *F*-tests.* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

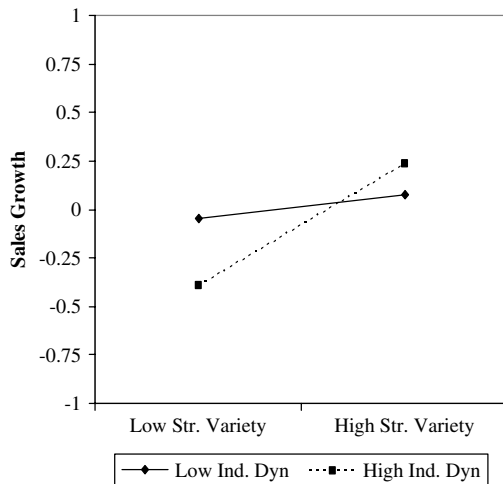


Figure 1. Industry dynamism interaction effect in the strategic repertoire-growth relationship

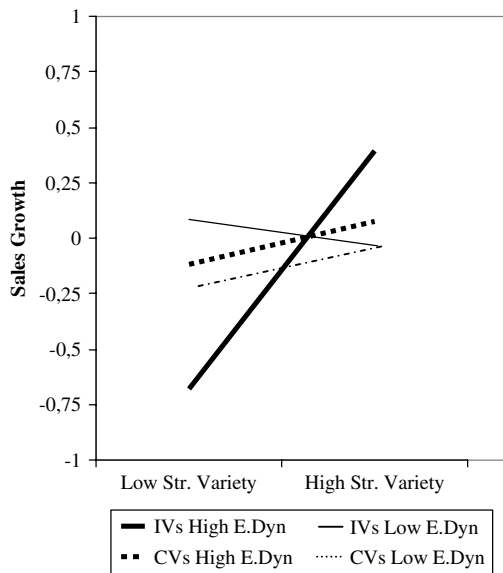


Figure 2. The interaction effect of origin and dynamism in the strategic repertoire-growth relationship

under varying degrees of industry dynamism. These results suggest that the basic ideas of strategic management are applicable to new ventures, particularly when we separate corporate from independent ventures. The success of these two venture types in achieving sales growth depends on their ability to deploy their different resources and capabilities in executing their strategic actions, with a view to the level of industry dynamism. IVs need to be more sensitive to such dynamism than their corporate counterparts, which can better insulate

themselves from external forces because of the resources, assistance, and skills they receive from their parents. Conversely, IVs may benefit from having greater flexibility to learn through strategic variety than their corporate counterparts, which have to overcome the rigidities associated with the tight controls of their parents.

Our study also contributes to the entrepreneurship literature on new venture growth. Common wisdom suggests that entrepreneurs should emphasize focus strategies to build their market positions (Robinson and McDougall, 2001) and apply a few guiding principles when making their strategic choices (e.g., Lumpkin and Dess, 1995; Sarasvathy, 2001). Our results show that new ventures also need to consider a wide range of strategic actions in highly dynamic industries. This indicates that, although niche strategies may promote specialization and the use of “strategy as simple rules” may speed up decision making, achieving growth in dynamic industries may require strategic variety.

Implications for managers

For entrepreneurs and new venture managers, the results provide empirically grounded insights that can help to resolve the variety–simplicity challenge in designing their ventures’ strategies. The results suggest that there is not a single formula for market success and that an overemphasis on simplicity can put new ventures at risk, especially in dynamic industries. Some entrepreneurs accept the view that doing a few things is the best recipe for growth. While this is sometimes true, this view also requires reflection. New ventures may start with a variety of options and then find the combination that enables them to achieve sales growth. Making such choices obviously requires learning by venture managers. Our results also indicate that CV and IV managers would benefit from increasing their exploration of an array of competitive actions as they pursue sales growth. However, managers need to be attentive to industry dynamism. This is especially the case for IVs, which appear to be more sensitive to industry conditions.

Limitations and opportunities for future research

Having identified our study’s key contributions, we now recognize its limitations. Notably, our

analysis is restricted to new ventures competing in different regions in a single country and may not generalize to other contexts. Also, we have studied only the effects of new ventures' strategic choices on sales growth, rather than exploring multiple growth or performance indicators. Future researchers can validate our findings by studying various industries within and across countries, employing multiple measures of venture performance.

The literature does not explain the genesis of new ventures' strategic variety and simplicity. Fortunately, some researchers have begun to examine this issue (e.g., Larrañeta, Zahra, and Galan, 2012; Rindova *et al.*, 2010). Future studies would benefit from examining the effect of managers' prior knowledge and experiences, risk preferences, and mental models of competition in determining new ventures' strategic actions. The effect of these variables is likely to change over time. For example, we find that in the early stages of a firm's development, strategic variety is a powerful competitive tool. Yet, as firms grow, building their core competencies around their successful strategies, simplicity may contribute more significantly to company performance (e.g., Miller and Chen, 1996). Still, as a firm matures and its business environment evolves, simplicity can cause organizational failure (Miller, 1993), making strategic variety a necessity for survival. Longitudinal research designs that track the long-term effect of simplicity vs. variety on venture growth can clarify these issues.

Further, our findings as well as some prior research (e.g., Davis *et al.*, 2009; Eisenhardt and Sull, 2001; Rindova *et al.*, 2010) raise a question about the performance effects of strategic variety vs. simplicity in different environments. As noted, we have used an overall measure of dynamism. Future research would benefit from examining how the different dimensions of industry dynamism (e.g., velocity, complexity, uncertainty, and ambiguity) and other industry characteristics (e.g., concentration, growth, and barriers to entry) might impact various performance indicators of new ventures' emphasis on simplicity and variety in their strategic repertoires as well as how the direction and intensity of these effects might change under different conditions.

Finally, the distinction among the core concepts of competitive dynamics, strategic action repertoire, strategic action sequence and strategic scope, and the notion of strategy as "simple rules"

suggests several questions for future new venture research: When and how often do these ventures go back and forth between simplicity and variety? Are these shifts affected by venture origin? How does industry dynamism trigger such changes? What is the duration of these shifts? What internal adjustments do ventures make as they move from simplicity to variety and vice versa? What is the influence of the sequence of strategic actions on new venture performance? How does the strategic scope pursued by new ventures interact with level of variety and sequence of strategic actions to influence new venture performance? When new ventures use simple rules in making their choices in dynamic industries, how does this influence their level of strategic variety and sequence of their strategies? Answering these questions can improve our understanding of the strategic choices new venture managers make and their implications for growth and other aspects of performance.

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APPENDIX - QUESTIONS FOR MEASURING STRATEGIC VARIETY

Respondents were asked to rate the extent to which the following 34 competitive actions were an important part of their firms' strategy, using a 5-point scale: (1) tight quality control, (2) ensuring high quality production, (3) making products for high price markets, (4) offering warranties and guarantees, (5) new product development, (6) product R&D, (7) state-of-the-art products, (8) continual upgrading of products, (9) competitive pricing, (10) aggressive advertising, (11) promoting brand identification, (12) offering attractive design or packaging, (13) offering excellent customer service, (14) prompt delivery, (15) catering to specific market niches, (16) amassing special

data on clients, (17) customizing products for users, (18) having a broad selection of products, (19) strategic procurement of supplies, (20) developing process innovations, (21) using just-in-time manufacturing, (22) using efficient inventory management, (23) honing operating efficiency, (24) reducing production/operating costs, (25) exchange of technologies with other firms, (26) product or process development with other firms, (27) joint marketing efforts with other firms, (28) lobbying with government agencies, (29) integration with suppliers, (30) integration with retailers, (31) increasing market diversification, (32) increasing export sales, (33) increasing product diversification, and (34) increasing mergers and acquisitions.