SUSTAINABLE ENTREPRENEURSHIP EDUCATION: A COMPARATIVE APPROACH

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Abstract

Entrepreneurship programs have flourished at the university level over the last three decades. Two educational programs in entrepreneurship are presented. The first was developed without a solid base in strategic management principles, hastily put together to take advantage of market timing due to the widespread popularity of such programs. This program is compared to another program with decided competitive advantages developed through the bundling of valuable and rare resources and capabilities advocated by strategic management scholars as necessary for long term success.

INTRODUCTION

Entrepreneurship programs have flourished at the university level over the last three decades. Although the first course in entrepreneurship, introduced at Harvard in 1945, was eventually dropped by the professor in favor of a focus on boards of directors (Vesper and Gartner, 1997), from the 1970s until today academic programs in entrepreneurship have grown considerably (Katz, 2003; Solomon, Duffy, and Tarabishy, 2002). Honig (2004) noted that over 1400 colleges accredited by the Association to Advance Collegiate Schools of Business (AACSB) offered courses in entrepreneurship, with 78 of the top 100 universities as ranked by U.S. News and World Report in 2004 offering courses in either small business management or entrepreneurship.

While university professors teaching entrepreneurship courses and directing academic entrepreneurship programs have a variety of backgrounds, both educational and practical, this paper will approach comparative entrepreneurship education from a strategic management perspective. The field of strategic management has developed from early twentieth century microeconomic theories to the current emphasis on the resource-based view of the firm (Barney and Hesterly, 2008; Priem and Butler, 2001; Ray, Barney, and Muhanna, 2004), a perspective that is coupled with the external environmental analysis tools of the industrial organization economics literature (Porter, 1981). What
began as an attempt to understand competition has evolved into an exploration of what it takes to achieve firm sustainability, from both market and environmental perspectives (Cohen and Winn, 2007; Dean and McMullen, 2007; Lester, 2008; Parnell, 2008; Stead and Stead, 2004).

Two educational programs in entrepreneurship are presented. The first was developed without a solid base in strategic management principles, hastily put together to take advantage of market timing due to the widespread popularity of such programs. This program is compared to another program with decided competitive advantages developed through the bundling of valuable and rare resources and capabilities advocated by strategic management scholars (Barney, 1991; Dierickx and Cool, 1989; Rumelt, 1984; Wernerfelt, 1984) as necessary for long-term success.

This paper reviews the theories of competition from the early microeconomic proponents to the present strategic management theorists, with a particular focus on sustainable strategic management (SSM), perceived to be the key to long-term survival and success. A discussion of the current state of entrepreneurship programs at the collegiate level follows. Finally, some thoughts on establishing sustainable entrepreneurship educational programs are presented.

THE FIELD OF STRATEGIC MANAGEMENT

The field of strategic management traces its origin to three influential microeconomic theories, industrial organization (IO) economics (Mason, 1939), Chamberlinian economics (Chamberlin, 1933), and Schumpeterian economics (Schumpeter, 1934). While the focus of this paper is the stream that emerged from Chamberlinian economics, the other two streams will be briefly examined.

IO economics is an external, primarily deterministic model of competitive analysis. According to Mason and early proponents (Bain, 1956), returns are based on the structure of the industry a firm has chosen (Seth and Thomas, 1994). Attractive industries are characterized by high barriers to entry, few
firms, abundant product differentiation, and low demand elasticity. The goal of all firms, earning above average returns, suggests creating or modifying the structural characteristics of the industry (Porter, 1980).

Chamberlin (1933) proposed a microeconomic theory of competition which has its point of origin in the firm, focusing on resources and capabilities. Industry structure is more easily altered if the firm is able to bundle its better assets and capabilities. This heterogeneous view of the firm says that competitive advantage (Barney, 1985) can be attained by exploiting superior technical knowledge, reputation, brand awareness, and management cooperation (Chamberlin, 1933). Rather than a dominant focus on finding favorable industries, the exercise of strategic choice (Child, 1972) allows a firm to build on its internal individuality, or differentiate from competitors. Chamberlin starts from a different perspective, but he does not contradict the IO model. Rather, he accepts it and builds on it. Likewise, the IO economists do not deny the heterogeneous nature of competitive firms, acknowledging the existence of product differentiation (Bain, 1968) within industries.

The third microeconomic theory derives from the work of Schumpeter (1934). While IO and Chamberlinian theories concentrated on the ongoing competitive activities of firms, Schumpeter (1950) focused on the period of seismic shift or revolution in industries. Following a period of stable industry competitiveness, Schumpeter (1950) identified innovative activity, such as product, market or technology innovations, that dramatically altered the structure of the industry, forcing competitors to adopt the new innovation or be destroyed by it. He termed this phenomenon *creative destruction*.

The culmination of previous microeconomic and strategic management research is the current focus on the resource-based view. The resource-based view (RBV) of the firm has intensified the movement from the industry level of analysis to the firm level. The term resource-based view was introduced to the literature by Wernerfelt (1984). Several noted management researchers have made
vital contributions to the theory, including Rumelt (1984), Barney (1991), and Dierickx and Cool (1989).

Simply stated, RBV predicts that firms can generate competitive advantage and earn above-average returns through the implementation of valuable, inelastic resources (Barney, 1986; Ray, Barney, and Muhanna, 2004), and earning above-average returns is a key to sustainability.

The primary thrust of the RBV is that firms have resources, capabilities, and competencies (Barney, 1991). Resources, which can be tangible or intangible, and capabilities can lead to a sustainable competitive advantage when they meet a four-part test. They must be rare, valuable, costly to imitate, and nonsubstitutable. Resources are considered rare when they are uncommon relative to other competitors. They are valuable when they lead to conditions of internal efficiency or effectiveness. As for being costly to imitate, or inimitable, resources that meet this condition are critical if a firm is trying to create value and outperform competition. Inimitability can be achieved in several ways. The first is through physical uniqueness, such as owning mineral rights or having a prime vacation location. The second is path dependency where resources become unique via the complicated path they took to be accumulated or developed. The third source of inimitability is through causal ambiguity, meaning that the source of a resource is impossible to pinpoint. And, fourth, if a resource is due to a high degree of social complexity it is difficult to imitate. The last condition of nonsubstitutability refers to the availability of substitutes, resources that serve as strategic equivalents.

The key to earning above average returns and achieving long-term sustainability is the process of bundling these unique resources and capabilities to produce a competitive advantage in a firm’s product market. Critical to retaining this advantage over competitors could be continuous innovation in products or processes (Barney and Hesterly, 2008). Barney defines this competitive advantage as being able to achieve more economic value than one’s rivals, with economic value referring to the difference between perceived benefits realized by customers when compared to costs (Barney, 1991). RBV also
recognizes the importance of scanning, monitoring, assessing and forecasting a firm’s external environment as demonstrated by the IO economists.

**SUSTAINABLE STRATEGIC MANAGEMENT**

While the resource-based view has long promoted sustainability as one of its hallmarks, a relatively new direction has emerged that builds on RBV with a somewhat expanded outlook on sustainability. Looking beyond competitive advantage (Barney, 1991), researchers have begun to focus on a broader definition that includes the environment (Cohen and Winn, 2007; Dean and McMullen, 2007; Parnell, 2008). Sustainability has been simply defined as the ability to “meet the needs of the present without compromising the ability of future generations to meet their own needs” (World, 1987). This emphasis has led to a two-factor approach to sustainability that includes both market and environmental success.

Market sustainability is consistent with the notion of the RBV of sustainable competitive advantage (Barney, 1991). Environmental sustainability can include issues such as the natural environment of a firm’s operations (Stead and Stead, 2004), political-legal issues relative to the firm and its industry, and even crisis management. Thus, a working definition of this new thrust toward a more comprehensive framework on sustainability is as follows:

*Sustainable strategic management refers to the strategies and related processes associated with the continuity of superior performance—broadly defined—from both market and environmental perspectives.* (Parnell, 2008)

Therefore, sustainable strategic management, as a subdiscipline of strategy, is noteworthy in two ways. First, sustainable strategic management requires an interdisciplinary approach. Market competitiveness must be combined with an environmental approach. This clearly relates the discipline
of strategic management to other diverse fields, including biology, economics, public administration, and the law (Parnell, 2008).

The second important facet of sustainable strategic management is that businesses must confront the inevitable fact that what is best for profits is not always best for society. This is a particularly difficult notion where free markets are concerned, but it underscores the fact that market sustainability is short-lived without environmental sustainability.

A foundation for this new perspective can be traced to Schumpeter's notion of creative destruction. Schumpeter's (1934) process of creative destruction inevitably relies on an entrepreneur to bring an invention to market as an innovation. If this innovation is radical enough, competitors must change their technology to meet the new challenge or eventually go out of business. Thus, the industry is structurally altered until the next new dramatic innovation is introduced.

**ENTREPRENEURSHIP EDUCATION**

While it was noted earlier that many higher education institutions around the world offer courses in entrepreneurship (Katz, 2003) and/or small business management, the focus of this article is academic programs in entrepreneurship. The number of entrepreneurship programs is much smaller than the number of schools offering one or more courses (Solomon et al, 2002; Vesper and Gartner, 1999). Yet a consensus does not prevail as to what constitutes a program of high quality (Vesper and Gartner, 1997). Kuratko (2005) defined entrepreneurship as a process that starts with opportunity search, involves greater than normal risk, and requires the tenacity to push an idea through to reality. Although there are some similarities between traditional management education and that of entrepreneurship, the former has been conceptualized as resource-driven and the latter as opportunity-driven (DeTienne and Chandler, 2004; Ireland, Hitt, and Sirmon, 2003). Yet, entrepreneurship education quite naturally
involves a good deal of management education (Miles and Covin, 2002; Kuratko, Ireland, Covin, and Hornsby, 2005), and others are calling for more entrepreneurship emphasis in traditional management programs (Parnell and Lester, 2007).

Entrepreneurship education generally embodies a sequence from idea generation, to business planning, to capital resource acquisition, to start-up, and the management of a small business (Parnell and Lester, 2007). Most schools start with a business core of courses that would be a requirement of any business major and pair it with a select group of courses in entrepreneurship and related subjects. This was noted by Vesper and Gartner (1997) in their study of entrepreneurship programs where a search of course catalogs revealed the following courses to have been offered the most: entrepreneurship, small business management, field projects/venture consulting, starting and running a firm, venture plan writing, and venture finance. In a seminal work, Solomon, Duffy, and Tarabishy (2002) pared the needs list for entrepreneurship educational programs down to three essentials: opportunity identification, marshalling of resources, and venture creation.

Despite the growth in the number of programs and students, criticism of entrepreneurship education has been widespread (DeTienne and Chandler, 2004; Honig, 2004; Jack and Anderson, 1999; Livesay, 1982). Much of the criticism revolves around the notion of whether entrepreneurship is an art or a science. While this debate aptly applies to other disciplines such as strategy (Parnell and Lester, 2003) and management, it seems to be particularly appropriate as it relates to entrepreneurship. As Johannisson (1992) noted, entrepreneurship is not based on positive knowledge and it is soft and personal as opposed to hard and empirical. Are not the best entrepreneurs those that see the world in a different way (Jack and Anderson, 1999)? Hofer and Bygrave (1992) presented entrepreneurship as holistic, dynamic, unique and sensitive to a number of antecedent variables. Jack and Anderson (1999) described the entrepreneurial event as an enigma, unique and idiosyncratic.
Another issue of concern regarding current entrepreneurship education is the overemphasis by many schools on business planning (Bhide, 2000; Honig, 2004; Stone and Brush, 1996). Perhaps because of the influence of strategic management or the perceived value of having to work through the various categories required by the business planning process, or the very convenient output that assists in student evaluation (Honig, 2004), entrepreneurship instructors rely heavily on this nearly semester-long activity. Several researchers have questioned the value of the time spent in entrepreneurship courses on business planning (Gumpert, 2004; Honig, 2004; Honig and Karlsson, 2004), and empirical results relating planning to success have been mixed (Boyd, 1991; Bracker, Keats, and Pearson, 1998; Robinson and Pearce, 1984).

Gumpert (2002) has suggested that business plans are prepared too early in the overall process, they are rarely updated after initial preparation, and they typically overestimate the potential value of the business they are planning. With everyone using standardized templates or software, Gumpert (2002) argued that investors in particular are not getting what they need from business plans. The approach recommended by Gumpert (2002) is the preparation of a brief synopsis, a strong verbal presentation, a web site detailing the business, and some basic financials.

Some of the most outspoken critics of academic entrepreneurship programs are actually successful entrepreneurs. In 2006 Fortune solicited opinions from several high-profile business founders, such as Ann Winblad of Hummer Winblad Venture Partners, Doris Christopher the founder of Pampered Chef, Paul Fleming who founded P.F. Chang’s China Bistro, and David Neeleman founder of JetBlue (Gray, 2006), regarding entrepreneurship education. Each entrepreneur was critical of the academic world’s approach to teaching entrepreneurship. While there was some recognition that education could be valuable, the consensus was that nothing was better than practical experience, and as Ann Winblad related, it is very hard for a university to teach you that entrepreneurship is about
having guts. Yet several students were featured in the Fortune article proposing just the opposite perspective. They believed that exposure to entrepreneurship through their respective universities and the valuable connections to the business community that were an integral part of their programs had given them the confidence to open businesses while still pursuing degrees (Gray, 2006).

The emphasis on experience is reinforced by David Birch, an academic and first recipient of the International Award for Entrepreneurship and Small Business Research, who believes that encouraging entrepreneurship should be accomplished through apprenticeship (Aronsson, 2004). Birch (1979) was one of the first to reveal that new jobs in the economy are usually generated by small firms guided by entrepreneurs. This notion is supported by empirical research (Kuratko and Hodgetts, 2004).

DESIGNING AN ENTREPRENEURSHIP ACADEMIC PROGRAM

There is no one specific framework that guarantees success for an academic program in entrepreneurship. However, there are some general guidelines that emanate from the literature and thirty years of experience the academic world has in teaching the courses. Plaschka and Welch (1990) put forth four separate dimensions for categorization of entrepreneurship education nearly two decades ago, including number of courses offered, the degree of integration, stages of business transition from start-up to maturity, and the number of disciplines involved in the program. This emphasis on integration has been echoed by others as it suggests that programs could be beneficial to students in all majors, not just business. Solomon, Duffy, and Tarabishy (2002), as previously noted, suggest entrepreneurship educational programs require three essentials: opportunity identification, marshalling of resources, and venture creation.

In keeping with the resource based view of strategy, a new enterprise such as an academic program in entrepreneurship needs rare, valuable, inimitable, and nonsubstitutable resources and capabilities that produce perceived value to students. One primary resource is the teaching faculty.
Since academic credentials are essential to accreditation, they are important. For example, unlike thirty years ago, several universities now offer terminal degrees in entrepreneurship. While many entrepreneurship faculty are rooted in the strategic management or marketing tradition, those newly minted from terminal entrepreneurship programs bring a fresh approach and understanding to the current research focuses in the field. As long as entrepreneurship programs are housed in colleges of business, terminal degrees from accredited business schools are essential.

Many also advocate that past experience owning and operating a business is a critical component of an entrepreneurship faculty (Bennis and O’Toole, 2005). When a faculty member has been through a start-up and launch of a new business, an inimitable capability results from the social complexity this type of experience creates. No two business experiences are identical, and professors who have fought the daily struggle to build and grow a small business at least understand the ‘guts’ and experience factors referred to above (Gray, 2006). It might be an unreasonable goal for an entire entrepreneurship faculty of a large university to have both terminal degrees and past entrepreneurial experience. It should be noted, however, that a study of criteria important to entrepreneurship program ranking, as ranked by academics, listed faculty experience with business start-ups next to last (Vesper and Gartner, 1997).

Another important resource is money. Without a base of capital, new programs must rely on word-of-mouth advertising to grow and achieve critical mass. Capital enables program managers to recruit outstanding students and promote the program in the local community, provides travel funds for benchmarking already established successful programs at other universities, and contributes to the recruitment of at least an above-average faculty.

One other important advantage that will set entrepreneurship education apart is the ability to successfully integrate across the campus with other programs and departments. This integration should
go beyond merely offering a minor in entrepreneurship for students majoring in other areas. Joint programs, classes designed specifically for certain majors, such as Jack and Anderson’s (1999) class for physicians, and faculty from other departments who can contribute to the richness of the program due to their past experience or expertise, are all valuable components.

A final but important component of any entrepreneurship education program is an opportunity for students to receive some practical experience. According to Peterman and Kennedy (2003), programs that emphasize practical application through experience tend to promote entrepreneurial intentionality.

**RESEARCH METHODOLOGY**

The purpose of this article is to compare the establishment of one entrepreneurship program at a regional, comprehensive public university in the United States with a total enrollment of over 20,000 (Program A) with that of another program at a regional, comprehensive U.S. public university with a total enrollment of just over 15,000 (Program B). Several criteria were employed in the selection of each program. Schools were chosen because of similar size (10 – 20,000 students), and similar type (both state supported, comprehensive universities), because each had an entrepreneurship program as opposed to a few course offerings, one program had to be on every published list of best programs in the United States and the other not on any list, and the authors had to have some personal familiarity with each program.

A review of secondary data published over a period of several years (*Entrepreneur/Princeton Review*, 2007; *Fortune Small Business*, 2007; *U.S. News & World Report*, 2000) revealed several viable schools. School websites were visited, entrepreneurship professors were interviewed, and academic journal articles that compared or ranked entrepreneurship programs were read (Solomon, Duffy, and
Tarabishy, 2002; Vesper and Gartner, 1997). The final determining factor was the authors’ familiarity with two programs that met all of the criteria.

A NONSUSTAINABLE APPROACH

Program A

Program A was started within the College of Business (COB) in the late 1990s. The idea began in a department that taught business education and business communication, originating specifically from the business education side of the department. This department had taught an entrepreneurship course as part of their curriculum to train future high school business and entrepreneurship teachers. A well-respected faculty member in this department attained a grant to further the process of entrepreneurship education, and the grant was applied toward starting an entrepreneurship minor, potentially to be followed by an entrepreneurship major a few years later. The existing faculty in this department was trained in education and communication, not entrepreneurship nor management. However, there were resource issues that led the department to pursue development of this program. Within the COB, the department’s share of students majoring in their areas was diminishing. This meant, at best, the potential for reduced resources from the COB, and at worst, the possibility that the department might be eliminated if it did not find a way to increase its student count. An entrepreneurship program, a very popular course of study and one not offered by other public colleges in the geographic market, seemed a viable method to ensure the resources necessary for the survival of the department.

Given the department’s lack of trained faculty in the area, and the fact that the Management department at that time offered a Small Business Management course, the COB Dean suggested a joint development effort between the departments. Unfortunately, the Small Business Management course was being staffed by adjunct faculty, so the Management department also was weak in offering
resources to the program. A junior faculty member with entrepreneurial interests was placed on the committee with two senior faculty members from the education department to create the entrepreneurship program for the COB. The senior faculty members had knowledge of the inner workings of the university concerning program development, a valuable resource for seeing the program through the bureaucracy. The junior member had knowledge of management and entrepreneurship theory and practice, valuable for building a strong program, but no experience in program development and no leverage to negotiate with the senior committee members. Ultimately it became clear that both sides were tasked with looking out for the interests of their respective departments.

The process began with the development of a minor, primarily because it was perceived to be politically expedient since minors did not require state regent approval. The model for existing minors in the COB was followed. Per those examples, existing courses were used to fill the requirements for the minor; no new courses were developed. The same Entrepreneurship course that had been used to train potential high school business teachers and the same Small Business Management class that was used as a management elective were to be used for training students to start their own businesses. It is suggested here that these were not the type of resources sufficient to found a successful program.

The subsequent development of the major, again driven by a perception that the timing was politically advantageous, offered only slightly more hope to the program. The junior faculty member researched existing entrepreneurship programs at universities worldwide. To expedite program development, the committee chose to imitate the model of a particular well-respected U.S. university. The model allowed the program to be built around the existing resources of the Entrepreneurship and Small Business Management classes. Two additional classes were developed to fit the model chosen, with one developed in the education department and the other in the management department. This allowed both departments to be equally represented in the major. However, the classes were not
developed to take advantage of existing faculty strengths/knowledge, but rather to fit the template of the favored model.

The program has been operating for several years, and while it is still jointly held, there is very little communication or cooperation, which causes issues at the operating level. The education department hires new faculty into the program who do not possess business degrees. The management department does not have the necessary student count in its two classes to hire more than the two existing entrepreneurship faculty, and these faculty members already teach classes outside the entrepreneurship program, thus diluting the resource commitment to the entrepreneurship. Students complain of overlap between the courses offered in the major, but joint department meetings to discuss duplication, or any other issue, are rare and unproductive. Changes are resisted, most likely due to each department’s concern that they may lose COB resources if needed changes are made to the program. Each department also offers its own student entrepreneurship group rather than pooling resources to develop one strong group.

In summary, this program was developed as a reactionary measure to attract valuable resources and to ensure the resource flow to a COB department. It was developed in the absence of rare or valuable resources that would be necessary for the success of the program. As a result, it achieved strong student numbers early, but enrollment has since declined. It has not earned a reputation for program quality that would be an assumed goal for such an endeavor. The program continues to struggle to attract the type of resources that will be necessary to bring it to a successful level, such as external supplemental funding, entrepreneurially successful graduates, or local business partnerships.

Program B

Program B originated in the department of management at a regional state university approximately twenty years ago. While its beginnings were not dramatically different than that of
Program A, several foundational differences are worth noting. First, Program B promoted integration across its campus for the entrepreneurship program. From early on in the process of developing its curriculum an overall programmatic approach was taken. Faculty from all disciplines were encouraged to participate in the development process, and several sound ideas from within and without the COB were incorporated into the planning process. Second, the faculty in the management department of the university promoted the program to the local business community from the outset. Strong ties to the department and the program resulted from this effort which was to pay dividends in the future. And, third, resources to fund a chair of excellence in entrepreneurship were committed/raised within the first year of the program’s launch, setting the program up for success.

Today, Program B is recognized by all relevant measures to be a top-rated undergraduate entrepreneurship educational experience. It has been recognized by U.S. News & World Report, Fortune Small Business Magazine, Entrepreneur Magazine, and the Princeton Review. Its curriculum includes a consulting course where students participate in a small business research project with a local company, a human resource management class that emphasizes the critical need for adding valuable employees as new enterprises grow, a required semester of internship with a small business owner or in the business development department of a large business, and a course on innovation and creativity, certainly hallmarks of sustainable competitive advantage.

A national business plan competition is sponsored by the entrepreneurship Center that was developed and staffed a few years into the program. The Center is also involved in several other projects, including assisting the consulting course professor with securing local business participation and cooperation. Through the efforts of the Center’s staff and director, close contact is maintained with graduates of the program. At last count, over 40% of all entrepreneurship graduates had either founded their own businesses or purchased an existing firm.
One final note regarding Program B involves faculty research. Because an entrepreneurship Chair of excellence was funded in the program’s first year, research, both academic and practical, has been a defining capability of the program. While more than one Chair has served, the output of quality empirical research from the entire faculty teaching in the program has been noteworthy.

**DISCUSSION**

As Minniti has noted, ‘entrepreneurs are individuals who deviate from the mean.’ (2006; p. 30). If an entrepreneurship education program is to be successful fostering the kind of innovative and creative learning environment needed to nurture business leaders who deviate from the mean, the model of Program B is clearly more appropriate than that of Program A. While at first glance the program differences might seem minor, a more thorough review reveals they are actually stark. Program A, housed in two different departments but managed out of the one that has no academically-qualified faculty, has recently lost enrollment, fails to track any of its graduates (which might provide them with some valuable marketing opportunities), teaches business planning in three different required courses, produces little in the way of valuable empirical research for academic journals, has no business plan competition outside of an in-class exercise, and only involves the local business community for a day or two each year.

Program B, however, has maintained a consistent enrollment of competitive majors, regularly produces quality academic research, tracks its graduates (publicly promoting their successes), has a national business plan competition, and involves the local business community in projects and the classroom frequently. Program A has never been ranked in any entrepreneurship ranking publication, while Program B has been recognized as one of the best programs in the United States for many years.

Strategic sustainability requires the successful combination of two ingredients: market sustainability and environmental sustainability. For education programs in entrepreneurship, market
sustainability is accomplished through the implementation of valuable resources backed by rare capabilities. The capabilities of Program B are the qualified faculty, both academically and practically, and the Center for entrepreneurship. When the program’s resources are combined with the capabilities of the Center and the faculty, a distinctive competence (Lado, Boyd, and Wright, 1992) emerges that sets the program apart. As for Program A, a less-than qualified faculty combined with limited resources has produced what is predicted to be a nonsustainable program, devoid of competitive advantage. For Program B, environmental sustainability is evident first through the active involvement of the local and state-wide business community with the faculty and Center. Second, a required course on innovation and creativity emphasizes the importance of contributing to environmental sustainability as a necessity for long-term business survival. For Program A, the one or two days a year of local business community involvement, the lack of a dedicated Center, the huge void in the curriculum of any specific practical entrepreneurial experience, and the focus on business planning as opposed to creativity and innovation in new start-ups suggest the program may be nonsustainable.

In summary, entrepreneurship education programs vary greatly in their composition and perceived quality. While several methods of evaluation have been put forth, some consistent ingredients are universally recognized. An academically-qualified faculty, an integrative approach with other departments of the university, close contacts with the local business community, and an emphasis on innovation and creativity all contribute to attracting and maintaining a critical mass of students. Program B has mastered this approach, setting its program up for long-term success from the beginning. Program A seems to have been trying to preserve a department that was dying by creating a program that was recognized as attractive to students.
REDESIGNING ENTREPRENEURSHIP EDUCATION

It is time for entrepreneurship education to be reassessed through the pursuit of a new direction for the popular but somewhat dated attempt to educate future new venture creators (Cohen and Winn, 2005; Dean and McMullen, 2005). This paper has advocated a strategic management approach, specifically the RBV, as one lens from which to view the need for a long-term perspective of entrepreneurship education. While reviewing the past successful strategies of programs will provide a backdrop for development, entrepreneurship as a field is all about the future. As Venkataraman (1997) has related “entrepreneurship as a scholarly field seeks to understand how opportunities to bring into existence “future” goods and services are discovered, created, and exploited, by whom, and with what consequences.”

Taking this call a step further, Dean and McMullen (2007) defined sustainable entrepreneurship as “the process of discovering, evaluating, and exploiting economic opportunities that are present in market failures which detract from sustainability, including those that are environmentally relevant.” If entrepreneurship educational programs are to prepare university students for the future creation of successful enterprises, they need to promote sustainability as an outcome, not only of their students’ entrepreneurial efforts but of their own academic programs. Promoting market and environmental sustainability to students may best be accomplished by ensuring the same of the academic program itself.

A brief summary of current thinking regarding where the field of entrepreneurship education should be headed is relevant to this effort to achieve sustainability. Reinforcing the RBV is Solomon, et al.’s (2002) notion that three approaches should underpin any program: opportunity identification, marshalling of resources, and venture creation. Opportunity identification may be the hallmark of that trio (Honig, 2004; Saks and Gaglio, 2002). While many professors believe it impossible to teach
opportunity identification, there are theoretical underpinnings for this stream of pedagogy, including that of Fiet (2002) who advocates a systematic search for opportunities. Following that lead is the practical idea that failure is a key component of learning to succeed (Shepherd, 2004). Most successful entrepreneurs have noted failures in their past and clearly advocate failure as a great teacher (Gray, 2006). And, finally, consideration must be given to the enormous emphasis still being placed on traditional business planning, a dated and almost pretentious activity that programs cling to because they don’t know what else to do.

In evaluating current programs, the RBV offers a simple, but effective, analytical tool. Think through the options available to educators and administrators, and choose resources that meet the RBV standard for sustainability. As previously indicated, most analysis should begin with the faculty and available capital resources. A simple model is presented below that provides an example of faculty as a resource.
TABLE 1

Framework for RBV Analysis

<table>
<thead>
<tr>
<th>Resource/Faculty</th>
<th>Valuable</th>
<th>Rare</th>
<th>Costly to Imitate</th>
<th>Nonsubstitutable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not terminally-degreed;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degreed;</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Terminally-degreed;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not in business</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Terminally-degreed;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In business but no Entrepreneurship</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Entrepreneurship Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Terminally-degreed;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In business and with</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some entrepreneurship Experience</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
As Table 1 denotes, only a terminally-degreed-in-business professor with practical entrepreneurial experience can provide an educational program with a valuable, rare, costly to imitate, and nonsubstitutable resource. The importance of this resource is what flows from it, including the potential for outstanding research, coursework that is not formulaic in relying solely on business planning or theory, a practical application to the classroom experience, and a resource that is more than likely already predisposed toward the local business community.

The lessons of Program A are clear. Jumping on a popular bandwagon like entrepreneurship education is no way to try to salvage an educational department that no longer seems viable. It leads to common, easily imitated resources that hold no future promise of excellence, and, over time, the program will wane, threatening the very existence of the department that it was created to save.
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