AC 2007-1665: CREATING A FRAMEWORK FOR UNDERGRADUATE ENTREPRENEURS TO START AND MANAGE STUDENT-RUN BUSINESSES

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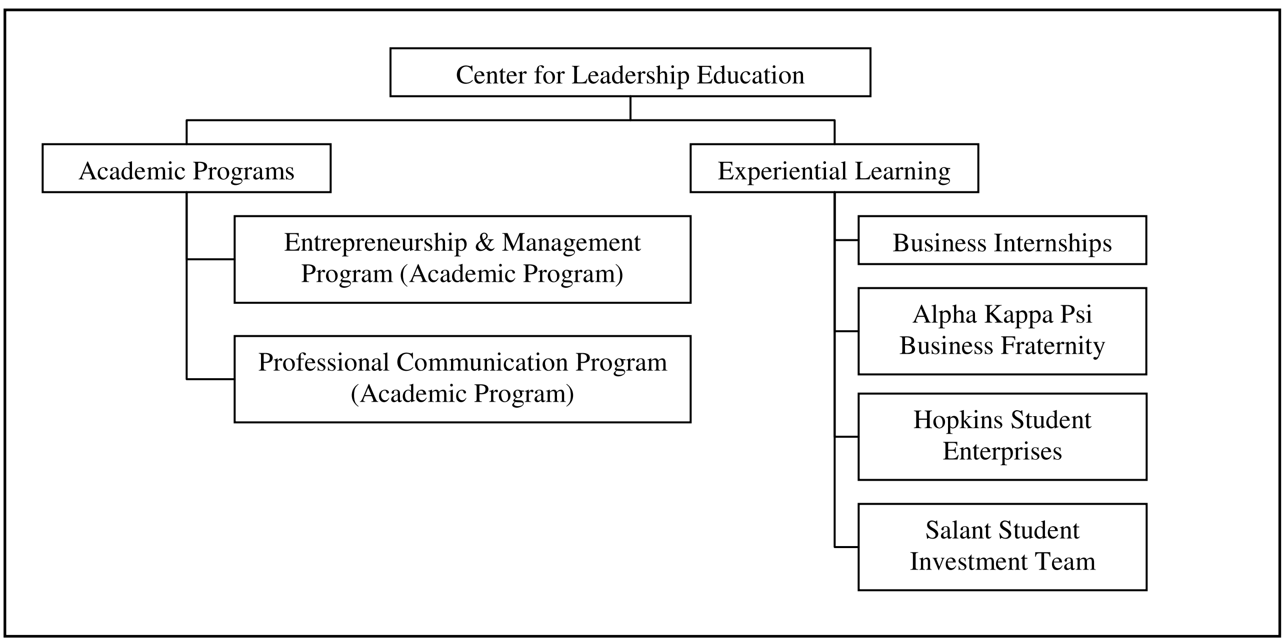
Creating a Framework for Undergraduate Entrepreneurs to Start and Manage Student-Run Businesses

Introduction

The W. P. Carey Entrepreneurship and Management program at the Johns Hopkins University is housed in the Center for Leadership Education in the Whiting School of Engineering and is open to all full-time students. The center focuses on student learning, both academic and of an experiential nature. With experiential learning in mind the center launched Hopkins Student Enterprises (HSE) in June 2006. A new hands-on learning opportunity for undergraduate students, HSE is loosely modeled on the student agency programs found at several Ivy League schools. The program creates opportunities for students to develop entrepreneurial ideas from concepts into actual businesses and gain the invaluable experience of managing a business. This paper describes the program's goals, planning and experimentation, structure, and implementation, including discussion of major issues and controversies regarding its formation.



Goals

The objective in establishing Hopkins Student Enterprises is to enhance the entrepreneurship, leadership, and management education of undergraduate students by providing real-world experiences starting and managing for-profit campus-based businesses. HSE is a supplement to students' education, not a core educational program, making it a learning organization with an emphasis on training, analysis, and documentation to pass on to successive managers. Care will thus be taken that HSE activities do not jeopardize the students' academic success.

The center believes HSE will be a positive development for everyone, benefiting the students, faculty, staff, and wider communities surrounding Johns Hopkins University. Students in HSE gain entrepreneurial and management experience which will help them focus their career directions and improve their qualifications for employment or admission to graduate school, while earning wages and incentive bonuses in more interesting and responsible jobs than typical campus employment. At a small campus without a substantial "college town," faculty, staff, and the local community will benefit from the wider variety of valuable products, services, and amenities that HSE businesses will offer. The university benefits both in the short and the long term from the increased success of its graduates with HSE experience.

Student Agencies

The idea for HSE first arose when the director of the Office of Student Employment told the director of the Center for Leadership Education about a program run by at Princeton University. Student agencies are only found at the Ivy League schools, Washington University, and Stanford University. Cornell was reputedly first, starting in the late 1800s. In the past, student agencies were linked to financial aid. Now the agencies are perceived as vehicles for developing student leaders. It is important to note that it has been approximately sixty years since the most recent student agencies program was established, so the center could not obtain advice based on experience of founders of previous programs.

Student agencies are profit-motivated businesses managed by and employing undergraduate students. Student managers and employees receive compensation for their efforts: employees with an hourly wage and managers usually by some combination of wages and bonuses. The more well-compensated managers may receive as much as $10,000 to $20,000 in a year. The agencies are typically not subsidized by the university, though they may be given office space and equipment to get started. A considerable variety exists in the type of businesses, with common businesses being moving and storage, travel guides, bicycle rentals, water coolers, video production, dorm furnishing, bartending, late night food delivery, and laundry services. With the notable exception of Harvard's Let's Go Travel book series, student agencies are usually small non-technical, service-oriented business, focused on the needs of the campus community.

The key people engaged in the development process met with advisors and student managers from other universities at a conference on student agencies held at Columbia University in February 2004. The students uniformly viewed managing an agency as their most valuable experience in college. The students' responsibilities included developing business plans, hiring and firing, sales and marketing, and dealing with customer issues. In addition, finding employment after graduation, regardless of their major, proved far easier due to their student agency experiences. Very few students can claim bottom-line responsibility for a business generating $300,000 in revenues per year.

Identifying and Mitigating Risks

A key step in the planning process was to identify the risks inherent in operating student-managed businesses and formulating strategies for mitigating those risks. Major risks include:

- Significant financial losses.
- Poor academic performance of managers or employees.
- Illegal conduct.
- Violations of university policy by student managers or employees.
- Alienation of students whose new business proposals were not approved.
- Alienation of customers and the campus community due to poor service or products.

Since these risks will never go away, they must instead be managed. Strategies for mitigating the major risks include:

- Building support in different administrative offices throughout the University.
- Establishing clear policies governing conduct.
- Hiring capable and ethical students.
- Dealing with disciplinary problems immediately.
- Establishing procedures for removing managers who violate policies.
- Removing temptation by minimizing use of cash.
- Closely supervising transactions, advertising and communications.
- Encouraging student businesses that act as brokers to community businesses rather than competing with them directly.
- Establishing initial businesses with low start-up costs and building financial reserves.
- Requiring managers and employees to maintain an acceptable academic performance.

The Moving and Storage Experiment

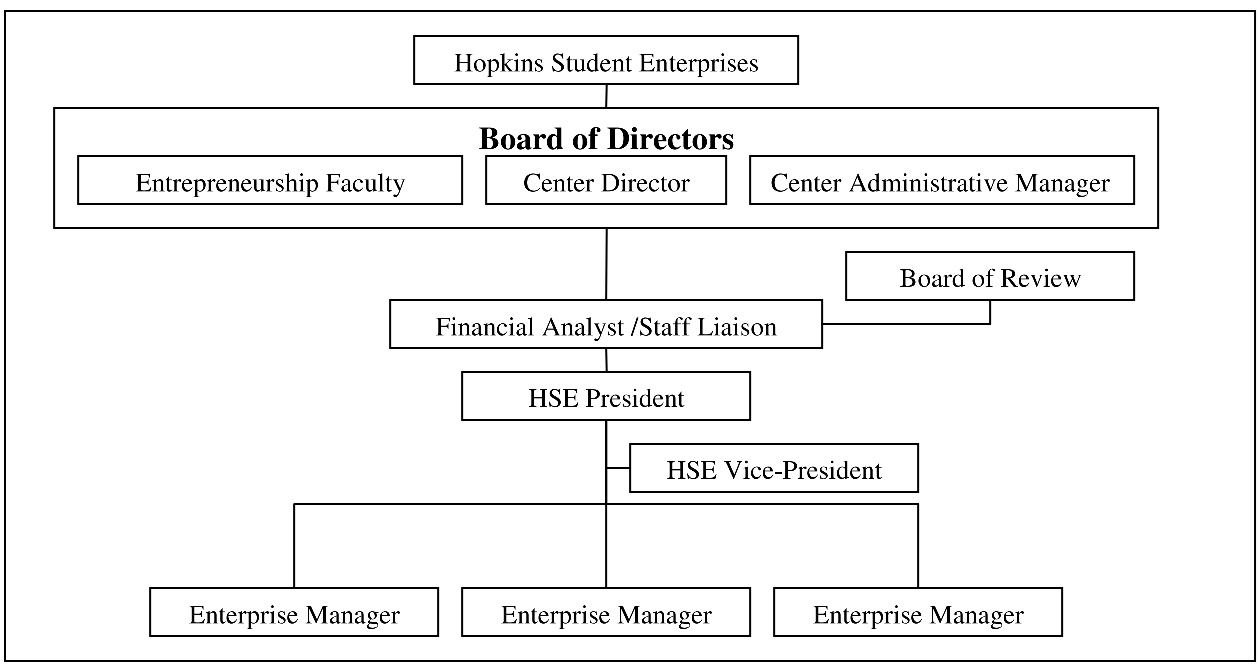
During the planning stages, in order to learn about difficulties that might arise in practice, in spring 2004 the center supported two students in the formation of a campus moving and storage business. Since the university's students come from all over the world, it can prove very expensive to ship their belongings home for the summer. The two student entrepreneurs believed their fellow students could benefit from a low-cost service providing pickup and delivery of their possessions to a local climate-controlled storage facility.

Due to limited funds for advertising, the moving and storage business employed a guerrilla marketing approach. They sent a direct mailing to all on-campus dormitory residents and flyers were posted on campus. The business received the biggest response from the direct mailing efforts. In anticipation of a significant amount of business, the student entrepreneurs rented two air conditioned storage containers for the entire summer, and obtained $10,000 of insurance on them. The business ultimately signed up over fifty customers in summer 2004, producing total sales of approximately $10,000. The managers developed several ideas about how to operate more efficiently the following year. They planned to recruit between five and ten employees during projected times of peak demand, find storage facility closer to campus, require the use of smaller boxes, and get approval from the Residential Life Office to advertise in the dormitories.

During 2005 the business enjoyed more success, but experienced unanticipated difficulties. Seeing the success of the moving and storage business, another student decided to start a competing business. The competitor tore down the advertising posters and replaced them with its own. The competitor put flyers unsanctioned by the Office of Resident Life under the doors of dormitory rooms, in violation of university policies against "dorm-storming." Acting on advice from the center, the two original student entrepreneurs contacted the Dean of Student Life and the Office of General Counsel for assistance. University administrators quickly ordered the competitor to remove its advertising and barred it access to the dormitories. The competitor ceased all operations shortly thereafter.

Throughout the three years of operation of the moving and storage business, the center provided advice and mentoring, travel expenses to attend the student agencies conference, assistance when threatened by an unethical competitor, and other material support for the business. The center did so willingly with the understanding that when the founders graduated the business would become part of the newly-established Hopkins Student Enterprises. Discussions during the spring 2006 semester planned the turnover of the business to HSE. The center arranged for the new president of HSE, paid by our program to learn the operations in preparation for the following year. Upon graduation, however, the two student entrepreneurs instead offered to sell the business to the center. If the center did not purchase the business, they claimed other interested parties would do so. The university Office of General Counsel notified them that if they proceeded with plans to sell the business to a third party, it would not be allowed to continue operations on campus. The center had no interest in purchasing the business for any sum as the agreement was always to "inherit" the business after the founders graduated. After return of the stored items at the beginning of the fall 2006 semester, the business was dissolved, rather than being turned over to the center and HSE.

Organization and Structure



Board of Directors

As planning proceeded, HSE was structured on a corporate model, operating within the Center with its own board of directors. Since the risks and responsibilities for operating HSE fall upon the center, and all financial transactions must be carried out within the university financial system through our office, the board of directors consists of the center director, the center administrative manager, and a full-time faculty member. This composition is designed to bring three differing perspectives to the discussion of each issue. The director provides the perspective of experience with university administrators regarding their concerns and interpretation of university policies. The administrative manager assesses the impact of decisions on the center staff's workload and capability to accomplish the center's other objectives. The faculty member provides perspective on the business operations and insights on education and training of managers and employees.

The board of directors bears the ultimate responsibility for oversight of HSE. The board's responsibilities include ensuring compliance with university policies, procedures, and ethical standards, final approval for creating new enterprises, and ensuring fiscal responsibility. The board provides additional supervision through periodic meetings and updates from the staff liaison and the HSE president.

Board of Review

By consulting university administrative offices during the planning process, and working closely with them on issues arising in the moving and storage business experiment, the center carefully built crucial support for the program. The center consulted with the General Counsel, Residential Life, Purchasing, Student Employment, Risk Management, the Dean of Students, and the Engineering Business Office. In order to maintain relationships with these offices and obtain their input on university polices and issues relevant to HSE, the center invited key administration officials to sit on a board of review.

The board is responsible for examining potential businesses to ensure compliance with university policies and to assess risk. The board considers issues such as possible violations of existing vendor contracts, access to dormitories for advertising and delivery, use of mailing lists of students, parents, alumni, etc. The review board ensures that any potential problems are detected early enough to correct before becoming a concern or liability, and provides advice and suggestions for remedies to potential problems. Examining the financial viability of any potential enterprises is not part of the responsibility of the board of review.

Not every business idea submitted manages to pass muster with the board of review. If the board of review decides that a proposal does not conform with university policies and procedures, the proposal will be rejected. Nonconformance however does not spell the end of a particular business proposal. At this juncture, the students proposing the idea may choose to rework the business plan based on the reviewers' comments and resubmit it. The HSE president and staff liaison will work with the students to ensure that the new plan corrects problems and addresses the particular issues raised by the review board.

Staff Liaison

The center's financial analyst serves as the staff liaison between the center and the president and employees of HSE. Such a structure is necessary because all financial transactions must be handled through the university financial system by a full-time staff member. Students cannot cut checks, deposit receipts, or sign contracts. The staff liaison works with the HSE president to develop standard procedures for students, so they handle as much of the preparation work as possible for such transactions.

In addition to processing financial transactions and monitoring HSE budgets, the staff liaison works closely with the HSE president, providing management advice, assistance in developing and evaluating new businesses, assistance in communicating with the university administration and the campus community, and help preparing presentations to the board of directors.

President and Vice-President

The president is appointed by the board of directors after an application and interview process. He/she is responsible to the board of directors and reports to the staff liaison. The position has a term of one year, followed by a semester as an executive consultant who advises the successor president. Responsibilities of the president include:

- Hiring and firing enterprise managers and assistant managers.
- Conducting performance reviews and evaluations of individual managers and enterprises.
- Developing and implementing strategy and marketing.
- Managing the financial aspects of the entire HSE enterprise.
- Identifying and developing new business opportunities.
- Maintaining open communication with the staff liaison and board of directors.

The president also works to develop contacts with student agencies at other universities, and occasionally visits other student agencies. As HSE grows, a vice-president will be hired, and the president may delegate a portion of these duties to the vice-president.

Individual Enterprises

The board of directors approves new enterprises upon the recommendation of the HSE president and staff liaison, after clearance by the board of review. The approval specifies the initial financial support to be provided and allocates the resources necessary to launch operations.

Most HSE businesses tend to be proposed by students in the entrepreneurship and management program. The student who proposes the idea and develops the business plan becomes the founding manager of the business, tasked with recruiting employees, developing customer relations, and ultimately turning a profit. Students must first submit a two-page outline of their business idea. If the idea seems viable after an initial analysis, the HSE president requests a more detailed business plan of five pages. After further evaluations by the HSE president and staff liaison, the board of review then verifies that the business can operate within existing university policies.

Upon approval by the board of directors, HSE allocates sufficient funding to the enterprise to ensure viable operations. The exact amount is determined on a per case basis, but the proposal must plan for such items as office furniture, office equipment, computers and software, advertising, insurance, and general working capital. At this point, no limits are set as to the amount or duration of funding for each business, but rather decisions are made on a case-by-case basis. The Center for Leadership Education provides office space when possible, but if it cannot do so, HSE may rent space off campus.

The president of HSE may also propose new businesses, in which case a founding manager is recruited once the business has been approved by the board of review and the board of directors. Two of the initial businesses, a moving and storage company and a consultancy focused on technology commercialization assessments, were developed by the president at the request of the board of directors.

Managers and Assistant Managers

Each enterprise is operated independently by a student manager, who serves for a one year term, followed by a semester in an advisory role to the successor manager. While the center provides financial advice and guidance for developing policies, the manager ultimately makes all business decisions, since the manager bears the final responsibility for the efficient and successful operation of the enterprise. The high degree of personal responsibility provides a practical "hands-on" business experience not often available on a college campus. The manager gains experience in product marketing and pricing decisions, hiring, training, managing and motivating fellow students as employees, negotiating with suppliers, and financial decision-making.

Controversial Issues

Perhaps the majority of discussion regarding the formation of HSE focused on a few issues, described in the following sub-sections. While some of these issues were anticipated, others proved more controversial than originally expected.

Bonuses and Compensation

Advisors and supervisors of student agencies at other universities warned that one of the most difficult issues would be formulating policies regarding bonuses and salaries for managers. Discussions reflected differing perspectives on the value of simplicity, flexibility, and incentives. The simplest alternative is to pay each manager a fixed percentage of profits of his/her enterprise at the end of the fiscal year. A very flexible alternative is to specify a wide range of possible percentages, and decide the percentage bonus for each manager individually, based on factors such as ethical behavior, training of employees, documentation of procedures, quality of products and services, customer satisfaction, innovation, and improvement of the business. The simple approach would be easy to administer, but provides an incentive for managers to pump profits and leave a business in poor condition for their successor. The flexible approach rewards desired behaviors, but would be very time consuming to implement, and may encourage managers to attempt to negotiate the size of their bonus within the range.

The initial policy is much closer to the simple method. The center decided to pay an hourly wage of $15 per hour to the president and $12 per hour to enterprise managers. The manager of each business decides on hourly wages for each employee of that business. In addition, HSE will also pay a fixed percentage of profits as a bonus to the president and the managers of the enterprises, but not regular employees. In certain cases of poor performance the HSE president, with approval of the board of directors, may notify an underperforming manager that the bonus is being reduced, but will be re-evaluated in the future with the possibility of the restoration of the full bonus. It is believed that this approach provides an incentive for managers to attend to all desired aspects of their position rather than focusing solely on short-term profit maximization.

The bonus structure works as follows:

- The manager of an individual enterprise will receive 20 percent of profits after overhead charges (discussed below).
- The assistant manager will receive 10 percent, after overhead.
- Central HSE operations will receive 40 percent to fund future businesses, after overhead
- The individual enterprise will retain 30 percent or 40 percent, after overhead
- The president of HSE receives 10 percent of the total profit, after overhead, of the central HSE operations.
- A manager will receive an additional $1000 bonus for taking on a losing business or starting a new business.
- The center does not receive any portion of the profits, but does receive overhead, as noted below.

Fiscal Year and Managers' Terms

Deciding on the fiscal year for HSE proved more complicated than expected. At first glance, it seemed natural to adopt the university's fiscal year, which runs from July through June. The computation of annual profit for each enterprise would be easily calculated through the university financial system, during the summer when the staff liaison is less busy than during the academic year.

The end of June however is not an appropriate date for starting and ending managers' terms. Since seniors would be graduating and leaving campus in May, they would not be able to complete terms extending through June. Since profits could not be calculated until July or August, it would also be difficult to pay bonuses to students who graduated. In addition, during spring semester of the senior year, senior managers' performance may deteriorate due to distractions of job-hunting and interviewing, choosing a graduate school, or preparing for graduation. Thus, HSE would be hesitant to hire seniors as enterprise managers.

Rather, it was decided that HSE would operate on a calendar year basis. A calendar year schedule allows HSE to take advantage of the knowledge and experience of seniors, as managers during the fall semester, then as paid advisors to their successors during the spring semester. The downside is that the calculation of profits and bonuses is slightly more complicated.

Initial Funding

The center provided start-up funds for HSE from its operating budget. The operating budget receives its funds from the service of teaching full-time undergraduates. Since the plan called for a limited number of enterprises in the beginning, HSE received initial funding of $25,000.

An important question was whether to consider the initial funding to be a grant, a loan, or an investment. If provided as an investment, the center would expect HSE to return a portion of the profits, which in turn would help cover the costs of providing services to HSE. The amount returned however might prove quite variable from year to year. If a loan, less would be available to expand the business, and extra transactions would be necessary to process. A grant would require no additional transactions and record-keeping, but would require another way to compensate the center for its services. The start-up funds were provided as a grant. Since its staff and faculty provide the primary services, the center determined that the most appropriate course of action was for HSE to pay a volume-based annual overhead fee.

Overhead

The individual enterprises need to compensate both CLE and the central HSE operation for services provided. A simple approach was to charge each enterprise a fixed percentage of profits, revenues, or expenditures, or some combination of these to serve as a proxy for time and effort spent by center staff on HSE business. An approach to make the students' business experience more realistic is to charge the FICA rate on payroll, the sales tax rate on purchases, and an income tax on profits. We felt that time spent computing such fees decreased the efficiency of the enterprise without adding much to the realism of the experience. Thus, we opted for simplicity, and decided to compensate both the center and the central HSE operation by a fixed percentage: 20 percent of revenues to the center and 10 percent of revenues to HSE. These percentages may change from year to year as we gain experience with the operation, but will remain constant during each calendar year in order to allow managers a stable environment for planning.

The Initial President

Laying the groundwork for HSE was a four year process -- much longer than initially expected.

Implementation began with the advertising, interviewing, and hiring the first HSE president in spring 2006, with a term extending through December 2007. During the summer and fall of 2006, the president spent considerable effort developing plans, policies, and procedures in preparation for the first full year of operation in calendar year 2007. In particular, some of the initial responsibilities were to:

- Create a HSE operating manual.
- Design the application procedure for establishing new enterprises.
- Advertise for an initial round of new business proposals.
- Establish the moving and storage business and the technology commercialization assessment consultancy.
- Establish one additional new enterprise.
- Prepare job descriptions and specifications for enterprise managers.

- Prepare ethics statement to be signed by all enterprise managers.

To create an operating manual, he met with members of the board of directors and the board of review and learned about university policies and procedures that are relevant to HSE operations. The manual describes terms and conditions of employment for managers and employees, compensation and bonuses, calculation of enterprise profits, dispute resolution, employee termination procedures, sales procedures and transaction record-keeping, reporting by managers, performance reviews, and application procedures for new enterprises.

Initial Proposals and Enterprises

Technology Commercialization

From the early planning stages of HSE, we wanted to expand the concept of student agencies beyond providing traditional campus services to include the formation of small technology-related businesses. The idea of a technology commercialization assessment business arose as a result of projects in a Managerial Accounting course (subsequently the projects led to the creation of a separate Technology Commercialization course). In the courses, student worked on projects for technology transfer officers in the Whiting School of Engineering, Bloomberg School of Public Health, as well as university laboratories and outside federal laboratories. Several students were hired full-time upon graduation by a technology commercialization assessment firm. They prepared studies, prepared business plans, found investors, and negotiated deals, and recruited several other students as interns. Both the technology transfer officers and this firm have expressed interest in sub-contracting technology assessments to an HSE business. To further explore the possibility, we arranged summer internships for the students with the School of Engineering and a university laboratory, who were very happy with their contributions. In fall 2006, with a pledge from the Whiting School of Engineering Research Office to be the initial customer, proposals for an HSE technology commercialization enterprise were solicited. Its formation was approved in November 2006, and began operation in January 2007.

Moving and Storage

As previously described, by experimenting with an existing moving and storage business, the center verified that a moving and storage business can be quite profitable, earning $10,000 to $20,000 per summer. The HSE board of directors requested that such a business be one of the first created, in order to create a large, highly-profitable revenue stream which could be used to support the creation of additional enterprises. The president, who had worked in the now-dissolved experimental moving and storage business, developed the business plan and recruited a manager in December 2006.

Video Production

A proposal for a video production business is currently under consideration. The business would provide filming and editing services for events, ceremonies, and parties on and off campus. The proposed founding managers are quite entrepreneurial, and have already received a grant from the Dean of Students for some of the necessary equipment.

Other Enterprise Proposals

HSE received a number of other proposals from students to start enterprises. Many proposals requested a significant amount of funds to purchase computer resources to launch large websites. The HSE president believed that Web-based enterprises would have too many existing competitors, relatively few barriers to entry, and marginal revenue potential, and ultimately declined these proposals. The president declined proposals for other enterprises due to a number of factors, such as liability issues, ability to successfully differentiate from existing competitors, or concerns about market potential. Some of the proposals rejected by the HSE president include:

- SAT Tutoring and Preparation
- Online Student Travel Agency
- Student Valet Service
- Food Cart Vending
- Care Package Sales and Distribution
- Bartending Classes
- Textbook Exchange Website
- Local Restaurant Review Website
- Apartment Subletting Matching Website

The initial idea, of course, was that students would generate ideas for businesses and submit plans for review and approval. That has proved to be more difficult than initially imagined, for several reasons. Students have submitted numerous ideas that are not viable, and they have not always been willing to continue working on plans without a clear assurance that they would be eventually accepted. This has resulted in a new course of action – in addition to the plans submitted by students, the HSE president will now also develop several business plans, get them approved by the Board of Review, and then hire the managers to manage them.

The Future

It is expected that, like any start-up venture, some or all of the businesses will lose money initially. Businesses that fail to return a profit within a reasonable amount of time will be closed. The board of directors and the HSE president will make the decision as to what is "reasonable" for each individual enterprise. There will certainly be difficult decisions to make, since some businesses may limp along near the break-even point for multiple years.

Successful ventures will return a portion of the profits to the program to provide funding for future businesses, and it is hoped that these retained profits will be sufficient to create new businesses after the first year. If HSE does not generate sufficient funds internally to expand by two to four enterprises in each of the second and third years, additional start-up funds may be provided from the operating budget. HSE is expected to be self-supporting after the first three years. In the long run, from the experience of student agencies programs at other universities, the desirable size of the program is between ten and twenty enterprises.

As the original founders of the student businesses graduate, the program will need to recruit new managers to run the pre-existing businesses. Training of new managers to take over each business each year will be a continuing challenge.

Bibliography

For more detailed descriptions of student agency programs, please consult the following websites:

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Stanford Student Enterprises (http://newsse.stanford.edu/)