A University Corporation:

Integrating Education & Experience

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ABSTRACT

Most graduates of the CU-Colorado Springs College of Business Information Systems Program face difficulties finding competitive, well-paying jobs. Such difficulties need to be overcome by the University to increase student enrollment and gain credibility in the academic and business world. The formation of a university owned corporation that is managed by students under the supervision of faculty will help integrate the educational experience with practical work experience, thus creating an environment that will not only prepare graduates to jump start their careers, but help the university gain the academic credibility it deserves.

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Executive Summary

The purpose of this report is to examine the problem that the University of Colorado at Colorado Springs (UCCS) College of Business (COB) graduates, particularly IS graduates, face in finding jobs in their areas of emphasis and to provide a solution to this problem. A detailed description of the problem along with its causes is provided. Research suggests that students face difficulty in finding competitive jobs in their area of study primarily due to lack of practical work experience in this area. Other important reasons like the location of the university in a smaller metropolitan area and stiff competition faced by other CU campuses are discussed in the report.

An analysis of the problem and its causes establishes that the successful creation and implementation of a corporation at and owned by the University of Colorado at Colorado Springs College of Business that primarily writes software is the solution to solving the job requirement of experience for UCCS graduates. Such a corporation will also help CU-Colorado Springs resolve other issues of credibility in the academic and business world that arise due to its location in a smaller city and the idea that it is a subsidiary to CU-Boulder. The corporation will integrate the education and help develop skills of various students from all departments, creating a real world experience. Such a corporation will, among other things, help CU-Colorado Springs gain more credibility and achieve its stated goal of becoming one of the top-rated, comprehensive, regional universities in the country.

Introduction

Background

About CU Springs

The University of Colorado at Colorado Springs (UCCS) is one of four campuses in the University of Colorado system. CU-Colorado Springs boasts a variety of degree programs in the liberal arts and sciences and professional programs in business, engineering, nursing, education and public affairs.

The campus' stated goal is to become one of the top-rated, comprehensive, regional universities in the country with an estimated population of 10,000-12,000 students. This goal is a result of CU-Colorado Springs' status as the fastest-growing university in the state and one of the fastest growing in the nation. The university is known for its high-quality education and active engagement with the community. In recent years, CU-Colorado Springs was named a top Western public masters university by U.S. News and World Report and the American Association of State Colleges and Universities named the university one of two national leaders in community engagement efforts (http://www.uccs.edu).

Colorado Springs is the second largest city in Colorado with a population of about 500,000. The city is located at the base of Pikes Peak in the Rocky Mountains of southern Colorado. It offers a diverse population with numerous and varied recreational opportunities (http://www.uccs.edu).

The city economy includes manufacturing, amateur sports, technology related industries and the military. Large employers in the area include industry leaders in the high tech and health care sectors like Hewlett-Packard, Agilent, Atmel Corporation, SCI Systems, Inc., Electronic Data Systems Corporation, Oracle Corporation, and Penrose-St. Francis Health Services (http://www.uccs.edu).

CU-Colorado Springs offers 25 bachelor's degrees, 17 master's degrees, and 2 doctoral degrees. There are six colleges on campus: business; education; engineering and applied science; public affairs; letters, arts and sciences, and nursing. More than 514 faculty and 392 staff members support the campus (http://www.uccs.edu).

Education at the UCCS College of Business

"At UCCS, the College of Business (COB) is committed to providing a valuable and innovative learning environment for the students. The College seeks to incorporate a solid foundation both in the classroom and in the real world environments. The COB has implemented a "learning lab" approach in support of this mission wherein students are encouraged to apply their knowledge firsthand in the business community (Martz 2)." The learning lab approach is one of the tools that the COB uses to meet the campus goal of becoming one of the leading regional universities.

The College offers Undergraduate (B.S) and Graduate (M.B.A) Degrees in Accounting, Finance, Information Systems, Marketing, Human Resource Management and Organizational Management. A Distance MBA program that uses state of the art online teaching technology like WebCT and enrolls students from all over the globe has forced the College of Business to provide a higher level of education, helping it offer one of the most comprehensively educating degree programs available to students in Colorado. Despite providing an exceptional quality of education, the College faces stiff competition from the business colleges on other CU campuses.

The Problem at the College of Business

Being a staff member and a student (in two departments) at the College of Business, I have developed a serious appreciation for our curriculum, instructors and support staff. However, despite the efforts made by faculty and staff to help provide a level of education that will help students jump start their careers in various fields, students have had problems finding jobs. Those that have had luck finding *the right job* (as so deemed by most graduates/students from that department) have had trouble finding employers that are willing to pay them the same as a student from, say, CU-Boulder.

The problem is particularly common in the Information Systems (IS) Department, where most graduates have a very hard time finding jobs. Some might say that the reason for why IS students face more problem than others is due to the decline in the technology industry. I don't see how that misnomer has specifically caused problems for CU-Colorado Springs graduates seeing as Colorado Springs is the second home for many high-tech firms. I might be willing to accept the idea that such a decline has played a part in the difficulty faced by our graduates, but it is not the main reason why our IS students remain unemployed longer than most others.

Also, further observation will suggest that the problem is not just common to the IS Department. Graduates from other departments like Finance and Marketing are also known to have had extended periods of unemployment before they find a job pertaining to their field.

Based on my research and involvement with the College of Business and some of its recent graduates, I have discovered that the reason for the low job success rate is lack of training, or what employers frequently call experience in job description requirements. As it is, not many students from other schools or colleges graduate with experience either. How, then do they find more and better paying jobs than our graduates? The discussion that follows gives all possible reasons for graduates from CU-Boulder and CU-Denver scoring better jobs than CU-Colorado Springs graduates.

The Solution to the Problem at the College of Business

Knowing the reason behind the low success rate of UCCS graduates finding jobs in their respective fields should help us change the curriculum or method of education so that students who walk out of UCCS are better equipped for jobs than graduates from other colleges. I believe, that after seeing employers' preferences, hiring patterns and the reasons why the problem exists, the IT Committee and all other readers of the report will

see that the creation of a Corporation (that primarily writes software) owned by the College of Business and run by students and alumni will not only help students meet the experience criteria set by all employers, but will also train students in their fields better than many other colleges in the nation can. Successful implementation and management of a university corporation can very well boost the ratings of a College or University, as the creation of Ventana Group Systems did in the case of University of Arizona.

Methodology

Since one of my primary goals is showing how the creation of a corporation will benefit the students and the college itself, I used articles in business journals and magazines that speak of the success of university spinout corporations (USC). The fact that one of the faculty members at the UCCS College of Business, Dr. Benjamin Martz, who is also a member of the IT Committee, has already been involved with the creation of a USC at University of Arizona really helps my case. He was one of the major sources that helped me envision the successful creation of a corporation at UCCS. Although University of Arizona has always been one of the leading schools in the IS field, the springing of a successful company from the University has given its IS program the credibility that has help it become one of the top three IS schools in the nation. I have, therefore, vastly used the success of projects like the one at University of Arizona to promote the idea of a corporation.

Scope

The report covers reasons for most CU-Colorado Springs (especially IS) graduates facing difficulty in finding jobs in their fields. It goes in-depth about the experience phenomenon that employers ask for in job requirements and gives a solution to overcoming that particular problem, which will eventually take care of the other reasons that aggravate the problem.

<u>Discussion</u>

Statement of the Problem

The problem at the UCCS College of Business is one of graduates being unable to find jobs for three reasons:

1. CU-Colorado Springs is not a large, well-known university.
2. CU-Colorado Springs is not located in a large/major metropolitan area.
3. CU-Colorado Springs graduates, like all other graduates, do not possess enough experience to meet job requirements.

Objective/Purpose of the Proposal

The proposed solution, if implemented, will, over an extended period of time, solve the above mentioned problem. It will rid the UCCS COB and its graduates of the three reasons that employers have to discredit UCCS students and deny them employment.

Analysis of the Problem

Why CU-Boulder and CU-Denver Have an Advantage

If you go outside the state of Colorado, nationwide or internationally, CU or University of Colorado typically means CU-Boulder. Anyone who does not know much about Colorado or the education system in Colorado seems to think that if you went to the University of Colorado, you went to CU-Boulder. Boulder, therefore, is a well-known phenomenon in the education industry.

People who have not heard of CU typically know of Denver since it is one of America's large cities and the capital of Colorado. Therefore, the name of a school or university that has Denver attached to it automatically comes with the credibility that a large city and metropolitan area brings to the business world. Also, a college located in a large metropolitan area typically offers a better business education than a college located in a less developed area. The success of schools like NYU (located in downtown Manhattan), University of Arizona (located in Tucson) and University of Pennsylvania (located in Philadelphia) are representative of that fact.

CU-Colorado Springs is neither a phenomenon in the educational industry like CU-Boulder nor does it carry (in its title) the name of a major metropolitan area like Denver or New York attached to it. Also, until the fairly recent introduction of the high-tech industry in the city, Colorado Springs was primarily known for its military importance. Therefore, employers have no reason to believe that a student graduating from a school in Colorado Springs has more to offer than a graduate of Boulder or Denver, both of which hold more credibility merely by name. Also, the fact that most of the state funding goes to Denver and Boulder doesn't really help us establish a good research facility or marketing plan at UCCS.

Lastly, CU-Boulder has a major advantage over CU-Colorado Springs for out of state employers who do not know much about education in Colorado. With technology

becoming an important part of the recruiting process at most companies, when employers go to http://www.colorado.edu to look up the educational system in Colorado, they are forwarded to the CU-Boulder site. That leads to national employers thinking that the best, if not all, that Colorado has to offer education-wise, comes from Boulder. However, with CU-Boulder's recent interaction with the media, when employers do here of other CU campuses, they typically associate our students with the likes of Boulder, which doesn't exactly help our situation.

As further reading of this document will suggest, the successful creation and implementation of a corporation that writes software will produce a more skilled and competitive labor force in the form of UCCS COB graduates. Such successful creation of graduates will, over time, help CU-Colorado Springs build more credibility, and eventually, a better educational reputation than Boulder or Denver. Most employers don't realize the fact that the likes of Harvard University, Massachusetts Institute of Technology and University of Texas at Austin come from relatively smaller cities, and not the largest metropolitan centers in their respective states.

Why Employers Require Experience

With the economy taking a hit after 9/11/2001, many individuals, who had been employed in their areas of expertise for years, were laid off. Companies could not afford to pay employees what they were paying three years ago. Therefore, only the best and the most experienced were retained at the higher-level positions in industries like Information Systems, Marketing, Finance and Computer Science. The experienced employees, who were not as good as the best ones and were laid off in 2001, took a major pay cut to go down to the lower/entry level positions, which in their good times, were being filled by fresh college graduates.

As a result, positions that only college graduates were willing to take earlier, these experienced former employees were now willing to take up for the same wage that a college graduate without any experience would. Therefore, most employers could now get experienced employees for the price of inexperienced ones and since the goal of every business is to maximize efficiency, most businesses and employers chose to hire the experienced personnel. For various reasons, and depending on the field, some employers chose and still choose to hire new graduates rather than experienced employees. The general trend, however, since employers have been able to get experienced employees for entry level positions, has now become, to ask for a minimum of 2-5 years of experience in fields like IS, Finance and Marketing.

So, how does a graduate out of school get 2-5 years of experience in his/her field? It is one of those catch 22s. Therefore, to fix the problem, experience must be built into the college curriculum. If students already have 3 years of work experience in a corporation at the time of graduation, it gives them a lot better chance of scoring a job than they would have with no experience. Thus, a corporation at the College of Business at UCCS will better prepare students for a career in their respective fields.

Why Our IS Graduates Have Problems Finding Jobs

As a student who has done his research, the IS program offered at the University of Colorado at Colorado Springs is comparable to the program offered at any other school, including the likes of University of Arizona and University of Texas at Austin. The credit largely goes to our IS faculty, almost all of who (including the Dean of the College of Business) are former University of Arizona faculty.

The IS program at UCCS offers comparable, if not better, teaching in basic programming, systems analysis and project management. However, unlike institutions like University of Arizona, CU-Boulder or UT Austin, we do not have a name to back us up. Therefore, by default employer perspective, an IS graduate from a more well-known institution is supposed to be more knowledgeable than a graduate from CU-Colorado Springs. Hence, if employers have to pick from amongst two new, inexperienced college graduates they will pick one from the better know university, which means that the UCCS graduate goes unemployed.

Why Experience is Vital in IS

Experience, however, is more vital to the success of an IS professional than it is to most others. One of the main reasons for this experience requirement is that about 67% of all IS projects either fail or come in late. Therefore, in order to increase success rates for their relative companies and to better handle situations where projects will come in late, employers prefer to have more experienced employees. In IS, an experienced person from a Community College will probably have a better chance of landing a job as an analyst or project manager than would an MBA graduate from CU-Boulder with no experience. The reason: you learn to deal with failure only when you come across it.

That said, if a UCCS student graduates with 3 years of analyst or project management experience, he would certainly have a better chance of landing a particular job than would a similar student from CU-Boulder or UT Austin. A corporation at the College of Business will help produce graduates with 3 years of experience, making them eligible for jobs in the IS field.

Why the Experience Problem is Contagious

Over time, employers and businesses have realized that experienced employees are better at the decision making process than inexperienced graduates. Unfortunately, there is no substitute for experience. The problem (the experience requirement), though very prominent in the IS field, spreads to fields like Finance and Marketing, where experience makes you more skillful at the particular function.

The problem faced by Finance and Marketing majors is the same as that faced by IS majors. It is, however, not quite as severe as the one faced in IS. Since the two fields are generally known to be more business oriented than IS, graduates with these degrees can make a better fit for other business functions than IS majors, since they are supposed to have had better business training.

Nonetheless, the fact that current graduates from UCCS do not have any experience and a name like CU-Boulder or UT Austin coming with their degrees, they have trouble finding jobs in their respective areas of emphasis.

Statement of Need

The UCCS COB faculty and administration need to consider the introduction of something different into the curriculum which will help the campus succeed and grow. Although UCCS has been the fastest growing campus in the system, the growth is not coming at an increasing rate. The increase in the percentage of students enrolled has gone down, a result of which has been a cut in the funding of the university.

Although the introduction of the voucher system (for funding CU) into the CU System might change the way each campus gets funded by the state, an increase in enrollment, which can be achieved by the implementation of a corporation that will better prepare future students/graduates for careers, will under the current system of state funding help improve the financial situation of the campus. Such a financial increase will, in turn, give UCCS the ability to hire more qualified faculty, thus making the campus more attractive to prospective students.

Description of the Proposed Plan

The solution to all of the above mentioned problems lies in the creation of a corporation which primarily writes software. It is important that the primary goal of the corporation be to write software. Before I get into the details of how the corporation will be a solution to our problem, it is important to discuss the structure of the proposed corporation.

The University Based COB Owned Corporation

Before anything else about the entity is determined, the majority shareholder of the corporation should, at all times, at least until such a point in time that the corporation can take off on its own, should be the College of Business. The corporation needs have formal departments set up, one for every function in which the COB offers a degree. These would include Accounting, Finance, Information Systems, Human Resources/Organizational Management and Marketing. An additional department will be set up for computer science, the primary function of which will be to write code for the software the corporation chooses to write, the management of which will be overseen by the IS students in charge.

The Corporate Structure & Departments

With a set up like this, and the initial hiring of students to fill in the required functions by faculty, the corporation should be created. The finance function can determine the corporate structure of the corporation; whether it will be a non-profit or profit based organization and how the capital structure should be set up. Letting the students determine the status of the corporation will help them see the benefits that each has to offer. The accounting function will be handled by the accounting students, who will get financial accounting, record keeping and tax-return drafting experience before they graduate. The market function should, knowing the nature of the students, employ

marketing students to go out and get businesses that have a need for information systems but cannot afford to pay a large private corporation for one. Several local businesses have come to UCCS before with such requests but the COB has never had a structure set up to do something of that nature. With a university based corporation, a structure will be in place primarily for this purpose. The HR function, which will comprise HR students, will be in-charge of managing all the paperwork necessary for the hiring and payroll of all corporate employees.

Lastly, the IS department will oversee each project that comes in with a software request and determine which one to accept and which one to turn down. The Corporation can hire programmers/code writers from the computer science department and project managers from the IS program, thus creating the real world experience of management and oversight of software development for IS students.

Implementation of the Plan

The Working of the Corporation

A university based corporation will require motivation on the part of faculty and students who are willing to start a career right out of college. I believe, that with our faculty and most of our student base, motivation should not be a problem. Qualified students should and will be hand picked by faculty for the initial start up company. Once the start up staff has been chosen, the students should be allowed to run the corporation as management, consulting faculty for help whenever they run into a problem.

Such availability of faculty will be one of the most valuable resources available to students involved with the corporation. It will allow them to create their own management and practical strategies, which when overseen and improved upon by faculty, will help them see how successful business policy and practice is designed and implemented. This method of students managing the corporation, with faculty playing the role of business consultants in their various fields of expertise will help solidify the learning lab approach that the COB has been trying to implement.

The Finances of the Corporation

Setting up a Corporation only costs about $ 50. The process includes filing paperwork with the Colorado Secretary of State (which all accounting students are capable of producing). To the best of my knowledge, the $ 50 incorporation fee will be waived since the corporation will be owned by the state of Colorado, since the College of Business is a part of the state owned CU System.

Students working in the Corporation will be compensated in the form of stock options, which has become a very popular way of paying employees in corporate America. The corporation will be charging companies it writes software for.   Competitive prices that the corporation will be able to offer can get us a larger market share because of the resources available via the university. The Corporation will not have to buy any computers or equipment to write and test code on since such resources are already available to students at the college of business. Only students with exceptional

performance on a particular project will be compensated with cash, based on the amount of work performed, with the financial compensation determined by the Board of Directors, or shareholders.

Students can, and will be awarded credit that will be applied toward their degree for work performed in the Corporation. Students majoring in more than one area can transfer to different departments to gain experience in the needed fields.

Feasibility/Rationale

The creation and successful implementation of a corporation that is set up and performs functions according to the above mentioned will produce graduates from the College of Business who have already had experience working in their respective fields. Most students choose their area of emphasis by the end of their freshman year.

Such students will have 3 years of experience of working in a corporate setup when they graduate from UCCS. Over time, the Corporation will produce more skilled and experienced students, which will not only fulfill employer requirements, but make better the reputation of University. Employers will see that the best students do not necessarily come from large metropolitan areas or popular universities.

Furthermore, over an extended period of time, when word spreads statewide and nationwide about how UCCS graduates have a career job lined up for them, enrollment on the campus will go up. Also, as has been seen in the case of Ventana Group Systems at the University of Arizona, companies have become large enough to branch out separately from the university, becoming known as university spinout companies. According to the Journal of Systems Management, Ventana Group Systems is now creator of the most popular group meeting software available in the industry ("Journal of Systems Management" 19). After the interview with Dr. Ben Martz, who was involved with the management and creation of Ventana Group Systems, I can conclude that the success of a university corporation can substantially improve the ratings of a school. University of Arizona, with the success of Ventana Group Systems, soon became one of the top institutions for business and Information Systems.

Therefore, it is reasonable to conclude that the creation of a corporation will not only benefit the students at UCCS, but it will also help the school become more established and recognized in the academic and business world.

Benefits

University Corporations is a phenomenon that has been in existence for a few decades. The idea was originally very popular in the UK, with larger universities indulging in research and eventually separating from the university to sell the results of their research. The concept has become so developed and popular in the UK, that New Age Media, a business related journal, highlights the success of a corporation that was formed to help corporations spin out of universities they were originally formed at, once they had the capital and product to do so (Dudley 8).

A 2002 survey (summarized in Table 1 on page 20) conducted by the Association for University Research and Industry Links, Nottingham Business University and the University Spinout Association suggests that between 2001 and 2002, the UK created about 300% more spinout corporations than the US.

Table 1-Summary of Comparisons between commercialization activity in UK & US

Per $1bn Research	UK	US	UK as % of US
No. of licences executed[T]	206	120	172%
No. of licences yielding income[T]	202	280	72%
No. of spin-outs created	50	15	333%

Note: [T]Data do not take account of whether licences are exclusive or non-exclusive.

The popularity of the concept speaks of its success; all the more reason for the UCCS COB to create a university corporation.

Furthermore, since university corporations are backed up and supported by the experience of professors, major companies are willing invest in and donate money if the research or software being written by the corporation is of interest to them. Intel Corporation, for instance, is reported to have invested in a corporation that spun out of Cambridge University, Cambridge, England. The creation of a corporation at CU-Colorado Springs what writes software will open such opportunities since many high-tech firms are located in the city. Such opportunities could help UCCS get more funding for research and become more actively involved with the community.

Conclusions

1.   The creation of a university based corporation at the UCCS COB will better equip students with the skill set and experience requirement of most employers to help jump start a career after graduation.
2.   The creation and successful implementation of a university based corporation at the UCCS COB will, over an extended period of time, help the university develop more credible reputation in the academic and business community.
3.   The creation of a university based corporation at the UCCS COB will increase enrollment in future years, thereby increasing the state funding to the campus.
4.   The creation of a university based corporation at the UCCS COB will also help the student body and faculty become more engaged in the community.
5.   The creation of a university based corporation at the UCCS COB will be a step toward helping the CU-Colorado Springs campus achieve its stated goal.
6.   The creation and successful implementation of a university based corporation at the UCCS COB might (though not discussed as a goal of the corporation) convince CU-Boulder to authorize the CU-Colorado Springs COB to offer a doctoral program, which they (the folks at Boulder) have been considering for over a year now.

__Recommendations__

I believe that it is very important to the success and future of UCCS that its graduates find jobs in their respective fields that pay competitively. Without the creation of a university corporation, I do not see how any change in the curriculum or teaching methodology will help get graduates a jump start to their careers. As can be seen from the above discussion and the drawn conclusions, the creation of a corporation will solve all problems faced by graduates in finding jobs, and set the University up for success in the near future. Research also suggests that there is a strong co-relation between the creation of a university spinout corporation and the academic quality and social involvement of Universities (Sue and Nocolaou 1702). I urge the IT Committee at the COB to consider the creation of the corporation. Such consideration and action will further help to implement the learning lab strategy at the COB and give the CU-Colorado Springs campus the support and advancement it needs to meet its stated goal of becoming one of the top-rated, comprehensive regional universities in the country.

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