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University of Michigan Business School

Entrepreneurship and the MBA

**An Analysis of Selected MBA Entrepreneurial Programs
Including the University of Michigan Business School**

by

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**A research paper submitted in fulfillment of the requirements for 3 and 1.5 credits,
GRADUATE INDEPENDENT RESEARCH PROJECT Winter Term 1998,
Professor Thomas Kinnear, Faculty Supervisor**

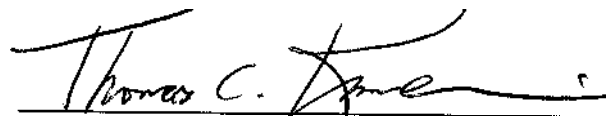
MBA JAUCHIUS

Faculty Comment

[Evaluative comment in which the faculty supervisor should briefly describe the nature of the research project and add an evaluating comment.]

A most useful & clear situation analysis of the competitive landscape in the world of academic entrepreneurial studies. There are astoundable findings in this work.

Grade: EX.



Thomas C. Kinnear, Faculty Advisor

Vice President for Development and
D. Maynard Phelps Professor of Business
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Issue Analyzed

What opportunities exist for the University of Michigan Business School (Michigan) to address the need for a formal body within the Business School that advances the understanding of entrepreneurial issues through:

1. Establishing a formal administrative entrepreneurial unit complete with tenure track positions, funding, and a formal academic research program
2. Developing a program to attract, support, promote, and retain the highest quality faculty
3. Constructing a comprehensive entrepreneurial curriculum
4. Developing relationships with entrepreneurs
5. Attracting high caliber, entrepreneurially-minded students

The primary analysis is designed to provide a description of top business schools⁵ entrepreneurial programs, with less emphasis on the evaluation of Michigan's program.

Methodology

We obtained data to support our conclusions from three main sources:

- Secondary source research
- Interviews of Michigan faculty and administrators
- Discussions and research of MBA level entrepreneurship programs at several prominent American business schools¹

Schools researched included: the Center for Entrepreneurial Studies at the F.W. Olin Graduate School of Business at Babson College, the Graduate School of Business Administration at the Harvard Business School, the Price Center at The Anderson School at the University of California at Los Angeles, the Sol C Snider Entrepreneurial Center at The Wharton School at the University of Pennsylvania, and the Center for Entrepreneurial Studies at the Stanford Graduate School of Business.

In addition, we included anecdotal evidence, the opinions of the authors and selected fellow MBAs in certain parts of this paper. This is clearly indicated at the point of reference.

Conclusions

We synthesized conclusions from our research in the following five areas that represent opportunities for Michigan in establishing a formal study of entrepreneurship:

- Program
- Faculty
- Curriculum
- Relationships
- Students

These conclusions represent trends that emerged from our study that we deem to be essential descriptive characteristics of the best MBA entrepreneurial programs; as such, these are trends worthy of consideration for incorporation into Michigan's Entrepreneurial Institute.

Program

The best MBA entrepreneurship programs benefit from a formal academic unit status, a history of entrepreneurial studies and courses, a funding source that is substantial and committed to the program, and a total quality approach to developing every aspect of the program. The best programs exist in environments where the faculty and administration consider this field of study to be equal in stature to other more traditional, "established" fields of business, such as finance or operations. The integration of all five conclusions discussed herein is critical to credibly asserting that stature; no program has fully achieved this integration. The median age of the most successful programs is 20 years². It appears a period of time is necessary to build credibility, complete research, and have faculty publish their work. During this period of time, the efforts to integrate the program and the continued support of the administration are needed to build the entrepreneurial effort into a recognized program.

Many programs were founded with multi-million dollar donations for the explicit purpose of the study of entrepreneurship. This provides the critical elements of legitimacy and independence. Furthermore, *the single most important factor in a successful entrepreneurial program is a high profile, established leader with an intense, burning desire, and the requisite power, to make the serious study of entrepreneurship real*. Finally, we judged all aspects of the quality of these programs to be very high, including high quality grade, outstanding design, and superior conformance to each institute's values. That is, these programs exist to research and educate entrepreneurs of the first level, and the faculty and funding are arranged to do so in a manner consistent with the

university's approach in its already world class MBA program. Additionally, the admitted students meet the requisite quality standards of the overall MBA program.

Faculty

Faculty, and their related research, are at the heart of a university's symbiotic relationship with high caliber students. Therefore, attracting and retaining the best faculty is crucial. The entrepreneurship faculty of the best programs find funding for research, support for classes, positions available with tenure, and, most importantly, the professional respect of their peers, students, alumni, employers of students, and the administration. Indeed, three of the five programs specifically studied have at least one faculty member listed in *Business Week's* list of distinguished entrepreneurship teachers as rated by MBA students . Also, the best programs have a median of seven full-time instructors and six instructors who currently own, or are former owners of, their own businesses⁴. In recognition that entrepreneurship is perhaps more applied than some of its fellow academic units, and certainly has a less extensive body of accompanying research, most top programs use a combination of tenure track faculty and adjunct faculty. Many times, adjunct faculty are former business owners. The higher profile the better.

Curriculum

The curricula of the top programs reflect the cross-functional aspects of entrepreneurship. Essentially, there are two kinds of classes: 1) "core" entrepreneurial classes from each

² E. Pofeldt et al, *The 25 Best Business Schools for Entrepreneurs*, Success Magazine, September 1997, pp 35-46

³ D. Leonhardt, *Class Acts in the Ivy-Covered Halls: Entrepreneurship is finally getting its due in B-schools—and here are its finest teachers*, Business Week, December 16, 1996. The data set used in this study is the same used to rank Michigan as the #2 MBA program.

major functional discipline adapted to entrepreneurship, and 2) related classes that explore issues more specific to entrepreneurship. Often classes of the second type are the result of particular faculty member's special area of knowledge. The classes are all electives and, although there is no formal sequence or required class list, there are informal requirements that all students are expected to complete. These requirements consist of classes deemed functional necessities, such as venture capital, and classes deemed desirable by the students due to a particularly successful or engaging faculty member. An example is Steven Rogers of Kellogg, of whom recruiters often inquire whether students have taken his class.

Relationships

As with the MBA program and greater university in general, relationships with alumni, business leaders, and friends of the university are a critical element to many aspects of a top entrepreneurial program. The benefits arising from the entrepreneurial program's relationships include funding, adjunct faculty, guest speakers, employers of MBA graduates, and opportunities for student "live research". We identified the following factors that motivate supporters of entrepreneurial programs in the top schools:

- 1) Evidence of the school's commitment to entrepreneurship through the formation of a separate, credible academic body for the study of entrepreneurship
- 2) The employment of respected faculty dedicated to the study and teaching of entrepreneurship and who produce recognized research
- 3) The presence of high caliber students motivated in their studies of entrepreneurship and serious about an entrepreneurial career

- 4) A supportive and encouraging legal stance adopted by a university to license technology developed on campus for commercial ventures

Obviously, alumni who achieve visible success starting businesses are also a motivating factor for those with ties to a specific business school.

Students

Students, and their related post-graduate efforts, are the other essential ingredient of a university's symbiotic relationship with high caliber faculty. Therefore, attracting and retaining the best students is crucial. Since admission to a top business school is highly competitive, most highly qualified students apply to multiple schools and receive multiple offers. These offers for admission are generally independent of the entrepreneurship program, but the student's decision to apply and matriculate may not be independent. The existence of a highly ranked entrepreneurial program within a top business school can help an admissions office attract certain high caliber students with an interest in entrepreneurship. Additionally, the admissions office is a vital conduit to publicize and recruit for the entrepreneurial program. The best entrepreneurial programs combine and leverage their relationships with the admissions and communications departments to attract the best students with significant interest in entrepreneurship. The attractiveness of a top program combines an integrated direction with the following:

- Prominent faculty and alumni
- Strong resources for research and scholarships
- Specific entrepreneurial prestige within the MBA rankings
- Broad curriculum and general excitement in the school concerning entrepreneurship

Summary of Conclusions

A top entrepreneurial program successfully integrates the five elements of program, faculty, curriculum, relationships, and students with the leadership of a high profile, established person with the desire and power to make the serious study of entrepreneurship real. It is funded with a substantial endowment for the specific purpose of the study of entrepreneurship. It attracts and retains high caliber faculty who research and teach at the highest level. It successfully communicates its excellence and, in so doing, garners the positive attention of prospective students and alumni, business leaders, and other friends of the university. Finally, it supports its graduates and their endeavors in various capacities and produces meaningful research for the business community.

Discussion of Analysis and Findings - Program

Success Magazine Article

In 1997, *Success Magazine* conducted a study of the top business schools for entrepreneurs⁵. The result was a listing of the top 25 along with 10 "Up-and Coming Schools". The following table summarizes this article's top 25 programs.

School	Out of State Tuition (\$)	Full-time Instructors	Business Owner Instructors	Years school has offered entrepreneurial classes
Babson	20,800	9	8	31
Baylor	6,465	4	6	21
BYU	7,430	12	12	13
Case Western	20,100	8	7	14
Cornell	22,450	5	4	18
DePaul	21,264	7	18	33
Harvard	27,500	19	12	51
Indiana	15,082	5	3	40
Kellogg	23,000	20	5	7
Rensselaer	17,100	14	6	12
St. Louis	12,840	2	2	17
San Diego State	7,998	6	3	24
Tulane	19,700	6	6	20
Berkeley	19,378	3	8	30
UCLA	19,431	9	10	24
Colorado	14,670	7	4	17
U of I Chicago	16,573	8	11	26
Louisville	8,150	7	6	9
Maryland	10,395	3	6	10
Nebraska	4,145	5	5	11
UNC	14,400	5	2	33
Wharton	21,860	6	8	25
St. Thomas	1,119	7	9	13
USC	11,662	5	7	27
UTA	11,694	9	8	19
Median	15,082	7	6	20
Michigan	24,000	4	0	10

⁵ E. Pofeldt et al, *The 25 Best Business Schools for Entrepreneurs*, *Success Magazine*, September 1997, pp. 35-46

"Up-and-Coming Schools" included Ball State, Carnegie-Mellon, George Washington, James Madison, Kennesaw, NYU, Arizona, Iowa, South Carolina, and Wisconsin. The article contains anecdotes and descriptions of the entrepreneurial programs of many of the listed schools and appears to be the current authoritative ranking of MBA entrepreneurial programs. The article, which did reveal its ranking criteria, nevertheless appeared more subjective than most business school rankings and provided few substantive comments on the key success factors of an entrepreneurial program. Also, it left some prominent names off of its list of the best entrepreneurial business schools, because they did not complete its survey. These schools include Stanford, Chicago, Virginia, and Michigan.

However, the *Success Magazine* rankings were referred to several times in our research and, as stated, appear to be the current authoritative ranking source. While we do not think Michigan's approach to its Entrepreneurial Institute should be altered as a result of these rankings, we do think Michigan should participate in the survey and communicate its program and strategy to the press. The barriers to entry in this academic endeavor are low, yet the topic is very much on the minds of prospective MBAs and the press. It appears many MBA programs that do not possess the quality of faculty, students, resources, or general support structure that Michigan possesses are listed as a "top 25" entrepreneurial school. We believe that Michigan can best serve its constituents by building an entrepreneurial program as specified in our descriptive conclusions; we also believe that such a program will meet the criteria of whomever ranks such programs now or in the future and qualify Michigan as a top school. The rankings are therefore not an

end of themselves, but instead are simply recognized as an opportunity to capitalize upon the good work Michigan is already doing.

The article identified a number of benefits to the students of a business school entrepreneurial program that should be considered when the Michigan Entrepreneurial Institute is established. These include:

- Access to professors that will encourage students to pursue business plans created in class and who will assist students in obtaining SBA or venture capital funding
- Exposure to the more objective business perspective required of an entrepreneur who would grow their business beyond the bootstrap level
- Learning how to recognize, evaluate, and act on an entrepreneurial opportunity
- Advice from business school professors once an entrepreneur has launched a business
- Developing an integrated, university-wide program that draws together a combination of university resources including patents (usually created in the college of engineering or other hard sciences), MBA level business skills, funding, and legal work to help start and serve area companies
- Establishing networking contacts in the form of professors, other students, alumni, and business leaders

The Center for Entrepreneurial Studies at the Stanford Graduate School of Business

The Center for Entrepreneurial Studies (CES) was established in 1996 to address the need for greater understanding of the issues faced by the growing field of entrepreneurial ventures and to formalize the considerable entrepreneurial work already being performed. It is our opinion the CES represents one of the best entrepreneurial programs in existence.

The CES has as its Co-Directors H. Irving Grousbeck and Charles A. Holloway. Mr. Grousbeck is a Harvard MBA who, prior to beginning his teaching career at Stanford in 1985, was the founder, president and chairman of Continental Cable vision, the third-largest cable company in the United States recently acquired by U.S. West. Mr. Holloway is the Kleiner Perkins, Caulfield and Byers Professor of Management. In addition, the CES is staffed by Brigitte Shearer (Director of Programs and Administration), a Program Assistant, two casewriters and one field research associate.

The CES provides support and coordination for the following types of activities: faculty research support, curriculum development, and student support/community interaction.

During 1998, the CES activities included:

- Hired a research associate
- Managed a major alumni survey
- Hosted a conference on entrepreneurship
 - The 1998 keynote speaker was Jeff Bezos, founder and CEO of Amazon.com
 - The 1997 keynote speakers were John Morgridge, former CEO of Cisco Systems, and Scott Cook, founder and CEO of Intuit
 - 350 attendees represented local entrepreneurs and venture capitalists - 66% and Stanford MBAs - 34%
- Supported several entrepreneurship organizations
- Collected entrepreneurial library resources
- Identified opportunities for student projects
- Helped develop a new course on "Evaluating Entrepreneurial Opportunities"

The GSB Entrepreneur Club is the largest student organization at the School with 450 members; Stanford's class size is 340. Over 90% of MBAs take at least one of the 14

entrepreneurial courses offered and 23% of 1997 Stanford graduates accepted jobs from employers with less than 100 employees.

Harvard

More than 15 percent of all elective credits in the MBA program were earned in entrepreneurial courses last year, and over half of all HBS alumni describe themselves as entrepreneurs . There are nine elective courses in entrepreneurial management in the HBS MBA curriculum with combined annual enrollment of over 1,100. In addition, seventeen faculty members are involved in entrepreneurial teaching, research, and course development for both the regular MBA program and the executive education program. Harvard has an Owner/President Management Program designed to educate and maintain connections with entrepreneurial leaders throughout the world. Also, HBS Publishing sold over 175,000 cases and 12,000 books on entrepreneurship last year.

Harvard's strategy to create a base of intellectual capital on entrepreneurship is reflected in these facts. In 1996, Harvard created an Entrepreneurial Management operating unit that is the academic equal to the other 11 major faculty units; its purpose is to pursue an intellectual agenda of research and education related specifically to entrepreneurship. Harvard's strategy was to attract a large group of outstanding faculty from diverse disciplines and perspectives who would commit their time and energy to the teaching and research of entrepreneurship. This current effort builds on the foundation of the first HBS course designed in 1947 specifically to teach entrepreneurial management, "The Management of New Enterprises".

⁶ "Entrepreneurship at HBS: A Message from Dean Clark", *HBS Bulletin Online*

Miscellaneous Program Notes

- Indiana's Center for Entrepreneurship is staffed by three IU business school faculty, one of whom serves as director, and eight non-faculty staff. The business school pays the professors' salaries, but the Center funds its own \$600,000 budget from sponsorships and donations . The current enrollment in the entrepreneurship program is approximately 30 MBA students.
- The University of Colorado's Bard Center for Entrepreneurship benefits from 24 area entrepreneurs who have pledged \$5,000 a year for five years, as well as a \$1.4 million endowment from the Center's namesakes, Richard and Pamela Bard.
- Georgia Tech's DuPree Center for Entrepreneurship benefits from a \$5 million donation to "build a nationally known program to develop and help entrepreneurs" . This same donor also gave \$20 million to attract well-known professors, expand the curriculum, and improve the school's technology in general (i.e., not specifically for entrepreneurship).

Discussion of Analysis and Findings - Faculty

Business Week Rankings of the Best Entrepreneurship Teachers

As part of *Business Week's* biannual survey of MBA students, one of the questions concerns the most popular professors of elective courses. In the event a professor is mentioned by a certain proportion of the MBA students, his name is listed as one of the program's best teachers. In 1996, *Business Week* published an article discussing the top

⁷ Pletz, John, "DeHayes to Leave Top Spot at IU Entrepreneurship Center", *Indianapolis Business Journal*, Vol. 18, No. 32, pg. 39.

12 professors of entrepreneurial classes that made this list . A table from the article and our research summarizing these results (note: Ent/FE = entrepreneur or former executive) follows:

Rank	Professor	School	Comments
1	William Cockrum	UCLA	Harvard MBA; Finance professor; Ent/FE
2	Edward Williams	Rice	Wharton MBA; Ent/FE
3	Irving Grousbeck	Stanford	Harvard MBA; Ent/FE
4	Steven Kaplan	Chicago	Harvard PhD in Economics; Finance professor
5	William Sahlman	Harvard	Finance professor
6	James Schrage	Chicago	Ent/FE
7	Steven Rogers	Kellogg	Harvard MBA; Finance professor, Ex-Bain consultant; Ent/FE
8	David BenDaniel	Cornell	Former GE & Exxon exec; engineering PhD from MIT; former venture capitalist
9	Robert Pricer	Wisconsin	Former turnaround artist
10	Richard Osbourne	Case Western	Ent/FE
11	William Yost	UCLA	UCLA MBA; Ent/FE
12	Jeff Sandefer	Texas	Ent/FE

The best entrepreneurial professors, as ranked by MBA students, have the following general characteristics in common:

- Possess a top MBA - many from Harvard
- Either started their own business or was a senior executive in a large corporation
- Have a finance or engineering area of concentration

Rousch, Chris, "Tech Business School Gets \$20 Million and a Mission", *The Atlanta Journal and Constitution*, May 3, 1996, pg. 1F.

D. Leonhardt, *Class Acts in the Ivy-Covered Halls: Entrepreneurship is finally getting its due in B-schools—and here are its finest teachers*, Business Week, December 16, 1996. The data used in this study is the same data that ranked Michigan the #2 MBA program.

As an example of a top entrepreneurial teacher and the effect they could have on the school, students, and recruiting companies, *Business Week* described William Cockrum of UCLA. Mr. Cockrum is an adjunct professor who has been teaching entrepreneurial finance at UCLA for 12 years. His classes and reputation are so well known that recruiters from Wall Street and high tech startups ask MBA interviewees whether they have taken Mr. Cockrum's class and specifically what grade they received. Mr. Cockrum does not have a PhD; rather, he earned an MBA in 1961 from the Harvard Business School and spent 25 years in investment banking. He is a strong supporter of the case method and teaches about 10 hours a week each semester. His story is similar to the other top-rated professors in that it is a nontraditional background, academically speaking. Mr. Cockrum was the recipient of the UCLA Outstanding Teacher Award in 1986, 1990, 1992, 1994, and 1996 (he has been on the faculty since 1984).

Stanford - Anecdotal Notes

The Stanford CES provides funding and logistical support for several faculty research projects including:

- Stanford Project on Emerging Companies - a study of over 175 high tech start-ups in Silicon Valley to understand employment practices evolution
- Business School Alumni Survey - a study of the careers of Business School alumni with an emphasis on the entrepreneurially-focused graduates
- Position Capability in Venture Capital Markets
- Impact of Securities Litigation in Voluntary Disclosure and Shareholder Wealth
- Analyst Coverage of Initial Public Offerings
- Reducing Market Risk Through Visual Depiction of Product Concepts

Harvard — Anecdotal Notes

Harvard faculty are currently engaged in many research activities specifically related to entrepreneurship. A partial list includes:

- Economic organization of creative activities
- Entrepreneurial finance
- Entrepreneurial management
- Events that influence creativity
- Launching and sustaining new ventures
- Resource-based entrepreneurship
- Venture capital organizations and entrepreneurial finance

Babson - Anecdotal Notes

The Babson Center for Entrepreneurial Studies (CES) mission is to enhance entrepreneurship education and practice world wide through teaching, outreach and research. A list of the funded research projects follows:

- The Entrepreneurial Research Consortium - a temporary association of 25-30 university centers, research organizations, and foundations within the U.S that are involved in entrepreneurial research
- Kauffman Foundation Entrepreneurship Research Conference
- Frontiers of Entrepreneurship Research - an ongoing series of publications that present current empirical research on entrepreneurship

Discussion of Analysis and Findings - Curriculum

Stanford

The Stanford CES assists in the development of the curriculum. While Stanford does not offer a major in entrepreneurship, there are 14 courses offered. These include:

F319	Private Equity Investing Seminar
F321	Investment Management and Entrepreneurial Finance
G335	Social Entrepreneurship
H303	Human Resources in Entrepreneurial Companies
1309/310	Integrated Design for Marketing and Manufacturing I and II
P535	Legal Challenges in Entrepreneurship
S353	Entrepreneurship: Formation of New Ventures
S354	Entrepreneurship and Venture Capital
S355	Seminar in Selected Entrepreneurial Issues
S356	High Tech Entrepreneurship
S357	Strategy in Entrepreneurial Ventures
S358	Creating and Sustaining Growth
S361	Strategic Change
S556	Evaluating Entrepreneurial Opportunities

Harvard

Harvard offers nine classes on entrepreneurship:

Entrepreneurial Finance
Entrepreneurial Management
Entrepreneurial Management (field study)
Entrepreneurial Marketing
Entrepreneurship, Creativity, and Organization
Entrepreneurship in the Social Sector
Management of the Family Business
Real Property Asset Management
Venture Capital and Private Equity

Discussion of Analysis and Findings - Students

Stanford

The CES offers the following student support/community interaction:

- Supplementary funds select MBA students who find summer employment with an entrepreneurial company that cannot pay "average" summer wages

- Facilitates the interaction between local entrepreneurs seeking business assistance and MBAs seeking field projects for personal interest or to fulfill course requirements
- Organizes visits to a local business incubator and a panel discussion on search funds
- Continues to collect information about resources available to its constituents - students, alumni, and local entrepreneurs
- Encourages licensing of technology developed on campus for entrepreneurial ventures

Discussion of Analysis and Findings - Relationships

The relationships that the top programs have with alumni, business leaders, and friends of the university are a crucial component of the entrepreneurial program. All of the top programs engage in extensive outreach and collaboration with off-campus contributors, supporters, and alumni. An example of an extensive outreach commitment is typified by

Babson's current efforts:

- Academy of Distinguished Entrepreneurs
- Price/Babson College Fellows Programs
- European Symposium for Entrepreneurship Educators
- Babson International Colloquium for Entrepreneurial Educators
- Entrepreneurial Management Program
- National Foundation For Teaching Entrepreneurship
- National Consortium of Entrepreneurship Centers
- The Babson Entrepreneurial Exchange
- The Babson Entrepreneurial Review
- Babson Family Business Review
- Babson Family Business Institute
- The Franchise Institute
- Visitors to Babson's Center for Entrepreneurial Studies

Bibliography

"Babson: Center of Entrepreneurial Studies", *Babson Online*,

Bantel, Karen, Assistant Professor of Corporate Strategy, University of Michigan Business School, March 26, 1998 interview.

Brophy, David, Associate Professor of Finance, University of Michigan Business School, March 30, 1998 interview.

"The Center for Entrepreneurial Studies Graduate School of Business 1998 Overview", Stanford Graduate School of Business.

"Entrepreneurship at HBS: A Message from Dean Clark", *HBS Bulletin Online*.

Pletz, John, "DeHayes to Leave Top Spot at IU Entrepreneurship Center", *Indianapolis Business Journal*, Vol. 18, No. 32, pg. 39.

Pofeldt, Elaine, "The 25 Best Business Schools for Entrepreneurs", *Success Magazine*, September 1997: pp. 35-46.

Rousch, Chris, "Tech Business School Gets \$20 Million and a Mission", *The Atlanta Journal and Constitution*, May 3, 1996, pg. 1F.

Schwab, Robert, "24 Entrepreneurs Pledge Thousands to UCD Program", *The Denver Post*, July 22, 1997, pg. C-02.

"Starting Up and Starting Over, HBS Entrepreneurship in the Postwar World", *HBS Bulletin Online*.

White, B. Joseph, Dean, University of Michigan Business School, April 3, 1998 interview.