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List of Papers Presented

ABSTRACTS

FULL PAPERS

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ABSTRACTS

A Capstone Teaching Model: Combining Rational and Intuitive Thinking Processes Using the Capstone Simulation and the Balanced Scorecard

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ABSTRACT

For the past decade teaching models have been changing, reflecting the dynamics, complexities, and uncertainties of today's organizations. Both the traditional and the more current active model of learning have disadvantages. Simulation and use of the balanced scorecard provide a platform to combine the best aspects of both types of teaching practices. The simulation emulates an actual dynamic strategic business environment providing the type of data and decision-making that is ideal for double loop learning, while the balanced scorecard requires that the students analyze a complicated set of metrics, learn to read between the lines, and make assumptions about future long-term outcomes.

The results of this study indicate that double loop learning occurs when students use both rational thinking and gut feelings to solve problems. As the game progresses, students increase their understanding of the complex relationships of running a company, increase their satisfaction with their own performance, and increasingly rely on their intuitive and analytic cognitive abilities, which are interactive and self-supporting. This interaction between rational and intuitive thinking is done in complementary ways, which are explained in this paper, and the results of the study indicate that the course combines the professional education and action learning models, allowing a great deal of learning to take place.

A Primer For Conducting a Fiscal Policy Simulation In Macroeconomics Principles—A Guide to Active Learning

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ABSTRACT

This paper provides details to fellow instructors on how to create a fiscal policy simulation in the classroom. Given the importance of active learning vis-à-vis the Hansen Proficiencies (2001) and work done by Elzinga (2001), a fiscal policy simulation provides students with a basic understanding of how and why economic policy is conducted. This understanding will reinforce student knowledge of the federal government, as well as providing exposure to current events and the political process.

The full text of this article will appear in a forthcoming edition of the Journal of Business and Economic Perspectives.

Assessing the Impact of Trade with China on U.S. Manufacturing Industries

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ABSTRACT

Trade with China over the last several years has grown dramatically. China's growing dominance of U.S. and global markets is not confined to medium- and low-tech products. The largest and most rapidly growing imports to the U.S. from China are in the capital goods and high-tech sectors. If Chinese exports to the U.S. continue to grow at exponential rates, U.S. manufacturing industries, investment and jobs may be adversely affected.

The U.S. trade deficit with China has risen from $103 billion in 2002 to $124 billion last year. China is now the largest source of U.S. merchandise trade deficit, exclusive of resource-based sectors, and is now the largest import supplier to the United States. The exceptional growth of Chinese exports abroad is in-part based on an undervalued currency. The adverse impact of China's mercantilist policies on U.S. manufacturing has extended to virtually every U.S. industry.

In both 2002 and 2003 China has increased export sales to the United States at double or triple-digit rates across a variety of industries. Out of 20 industry categories, China was the leading import supplier in 12 of 20 categories, it ranked second in 4, and it ranked among the top nine suppliers in the four remaining categories.

China is beginning to displace Mexico as the key supplier in leading labor intensive sectors; as a consequence, U.S. firms are providing fewer raw materials and component parts used in those sectors. This trend may cause American industries to be unable to realize the expected benefits of NAFTA along with potentially undermining Mexico's commitment to trade liberalization. Over 350 former Mexican assembly operations have closed and moved to China over the past 18 months.

Despite China's increased reliance on market pricing mechanisms to allocate resources and its decision to join the WTO, China is not yet a Western-style market economy. Deng Xiaoping described the Chinese economic system he was establishing as "Socialism with Chinese characteristics." China's mixed quasi-capitalist system is ideally suited to stimulate exports in virtually every industry while limiting import competition. China's export juggernaut continues to advance.

The rate of growth in Chinese exports to the United States or the impact of those imports on the domestic economy is difficult to overstate. Imports from China to the U.S. are up at double-digit rates in 88 percent of NAIC 4-digit product classes. Chinese export growth rates to the U.S. are in excess of 20 percent in 61 percent of the categories, by over 50 percent in nearly on-quarter of the product classes, and are over 100 percent in one-tenth.

Absent any major policy realignments, it is almost certain that Chinese exports will continue to grow at recent historical rates, the consequences for U.S. manufacturing could be adverse, but also for the growth prospect of other emerging nations as China's share of world exports will continue to consolidate it's dominance in existing markets and establish footholds in those few industries where it is not already a major play such as motor vehicles and aviation. Assessing the impact of Chinese exports on U.S. manufacturing industries is an essential first step toward developing both political and business strategies that will contend with this growing competitive concern.

Concept Matrix Approach to Teaching Management Information Systems

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ABSTRACT

The purpose of this study was twofold. One, to experiment in the classroom with different note taking methods that hopefully would allow students to better synthesize the material presented in an introductory management information systems course. And two, to reinvigorate the instructor after teaching the introductory management information systems course for about twenty years. Students in two sections of an introductory management information systems course received instructions on using mind mapping, concept matrices, and adding notes to power point lectures. Then each class voted as to their preferred method of note taking. One section selected adding notes to power point lectures and the other section selected concept matrices. The students were given pre and post tests over the course content. The results of this small exploratory study showed minimal impact from the change in instruction methodology. Anecdotally, the students liked learning about the different approaches and used them in other settings.

The full text of this article will appear in the Fall 2005 edition of The Journal of Learning in Higher Education.

An Exploratory Study of Business Students' Attitudes Toward Family & Technology Issues as Related to Sales Careers

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ABSTRACT

Many students will enter the sales field for their future careers. However it is unclear if they truly understand the demands that this career choice will place on their family and personal time. One area of current interest is the study of work-family conflicts on salespersons. It has been proven that salespersons have multiple conflicting responsibilities between their family and work. For some, technology has reduced the conflict while for others it has added additional stress. This paper will describe the results of a survey of business students to ascertain student perceptions of salespersons' careers and the impact of information technology and security issues on salespersons. These results can then be shared with business students to help them have a realistic understanding of what choices they will be making if they choose a career in sales. Hopefully, this will lead to better decisions by the students and provide them with the knowledge to help their families comprehend the requirements of a successful sales career.

The full text of this article will appear in the Fall 2005 edition of The Journal of Learning in Higher Education.

Comparative Analysis of the States' Restitution Plans for the Household Predatory Lending Settlement

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ABSTRACT

The Household settlement for alleged predatory lending practices permitted each state to determine the allocation of restitution to affected consumers. The best plans put forth by the states usually incorporated using all available information on the types of harms suffered by the affected consumers. This paper discusses the difficulties the states faced in devising their respective plans of restitution, and it analyzes the relative effectiveness of these plans. Except for observable and measurable harms, the best plans always took into account the size of the consumer loans.

The full text of this article will appear in a forthcoming edition of the Journal of Business and Economic Perspectives.

Conceptualization of a Customer and Process Focused University

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ABSTRACT

Both public and private universities face tremendous challenges in the near future. In some cases, universities have been given the opportunity to have more autonomy and should consider taking the opportunity to differentiate themselves from its multiple competitors through creativity and innovation in its organizational structure. The traditional vertical and bureaucratic academic structure, with schools and departments structured around disciplines, might be questioned given the efficiencies that business organizations have found by structuring around processes instead of functional departments (De Toni and Tonchia 1996). Any proposed structure should facilitate the success of the student - not attempt to necessarily preserve the continuance of the present system. At the same time, a structure emphasizing the value added by the programs and student performance through the educational process should be pursued. A completely new organizational structure might accomplish these objectives, while re-shuffling organizational departments will only continue the rigidity and isolation of faculty and staff into competing units.

Once considered and implemented, a new organization structure could concentrate on student development and achievement while being academically sound and cost efficient. The restructuring proposals made here are typical of new management styles and organizations that concentrate on process flow rather than vertical organizational structure.

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Customer-Driven Value: Evolution and Contemporary Extensions

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ABSTRACT

The term value seems to have evolved over many years with some important roots anchored in the historical concepts of quality. Whereas the term quality developed in a predominantly manufacturing society, the somewhat synonymous term value has become more prevalent to describe our ever more service oriented economy. The evolution of value is chronicled, including contemporary, customer oriented definitions. Just as the complexity of the concept of value has increased, so has the number of factors driving the focus on value and the concern for measuring and managing those factors. Extensions to the identification and measurement of value components are proposed, as well as extending the view of value to a more dynamic relative rate variable. Implications of these extensions are also discussed in the context of our service-based, customer-driven society. These extensions represent a new and useful paradigm for organizations pursuing success in a competitive, customer-driven, global marketplace.

The full text of this article will appear in a forthcoming edition of the Journal of Business and Economic Perspectives.

Do Private Historically Black Colleges Really Make a Difference in Work-Life Earnings of their Graduates in Northwest Mississippi?

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ABSTRACT

Small, private, Historically Black Colleges situated in regions that are relatively economically depressed serve to bring higher education to under-privileged segments of society. Most students at such institutions face various barriers to entering majority institutions, be they economic, academic or social. A very high percent of the student body at such institutions are first generation college goers, and the overwhelming majority of them pass the means test to qualify for full government financial aid. This study examined, amongst other things, the effect the attainment of higher education is having on work life earnings of the graduates of Rust College located in Holly Springs, Marshall County Mississippi. A sample of starting salaries of graduates of the institution was compared to the median income of African Americans in the counties that the graduates of the college had come from. Obtaining a college degree was found to have more than doubled the income when compared to median income of African Americans of age twenty one to twenty five who are high school graduates in the respective counties, and was found to have increased the income by about fifty nine percent compared to the median income of African Americans of age twenty one to twenty five with high school diploma in the respective counties who had year round full time employment. The attainment of college degree was concluded to make available to the graduates those avenues of employment that provides year round employment as well as pushing graduates to higher income brackets. This combined to more than double their income. Over the entire work life span this difference in income resulted in at least $0.68 million worth of additional earnings per graduate, and about $0.1 million in federal tax revenue. For the size of a typical graduating class, this would contribute over the working life to a combined total of about $81 million of extra income. For a typical year's budget for Rust College, it amounted to a return of 645% or $6.45 for every dollar invested in operating the college. This evaluation ignores the additional economic impacts through various spending multipliers, as well as the lower cost of illness, absenteism and law enforcement associated with higher education, so the benefit would in fact be greater.

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Economic Sanctions on Cuba and the Role of the Southeastern Port States

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ABSTRACT

Cuba is located only about 90 miles south of Key West, Florida. Ever since Spanish explorers settled in Cuba in 1511, Cuba belonged to Spain until 1898 when Cuba became an independent nation assisted by the United States. When Dr. Ramon Grau San Martin, the third President, denounced the Platt Amendment that gave the U.S. the right to determine Cuban policy and control foreign relations, President Franklin D. Roosevelt did not recognize his government and replaced Grau with Colonel Carlos Mendieta as the new President in 1934. The U.S. recognized the Mendieta administration and annulled the Platt Amendment. The U.S. economic assistance began to flow to Cuba through increased imports of Cuban sugar to the U.S. economy. When Fidel Castro took power in 1959 with the help of Ernesto "Che" Guevara, the Cuban economy made a radical shift away from capitalism and the U.S. toward socialism and the Soviet Union.

This paper reviews the history of economic sanctions imposed by the U.S. on Cuba and explores the hypothesis that due to the relative proximity of southeastern ports to Cuba, southeastern states with major port facilities stand to gain significantly from post-sanction trade with Cuba.

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E-Learning: Instructors' Perceptions of the Benefits and Challenges

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ABSTRACT

The dramatic growth of e-learning in academic and business applications highlights the ongoing importance of assessing its benefits and challenges. This research explores these aspects of e-learning. Interviews were conducted to investigate the attitudes and perceptions of e-learning course instructors toward online learning versus a traditional classroom approach. Interestingly, the respondents considered the latter to be more effective. Reasons cited for this preference included personal interaction, greater student motivation, and better communication between instructors and students.

Research literature estimates the development cost of an online class to be approximately 50 to 60% that for a traditional class. Reduced cost is a major factor fueling the growth of online teaching. The study showed that problems related to student motivation, procrastination and lack of discipline were exacerbated in the online environment. This was attributed to a lack of the personal interaction with students possible in a traditional classroom setting. Exams consisted of multiple-choice questions which are easier to administer online. The level of difficulty associated with online teaching was ranked higher than with traditional teaching. On the other hand, instructors considered online classes essential in today's environment, especially for their schedule flexibility, convenience, and for individuals homebound with illness or disability. Regardless of its associated problems, online learning is here to stay and so is traditional classroom teaching. The reality is that most universities and other organizations are implementing some form of blended learning as the strategic approach to teaching and knowledge transfer.

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E-Learning Paradigm (ELP): Intellectual Framework for Computer Mediated Universities

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ABSTRACT

Scholars, who were once skeptical of the Internet's impact on educational systems, now recognize that our paradigms are, in fact, shifting from the traditional "brick and mortar" schooling process to a contemporary virtual environment (e-universities). A paradigm represents a way of looking at the world, a shared set of assumptions that enable us to understand or predict activities and behavior. Firstly, the study establishes innovative concepts, strategies and practices that existing literatures seem to have overlooked. Secondly, the authors propose an intellectual framework that highlights issues surrounding e-learning methodologies and technologies. The methodological (e.g. delivery process or content quality) aspect has become a hot topic among governments and universities as well as academics today. This needs critical attention. The technological aspect (i.e. Internet-based instruction (IBI)) has taken many forms, from reading on-line syllabus to a "full-fledged" delivery of course material. This raises design tools and usage issues. A survey instrument was used to validate the study. The findings indicate that more functional, user-friendly tools are needed to support online learning. Moreover, integrated wireless application protocol (WAP) conferencing, integrated spellcheckers, real-time group discussion, and analytical tools must be considered. In conclusion, we recommend the use of the authors designed strategies (Diversified, Determined, Bold and Balanced) and the proposed intellectual framework to resolve these contemporary concerns.

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Emotional Intelligence and Teaching Success in Higher Education

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ABSTRACT

Most studies of effective teaching focus on student/faculty interaction in teaching and learning processes. We examined the emotional intelligence (EI) competencies that differentiate more effective from less effective teaching by looking at the relationship between EI competencies and the "Seven Principles for Good Practice in Undergraduate Education" (Chickering & Gamson, 1987). This study compared 86 teaching award winners to a random sample of 200 non-award winning faculty members at one institution. Our purpose was to examine the impact of EI on the practice of the Seven Principles in student-faculty interactions and the degree of utilization of these principles by award winning faculty. We found a significant link between specific EI competencies and effective teaching as defined by the Seven Principles. Our findings suggest that there is a significant relationship between emotionally and socially intelligent behavior and effective teaching based on this study.

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Exploring Cultural Implications of Teaching Logistics and Project Management in the Russian Far East

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ABSTRACT

Teaching Western style logistics and project management, within the Russian Far East, is culturally constrained. Based on four years of first-hand experience, in teaching and researching within the former USSR, this paper presents a step-by-step-methodology for increasing your chances of success. This paper also presents the results of an ongoing, four-year survey methodology to define the cultural factors of conflict and acceptance of developing nations such as RFE to western style programs. While this paper is based on Russian Far East experiences, the knowledge can be generalized to other emerging nations.

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Exploring How Accounting Practitioners Actively Engage in the Learning Process

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ABSTRACT

This paper discusses various ways that the active involvement of accounting practitioners in the student learning process helped achieve AACSB accreditation for the University of Southern Indiana's (USI) accounting program. As members of the Accounting Circle, an advisory group, accounting practitioners participated in several programs to enhance the learning experiences of accounting students.

The Accountants in the Classroom Program, for example, explored how accounting professionals can positively influence the students' perceptions of a typical accountant and, at the same time, provide attractive, accurate information about the variety of career opportunities available for an accounting graduate. In this program, Circle members visited the managerial accounting classes three times throughout the semester to share their practical experiences and to interact with the students. Other ongoing collaborations with the Circle members included their involvement in internship and co-operative education programs, the Rotary Club Mentoring Program, the University's Honors Program, and a student chapter of Toastmasters International. Circle members were also actively involved in developing and promoting accounting curriculum changes at USI.

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How to Construct a Less-Biased Measure of Teaching Effectiveness

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ABSTRACT

Student evaluations of instructor performance are in wide use across the U.S. often playing a key role in administrative decisions on job tenure, promotion, and merit pay. Even strong supporters of student evaluations admit that student ratings may suffer from some halo effect, have only a modest association with common criteria of effective teaching, and are probably affected by some potential sources of biases.

Objectives of the Study. *A first objective of the paper is to provide a method to remove possible bias from student evaluations of overall teaching effectiveness. In particular, it will be investigated to what extent student evaluations are influenced by factors that are not under the control of the instructor and hence should not be attributed to the instructor. There are at least two broad groups of factors that fall into this category: student characteristics, such as grade point average, and course characteristics, such as time of day of the class.*

A second objective is to develop from the underlying statistical analysis a standard of teaching effectiveness that can replace the simple student evaluation scores currently in use. To achieve this second objective, an appropriately adjusted student evaluation score is combined with a measure of how much students have learnt in class. Such a measure of "knowledge-added" also needs to be adjusted for factors not under the control of the instructor. Adjusted student evaluations and an adjusted measure of "knowledge-added" can then be combined into a measure by which to identify excellence in teaching.

Data and Methodology. *The data are drawn from principles of economics classes taught at Middle Tennessee State University. The database covers more than 700 students and about two-dozen different classes. A wide range of very accurately measured variables is considered. Along with the student evaluation of teaching and the test score of a common comprehensive final exam, the database includes information on student characteristics, class characteristics, and teacher characteristics.*

The sought-after standard of teaching excellence combines the output from two regression models. The first model is constructed to identify teaching excellence in terms of student evaluations. The second model is used to identify teaching excellence in terms of knowledge that was communicated in class.

The regression model that relates to student evaluations removes from them the effect of factors not attributable to the instructor, such as student, class, and teacher characteristics not under the control of the

teacher. Average actual and average predicted student scores can then be calculated for each class/teacher. The ratio of the two scores gives us an indicator of how well the teacher performs in the eyes of students. A value of unity for this ratio would indicate that a teacher performs to expectations, a value above (below) unity suggests a performance above (below) expectations. True teaching excellence according to student opinion could be identified by looking for those teachers with ratios that are sufficiently above the average according to common probability calculations.

The regression model that relates to what students have learned in class also tries to eliminate the factors that cannot be influenced by the instructor. A regression equation similar to that for student evaluations is specified to predict student achievement on a standardized test on the basis of student, class, teacher, and institutional characteristics outside the control of the instructor. Similar to the case of student evaluations, a ratio can be calculated for each class/teacher between the actual and the predicted score of "knowledge added".

The sought-after overall measure of teaching effectiveness or excellence can be constructed for each class/teacher as a weighted average of (i) the ratio between actual and predicted student evaluations and (ii) the ratio between actual and predicted "knowledge added". Exceptional teaching performance according to this measure could be easily identified using a simple probability distribution.

The paper shows that the above measure can be applied to any institution that wants to evaluate teaching performance. The extent to which student opinion on teaching performance enters the equation rather than 'actual knowledge gained' can be easily varied by changing the weight given to student evaluations. This will be of special interest to institutions for which student satisfaction plays a role in evaluating teaching performance in addition to objectively measurable student knowledge.

If CPA's in a Non-Metropolitian Area Developed An Accounting Major, The Accounting Curriculumn Would Be ...?

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ABSTRACT

This paper examines the attitudes of a group of CPA's from non-metropolitan areas in West Tennessee as to which courses should be included in an undergraduate accounting major. These findings were gathered from a group of 35 CPA's attending a continuing education workshop in the fall of 2004. Prior to being surveyed, a study undertaken of AACSB schools, possessing separate accounting accreditation was presented to the group. The undergraduate accounting program requirements of these schools were examined for the 2003-2004 academic catalog year. All accounting courses required in an undergraduate degree either by a school in its common core or by the accounting faculty in the major, as well as, course descriptions had been evaluated rather than only looking at course titles. Following the presentation to the CPA's in attendance, they were asked which courses should be included in an undergraduate accounting program, as well as, how the courses should be structured.

The full text of this article will appear in the Fall 2005 edition of The Journal of Academic Administration in Higher Education.

Impact of National Differences in Work Practices

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ABSTRACT

This paper will describe the results of interviews with individuals representing thirty different countries. The interviews were conducted during 2000 - 2005. Included in the paper are the interviewee's description of the culture of the country as well as work practices. Then, the conclusion of the paper contrasts a representative sample of the interviews with the work practices in the United States with those of the interviewee's country. Suggestions are given relating how expatriates could be successful when entering into a business relationship with individuals from their representative countries.

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Integrating Project-Based Service Learning Into an Online Business Curriculum

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ABSTRACT

The national summit on 21st Century skills for 21st Century jobs called for a business and industry partnership with education to face the challenge of preparing skilled workers in order to compete in a changing economy. This presentation is intended to offer pedagogical strategies in integrating project-based service learning into an online business curriculum. Specifically, criteria in analyzing, designing, developing, implementing, and evaluating project-based service learning will be presented. A service learning project for online students with local businesses will be used as a model. Also, an e-business component of the project will be discussed.

RFID Is No Fake: The Smart Prescription For The Pharmaceutical Supply Chain

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ABSTRACT

This article looks at a revolutionary change that is taking place in the pharmaceutical supply chain. RFID (radio frequency identification) is being introduced in the prescription drug industry, based on both recommendations from federal and state agencies and mandates from major retailers. With RFID, there is great promise for creating heretofore unachievable levels of visibility and control in supply chain management. However, with the cost of RFID for product identification versus that of the now ubiquitous bar code technology, the pharmaceutical sector is perhaps the only retail product where item-level tagging is both advantageous and capable of producing returns on the investment in the new technology.

This article provides an overview of the size and scope of the pharmaceutical supply chain and the importance of prescription drug therapy in health care in America. The article then looks at the role RFID technology can play in preventing counterfeit drugs from entering the supply chain and in controlling pharmaceutical stocks in the retail supply chain, in health care facilities, and in supplies of sample drugs. It will be demonstrated that over the long-term, RFID will be the right prescription for the prescription drug industry to promote security, safety, and efficiency.

The full text of this article will appear in a forthcoming edition of the Journal of Business and Economic Perspectives.

"State of the Class" Mid-Semester Student Feedback– A 'Must Do' for Online Classes

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ABSTRACT

The instructor in a face-to-face (f2f) college classroom can directly influence many factors, including but not limited to, the culture of the class, the motivation and interest level of the students and also the tempo of the class. The f2f instructor has their finger on the pulse of the class; they know when the class is going well and when it is not. This allows them to make the proper adjustments in order to keep the class moving in the right direction. But in an online "virtual" classroom, the instructor does not have that first-hand knowledge that they do in a f2f class. How does the instructor truly know how the class is going in a virtual environment? The use of a "State of the Class" approach (similar to a presidential "state of the union address") midway through the semester will help to address this question as well as allowing the instructor to adjust the class to better meet the needs of the students.

Teaching the Lessons of Downsizing: The Broken Bond Technique

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ABSTRACT

The impact of downsizing and the changing psychological contract on employee and employer assumptions of loyalty, trust, motivation, and commitment receives fragmentary coverage in most mainstream management textbooks. This article advocates the importance of dealing with these subjects in the management curriculum, and presents a new experiential technique, The Broken Bond Exercise, as a method of engaging undergraduate students at both the emotional and cognitive levels. Research opportunities arising from this technique are suggested and a comparison is made with a methodology that is effective for experienced managers.

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The Assessment Process: Faculty's Measuring Stick

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ABSTRACT

The AACSB has recently implemented new guidelines for schools seeking accreditation/re-accreditation. In particular, the emphasis on program assessment has left many faculty scrambling to develop and document formal processes for curriculum planning, evaluation of educational outcomes, and revision of programs. This paper describes a systematic approach to curriculum assessment, including discussions of issues related to measurement, practical implementation, interpretation of data, and continuous improvement.

The Escalating Problem of Employee Theft And Fraud

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ABSTRACT

Growing evidence indicates that employee theft is out of control and represents one of the most serious threats to the survival of many small businesses. Every small business is a potential victim, and about 70 percent of them actually incur losses. Observers say that employees steal approximately $400 billion from businesses each year, and that the typical business will lose 5-6 percent of its annual revenue to employee theft. Small businesses are hardest hit because they are more likely to have inadequate internal controls in place. The purpose of this article is to recognize the magnitude of the internal crime problem and of the necessity for business operators to protect themselves against it; to identify the most frequent types of fraud and the problems businesses are likely to face when encountering them; and to suggest some common-sense measures that businesses can employ to protect themselves against crime and fraud from inside the firm.

The Impact of a Later Public School Start Date on a State's Economy

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ABSTRACT

This paper presents an economic analysis of delaying public school start dates for South Carolina. The paper reports potential economic impact for the travel and tourism industry, as well as potential impact for the State. The study is based on the responses from parents of students enrolled in the South Carolina public school system. It addresses questions regarding parents' views on when they travel for vacation, where the families vacation, and vacation intentions with a later school start date. Given the opportunity, 43.7% would take an extra vacation if school started after Labor Day. Within that group, 63.8% would travel in South Carolina. Parents' views on travel issues are crucial for decision making, due to the substantial impact on tourism. The economic impact of a later public school start date for South Carolina is approximately $82,431,829 annually.

The full text of this article will appear in a forthcoming edition of the Journal of Business and Economic Perspectives.

The Integration of Law and Ethics

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ABSTRACT

The business school curriculum faces a crisis. "There has never been a more crucial time to emphasize law in a business curriculum."[1] Corporate scandals have highlighted the need for greater understanding and application of law as well as ethics on the part of business school graduates. During the last three decades, most business schools have reduced, marginalized or eliminated business law and business law faculty as other disciplines grew in stature and popularity.[2] Ethics in the curriculum has suffered an even greater loss. Today, approximately two out of three schools accredited by the Association to Advance Collegiate Schools of Business (AACSB) do not require a stand alone ethics course.[3] As curriculum committees have attempted restructuring requirements, not only have law and ethics been marginalized, the two subjects have been treated as trade-offs. Immediately after the outbreak of the scandals at Enron, WorldCom and Adelphia, business schools received some much deserved criticism. However, as will be pointed out later, the AACSB has failed to adjust accrediting standards.

In this paper, a different approach to delivering law and ethics will be explained as well as demonstrating a more in depth understanding of the application of the subject matter by current business school students. "We sometimes assume that a person's values are formed during childhood and do not change after that. In fact, a great deal of psychological research, as well as one's own personal experiences, demonstrate that as people mature, their values change in very deep and profound ways."[4] The experiences that will be explained, based on student assessments, find that students do change their views and thus their understanding and attitudes as explained in this paper and the companion article entitled "The Psychological Foundation for an Integrated Course in Law and Ethics" by Dr. Richard J. McGowan.

The full text of this article will appear in the Fall 2005 edition of The Journal of Learning in Higher Education.

1 Prentice, Robert, "An Ethics Lesson for Business Schools," The New York Times (August 20, 2002); Section A; column 2; Editorial Desk; Pg 19

2 Ibid

3 Derocher, R. J., "Knowing right from Wrong" Insight Online (January/February, 2004); Willen, L., "Kellogg Denies Guilt as Business Schools evade alumni lapses:, Bloomberg (March 8, 2004)

4 Velasquex, Manuel G., Business Ethics, Concepts and Cases, Pg 27; Fifth Edition; Prentice Hall; 2002

The Matrix: Reloaded for the Information Systems Classroom

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ABSTRACT

As the matrix organizational structure continues to be used in a variety of workplace environments, students can benefit from the experience of using the matrix in classroom assignments and projects. This structure encourages teamwork and familiarizes students with group dynamics through the utilization of participant skill strengths, leadership, and peer evaluation. The assignment of an office layout project in an information systems course recently provided the opportunity to employ matrix structure for work teams. Student perceptions of the matrix organization for work teams in respect to productivity and participation were positive, but suggestions for improvement were also provided.

The matrix organizational method in business has been widely applied since a strong interest developed in the 1970s and 1980s (Sy & D'Annunzio, 2005). Indeed, literature documents the development and beginning uses of the matrix structure (Kolodny, 1979) to the much greater integration in firms worldwide (Bartlett & Ghoshal, 1993). "By its simplest definition, the matrix is a grid-like organizational structure that allows a company to address multiple business dimensions using multiple command structures" (Sy & D'Annunzio, 2005). This organizational type encourages the use of self-directed work teams, which utilize team member strengths, to independently undertake projects and tasks. Matrix work teams often have one or more leaders that emerge in the team, while a higher-ranking overall supervisor provides necessary supplementary guidance. This method attempts to promote performance through complementary worker strengths and through worker participation.

While being enacted in various corporate work situations, the matrix method of team organization may be introduced to students when classroom simulations are designed to resemble "real-world" workplace projects. In a matrix setup for a project, students are responsible for a variety of human resource tasks as well as undergoing group dynamics in the effort to achieve a successful project outcome. One such project in an information systems course detailed the outcome of the matrix system through the engagement of students to design a productive office environment.

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The New FLSA and Higher Education: Who is Entitled to Overtime?

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ABSTRACT

With its recent enactment last August, the Fairpay Overtime Initiative (FOI) fundamentally changed the manner in which to determine the overtime eligibility of America's workforce. Given the diverse nature of occupations and individuals employed in higher education, this amendment to the Fair Labor Standards Act (FLSA) has continued to have many on college campuses unsure of how to properly classify their employees. The authors advance the FOI Higher Education Compliance Model that clarifies, step-by-step, the appropriate method to determine which members of the university's workforce are entitled to overtime benefits. Examples of exempt and non-exempt occupations in higher education are offered as well as comments regarding various implications of the FOI.

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The Psychological Foundation for an Integrated Course in Law and Ethics

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ABSTRACT

Centuries ago, Thomas Aquinas noted that "human reason must proceed from the precepts of the natural law as from certain common and indispensable principles to other more particular dispositions" (ST I-II, 91, 3) He said that "because of the uncertainty of human judgment, especially in contingent and particular matters, it happens that different decisions are made about different human acts so that laws are often divergent and even contradictory." (91, 4)

To the casual reader, Thomas might be endorsing a position akin to ethical relativism but Thomas finds little to endorse about that position: "the truth is the same for everyone but it is not equally known by everyone." (94, 4) Further, he noted somewhat optimistically that "reason may cause laws to be changed because it seems to be the nature of human reason to progress by stages from the less perfect to the more perfect." (97, 1) In his remarks, Thomas anticipates the psychological research of Lawrence Kohlberg into moral development, the research of William Perry into intellectual development, and the students in the integrated ethics-law class at Butler University (and, I dare say, students in college ethics/law classes across America). A brief foray into the research and the course will demonstrate as much.

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The Role of Flow in Computer Skill Acquisition: A Proposed Theoretical Model

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ABSTRACT

Imagine being so immersed in an enjoyable and challenging activity (sport, work, play, etc..) that time stands still and the world outside totally disappears. Such an experience characterizes the psychological state of flow. Flow, coined by Csikszentmihalyi (1975), is an intrinsically motivating state of psychological absorption in a task or activity. What if students could experience flow in the classroom? How could educators provide a learning environment that facilitates the occurrence of flow for students? Would flow improve learning outcomes? This research addresses such questions by investigating the role of flow specifically in the context of acquiring computer skills. This study hypothesizes that (1) providing students with tasks that optimally challenge their abilities will influence their experience of flow and (2) experiencing a state of flow has a positive influence on learning computer skills. A proposed theoretical model of flow in computer skill acquisition is presented.

Using the NPV as the Factor for Supply Chain Management Decisions

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ABSTRACT

NPV provides guidance for every investment or strategic decision. It shows how much value the particular investment or decision adds to shareholders' wealth. Supply chain management being one of the most important decisions, it is just natural that it be guided by the same framework as all other strategic decisions are. The NPV encompasses the "transaction cost economy" and "resource-based view" and "information-processing view" in it, and adds to them. NPV can provide accurate value of the effect of supply chain decision, besides the theoretical guidance.

FULL PAPERS

A Study of College Student Business Media Habits and Perceptions of the Wall Street Journal

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ABSTRACT

In this pilot study, principles and advanced finance students are surveyed concerning their business media viewing/reading habits and perceptions of the Wall Street Journal. The design of the experiment enables us to discern differences in student perceptions of the journal due to finance coursework, and due to a separate project required of advanced finance students. We find significant differences in the media habits of beginning and advanced finance students. Our results indicate both finance coursework and a separate WSJ project influence student perceptions of the WSJ, although the effect of the two factors varies between the aspects of intimidation, understanding, usefulness, and importance.

INTRODUCTION

College students often find courses in finance intimidating and survey results from introductory finance courses (typically required of all Business majors) show that students find finance difficult, as well (Sivarama Krishnan *et al*, 1999). One way to make finance more student-friendly is by enabling students to link real-world phenomena with textbook material. An example would be a project developed around a guided reading of the Wall Street Journal, WSJ hereafter, (Roever, 1998). However, to operationalize and make effective such an approach, the instructor needs to understand both the perceptions students bring into the classroom about the journal, and their reading/viewing habits of it.

Research shows that college students spend little time engaged in recreational reading (Gallik 1999), and readership of general newspapers among college students has been declining since the 1960s (Schlagheck, 1998). While these studies may lead us to believe that readership of business media is low and declining, research focused specifically on college student reading habits of business media, such as the WSJ, is scant. Additionally, little is known about college student opinions concerning the WSJ and related media.

In this pilot study, we examine student perceptions of the WSJ by surveying two groups of students: those in a Principles of Finance course (junior level) and those in an International Finance course (junior/senior level). The design of the experiment enables us to discern differences in student perceptions of the WSJ due to finance coursework, and due to a separate WSJ project required of advanced finance students. We also assess student habits concerning reading/viewing of business-oriented media. Our results indicate both finance coursework and a separate WSJ project influence student perceptions of the WSJ, although the effect of the two factors varies between the aspects of intimidation, understanding, usefulness, and importance.

EDUCATIONAL OBJECTIVES

Our long-term educational goal is to make finance more accessible and student-friendly through a better understanding of the effectiveness of business media related class projects. Our goal in this initial study is three-fold. First, establish a baseline concerning student perceptions and readership habits of business media. Second, understand the effect of advanced finance coursework in general on student perceptions and reading/viewing habits of business media. By assessing perceptions and media habits of business students with and without advanced finance coursework we can gauge the change to expect among finance majors as they move through their curriculum. We anticipate developing follow-up studies to compare differences in perceptions and reading/viewing habits across business majors. Third, assess the impact of a separate WSJ project on the perceptions and media habits of advanced finance students. In future research, similar projects in other business curricula will be used to assess differences in effectiveness by major.

METHODOLOGY

Participants

The sample for this study consisted of 78 college students enrolled in either a Principles of Finance course (junior level) or an advanced International Finance course (junior/senior level) at a metropolitan university in a mid-sized Southeastern city. The majority of the students were business majors: 92% enrolled in the Principles of Finance course (hereafter BFIN302) and 98% enrolled in the International Finance course (hereafter BFIN412). Students in the BFIN302 course had typically not taken a finance course previously, while the students in the BFIN412 course had completed a median of two previous finance courses**.** Seventy-six percent of the BFIN412 students were finance majors, while 22% were accounting majors.

Data Collection and Survey Instrument

The main methodological tool for the study was a web-based survey administered to the students in each class at the beginning and end of the spring 2005 semester. The survey dealt with two issues: a) the habits of students concerning reading/viewing of business-oriented media, and b) general perceptions about the WSJ, including the areas of intimidation, usefulness, importance, and ease of understanding. The perception questions were evaluated through a seven-point

scale assessing student sensitivity to each issue, while the viewing/reading habits were measured with numeric scores ranging from 0 (no viewing/reading per week) to 7 (viewing/reading 7 times per week).

Research Design

Students in both classes completed the survey at the beginning of the semester so that a benchmark could be established concerning student perceptions of the WSJ and reading/viewing habits of business media. The students in the BFIN302 class had no additional WSJ projects, and the only finance coursework they participated in was the principles course. The advanced finance students (BFIN412) were required to work through a semester-long project involving the WSJ. Some of the students in this advanced course had previously completed a similar WSJ project. Thus, for various aspects of the analysis, we divided the BFIN412 students into two separate groups. Those who had previously completed a similar project are referred to as the BFIN412P group, and those who had not previously done so are referred to as the BFIN412NP group. The class as a whole is referred to simply as BFIN412.

The effect of advanced finance coursework on student perceptions and reading/viewing habits was assessed by comparing the BFIN302 students with the advanced students who had not previously completed the WSJ project (BFIN412NP). To gauge the impact of the project on student perceptions and viewing/reading habits of business media, we examined the change in responses of the advanced students who had not completed such a project previously from the beginning to the end of the semester. We also compared the responses of those advanced students who had completed a WSJ project (BFIN412P) in a previous semester with those who had not (BFIN412NP).

RESULTS

Student Business Media Habits

How often do college students read business periodicals or watch a business program on T.V.? The pre-survey results in Panels A and B of Table 1 indicate that principles of finance students read and watch significantly less business media than advanced finance students. While BFIN302 students watch a business program on average once a week, advanced students (BFIN412NP) watch business programming two to three times a week. BFIN302 students say that they hardly ever read a business periodical, while the BFIN412NP students indicate that they read some business periodical on average more than once a week.

The post-survey results at the end of the semester indicate that both groups show no major shifts in reading/viewing habits. While both groups show slight increases in reading/viewing frequency, these shifts are not statistically significant. At the end of the semester the advanced finance students continue to read and watch more business material than the beginning finance students.

All students were asked to list what business media they read or watch. In terms of specific media viewed by the students, both the advanced and principles groups view similar types of programs, primarily CNN and CNBC. It is noted, however, that a much larger percentage of the advanced students view business media on a regular basis. A greater divergence was found between the two groups with regard to reading habits. The advanced students read a greater number of different business periodicals, such as *Barrons* and *The Economist*. In addition, similar to the viewing habits comparison, a greater percentage of the advanced students read business periodicals on a regular basis.

Table 1. Student business media habits

Panel A.
Principles versus advanced finance student responses

Survey Item		BFIN302	BFIN412NP
1. How many times a week do you watch business-oriented news programs?			
Pre-Survey	N	36	19
	Mean	1.0	2.4
	Std. Dev	1.8	2.4
Post-Survey	N	25	14
	Mean	1.1	2.8
	Std. Dev	1.7	2.0
2. How many times a week do you read business periodicals?			
Pre-Survey	N	36	20
	Mean	0.2	1.2
	Std. Dev	0.7	1.8
Post-Survey	N	25	14
	Mean	0.6	1.2
	Std. Dev	1.3	1.8

Panel B.
Principles versus advanced finance students:
Change in habits during the semester

Survey Item	BFIN302 versus BFIN412NP	
	Pre-survey (p-values)	Post-survey (p-values)
1. How many times a week do you watch business-oriented news programs?	0.0429	0.0376
2. How many times a week do you read business periodicals?	0.0492	0.3457

General perceptions of the WSJ

Results from the pre-survey indicate that advanced finance students (BFIN412NP) have very different perceptions of the WSJ than the beginning finance students (BFIN302) at the beginning of the semester. The BFIN412NP students find the WSJ easier to understand as their mean response to the first survey item pertaining to their understanding of the topics in the WSJ is 5.0 compared to 4.2 for the BFIN 302 students (see Table 2 Panel A). This is a significant difference in the means as indicated by the 0.0382 p-value reported in Panel B. Table 2 also reveals that the BFIN412NP students find the WSJ to be less intimidating as their mean response to the second survey item is 3.2 compared to 3.9 for the BFIN302 students. This is also a significant difference in the means as indicated by the 0.0929 p-value in Panel B.

The advanced students feel that the WSJ is a more useful tool in making business decisions than do the beginning students. This result can be seen in the difference in the means (Panel A) of 5.6 for the BFIN302 students and of 6.1 for the BFIN412NP students for the third survey item. Again, Panel B shows this to be a significant difference with a p-value of 0.0569. With regard to the importance of the WSJ in decision making (the fourth survey item), both groups think the WSJ is important, as there is no significant difference in mean responses. The preceding findings are consistent with what one would expect from the effects of continued finance coursework on students' understanding and overall perceptions of the WSJ.

Effect of a WSJ project on perceptions of the WSJ

The advanced finance students were required to work through a semester-long project involving the WSJ. The project primarily sought

to integrate current real world developments into the classroom by a guided reading of the WSJ. Students groups summarized the factors impacting stock, bond and currency markets during the week by referring to specific sections in the WSJ. Each week, one group made an oral presentation to the class, summarizing their findings from the previous week's market activity.

We find that at the end of the semester, after having completed the WSJ project, the advanced finance students (BFIN412NP), feel they understand the topics in the WSJ better than they did at the beginning of the semester, as the mean score for Item 1 increased by a significant amount as indicated by a p-value of 0.0886 (see Table 3 Panel A). The advanced students also strengthen their opinion concerning the importance of reading the WSJ. This can be seen by the significant increase in the mean score for Item 4 as indicated by the p-value of 0.0835. By contrast, the beginning finance students (BFIN302) show no change in their perception of the WSJ, as the mean scores for all four of the above mentioned survey items show no significant differences from the pre- to the post-surveys (see Table 3 Panel A).

Table 2.
Student perceptions of the Wall Street Journal

Panel A.
Principles versus advanced finance student responses

Survey Item		BFIN302	BFIN412NP
1. I can very easily understand the topics in the Wall Street Journal.			
Pre-Survey	N	36	20
	Mean	4.2	5.0
	Std. Dev	1.3	1.4
Post-Survey	N	25	14
	Mean	4.2	5.7
	Std. Dev	1.2	1.0
2. The thought of reading the Wall Street Journal on a daily basis is intimidating.			
Pre-Survey	N	36	20
	Mean	3.9	3.2
	Std. Dev	1.6	1.6
Post-Survey	N	25	14
	Mean	4.1	2.9
	Std. Dev	1.2	1.7
3. The Wall Street Journal is a useful tool for making informed business decisions.			
Pre-Survey	N	36	20
	Mean	5.6	6.1
	Std. Dev	1.1	0.7
Post-Survey	N	25	14
	Mean	5.6	6.1
	Std. Dev	0.06	0.8
4. How important do you think it is for a college student to read the Wall Street Journal?			
Pre-Survey	N	36	20
	Mean	4.6	4.9
	Std. Dev	1.0	1.3
Post-Survey	N	25	14
	Mean	4.9	5.6
	Std. Dev	0.7	0.9

Scale for Items 1-3:
1=Strongly Disagree; 2=Disagree; 3=Slightly Disagree; 4=Neutral; 5=Slightly Agree; 6=Agree; 7=Strongly Agree.

Scale for Item 4:
1=Not at all important; 2=Unimportant; 3=Slightly Unimportant; 4=Neutral; 5=Slightly important; 6=Important; 7=Very important.

Panel B. Principles versus advanced finance students: Change in perceptions during the semester

Survey Item	BFIN302 versus BFIN412NP	
	Pre-Survey (p-values)	Post-Survey (p-values)
1. I can very easily understand the topics in the Wall Street Journal.	0.0382	0.0002
2. The thought of reading the Wall Street Journal on a daily basis is intimidating.	0.0929	0.0206
3. The Wall Street Journal is a useful tool for making informed business decisions.	0.0569	0.0492
4. How important do you think it is for a college student to read the Wall Street Journal?	0.3345	0.0241

Table 3.
Effect of the WSJ project on perceptions

Panel A.
Change in perceptions during the semester

Survey Item	BFIN302 (p-values)	BFIN412NP (p-values)
1. I can very easily understand the topics in the Wall Street Journal.	0.9860	0.0886
2. The thought of reading the Wall Street Journal on a daily basis is intimidating.	0.5722	0.6110
3. The Wall Street Journal is a useful tool for making informed business decisions.	0.8012	0.7206
4. How important do you think it is for a college student to read the Wall Street Journal?	0.1612	0.0835

Panel B. Comparative differences in advanced finance student perceptions during the semester

Survey Item	BFIN412P versus BFIN412NP	
	Pre-Survey (p-values)	Post-Survey (p-values)
1. I can very easily understand the topics in the Wall Street Journal.	0.0736	0.6657
2. The thought of reading the Wall Street Journal on a daily basis is intimidating.	0.9506	0.7552
3. The Wall Street Journal is a useful tool for making informed business decisions.	0.0886	0.4056
4. How important do you think it is for a college student to read the Wall Street Journal?	0.0034	0.4997

Furthermore, we see that the divergence in perceptions between the BFIN412NP and the BFIN302 students is even more exaggerated by the end of the semester as indicated by higher levels of significant differences for survey items 1, 2, and 3 (see Panel B of Table 2). We also see that whereas the pre- survey shows that both advanced and beginning students consider reading the WSJ to be equally important, by semester's end, the advanced students consider reading the WSJ to be more important than the beginning students, as evidenced by the significant difference in the means to the responses to Item 4 (p-value of 0.024).

To help further gauge the impact of the project on student perceptions of the WSJ, we compared the advanced BFIN412 students who had completed a WSJ project in a previous semester (BFIN412P) from those students who had not previously completed such a project (BFIN412NP). Comparing the mean scores for the two groups at the beginning of the semester show significant

differences between their perceptions for Items 1, 3, and 4 (see Table 3 Panel B). While these differences could be attributed to the additional coursework taken by the BFIN412P group, it seems more realistically attributable to the WSJ project completed by the BFIN412P group in a previous semester. This intuition is borne out by comparing the mean scores for the two groups at the end of the semester. Now, we find a convergence of perceptions as evidenced by the lack of any significant differences across the two groups for all four items in the survey. If the project had had no impact on student perceptions, then the pre- and post-survey differences in means should have been the same. The fact that there is a change, i.e. a convergence of perceptions, can be attributed to the other major factor during the semester, namely the WSJ project.

More specifically, these results (see Table 3 Panel B) indicate that the "intimidation" factor associated with reading the WSJ might be overcome as students progress through the finance curriculum, becoming more familiar with the finance discipline, as Item 2 shows insignificant p-values, both pre and post. However, student perceptions concerning their understanding of the topics in the WSJ and of the importance and usefulness of the WSJ are significantly influenced by the WSJ project. Thus, in summary, our findings suggest that both advanced coursework as well as a WSJ project affect student perceptions of the WSJ.

CONCLUSION

This study sought to establish a baseline concerning student business media habits and perceptions of the WSJ. We find that beginning finance students watch a business program on average once a week, but seldom read a business periodical. Advanced finance students on the other hand, watch business programming two to three times a week and read some business periodical on average more than once a week. However, both groups show no major shifts in reading/viewing habits by the end of the semester. We also find that advanced students perceive the WSJ more favorably than the principles students.

This study also sought to examine the effect of advanced finance coursework on student perceptions and business media habits. Our findings are consistent with what one would expect from the effects of continued finance coursework on students' understanding and overall perceptions of the WSJ. More specifically, the "intimidation" factor associated with reading the WSJ might be overcome as students progress through the finance curriculum, becoming more familiar with the finance discipline.

The study's final objective was to assess the impact of a separate WSJ project on student perceptions of the WSJ. We find that student perceptions concerning their understanding of the topics in the WSJ and of the importance and usefulness of the WSJ are significantly influenced by the WSJ project. Thus, in summary, our findings suggest that both advanced coursework as well as a WSJ project affect student perceptions of the WSJ.

In future research, similar projects in other business curricula will be used to assess differences in effectiveness by major. Additional inquiry is also needed to compare student habits and perceptions concerning online versus traditional media. As this is an ongoing project, business students will continue to be surveyed, and we expect evidence and ideas to continue to evolve.

REFERENCES

Fitzgerald, M. (1999). A Newspaper a day. *Editor and Publisher*, *132(22)*, 20 – 22.

Gallik, J. D. (1999). Do they read for pleasure? Recreational reading habits of college students. *Journal of Adolescent and Adult Literacy*, 9 (March), 480.

Georges, V. (1943). Note on the periodical reading habits of university students. *The Journal of Business*, *16* (July), 3.

Krishnan, V.S., C.T. Bathala, T.K. Bhattacharya, R. Ritchey (1999). Teaching the introductory finance course: What can we learn from student perceptions and expectations? *Financial Practice and Education, Spring/Summer*, 70-82.

Lauer, C. S. (2003). How do you spell doom? *Modern Healthcare*, *33(24)*, 22.

Roever, C. (1998). Using the Wall Street Journal to stimulate critical thinking. *Business Communication Quarterly, 61(3)*, 66-71.

Schlagheck, C. (1998). Newspapers reading choices by college students. *Newspaper Research Journal*, *19(2)*, 74 – 88.

Developing Technology Infrastructures: Incorporating Value-Driven, Strategy-Motivated Factors into Information Technology Infrastructure Design

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ABSTRACT

The design of Information Technology Infrastructure (ITI) is – among others – system design and network design. A complete understanding of the enterprise -- and not just the perceived need to improve low-level business process -- should drive each of these design activities. In this paper, we present our thoughts on the design of ITI in general and on the need for business modeling and strategic requirements analysis in particular.

INTRODUCTION

Traditionally, the design of Information Technology Infrastructure (ITI) -- including network design -- has neither been well structured, nor have there been best practices widely promulgated and accepted.[1] Throughout the 1990s, network design activities were largely of the ilk "if we build they will use it," and often not based on well defined business need, but rather on pragmatism fostered by technology changes, and the emerging Internet taking center stage as a major communications medium. There is every argument that this needs to change.

Strategic advantage is derived from the *ability to apply* technology, and not simply from expanding resources on technology. There is evidence that some organizations are able to obtain strategic benefits form IT investments, but others are not (Porter, 1997). Recent research suggests that the difference lies in the planning that goes into the decision-making process (Lee, 2004). We concur and postulate that management – first and above all -- should strive to identify the value proposition that a technology solution provides. Further, the identified value propositions should be placed in the context of realizing the organization's long-term, strategic goals.

In other words, we propose that the design of IT infrastructure should be based on the search for value-propositions and that this activity should become an integral part of the *strategic planning process*, not merely an afterthought. Toward this end, in this paper, we present some ideas on incorporating value-driven factors into a methodology for infrastructure design. This proposed methodology is predicated on the understanding of organizational context, identification of need, and competitive as well as strategic positioning.

VALUE-DRIVEN BUSINESS MODELING AND IAAD

If one assumes that that value creation should drive business activity then IT infrastructure design should be no exception. Yet, value is nebulous concept, which acquires different meanings in the eyes of different individuals. The uncertain nature of value notwithstanding, we propose that as organizational strategy is crafted, those planning IT infrastructure should – at the very least – apply a number of analytical frameworks in their search for the value proposition.[2] These include Porter's Five Forces Model, Value Chain, Supply Chain, Competitive Forces, and Comparative SWOT Analysis.

Successful infrastructure designs must take into account both the general needs of industry and specific needs and characteristics of the focus organization. The frameworks listed above help ITI strategist to gather and analyze both types of needs. We propose that these frameworks be extended to identify a methodology we call Infrastructure Analysis and Design (IAAD). The methodology starts at the highest levels of the enterprise where strategic direction is set, and is inculcated upon those designing IT infrastructure.

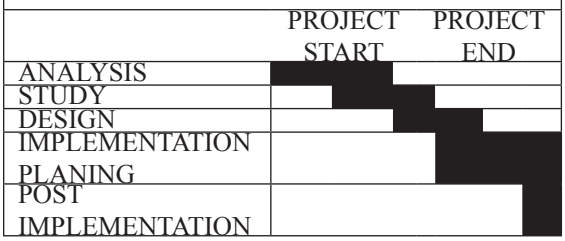
What we put forth in this paper should be considered merely as the first step toward what is likely to be a long road toward establishing a standardized and accepted methodology for designing ITI. The methodology presented here – Infrastructure Analysis and Design (IAAD) – has its roots in systems design theory. Many advances in systems analysis and design have emerged over the past 30 years (Chen, 1976; Iivari and Koskela, 1987; McGregor, 1998; Yourdon, 1975; Yourdon and Constantine, 1979). Today, it is common to see large systems diagramed using Data Flow Diagrams (DFDs), Entity Relationship Diagrams (ERDs), or Unified Modeling Language (UML) to name but three methods (Dobing and Parsons, 2000). The established diagramming techniques have symbolic representations for their constituent parts that allow systems analysts to quickly understand the design of a system, even if they did not create the original diagrams. We believe that an infrastructure design methodology should strive to achieve that type of standardization.

IAAD consists of a series of steps, which may appear like a waterfall approach, but in reality there is a fair amount of overlap, as seen in Figure 1. In this, IAAD is an intellectual offspring of System Development Lifecycle (SDLC). (Boehm, 1988; Davis and Bersoff, 1988; Royce, 1970). Both IAAD and SDLC are phase-based and both assume the iterative approach in which there is a fair amount of "going back-and-forth." Where the two approaches differ is in the methods applied to address domain-specific issues. SDLC is focused primarily on software design, whereas IAAD concentrates on the IT infrastructure.

1 This statement is supported by the author's combined experience of over 40 years in industry performing network design and management, and 10 years in academia teaching and studying these issues.

2 These four analytical frameworks should be considered representative of what we believe should be applied. Other frameworks that accomplish the same analysis would also be appropriate.

Figure 1
IAAD Steps and Overlap



The steps of IAAD include: 1) Analysis (of business models), 2) Network Study (of technical networking needs), 3) Design (of topologies and configurations), 4) Implementation Planning and 5) Post-Implementation Planning. Although we provide a brief description of each step below, we focus on the first step -- Analysis.3 This is because this step contains the business modeling and strategic analysis that explicate the critical nature of the search for the value-proposition.

specific enough so that the designer could translate them into the necessary hardware/software configuration. Further, the analysis recommendations should include an overview of all technologies that will support the organization's value proposition.

XYZ Example. To facilitate our discussion of IAAD (i.e., Analysis) we choose to use a running example – the XYZ Manufacturing Company.4 XYZ makes widgets for the automobile industry. It sells its widgets to only one firm – the ABC Inc. XYZ has its main office in San Francisco, California and a manufacturing and warehousing facility in Detroit, Michigan.

XYZ has been loosing market share for widgets -- from 75% five years ago to 55% today. The company management has conducted some preliminary analyses and concluded that the firm's outdated technology infrastructure is largely at fault. In particular, the management now believes that lost market share has been caused, in part, by the largely paper-based, order-processing system. All orders go to the main office for processing (e.g. credit authorization, order verification, etc), but are manufactured and fulfilled through the Detroit facility Value-chain modelling can be thought of as

Table 1:
Summary of Value-Search Models

	Identification of …	Analysis Usage
Five Forces Model	forces that directly impact the enterprise	assist the designer to look at the direct forces on the enterprise
Competitive Forces Model	all stakeholders	assist in making recommendations that will enhance competitive advantage
Value-chain Model	departments and processes	promotes recommendations that can enhance value propositions influenced by ITI design
Supply-chain Model	major stakeholders	assist with making supply-chain management recommendations
Comparative SWOT Analysis	strengths, weaknesses, opportunities and threats of the enterprise and its major competitors	facilitates recommendations that will enhance competitive advantage.

Note: Italicized notations indicate department names

THE ANALYSIS STEP OF IAAD

The Analysis step facilitates an understanding of the company and industry under study – setting the stage for a review of core strategic competencies. As stated previously, a successful infrastructure must take into account the general needs of the industry as well as specific needs and characteristics of the company. To perform this step, we recommend several standard business-modeling tools. In particular, by creating models for Five Forces, Value Chain, Supply Chain, Competitive Forces, and Comparative Strengths, Weaknesses, Opportunities, and Threats (SWOT), the infrastructure designer works toward discovering the value proposition. The value proposition should then drive ITI recommendations.. The analysis step is largely carried out by those in the enterprise who perform strategic planning.

We propose that at the center of the value search should be the thorough examination of what we call intermediate models -- Value Chain, Supply Chain, Competitive Forces, and SWOT. Analytical work done using these models should provide sufficient inputs into the application of the Five Forces Model. Table 1 summarizes the utilization of modeling tools.

The analysis phase creates foundational information, including a basic understanding of the organization and its competitive context. That information is used throughout the rest of the design process. The goal is to delineate recommendations for infrastructure features that are necessary to support the value propositions uncovered during business modeling. The recommendations should be

3 Study, Design, Implementation Plan and Post Implementation are largely left for discussion in a future paper.

an attempt to understand how an organization works – how the constituent components add value to enable product and service creation. Stated another way, the value chain model identifies the major sets of processes – usually linked to departments -- within an organization. Since much of what the value chain is relates to structure, the technique could be used to establish the foundation for firm-level strategic planning. In order to adequately create the value-chain model and to do firm-level, value-chain, strategic analysis, one must obtain a considerable amount of information about the organization in question.

XYZ Example. Figure 2 portrays the XYZ value-chain and documents its activities. Prior to creating the Value-chain Model it is helpful to construct several lists including: employees, departments, functional responsibilities, and locations. Such information is useful in determining the value-chain area.

Once the model is developed and understood, it is analyzed in terms of IT infrastructure. The ITI strategist should use the information garnered form supply-chain analysis to create recommendations form the value-chain perspective

Applying the Supply Chain Model

The supply-chain is a network of organizations and business processes that work together to facilitate procuring of raw

4 XYZ Manufacturing Company is a fictitious organization used to represent concepts in this paper.

Figure 2
XYZ Value-chain Model

Support Activities	**Administration and Management: Senior Management; Accounting and Finance**				
	Human Resources: Human Resources				
	Technology: IT; Business Analysis				
	Procurement: Purchasing Analysts				
Primary Activities	**Inbound Logistics** Shipping and Receiving	**Operations** Operations	**Outbound Logistics** Shipping and Receiving	**Sales and Marketing** Marketing	**Service** Returns and Repairs

materials, production (both final and intermediate products) and final distribution to the customer. The customer can be the final consumer of a product, or can use the product as raw material in its own value-chain to create products for the final consumer. Supply chain modeling also identifies stakeholders, but different from competitive forces modeling. It assists in identifying supply chain issues pertinent to the final design.

XYZ Example. XYZ Manufacturing produces intermediate products, not sold directly to consumers, but rather used as input into another firm's supply chain. Each organization within the supply-chain has its own value-chain

In order to understand the supply-chain of XYZ, it is necessary to place the firm within the value web of the automotive industry. The supply-chain model presented in Figure 3 documents the placement of XYZ in the supply-chain that provides automobiles to consumers. When constructing the supply-chain model, it is beneficial to list the various organizations (i.e., industry partners) within the value-web of specific industry. For example, in case of XYZ one also should understand the value web for XYZ industry partner -- the ACB company (Figure 3). The XYZ supply chain is portrayed in Figure 4. As you can see from both figures, XYZ supply chain is interlinked with ABC supply-chain. Adding additional companies would create an industry-wide value-web.

Figure 3
ABC Supply-chain/Industry Value-web Model

Supplier	Manufacturer	Distributor	Retail Outlet	Customer
XYZ	ABC	Transport Companies	Franchised Dealerships	Consumers who Purchase ABC Autos

The ITI strategist would analyze the models and use this information to create recommendations which impact the supply chain of XYZ, taking into account the industry value web. Recommendations need to be from both the supply chain and value web perspectives. The ITI designer should be able to make strategic recommendations which support the value propositions of XYZ.

Figure 4
XYZ Supply-chain Model

Supplier	Manufacturer	Distributor	Retail Outlet	Customer
LLL Corp YYY IOU Inc	XYZ n	XYZ does its own distribution	There are none XYZ is an intermediate supplier	ABC Corp

Applying the Competitive Forces Model

The competitive forces model mandates the identification of all significant stakeholders and of activities which affect competitive positioning. The intent for this information is to facilitate the creation of infrastructure that optimizes the competitive positioning of a company. Information gathered for the supply-chain analysis is useful for completing the Competitive Forces Model as well. This is especially relevant in context of the enterprise-industry perspective.

XYZ Example. The designers will need a list of XYZ's competitors to complete the competitive forces analysis. For XYZ these firms are 8-R-US Inc, 2-Bit LLC, Widgets.com. It is helpful to complete two types of competitive forces models to understand what technology needs to be implemented. The XYZ-widget industry competitive forces model (Figure 5) provides information about other intermediate widget manufacturers. The ABC-automobile industry competitive forces model (Figure 6) provides information on the industry value-web.

Using the competitive forces models for XYZ and for ABC, the ITI strategist can glean information about the relationships among XYZ, ABC and their competitors. The ITI strategist should research each of the competing companies to glean information about their ITI – this will help the designer make stronger recommendations. This information should enable the ITI strategist to learn from best-practice solutions implemented by competitors.

To summarize: the competitive forces perspective affords the opportunity to look outside of the enterprise and to determine how knowledge derived this way can be used to improve XYZ's functioning. This goes beyond model formulation and involves the gathering of data on the services and IT infrastructures of competitors.

Applying the Comparative SWOT Analysis

It is helpful if you assess organizational strengths, weaknesses, opportunities, and threats (SWOT) when determining technology-based strategic infrastructure needs. This is especially true when comparing the firm to its major competitors and for setting firm-level strategy. The comparative SWOT analysis includes the following elements:

- **company under study** – this is the company for which the SWOT analysis is being prepared;

Figure 5

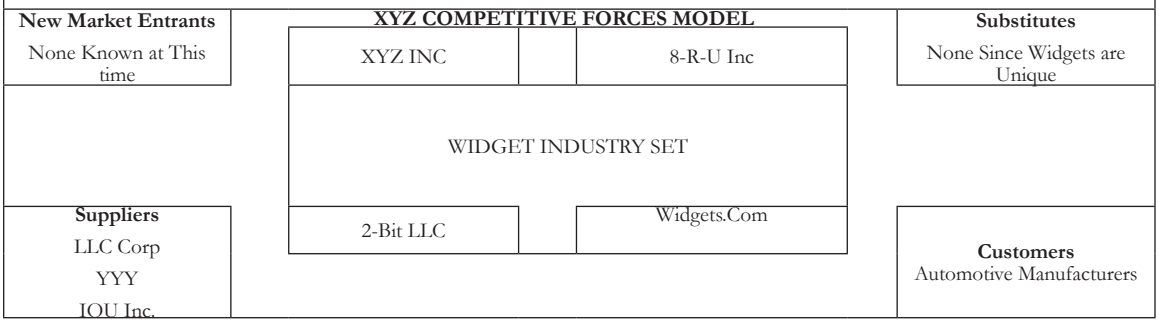
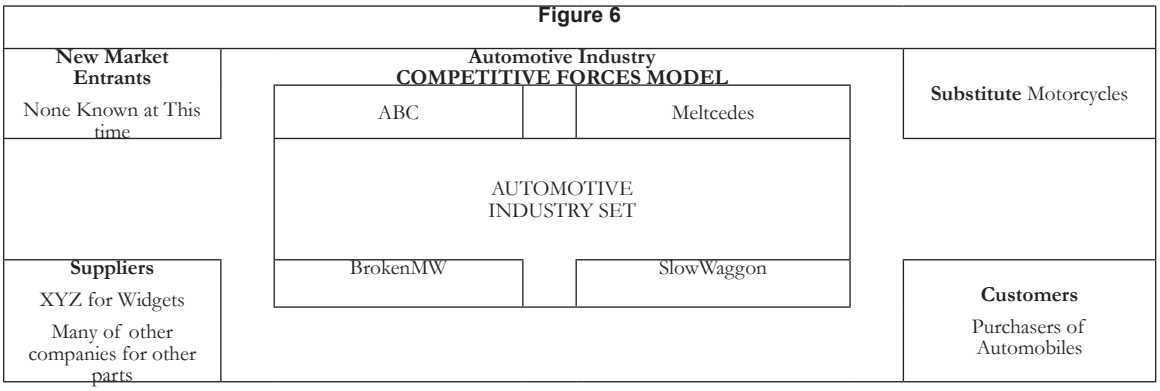


Figure 6



- **major competitors –** these are the major competitors of the company under study;
- **strengths –** what that firm does well, including its core competencies;
- **weaknesses** – what that firm could do better, including things it knows need the addressed;
- **opportunities** – opportunities that firm has, including those in its industry and business environment;
- **threats** – situations that threaten the firm, including regulatory and business-environment issues;
- **comparison to competitors** – issues that stands out when one compares the company under study to its major competitors; how these issues could be addressed.

XYZ Example. Interviewing the major stakeholders of XYZ provides the information to complete this analysis. Information gathered for the previous models discussed in this paper is useful for completing the SWOT analysis. In addition, strategists need to do research to determine the SWOT of competitors. This is often especially difficult since companies do not volunteer such information. The start of a comparative SWOT analysis for XYZ can be seen in Figure 7.

Applying the Five Forces Model

The five forces model (Figure 8) describes the context of XYZ. It largely uses information from the other models to explicate a different view of the enterprise and combines XYZ with its industry. The IT strategist can use this information to determine how best to apply technology.

Pulling the Models Together—Making Recommendations for Technology

The various models above are summary tools that require that the IT strategist to analyze various facets of the enterprise. By combining the information gathered, you can build a snapshot of a firm, its value and supply chains, its competitive environment, and it strengths, weaknesses, opportunities and threats compared to the competition. This information will allow you to make technology recommendations for the firm based on applying technology to support the value proposition.

Utilizing the analyses from each model it is possible to construct specific technology recommendations. The firm's IT strategist should ensure that their recommendations support the firm's value propositions, and must convey the recommendations to the ITI designers. The recommendations need to be conveyed as high-level technology recommendations. These recommendations are used in subsequent stages of IAAD proposed below.

XYZ Example. To move toward a solution to the perceived problem, XYZ has decided to construct an IT infrastructure that connects its main office and its warehousing/manufacturing facility. The interconnecting infrastructure should also help XYZ in its stated intention to convert to Just-In-Time (JIT) manufacturing.

THE REMAINING STEPS IN IAAD

Study

Using the value propositions and high-level technology recommendations described as the output of the analysis step, specific technology recommendations are made. For example, specific technical solutions are selected, support and ongoing maintenance requirements are determined, and growth and upgrade projections

Figure 7					
	8-R-U Inc	2-Bit LLC	Widgets.Com	XYX	Comparison to Competitors
Strengths	⇒ Young company (3 years) ⇒ Very current technology ⇒ Good CRM system ⇒ Good ERP ⇒ Funded by venture capital	⇒	⇒	⇒ Firm 50 years old ⇒ understands the widget industry ⇒ well known in industry ⇒ established operating procedures and policies	
Weaknesses	⇒ Young company ⇒ Not very knowledge about the widget industry ⇒ 5% market share ⇒ not send as a leader in the widget industry	⇒	⇒	⇒ Low use of technology due to high switching costs ⇒ Declining market share	
Opportunities	⇒ Has very current technology, and thus not concerned with switching costs ⇒ State of the art flexible assembly line that can make things other than widgets	⇒	⇒	⇒ Could start making new products of assembly line was reconfigured ⇒ Take back market share	
Threats	⇒ New startup that has not proven itself in the industry ⇒ Difficulty getting market share may cause companies demise	⇒	⇒	⇒ by not keeping technology current, XYZ faces large switching costs and potentially more lost market share. ⇒ High employee turnover	
This is just the start of the SWOT analysis. All companies must be fully researched by reading industry journals, checking company websites, etc.					

are developed. In addition, the analytical inputs determined thus far should be sufficient to perform preliminary bandwidth calculations. These in turn -- together with other codified recommendations – should lead to the creation of network study recommendations.

The recommendations made during analysis and refined during study must support the strategic direction of the organization. The specifications which come out of study should recommend concrete solutions to support the technologies in the analysis recommendations. For example, if an e-commerce website is recommended in the analysis step as a necessary strategy for a business to succeed, the specific technologies necessary to support this should be in the network study recommendations.

Design

Reconciling the high-level analysis and more specific study recommendations, designers confirm hardware/software solutions and preliminary bandwidth assumptions, and make final recommendations. These include hardware selection to support the recommended topologies, external network services, desktop workstations, printing, and additional online and offline storage, and location of all equipment. Site surveys are done to assess appropriateness (e.g., necessary AC power, space, air conditioning, etc) and recommendations are made for equipment racks, uninterruptible power supplies, extra cable runs, virus protection, network management software, and data backup solutions. Final design documents are created and validated against the analysis document. Guidelines for these final design documents include the following:

- there should be individual design documents for the core of the network infrastructure and for all workgroups;
- all locations, racks, and communications, desktop, and server equipment must be indicated and named according to a predetermined nomenclature;
- all cable runs must be shown from core to workgroups, from core to interconnectivity points (MAN, WAN, "T" carrier, etc.);
- communications links from blocks in the hierarchy must be numbered and connect to another diagram or a demarcation point (e.g., ISP, other organization); and
- there must be a title block on every diagram showing the diagram title, a key to symbols used, and a key to the connections between equipment (e.g., 10/100 Ethernet, 100 Ethernet, fiber optic, unshielded twisted pair {UTP}, etc., must all appear as different line types on the diagrams—color or line thickness can be used).

IMPLEMENTATION PLANNING AND POST IMPLEMENTATION

The implementation plan describes how the selected equipment will be installed. This is used either by the company's network technician to build the network or by subcontractors. Timelines and other project management documents are also created. Once implementation has been completed, the network must be thoroughly tested. With testing completed, the network is ready to hand over to the users. At this point, information gathered during the network study about expected growth can be used to create a plan for network upgrades. Post-implementation includes the need to continually follow and update the business models discussed earlier, and to adjust the network configuration as needed.

Conclusions and Future Research

Whereas systems analysis and design methodologies have matured and become generally accepted, network design still remains largely an afterthought and has never been widely standardized. We propose that network design be done from an enterprise perspective and that infrastructure design and implementation process be based on organizational and industry value propositions. This approach

would take into account the core competencies of the organization as well as industry technical imperatives and stakeholder concerns. Furthermore, network design must be set within the larger context of strategy-driven management of the enterprise, and is perhaps most useful when done in conjunction with an ERP-type implementation

In this paper we proposed the rudiments of network design methodology which we call IAAD (Infrastructure Analysis and Design). IAAD is about building technology infrastructures that add value and are strategy-driven.. The next steps include:

- formalizing this approach, including implementation and post implementation;
- defining symbolic languages that support network design;
- integrating systems analysis and design with IAAD techniques to holistically create strategy-driven infrastructure design.

REFERENCES

Boehm, B.W. "A spiral model of software development and enhancement," *IEEE Computer* (21:5), 1988, pp. 61-72.

Chen, P.P.-S. "The entity relationship model," *ACM Transactions on Database Systems* (1:1), 1976, pp. 9-36.

Davis, A.M. and Bersoff, E.H. "A strategy for comparing alternative software development life-cycle models," *IEEE Transactions on Software Engineering* (SE-14:10), 1988, pp. 1453-1460.

Dobing, B. and Parsons, J. " Understanding the role of use cases in UML: A review and research agenda," *Journal of Database Management* ((Oct-Dec)), 2000,

Iivari, J. and Koskela, E. "The PIOCO model for information systems design," *MIS Quarterly* (11:3), 1987, pp. 401-419.

Lee, I. "Evaluating business process-integrated information technology investment," *Business Process Management Journal.* (10:2), 2004, pp. 214.

McGregor, J. "Testing models: the requirements model," *The Journal of Object-Oriented Programming* (11:3), 1998, pp. 20-31.

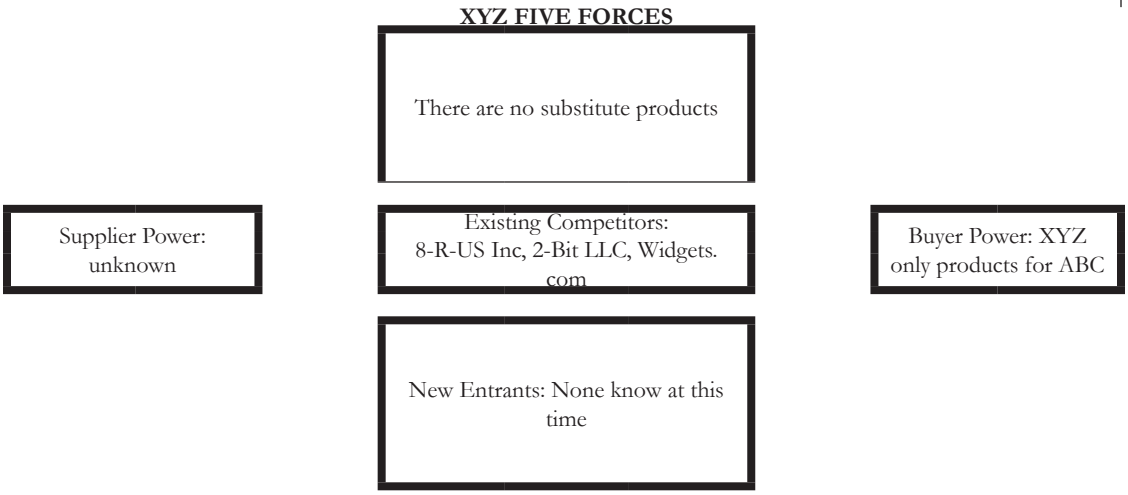
Porter, M. "Creating Advantages," *Executive Excellence* (12:12), 1997, pp. 17.

Royce, W.W. "Managing the development of large software systems: concepts and techniques," *Proceedings of the ICSE 9*, Los Alamitos, California, 1970,

Yourdon, E. *Techniques of program structure and design*, Prentice-Hall, Inc., Englewood Cliff, 1975.

Yourdon, E. and Constantine, L.L. *Structured design*, Prentice-Hall, Inc., United States of America, 1979.

Figure 8



Do Students Want To Use Email In A Computer Based Training Class?

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ABSTRACT

This study represents a preliminary study to evaluate the use of email on the impact of student satisfaction and learning in a self-paced computer based training class. Initial results indicate that students are overwhelmingly in favor of receiving email from their instructor at least once a week and some would like to receive email from their instructor everyday. Email topics included class activities, test dates, homework assignments, and reading assignments.

INTRODUCTION

Little research has been done on increasing the satisfaction and learning in a self-paced computer based training course by using email to increase Social Presence. Social Presence by itself has been shown to be a strong predictor of satisfaction in a text based computer conference (Gunawardena & Zittle, 1997, p.19).

Techniques such as complimenting students, group activities, and on-line discussions have been used to establish a social presence in an on-line course (Rourke, Anderson, Garrison ad Archer, 2001). Personalized email can also be used to facilitate a social presence.

Research by Woods (2002) has been done in which the quantity of the emails sent to graduate students was manipulated over a fifteen week semester. Some students received email once a week while others received emails either monthly or every other month. The results of this experiment to predict satisfaction using personal emails was not statistically significant.

Woods (2002) suggests that future studies examine alternate frequency of personal emails, different academic programs, and levels of education. The authors of this paper believe that the use of personal email can have a significant impact on satisfaction in a computer based training courses as well as on-line courses for undergraduate students who are learning computer based technologies. In addition to increasing course satisfaction by sending out personal emails, we believe that the ultimate goal of this research should be to increase student learning.

BACKGROUND AND PURPOSE OF STUDY

Our research will build on the suggestions of Woods (2002) by using undergraduate students who are in an Introduction to Computers course at a medium sized university located in the mid-south. The course is a self-paced computer based training course where students learn about word processing, spreadsheets, presentation skills, databases, and an operating system. Most students are college of business majors and enrollment is typically 500 – 700 students per year. Very little interaction between students and instructors exists since all training and testing is done with computer software. Section sizes range from forty to seventy-five students. The satisfaction with this course has been moderate to declining over the past few semesters.

Some research has suggested that text-based interactions can facilitate a "shallow, impersonal, and often hostile relationships," (Parks & Floye, 1996). Therefore, our initial study will be to determine if students want to receive email from their instructors and what topics should the email contain.

METHODOLOGY

A survey was administered to 304 students asking them how often they checked their email and if they wanted to receive email from their instructor. Students were also asked about which topics they would like their instructors to email them. Topics included class activities, test dates, homework assignments, and reading assignments.

RESULTS

A total of 209 surveys (N = 209) were completed for a response rate of 54.4 %. Approximately 40% of the respondents were female and 60 % were male. The distributions for the class were as follows:

T h e

Freshman	47.8 %	n = 100
Sophomore	30.0%	n = 63
Junior	11.5%	n= 24
Senior	10.5	n= 22

responses to the survey questions are as follows:

How often do you check your email?

Students indicated that 47.4% of them checked their email 2-3 times a day. Only 35.4% of them checked their email once a day and 12.4% checked their email every other day. Less than 1% of them checked their email less than once a week.

In terms of student's preference for receiving email, 96.7 % prefer to get email from the instructor. When asked about specific topics,

Table 1
Topic Specific Preference for Email

Topic	Preference to receive email	Preference not to receive email
Class Activities	96.6%	3.4%
Test Dates	98.56%	1.4%
Assignment Due Dates	98.56%	1.4%
Reading Assignments	92.8%	7.2%

students had a similar response rate. Table 1 lists their responses as a percentage for each topic.

Table 2 list how often students would prefer to receive email on each topic listed in Table 1.

Table 2
Preferred Frequency per Specific Email Topic

Topic / Frequency	Never	Once a week	Every other day	Once a day	More than once a day
Class Activities	1.9%	60.6%	25.9%	9.6%	1.9%
Test Dates	< 1%	74%	14.4%	7.7%	2.8%
Assignment Due Dates	< 1%	63.9%	23.9%	9.1%	2.8%
Reading Assignments	4.7%	67.5%	18.2$	7.6%	1.9%

DISCUSSION AND FUTURE DIRECTION

Students are clearly in favor of receiving email from their instructors. Students that do not wish to receive email should be targeted and eliminated from being sent email. These students may be that small group of users who will resent email and form a hostile relationship (Parks & Floye, 1996). Almost 90% of students wish to receive topic specific email at least once a week or every other day.

Since it has been established that students are in favor of receiving email in a computer based training course, future studies should test to see if varying the number of emails received each week during a semester has an impact on student satisfaction, instructor/course evaluation, and learning. Satisfaction and instructor / course evaluation would be measured with another survey at the end of the semester. Since this research deals with computer based training in several different software packages, learning would be assessed by comparing a pretest score to a posttest score for each skill tested by the software application.

The benefits of this research may be that instructors at other universities offering a similar course may be able to improve student satisfaction, instructor / course evaluation and learning by sending periodic emails to their students.

REFERENCES

Gunawardena, C.N., & Zittle, F. J. (1997). Social presence as a predictor of satisfaction with a computer-mediated conferencing environment. The American Journal of Distance Education, 11(3), 8-26.

Parks, M. R. & Floys, K. (1996). Making friends in cyberspace. Journal of communication,46(1), 52-80.

Woods, R. H. (2002). How much communication is enough in online courses? – Exploring the relationship between frequency or instructor-initiated personal email and learners' perceptions of and participation in online learning. Int'l Journal of Instructional Media, 29(4), 377-394.

Rourke, L., Anerson T., Garrison, D.R., & Archer, W. (2001). Assessing social presence in asynchronous text-base computer conferencing. Journal of Distance Education/ Revue de l'enseignement à distance, http://cade.athabascau.ca/vol14.2/rourke_et_al.html

Edification:
Rethinking Business and Management Education

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ABSTRACT

Current business and management education has focused almost exclusively on the transfer of knowledge. It has also placed too much emphasis on the so-called scientific methods and rational analyses. To develop future executives, managers, leaders, or researchers and educators in business management, we should reshape our mentality, rethink our strategies and revise our approaches to business and management education. In addition to increasing students' "knowingness," we should aim at enhancing their understanding, awareness and consciousness about business and management problems, and at widening their perspectives and horizons. In this paper, we suggest an "edification" philosophy for business and management education. With this philosophy, we will focus on continuing redescriptions of business and management problems and facilitating the continuing conversations between students and educators as well as those between students and practitioners. Students are to immerse themselves in the constantly redescribed stories so as to gain experience, to enhance their understanding and to get a good "feel" of the real world situations. The continuing redescriptions and conversations thus become a tool for "permeation" – a tool for nurturing students so that they become wiser and more creative (but not necessarily more knowledgeable).

Great Zen masters don't teach; Their disciples learn.

INTRODUCTION

Business schools are quite often perceived as vocational or professional schools. Under this conception, business students are supposed to learn certain techniques or skills. But who would argue against the ideal that, in business schools, we are not supposed to train technicians. Rather we should aim at educating future executives, managers, leaders, or researchers and educators in business management. Unfortunately, current practice in business and management education seems to fit the "vocational school model" quite well. It has focused almost exclusively on the transfer of knowledge. It has also placed too much emphasis on the so-called scientific methods and rational analyses. It is doubtful whether such approaches will do a good job in molding future executives, managers, leaders, or researchers and educators in business management. In this paper, we suggest that our aim should not simply be at having a lot of information piled up in students' head. In addition to increasing students' "knowingness," we should enhance their understanding, awareness and consciousness about business and management problems, and at widening their perspectives and horizons. On the other hand, since most educators are likely to be researchers themselves. The way they teach may be greatly influenced by the way they do research. Most academic researchers in organizations and management have emphasized too much on theorizing (i.e., deriving generalizable or generalized knowledge) and the so-called "scientific rigor." Consequently, they cannot escape the confines of the natural science model (NSM) or the positivist/rationalist straitjacket. They also carry the NSM from research over to their teaching duties. They encourage their students to be scientific, to be rational, to be systematic and to do logical analyses. They mold students in the NSM. They put students in the same positivist/rationalist straitjacket. No doubt, practitioners not only often complain about academic research being useless, but also find the business school graduates not readily "usable." It is time for us to rethink our strategies and reshape our mentality and approaches to business and management education.

For "effective" business and management education, it is not what we teach students. Rather, it is how we teach (and sometimes not to teach). In this paper, we suggest an "edification" philosophy for business and management education. This philosophy encourages us to focus on continuing redescriptions of business and management problems and on facilitating the continuing conversations between students and educators as well as those between students and practitioners. Students are to immerse themselves in the constantly redescribed stories so as to gain experience, to enhance their understanding and to get a good "feel" of the real world situations. The continuing redescriptions and conversations thus become a tool for "permeation" – a tool for nurturing students so that they become wiser and more creative (but not necessarily more knowledgeable).

The rest of the paper is organized as follows: the next section briefly reviews the "deficiencies" of currently prevailing practices of business and management education; the section that follows will present the key theses of the edification philosophy and discuss how such a philosophy can offer a better alternative to the existing approaches to business and management education; we then address some implementation issues entailed by the edification philosophy; in the final section, we summarize the paper and suggest directions for future research.

CURRENT PRACTICES IN BUSINESS AND MANAGEMENT EDUCATION

How is business and management education currently practiced in business schools? In an insightful discussion on the concept of student engagement, Burbridge (2005) sums it up very well:

> … The current preferred way of educating future business leaders, especially at the undergraduate level, is to have faculty lecture in large, cavernous halls. In such an environment, students are expected to acquire the necessary knowledge either from the textbooks or lectures, and the only grade in the course may be the final examination. When confronted with this situation, some students will decide not to go to class but get notes from other students or find them on the class Web site. Unfortunately, this approach emphasizes the transfer of knowledge from lecturer to students rather than any real experiential learning on the students' part. A major question that arises is whether students can apply such knowledge.

Burbridge further argues that while faculty and students seem to place considerable value on discipline-specific knowledge taught in a lecture format, communications and interpersonal skills seem to reign supreme in the viewpoints of many recruiters. In fact, one of the key themes of Burbridge's article is to cultivate students' interpersonal skills so that they can fare better in job markets. This is also the rationale behind the concept of student engagement.

Burbridge is certainly right in pointing out that business education should go beyond the transfer of knowledge. He is also right to recognize the importance of communication and interpersonal skills which "seem to reign supreme in the viewpoints of many recruiters." However, we must point out that business and management education should also go beyond training students for skills which enhance their marketability. While interpersonal and communication skills are essential to successful career, the (future) business leaders, executives, decision makers, etc. need to develop their consciousness, awareness or even gut feeling of problems. They need to widen their perspectives and to expand their horizons. All these would require them be "nurtured" rather than simply "trained."

Another phenomenon prevailing in today's business and management education is the (over-)emphasis on the so-called rational analyses and/or "scientific methods." Rorty (1991) points out that, in our culture, the notion of "science," "rationality," "objectivity," and "truth" are bound up with one another. "Science" is thought of as offering "hard," "objective" truth: truth as correspondence to reality, the only sort of truth worthy of the name. He also points out that we have the tendency to identify seeking "objective truth" with "using reason." Consequently, we think of the natural sciences as paradigms of rationality. We also think of rationality as a matter of following procedures laid down in advance, of being "methodical." Then we have the tendency to use "methodical," "rational," "scientific," and "objective" as synonyms.

Since most educators are likely to be researchers. The way they do research will more or less affect the way they teach. Currently, theory-fetish and blind insistence on "scientific rigor" seem to be two of the symptoms of the "illness" which academic researchers suffer. While scientific methods, rational analyses, etc. may be useful or even important, they are by no means adequate for problem solving in business and management. Logical or rational analyses usually lead to "the-most-likely-to-occur" results. We tend to forget that "the-least-likely-to-occur" or the "remote associations" would be the source of creative ideas. The over-emphasis on the scientific methods and rational analyses inevitably leads to the exclusion of other ways of accessing, knowing and understanding the real world. In physiology, it is well known that the left hemisphere of human brains is responsible for analytical, logical, deductive and "rational" thinking. The right hemisphere, on the other hand, is responsible for holistic, intuitive, artistic and inductive thinking. With the emphasis on scientific methods, rational analyses, etc., the current practice in business and management education has actually encouraged or conditioned students to use only half a brain! We simply forget that business management or decision making can be as much an art as a science.

Be it in research or in education, the quest for objective knowledge of reality has made human become more and more detached from reality itself. Most scientists share the Socratic penchant, what Nietzsche defined as "the unshakable faith that thought, using the thread of logic, can penetrate the deepest abyss of being." Unfortunately, science truncates reality into a system of simpler, reduced units, omitting the "irrelevant" details of life. The fracturing of life also leads to the fracturing of man, dissociating his rational self from his intuitive self. Reality is certainly not what can be described by the NSM in algorithms and formulas alone. The inner depth of life and the richness of the human experience cannot really be quantified and measured by scientific means. The development of philosophy over the past hundred years has also shown "a progressive orientation toward the immediate and qualitative, the existent and the actual" (Barrett, 1985). This development is a response to the limitation of rationalism (positivism and analytic philosophy in particular). Many modern thinkers recognize the need of finding ways to look into human experiences. "Philosophers can no longer attempt, as empiricists Locke and Hume attempted, to construct human experience out of simple ideas and elementary sensations." (Ibid.) While science condenses reality into reduced, unerring truths, art reveals truths about reality in its complexity. The artist, whether through the medium of oil on canvas, of music notes toppling off a staff, or of the interweaving of words through a poem, attempts to externalize the darker, inner realm of humanity. A work of art can capture the contradictory, ambivalent, and irrational elements of the world. Art aspires to bring back together the totality of human. The artist hopes to startle the spectator into consciousness of a "true" reality – existence as it really is, with all its contradictions and enigmas that cannot be explained by science. On the other hand, Whitehead (1978) suggests that intellectual experience is primordially aesthetic and only secondarily regulated by the principles of accuracy and logics. In the field of business management, it is really not a new idea to suggest that management is an art (e.g., Pascale 1978, Pascale and Athos 1981). However, the dominance of positivism and scientism has discouraged researchers and educators in business management to make a greater effort to explore or to treat management as an art.

THE PHILOSOPHY OF EDIFICATION

In the previous section, we have pointed out the "deficiencies" of the existing practices in business and management education. The first step to "cure" such deficiencies is to reshape our mentality in educating students. Business and management education should aim at helping students learn "lessons" for their future use. Such lessons need not be in the form of "truth," "laws" or even what is traditionally called "knowledge." For example, Rorty (1979) suggests a pragmatist conception of knowledge which would focus on what humans do in coping with the world rather than on what they find through theorizing.

Rorty (1979) further contends that, from the educational as opposed to the epistemological or the technological, point of view, the way things are said is more important than the possession of truths. He then suggests the use of "edification" to stand for the project of finding new, better, more interesting, more fruitful ways of speaking. (He feels that "education" sounds a bit too flat and Bildung (education, self-formation) a bit too foreign, and thus the term "edification." In fact, the notion of "education" may remind us the "transfer" of knowledge and is therefore not appropriate for conveying the idea of edification.) The aim of edification is at continuing a conversation – conversation with oneself and with others -- rather than at discovering truth. Furthermore, the purpose of continuing conversation is to enhance understanding – understanding oneself, environments, and the relationship between the environments and oneself. The task of business and management education can be considered a process of seeking new ways of speaking which leads to new descriptions of the problems and therefore new perspectives of what is going on. Obviously, the continuing conversations should not be limited to those between students and educators. The edification philosophy encourages students to have continuing conversations with practitioners so as to understand more about the "real world."

The edification philosophy can help facilitating students' learning through the following three closely related aspects:

1. Edification enhances students' consciousness and awareness, rather than knowingness and pigeonholing, of the problems under study.

Traditionally, we often transfer the so-called "knowledge" to students in the forms of regularities, laws, rules, structures, theories, etc. We would like to explain phenomena. We would like to predict the future. We believe that our tasks should not only be teaching the so-called truth and/or knowledge, but also helping students by providing

them with principles, guidelines, advices, etc. Therefore, we develop theories, propositions, theorems and their corollaries. We categorize phenomena into typologies, taxonomies, etc. We demonstrate "what-if" analyses and tell students what to do if businesses or management problems fall into a certain category. Unfortunately, exactly the same conditions simply can never be duplicated. Business environments are dynamic and fast changing. There is no real "laws" in business management. Management is as much an art as a science.

Edification is an attitude interested not so much in what is out there in the world, or in what happened in history, as in what we can get out of nature and history for our own uses (Rorty 1979, p. 359). With the edification approach to management studies, students should not be looking for truth, generalized knowledge, structures, laws, rules, etc. Rather, their consciousness and awareness of what is going on would be more important for them to cope with the world. Consciousness and awareness make them understand that all of their knowledge is the product of particular prejudices. They then become more open-minded and not to be blinded by their own prejudices.

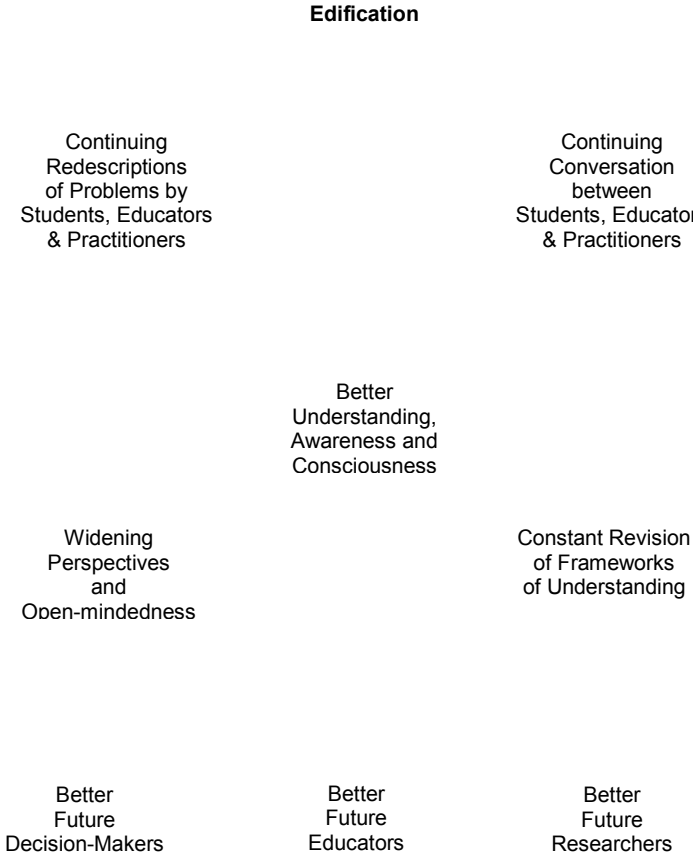
2. Edification helps students expand their horizons of understanding.

The aforementioned open-mindedness leads to the recognition of other frames of reference, expanded horizons and alternative interpretations (of problems and phenomena). The persistence of alternative understandings is a condition of edification. As Meredith (1998) and Hudson and Ozanne (1988) point out, understanding is a never-ending process rather than an end. Similarly, the edification approach to business and management education too is a never-ending process. It advocates not only for exploration of the fullest range of perspectives possible, but also for skepticism about some (if not all) interpretations. All perspectives and all interpretations are subject to change.

3. Edification encourages students to re-examine and revise their own frameworks of understanding.

As a result of widening perspectives and continuous skepticism, students will constantly revise and reconsider their own frameworks

Figure 1
An Edification Philosophy for Business and Management Education



of understanding through the process of edification. This requires them to re-examine their assumptions, criteria, interpretations, etc. They will have a persistent interest in learning and considering problems (and themselves) through new lenses. As Warnke (2003) puts it, "Openness to the open interpretations of others provides a way of directing the course of our inspirations without falling prey to either knowingness or naivete." (p. 118)

It should also be noted that philosophers such as Gadamer, Heidegger and Sartre do not really reject the quest for truth. Rather, they view such a quest as just one among many ways in which we might be edified. That is, the search for objective knowledge is just one human project among others. However, they believe that, even though "objective inquiry is perfectly possible and frequently actual, … it provides only some, among many, ways of describing ourselves, and that some of these can hinder the process of edification" (Rorty, 1979, p. 361).

Based on the above discussions, we summarize in Figure 1 the process of business and management education through the edification philosophy.

In Figure 1, the notion of "continuing" (redescriptions of problems and conversation between students and educators or between students and practitioners) implies that edification is a dynamic process. Indeed, the essence of learning is in its process. Learning is itself a process. Even knowledge – which is traditionally considered the "product" of learning -- is itself a "process." Such a conception is consistent with the philosophy of John Dewey and Alfred North Whitehead. Both of them agree that we should understand all things primarily as moments within a dynamic process. Consequently, we should think of knowledge as a form of action rather than as a possession or purely mental condition (Frisina 2002, p. 125). Such a conception of knowledge is in line with the pragmatist attitude toward both business and management practices. It is an attitude which would focus on what humans do in coping with the world rather than on what they find through theories, laws, rules, etc.

Figure 1 also shows that the process of continuing redescriptions of problems will facilitate the process of continuing conversations, and vice versa. The two processes are, in fact, inseparable. Furthermore, being immersed in such experiential processes, students will enhance their understanding and get a good feel of the real world situations. The edification philosophy thus entails a "permeation" process for nurturing students so that they become wise and more creative. Students will become better (future) practitioners/decision-makers, educators or researchers. In fact, a "truly" edified individual will be simultaneously an outstanding practitioner, decision-maker, educator and researcher. That is, there will be no distinction among practitioners, decision-makers, educators, and researchers.

IMPLEMENTING THE EDIFICATION PHILOSOPHY

Figure 1 shows that the edification philosophy encourages increasing and continuing conversations not only between students and educators, but also between students and practitioners.

Increasing and continuing conversations between students and educators would require educators to reshape their mentality and approach in interacting with students. The notion of conversation implies a two-way street between students and educators rather than a unidirectional transfer of knowledge from educators to students. A meaningful conversation also implies that the parties involved are on an equal footing. Educators should not be preoccupied with the thought that they possess more knowledge (and power) than students. Although transfer of knowledge is still part of the education process, the emphasis on conversation suggests that knowledge is not a key concern in conversations. Rather, the exchange of perspectives would be "the whole idea."

There are many ways to enhance the interactions between students and practitioners. Most schools have internship or the so-called "experiential education" or "student engagement" programs as mentioned earlier. In the context of science education, Nersessian (2003) points out that the textbook-type science education has not been successful in producing practitioners. "Much of the credit for the success in creating practitioners goes to apprenticeship …. during which practices are learned in authentic situations. In apprenticeships, students learn the tacit as well as the explicit practices of the discipline." (p. 189, Italics added). Unlike the traditional education which focuses on the transfer of knowledge, the edification philosophy emphasizes more on awareness and understanding, rather than knowingness. After all, it is not an exaggeration that "Zen masters don't teach; disciples learn."

Since the edification philosophy calls for non-traditional approaches to educating students, it also entails non-traditional approaches to evaluate educators. Furthermore, as mentioned earlier, most educators are likely to be researchers. With the edification philosophy, administrators in academic institutes should not conduct merit review by simply counting how many papers researchers/educators have published. Rather, more emphasis should be place upon how they interact with students (and practitioners, for that matter) in terms of frequency and depth. Have they taken initiatives to develop "edification" programs? How creative are they in developing such programs? What are the efforts and results of their attempts in edifying students and themselves? How much "real world" experience do the courses contain? How many field trips, plant tours, etc. do faculty members arrange for students? How many guest speakers have been invited to class? Perhaps the "music school" model can provide some good ideas for merit review methods. Faculty members in music performance programs are usually evaluated based on how many concerts they performed, how many master classes or workshops they conducted, etc. Ideally, academic institutes should abolish the traditional practice of dividing merit reviews into the three categories of teaching, research and services. An edification program is likely to be a mixture of all three. Administrators too should enhance their own consciousness and awareness. They too should expand their own horizons of understanding. They too should reexamine and revise their own frameworks of understanding from time to time. That is, they should be truly edified open-minded administrators.

CONCLUSION

Today's business environment is characterized by "hyper-activities," "hyper-changes" and "hyper- competitions" (Volberda 1996, Hanssen-Bauer and Snow 1996). Rapid and radical change is the norm for business management. Strong forces of change such as globalization, rapid advances in technology, etc. are reshaping the business landscape worldwide. Such a phenomenon also poses tremendous challenges to business and management education. With information and knowledge "explosion," how can educators continue to focus their tasks on the transfer of knowledge? The transfer of knowledge is an impossible "mission" on the one hand, and an unnecessary "chore" on the other. To acquire information and knowledge, students can simply push the button of their "search engines." They don't need us to hold their hands to do so. Consequently, to educate future executives, leaders, managers, or researchers and educators in business management, we should reshape our mentality, rethink our strategies, and revise our approaches to business and management education. It would be more important to enhance students' understanding, awareness and consciousness of problems and environments than to increase their "knowingness." It would be more important to widen their perspectives and expanding

their horizons than to provide them with theories, laws, rules, etc. (They need to know which buttons to push).

In this paper, an "edification" philosophy for business and management education is suggested. With this philosophy, a focus on redescriptions of business and management problems and facilitating the continuing conversations between students and educators as well as those between students and practitioners, will continue. Students are to immerse themselves in the constantly redescribed stories so as to gain experience, to enhance their understanding and to get a good "feel" of the real world situations. The continuing redescriptions and conversations thus become a tool for "permeation" – a tool for nurturing students so that they become wiser and more creative (but not necessarily more knowledgeable). We also discuss some implementation issues associated with the edification philosophy. To have successful education (edification, to be exact) "programs," all parties involved (e.g., educators, researchers, and administrators) need to be edified. This is by no means an easy task. Further research needs to not only articulate the details of the edification philosophy and programs, but also to look into how to facilitate the smooth transition from an education to an edification mentality. No doubt, such a transition is itself an edification process.

REFERENCES

Barrett, W., Irrational Man: Study in Existential Philosophy, New York: Doubleday, 1958.

Burbridge, J. J., Jr., "Business Schools and the Concept of Student Engagement," Decision Lines, 36(2), 2005, pp. 15-17.

Dewey, J., Human Nature and Conduct – The Middle Works of John Dewey, Carbondale, Ill., Southern Illinois University Press, 1983. Vol. XIV.

Frisina, W. G., The Unity of Knowledge and Action: Toward a Nonrepresentational Theory of Knowledge, Albany, New York: State University of New York Press, 2002.

Gadamer, H.-G., Truth and Method, New York, 1975.

Hanssen-Bauer, J. and Snow, C., "Responding to Hypercompetition: The Structure and Processes of a Regional Learning Network Organization," Organization Science, 7(4), 1996, pp. 417-427.

Hudson, L. A. and Ozanne, J. L., "Alternative Ways of Seeking Knowledge in Consumer Research," Journal of Consumer Research, 14, 1988, pp. 508-521.

Meredith, J. R., "Building Operations Management Theory through Case and Field Research," Journal of Operations Management, (16) 4, 1998, pp. 441-454.

Nersessian, N. J., "Kuhn, Conceptual Change and Cognitive Science," in Nickles ed., Thomas Kuhn, Cambridge University Press, 2003, pp. 178-211.

Pascale, R. T., "Zen and The Art of Management," Harvard Business Review, March-April, 1978, pp. 153-162.

Pascale, R. T. and Athos, A. G., The Art of Japanese Management, New York: Warner Books, 1981.

Rorty, R., Philosophy and the Mirror of Nature, Princeton, New Jersey: Princeton University Press, 1979.

Rorty, R., Objectivity, Relativism and Truth, Cambridge University Press, 1991.

Volberda, H. W., "Toward the Flexible Form: How to Remain Vital in Hypercompetitive Environments," Organization Science, 7(4), 1996, pp. 359-374.

Warnke, G., "Rorty's Democratic Hermeneutics," in Guignon and Hiley, eds., Richard Rorty, Cambridge University Press, 2003, pp. 105 – 123.

Whitehead, A. N., Process and Reality, eds., Griffin, D. R. and Sherburne, D. W., New York: The Free Press, 1978.

Financial Integration of Emerging Markets: Thailand Revisited

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ABSTRACT

In this study, I analyze the financial integration of Thailand's stock markets using return series for individual stocks. In my past research, I concluded that Thailand's stock market showed strong signs of integration with world markets around late 1987. Following the Asian crises of 1997, there is a strong probability that this market may once again have become segmented. I first identify endogeonous breaks in multiple stock return series using updated stock return data that spans the Asian crises and then construct confidence intervals around these break dates. Support that the identified breaks are due to a change in the pricing regime are performed on the return series pre and post break. If Thailand's stock market has indeed become segmented, then we would expect stock market returns to become less correlated with world benchmarks indexes. In addition, the mean returns for these stocks should increase due to decreased demand for Thailand's stocks. Suprisingly, there is no evidence that a switch in pricing regime has occurred for Thailand.

INTRODUCTION

This paper will attempt to identify a switch in the pricing regime of Thailand's stock market. In past research (Goldberg and Delgado, 2001), I have looked at the financial integration of this country's stock market and concluded that Thailand's stock market integrated with world markets in late 1987. Using the same methodology of dating financial integration, I will address the potential segmentation of this stock market due to the events of the late 1990's in that region.

Tracing the evolution of changes in pricing regimes with respect to the political, economic and financial events of emerging markets should be of great interest to practitioners, governments and academics. For instance, portfolio managers who are interested in investing abroad, particularly with the recent decrease in US stock market returns, could use this information in order to decide whether a country presents an attractive alternative for their investment strategy. An academic performing studies on the cost of capital for emerging markets will need to use valid periods of estimation which do not cross the time when markets switch from an integrated to a segmented regime. In this study, I use stock return data in local currency[1] from the Emerging Markets Data Base (EMDB) compiled by the International Finance Corporation (IFC) and attempt to date a pricing regime switch of Thailand's equity market. This study uses the econometric methods developed by Bai, Lumsdaine and Stock (BLS 1998) to identify a single break in multiple time series. I develop a VAR system of autoregressive equations for each of Thailand's stocks in order to identify breaks in each stock and construct confidence intervals for each break. Once a break has been identified, I will provide evidence that this break is indeed due to a switch in the pricing regime of Thailand's stock market. I examine relevant statistics pre and post break that indicate a switch from integration to segmentation. Specifically, I examine (a) differences in mean returns for the individual stocks and (b) regression coefficients (betas) of the individual stocks against the Morgan Stanley World Index (MSWI) pre and post break.

Post segmentation, one would expect mean stock returns to increase. Intuitively, this should happen because of decreased demand in the emerging stock market due to foreigners pulling out of Thailand's stock market. Betas with world indicators should decrease if Thailand's stock market becomes segmented at or around the identified break date (i.e. returns post break should move less closely world indicators).[2]

DATA AND METHODOLOGY

I select the individual stocks for this study based based on a tradeoff between (1) market capitalization and (2) available trading history. Although this did require some qualitative judgement based on what trading period was sufficient, the sample does contain the larger stocks for Thailand. The larger and more frequently traded stocks will exhibit the breaks in the return generating process, which is the necessary condition for a true change in pricing regime to occur.

Utilizing the methodology developed by BLS (1998)[3] I consider the following VAR system of equations:

$$y_t = \mu + \sum_{j=1}^{p} A_j y_{t-j} + \Gamma X_{t-1} + d_t(k)(\delta + \sum_{j=1}^{p} B_j y_{t-j} + \Pi X_{t-1}) + \varepsilon_t \quad (1)$$

where y_t, μ, δ and ε_t are $n \times 1$, A_j and B_j are $n \times n$ and $d_t(k)$ = 0 for $t \le k$ and $d_t(k)$ = 1 for $t > k$. k is the stated break" date, X_t represents an exogenous variable that in our case will be the Morgan Stanley World Index (MSWI).

In order to run the VAR analysis, I first identify the appropriate lag length (testing 0 to 6 lags) in the VAR systems for each of the stocks. Using the criterion developed by Sims (1980), I maximize the following statistic:

$$\lambda = T(\ln|S| - \ln|S^*|) \quad (2)$$

where S is the $n \times n$ residual covariance matrix based on lag length p and S^* is its counterpart

for $p+1$ lags. The statistic has a chi-squared distribution with n^2 degrees of freedom. The test is one in which we keep adding lags

1 I use local currency data in order to avoid identifying a break in stock returns that may actually be the result of the exchange rate present in all individual stock returns if the stock prices are denominated in US dollars.

2 Bekaert, Harvey and Lumsdaine (2001) find that the index returns for their countries are more correlated with world returns post financial integration.

3 All equations are taken directly from BLS (1998).

until the last parameter matrix does not lead to a significant improvement in the fit.

Following BLS (1998), I develop a sequence of Wald statistics for each $k = k^* + 1, \ldots, T - k^*$ where k^* is a 15% trimming value of the sample T 4. For any given k, the estimator of $\hat{B}(k)$ and $\hat{F}(k)$ testing $Sd = 0$ 5, are

$$\hat{B}(k) = \{\sum_{t}^{T} (Z_t \hat{\Sigma}_k^{-1} Z_t')\}^{-1} \sum_{t}^{T} Z_t \hat{\Sigma}_k^{-1} y_t \quad (3)$$

$$\hat{F}(k) = T\{R\hat{B}(k)\}' \{R(T^{-1} \sum_{t=1}^{T} Z_t \hat{\Sigma}_k^{-1} Z_t')^{-1} R'\}^{-1} \{R\hat{B}(k)\} \quad 6 \ (4)$$

where $R = (0, I)$ or $\mathbf{R} = Sd$ and $\hat{\Sigma}_k$ is the Σ obtained from OLS residuals under the alternative hypothesis given k. Based on the sequence of statistics obtained in the previous step, we would choose the maximum F_T process, or the maximum Wald statistic. BLS (1998) show that $F_T(k)$ has the following limiting distribution7

$$F^*(t) = \{t(1-t)\}^{-1} (W(t) - tW(1))^2 \quad (5)$$

for $t \in (0,1)$ where W is a standard Brownian motion process and $\hat{t} = \hat{k}/T$. It is shown that since MAX is a continuous function, BLS (1998) derive $\max_k F_T(k) \Rightarrow SupF^*(t)$. The $\hat{k}$ that maximizes $F_T(k)$ is the estimated break date. The test is called the Sup-Wald test. Critical values are obtained using 2000 Monte Carlo simulations with a discretization grid of 5000. This is a discrete approximation to the limiting distribution of F^*. The dimension q in appendix A is equivalent to the dimension of Sd in $F_T(k)$. We can use this table to compare our $\max F_T(k)$ statistic and thus test for significance at the 10%, 5% and 1% levels.

Using the derivation of BLS (1998, Theorem 4) confidence intervals can be constructed for the breakpoint by:

$$\hat{k} \pm a_{i/2p} [\, Sd_T)' S(\hat{Q} \otimes \hat{\Sigma}_{\hat{k}}^{-1}) S'(Sd_T)\,]^{-1} \quad (6)$$

where $\hat{Q} = 1/T \sum_{t=1}^{T} V_t V_t'$ 8 and $\alpha_{1/2\pi}$ = 4.67 and 7.63 for 90th and 95th percentiles respectively.9

I postulate that the larger stocks within a country may be more apt to result in a break due to foreign investor interest. Thus, I run the VAR system on the largest 3 and 5 market capitalization stocks for Thailand, and on all stocks in the country in order to test for significance and improvement in interval width.

Support for integration

I attempt to support the break date results in two ways. First, I run a series of regressions of the stock returns on the MSWI. I test to see if the covariance of Thailand's stock returns decreases with the world indicator index. The following Wald statistic which tests for a significant difference in the betas pre and post break date:

$$W = (B_{pre} - B_{post})(V_{pre} + V_{post})^{-1}(B_{pre} - B_{pos} \quad (7)$$

where W is distributed chi-squared with one degree of freedom, B represents the regression coefficient of the stock return on the MSWI and V represents the White variance-covariance matrix of the estimated coefficients adjusted for heteroscedasticity. My prior is that post segmentation, we should see a decrease in the beta coefficients with respect to the MSWI. The reasoning is quite simple—if Thailand's stock market does return to a segmented regime at or around the identified break date, then returns post break should move less closely with world indicators.

In addition, the mean stock returns pre and post break date (disregarding 3 months on either side of the break date) should increase. One explanation for this is that the price of the stock will decrease at that time by the decreased demand and thus the overall yield is more. Another argument is that the risk sharing that once occurred due to foreigners adding these stocks to their portfolios will decrease and hence, the risk of holding that stock will increase driving returns up.

RESULTS

In my original study, Thailand was the only country in our South Asia sample that produced results supporting financial integration. In this study, I examine the monthly returns for twelve of Thailand's largest stocks for the period January 1990 to October 2002. Ten of the twelve stocks in the sample, the VAR system of the 3 largest stocks and the country index in US currency result in significant break dates corresponding to late 1997 to mid 1998 (See table 1). In addition, the confidence intervals for these break dates do contain the month (July 1997) that the Thai Baht experienced a significant devaluation.

Using the July 1997 as the break date for testing the data, I find the test for a decrease in beta post break yields insignificant results for all 12 stocks. The one significant result, for stock 2 indicates an increase in the beta of the stock. Except for 2 of the stocks in our sample, tests for an increase in the mean return of the stocks post break also yields insignificant results. (See table 3)

The fall of the Thai Baht in July 1997 was followed by a mass restructuring of financial institutions. In addition, currency controls

8 $V_t = (1, y_{t-1}, \ldots, y_{t-p}, X_{t-1})$ where the y variables represent the lags of the stock returns in the VAR and X represents the MSWI.

9 Picard (1985) provides a proof of the limiting distribution of V^* and derives these values.

Table 1
Break Points and Confidence Intervals for Individual Stocks

Individual Stock	Name	Market Cap	Break	95% conf	Wald	Significance
1	Bangkok Bank	250,319	Sept 98	June 98 to Dec 01	7.85	
2	Siam Cement	178,320	Oct 97	June 95 to Feb 00	9.36	*
3	Kasikornbank	160,000	Feb 98	June 95 to Oct 00	9.91	*
4	Siam Commercial Bank	116,341	Aug 98	Oct 95 to June 01	8.23	**
5	Bank Ayudhya	65,500	Sept 98	Apr 97 to Apr 00	15.86	***
6	Siam City Cement	62,499	June 98	May 97 to Jul 99	26.81	***
7	IFCT	62,098	Nov 97	Apr 96 to Jun 99	15.39	***
8	NFS	37,151	Jan 98	Jan 96 to Jan 00	11.49	*
9	Charoen Pokphand Foods	29,924	May 98	May 94 to May 02	6.65	
10	TISCO	23,413	Apr 98	Dec 95 to Aug 00	11.59	**
11	Padaeng Industry	14,432	Aug 96	Jun 95 to Oct 97	21.35	***
12	Saha Union	12,150	Oct 97	Jul 94 to Jan 01	8.18	**
Largest 3			Apr 98	Dec 97 to Aug 98	53.95	*
Largest 5			Sept 98	May 98 to Jan 99	66.55	
All 12			May 98	Apr 98 to June 98	148.62	
Local Index			Feb 00	May 97 to Nov 02	5.59	
US Index			Dec 97	Dec 95 to Dec 99	13.42	**

Table 2
Betas Pre and Post Break Date

		Beta With MSWI			
Stock	Name	Pre-Break	Post-Break	Wald	Sig.
1	Bangkok Bank	1.0019	1.4714	0.8625	
2	Siam Cement	0.8171	1.7955	5.2191	**
3	Kasikornbank	0.8171	1.5346	2.2214	
4	Siam Commercial Bank	1.0248	1.6091	0.9634	
5	Bank Ayudhya	1.0696	1.4649	0.3815	
6	Siam City Cement	1.3083	1.3848	0.0158	
7	IFCT	1.4874	1.8809	0.4195	
8	NFS	1.7236	1.6915	0.0013	
9	Charoen Pokphand Foods	0.3948	0.6288	0.2346	
10	TISCO	1.3980	1.8590	0.3761	
11	Padaeng Industry	0.7111	0.7352	0.0025	
12	Saha Union	0.8304	0.9835	0.1043	

Note: The difference in betas is distributed chi-squared with 1 degree of freedom. The 10% critical value is 2.71 (*) and the 5% critical value is 3.84 (**).

Table 3
Mean Stock Returns
Pre And Post Break Date

		Mean Return			
Stock	Name	Pre-Break	Post-Break	Test: U post > U pre	
1	Bangkok Bank	0.0198	-0.0125	1.2249	
2	Siam Cement	-0.0037	0.0214	-0.9552	
3	Kasikorn Bank	0.0175	-0.0116	1.0809	
4	Siam Commercial Bank	0.0115	-0.0171	0.8281	
5	Bank Ayudhya	0.0066	-0.0234	0.8958	
6	Siam City Cement	-0.0192	0.0233	-1.4014	*
7	IFCT	0.0122	-0.0282	0.9411	
8	NFS	-0.0073	-0.0009	-0.1539	
9	Charoen Pokphand Foods	-0.0028	0.0051	-0.3015	
10	TISCO	-0.0051	-0.0145	0.2140	
11	Padaeng Industry	-0.0321	0.0065	-1.5470	*
12	Saha Union	-0.0081	-0.0044	-0.1814	

were dismantled in January 1998. Because many of the companies in this sample are financial institutions, I believe that the break dates identified in 1998 were due to these events. In order to test for possible segmentation in early 1998, I reran the results for tables 2 and 3 but did not find any significant results.

CONCLUSIONS

In this paper, I attempt to identify break dates of Thailand's stock market and more importantly to confirm whether econometric breaks are indicative of a change in the country's stock market pricing regime. The main conclusion is that Thailand's stock market appears to have remained integrated with world markets despite turmoil experienced by that country in 1997 and 1998. Significant breaks identified may coincide with the restructuring of Thailand's financial markets due to the financial and economic crisis of that region.

There is no evidence to support my initial hypothesis that the Thailand stock market may have moved to a segmented regime. Betas do not decrease and mean stock returns are unchanged for the time period examined. Concurrent with the local crises, the government attempted to open up markets further to foreigners by relaxing ownership laws in companies traded on the Thai exchange. Foreigners may have recognized and seized the opportunity to invest in this undervalued market. The continued transparency of the Thai market due to stringent regulation may have also aided in attracting foreigners and maintaining the integrated regime of the Thai stock market.

BIBLIOGRAPHY

Bai, J., Lumsdaine, R.L., and Stock, J.H. (1998), "Testing For and Dating Common Breaks in Multivariate Time Series", Review of Economic Studies, 65, 395-432.

Banarjee, A., Lumsdaine, R. L., and Stock, J. H. (1992), "Recursive and Sequential Tests of the Unit Root and Trend Break

Appendix A Asymptotic Critical Values for maxF(k) Test Statistic				
Dimension (q)	**15%**	**10%**	**5%**	**1%**
1	2.04	2.69	3.88	6.81
2	3.78	4.59	5.96	9.02
3	5.19	6.12	7.62	11.04
4	6.71	7.72	9.39	13.19
5	8.13	9.27	11.14	15.20
6	9.37	10.6	12.66	17.05
7	10.81	12.1	14.15	18.53
8	11.93	13.23	15.39	20.01
9	13.42	14.83	17.07	21.82
10	14.48	15.90	18.22	23.12
11	15.76	17.27	19.66	24.60
12	17.14	18.73	21.21	26.19
13	18.15	19.72	22.17	27.18
14	19.40	21.00	23.51	28.95
15	20.60	22.30	25.01	30.57
16	21.72	23.43	26.14	31.58
17	22.99	24.82	27.70	33.64
18	24.11	25.92	28.74	34.76
19	25.23	27.10	29.94	35.86
20	26.54	28.47	31.47	37.69
21	27.70	29.67	32.77	38.92
22	28.60	30.56	33.61	39.73
23	29.86	31.83	34.90	41.40
24	31.33	33.42	36.74	43.40
25	32.13	34.22	37.46	43.87
26	33.53	35.73	39.15	45.83
27	34.36	36.56	39.87	46.72
28	35.62	37.81	41.18	48.12
29	36.89	39.11	42.48	49.14
30	37.77	40.01	43.47	50.48
31	39.06	41.31	44.78	52.05
32	39.98	42.30	45.90	53.09
33	41.21	43.57	47.24	54.61
34	42.16	44.58	48.35	56.03
35	43.80	46.21	49.90	57.63
36	44.75	47.26	51.01	58.44
37	45.73	48.17	51.95	59.50
38	46.85	49.42	53.43	61.30
39	48.02	50.53	54.31	62.02
40	49.20	51.75	55.71	63.71
41	50.25	52.90	56.95	65.20
42	51.36	53.99	58.04	65.97
43	52.67	55.27	59.36	67.72
44	53.76	56.48	60.61	69.11
45	55.06	57.79	61.94	70.35
46	55.90	58.67	62.90	71.67
47	56.90	59.66	63.87	72.28
48	57.88	60.60	64.80	73.43
49	59.25	62.12	66.48	75.14
50	60.41	63.32	67.73	76.13

Notes: Generated using

$$F^*(\mathrm{t}) = \{\mathrm{t}\,(1-\mathrm{t})\}^{-1}(W(\mathrm{t}) - \mathrm{t}\,W(1))^2 .$$

See explanation in methodology section. Values for q greater than 50 available upon request.

Hypotheses: Theory and International Evidence", Journal of Business and Economic Statistics, 10, 271-288.

Bekaert, G., Harvey, C.R., and Lumsdaine, R.L. (2001), "Dating the Integration of World Equity Markets", Working Paper, Stanford University, Duke University, and Brown University.

Domowitz,G., Glen, J. and Madhavan, A. (1997), "Market Segmentation and Stock Prices: Evidence from an Emerging Market", Journal of Finance, 52, 1059-1085.

Fama, Eugene, F., and French, K.R. (1997), "Industry Costs of Equity", Journal of Financial Economics, 43, 153-193.

Goldberg, Cathy S. and Delgado, F.A. (2001) ,"Financial Integration of Emerging Markets: An Analysis of Latin America Versus South Asia Using Individual Stocks" Multinational Finance Journal, 5, 259-301.

Hamilton, J. D. (1994), Time Series Analysis (Princeton: Princeton University Press).

Picard, D. (1985), "Testing and Estimating Change-Points in Time Series", Advances in Applied Probability, 176, 841-867.

Stock, J. H. (1994), "Unit Roots, Structural Breaks, and Trends", in Engle, R. and McFadden, D. (eds.), Handbook of Econometrics, Volume IV (Amsterdam: Elsevier), 2740-2843.

Information Content of Analysts' Forecasts in the Presence of Frequent Special Items

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ABSTRACT

Information content of analysts' earnings and GAAP earnings before special items are compared in the presence of frequent special items, by regressing short-window returns around quarterly earnings announcements on earnings surprises based on GAAP earnings before special items and analysts earnings respectively. Firm-quarters are identified with the frequency of special items over prior quarters. With an increase in frequency of special items, the information content, as measured by earnings response coefficient (ERC), decreases for GAAP earnings, but shows no pattern for analysts' earnings. For each frequency of special items, ERCs for analysts' earnings are significantly higher than those for GAAP earnings. Inter-temporal increase in the frequency of large special items is also documented. ERCs for both GAAP earnings and analysts' earnings decline as the magnitude of special items increases. (We are grateful to Doug Hanna, Pam Peterson, and workshop participants at Florida State University for their comments and suggestions.)

INTRODUCTION

Accounting researchers have been puzzled by the failure of stock prices to fully reflect well-known time-series properties of earnings.[1] To solve this puzzle, the focus of researchers has recently shifted to various components of earnings. Generally accepted accounting principles (GAAP) require that certain components of earnings be shown separately from earnings from continuing operations. The GAAP requirement implicitly assumes that market participants benefit from the decomposition of earnings into its various components. It is quite likely that market participants treat various components of earnings differently in determining their relationship to future earnings. This likelihood has been suggested in many research papers (e.g., Dechow et al., 1994; Elliott and Hanna, 1996; Francis et al., 1996; Hodgson and Stevenson-Clarke, 2000; Burgstahler et al., 2002).

One such component, special items, has been a focus of renewed attention by Wall Street, academia, and regulators. Both the frequency and magnitude of special items have increased in the past few years. Analysts and regulators alike have been confounded by the nature of special items and their impact on the quality of reported earnings.[2] Special items are deemed to be a transitory component of earnings. Because they should be either unusual or infrequent, they should have a minimal impact on the current valuation of a firm. In practice, though, both the frequency and magnitude of special items have increased. A growing trend among firms reporting earnings is that they emphasize 'pro-forma' earnings, which excludes many expenses required under GAAP. The main difference between GAAP based earnings and 'pro-forma' earnings is that the latter excludes most non-recurring charges such as write-downs or restructuring charges, which are typically classified as special items.[3] Analysts also use pro-forma earnings, rather than GAAP earnings, for their forecasts. Recent studies have shown that the association between earnings and stock prices have declined over time (see Bradshaw and Sloan, 2002; Collins et al., 1997; Francis and Schipper, 1999; Chang, 1999). Bradshaw and Sloan (2002) provide evidence that while the value relevance of GAAP-based earnings has declined, there has been a dramatic increase in the association between stock prices and 'pro-forma' earnings that are emphasized by managers and used by analysts.

Given the increasing importance of analysts' earnings for investors, a related question is whether the association between pro-forma earnings and stock prices is weakened in the presence of frequent special items. Elliott and Hanna (1996, henceforth EH96) showed that in the presence of frequent special items, the earnings response coefficient (ERC) for earnings before special items declines and remains low for some periods thereafter. They also find that the ERC on special items itself decreases as the frequency of special items increases. EH96 results were based on GAAP earnings before special items using a seasonal random walk (SRW) model for the expectations of earnings. We contribute to the extant literature by examining the same issue for pro-forma earnings in the presence of frequent special items, using analysts' actual earnings as a measure of pro-forma earnings and analysts' forecasts for the expectation of pro-forma earnings. We also provide a comparison of ERCs in the presence of special items for (a) GAAP earnings before special items and (b) analysts' earnings.

Specific findings of our paper are as follows. (a) We find that ERCs are consistently higher for the analysts' forecasts proxy than for the seasonal random walk proxy. This finding is consistent with growing evidence that the market responds more to analysts' earnings than to GAAP based earnings. (b) Similar to EH96, we find a consistent pattern in the ERCs for the seasonal random walk proxy as the frequency of special items increases; however unlike EH96, we find no specific pattern in the ERCs for analysts' earnings. ERCs for pro-forma earnings do not decline monotonically when the frequency of special items increases. (c) ERCs of pro-forma earnings conditional upon the magnitude of special items decline as the magnitude of special items increases. This result suggests that the *magnitude* of special items plays a more important role in the decline of ERCs than the *frequency* of special items.

1 For example see Bernard and Thomas (1990), Rendleman *et al.* (1982), Ball and Bartov (1996), Sloan (1996), and Frankel and Lee (1998).

2 See for example Weil's articles in the Wall Street Journals of August 21, 2001, and December 5, 2001, respectively.

3 Firms and analysts are more likely to exclude non-recurring charges, but include non-recurring revenues.

The rest of the paper is organized as follows. Section 2 describes the data, variables, and classifies firm-quarters into one or more write-off categories similar to the procedure used by EH96. Section 3 provides results of procedures to mitigate measurement errors in proxies for unexpected earnings and compares them with results of EH96. Section 4 concludes the paper and suggests implications for future research.

DATA AND SAMPLE CLASSIFICATION

The data is taken from the intersection of firms available in the 2003 Quarterly COMPUSTAT database, and the corresponding CRSP and I/B/E/S databases obtained from the Wharton Research Data Services.

For GAAP based earnings before special items, we define the unexpected earnings based on the seasonal random walk model, UESRW, as follows:

$$UESRW_{jt} = X_{jt} - X_{jt-4} \quad (1)$$

where X_{jt} is firm *j*'s earnings before special items for quarter t. Earnings before special items are computed as income before extraordinary items (Compustat Data Item 8) adjusted for special items (Compustat Data Item 32), income taxes (Compustat Data Item 6), and minority-interest (Compustat Data Item 33).

For analysts' earnings, we define unexpected earnings based on analysts' forecasts, UEFOR, as follows:

$$UEFOR_{jt} = ACT_{jt} - FOR_{jt} \quad (2)$$

where ACT_{jt} is firm *j*'s actual earnings for quarter *t*, as reported in the I/B/E/S datset. FOR_{jt} is the mean I/B/E/S forecast for firm *j*'s quarter *t* earnings, made during the last month of the quarter. As Bradshaw and Sloan (2002) documented, actual earnings in the I/B/E/S database exclude special items and other non-recurring charges. This ensures a meaningful comparison of the $UESRW_{jt}$ and $UEFOR_{it}$ variables as neither variable includes special items.

Special Items (SI_{jt}) is included in regression analysis as a separate variable, and is defined as the amount of firm *j*'s pretax special items (Compustat Data Item 32). MV_{jt} is the market value of firm *j* as of the end of the fiscal quarter prior to the earnings announcement date. CAR_{jt} is firm *j*'s market-adjusted excess return over days [-1,0] relative to the earnings announcement date.

To identify firms with one or more occurrences of special items, and to measure the impact of special items in succeeding quarters on the earnings-return relationship, we use the EH96 methodology. In general, their methodology classifies each firm-quarter into one of the six types, described later in detail. Each classification indicates how many large (defined as 1% of total assets) special item charges (i.e., negative special items) were incurred by that firm in a moving window of up to sixty quarters.

Specifically, we identify those firm-quarters for which special item charges are in excess of 1% of beginning-of-period total assets. For each firm we identify the frequency of special item charges by the number of occurrences of special item charges in a time series for that firm in which none of any two consecutive special items are more than 12 quarters apart. We require an initial period of 20 fiscal quarters with no large special item charges before we include a firm in the sample.

After applying the selection criteria, the final sample consists of 6,504 firms encompassing 113,979 firm-quarters during the period 1984-2003. I/B/E/S forecasts were not available prior to 1984; hence, our sample period begins that year.

Consistent with EH96, we classify our sample into the following six sub-samples:

1. no special items in the quarter, and no special items in any of the previous 12 quarters (No Special Items category),
2. the first quarter subsequent to (1) above in which a special item was incurred and subsequent quarters (up to 12) if no additional special items were incurred (1 Special Item category),
3. the first quarter in which a second special item was incurred within 12 quarters of the first special item and subsequent quarters (up to 12) if no additional special items were incurred (2 Special Items category),
4. the first quarter in which a third special item was incurred within 12 quarters of the second special item and subsequent quarters (up to 12 quarters) if no additional special items were incurred (3 Special Items category),
5. the first quarter in which a fourth special item was incurred within 12 quarters of the third special item and subsequent quarters (up to 12 quarters) if no additional special items were incurred (4 Special Items category), and
6. quarters in which at least a fifth special item was incurred within 12 quarters of the fourth special item and subsequent quarters (up to 12 quarters) (>4 Special Items category).

Our results are qualitatively consistent with EH96 for the mean and the median of scaled earnings before special items as both monotonically decrease from the "No Special Items" category to the ">4 Special Items" category.

Table 1 provides a summary of sample firm characteristics. Using I/B/E/S data results in larger size firms in this study than firms in the EH96 sample. The median market value of increases monotonically from the '0 Special Items' category to the '> 4 Special Items' category. Sample firms' beta is slightly below 1. The median debt-to-equity ratio is stable at approximately 40% across all categories, although the mean value varies across different categories.

RESULTS

Comparison of individual proxies

We begin our analysis by estimating the following equation:

$$CAR_j = b_0 + b_1(UESRW_j / MV_j) + b_2(SI_j / MV_j) + e_j \quad (3)$$

As shown, the equation uses the SRW proxy of unexpected earnings, UESRW. ERC is the parameter estimate β_1, and β_2 is the ERC for special items. We use the above equation to test whether the ERCs change as the sequence of special items lengthens. Next, we estimate equation (3) using analysts' forecast as a proxy for unexpected earnings in lieu of UESRW, which results in the following equation:

$$CAR_j = b_0 + b_1(UEFOR_j / MV_j) + b_2(SI_j / MV_j) + e_j \quad (4)$$

Table 2 summarizes the results of estimating equations (3) and (4). The regression equations are estimated separately for each category as well.

We use a Chow test to check for structural stability of coefficients across various sub-samples. For UESRW (UEFOR), a Chow test rejects with F= 4.97 (does not reject) the null hypothesis of no structural change across the sub-samples of "No Special Items" and the union of categories with at least one special item. Similarly, for UESRW (UEFOR), a Chow test rejects with F= 2.73 (does not reject) the null hypothesis of no structural change across the sub-samples of the "1 Special Item" category with a union of categories with two or more special items.

The parameter estimate of special items, β_2, does not show a monotonic pattern. For the UESRW model, β_2 positive for all categories, and for the UEFOR model, β_2 is positive for all categories except for the ">4 Special Items", for which it is negative. β_2 is not significant for any category.

Results in Table 2 also show that while there is no monotonic pattern in the decline of ERCs for UEFOR, for each category, the ERC for UEFOR is greater than for UESRW. The differences in the ERCs of UEFOR and UESRW are significant at the 1% level or better for all categories. These results are consistent with prior literature that association of stock prices is greater with analysts' earnings than with GAAP earnings. Further, our results show that the superiority of the association of stock prices with analysts' earnings does not decline as the frequency of special items increases.

In summary, we find that the parameter estimate of unexpected GAAP earnings (UESRW) declines from the "No Special Item" category to the "3 Special Items" category, and then rises for the "4 Special Items" category. We find no identifiable pattern for the parameter estimate of unexpected pro-forma earnings (UEFOR). Our conjecture is that the market attempts to take the first occurrence of special items in stride but is utterly confounded by other large special item charges within a short period. Increased coefficients for later instances of special items suggest that the market is better able to understand the nature of the special items, as well as its implications for future earnings.

Magnitude of special items and the information content of earnings

To test the impact of large special items on the parameter estimate of unexpected earnings, we select a sample of all 16,982 firm-quarters that had a write-off greater than 1% of total assets. We group these observations into quintiles based on the magnitude of special items. Next we run a cross-sectional regression of abnormal returns on UESRW (UEFOR) separately for each quintile of special items. Results of our analysis are reported in Table 3. As the magnitude of special items increases, the parameter estimate of unexpected earnings declines for UEFOR; however, there is no consistent pattern for UESRW. The overall drop in the parameter estimate from the lowest quintile of special items to the highest quintile of special items is 40% for UEFOR. The decline is most precipitous when special items increase from the lowest quintile to the next lowest quintile. For UESRW (UEFOR), the ERC drops by 39% (46%). These results suggest that as the magnitude of special items increases, investors are faced with an increasingly uncertain accounting environment and are unable to rely on earnings to the same extent. Evidence suggests that investors ignore special items of relatively low magnitude, but the moment they exceed a certain level, they become suspicious of reported earnings. A decrease in the parameter estimate is also consistent with investors obtaining information prior to the release of earnings. It is possible that for special items of large magnitudes, firms may have released information before the announcement of earnings.

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

Special items have become a regular feature of corporate earnings announcements. The frequency and magnitude of special items cause difficulty for investors to evaluate both the current and future performances of a firm. Prior research has documented that the information content of GAAP earnings before special items declines in the presence of frequent special items.

To examine the impact of frequent special items on the information content of analysts' earnings we compare the information content of analysts' earnings and GAAP earnings before special items when firms have taken frequent special item charges. Our results show that, consistent with prior research, information content of GAAP earnings before special items declines as frequency of special items increases; however, there is no similar pattern in the ERCs of pro-forma earnings.

Table 1
Firm Characteristics

	Market Value[a] (In Millions)		Total Assets[a] (In Millions)		Beta[a]		Debt-Equity Ratio[a]		Dividend Yield[a]	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
All Observations	2,279	319	3,341	340	0.73	0.73	0.94	0.41	0.02	0
No Special Items	1,926	282	4,247	333	0.73	0.73	1.00	0.43	0.03	0.001
1 Special Item	2,274	324	1,917	299	0.72	0.72	0.60	0.40	0.02	0
2 Special Items	2,473	345	1,863	332	0.72	0.73	0.74	0.38	0.01	0
3 Special Items	2,651	377	1,958	336	0.72	0.73	0.71	0.37	0.01	0
4 Special Items	2,904	471	1,948	400	0.72	0.73	0.44	0.36	0.01	0
>4 Special Items	4,507	646	2,602	551	0.73	0.74	1.92	0.36	0.004	0

aMarket value is the end of quarter close price (Compustat data item #14) multiplied by the common shares outstanding at the end of the quarter (Compustat data item #61). Total assets at the end of the quarter is Compustat data item #44. Beta measures the sensitivity of a company's stock price to the overall fluctuation in the Standard & Poor's 500 Index Price and is obtained from Research Insight. The debt-equity ratio is the sum of debt in current liabilities (Compustat data item #45) and long-term debt (Compustat data item #51) divided by total stockholders' equity (Compustat data item #60). Dividend yield is annual dividends to common stockholders (Compustat data item #20) divided by common shares outstanding (Compustat data item #61).

TABLE 2
REGRESSIONS WITH INDIVIDUAL PROXIES OF UNEXPECTED EARNINGS

Cross-Sectional Earnings Response Coefficients[a]

$$CAR_{jt} = b_0 + b_1(UESRW_j / MV_j) + b_2(SI_j / MV_j) + e_j \quad (3)$$

$$CAR_{jt} = b_0 + b_1(UEFOR_j / MV_j) + b_2(SI_j / MV_j) + e_j \quad (4)$$

			OLS Regression Results[b]			
Category[c]	**N**	**Eq.**	**Intercept**	**UESRW**	**UEFOR**	**NETSI**
All observations	113,979	(3)	0.18	29.64		1.13
			(9.75)	(39.44)		(0.71)
		(4)	3.27		59.14	2.49
			(17.52)		(32.30)	(0.16)
No Special Items[d]	67,459	(3)	0.10	33.69		6.59
			(4.49)	(32.92)		(0.90)
		(4)	0.24		61.86	2.93
			(10.94)		(24.60)	(0.40)
1 Special Item	19,127	(3)	3.04	30.04		2.72
			(3.29)	(17.00)		(0.89)
		(4)	0.47		60.31	2.73
			(9.45)		(14.20)	(0.89)
2 Special Items	9,942	(3)	3.57	27.08		4.16
			(4.93)	(11.05)		(1.04)
		(4)	0.52		53.71	3.47
			(7.05)		(9.31)	(0.86)
3 Special Items	5,844	(3)	3.20	23.93		7.19
			(3.32)	(7.49)		(1.38)
		(4)	0.48		60.39	6.01
			(4.98)		(7.77)	(1.15)
4 Special Items	3,777	(3)	0.42	27.52		6.64
			(3.41)	(6.64)		(0.77)
		(4)	0.56		47.83	6.17
			(4.44)		(4.64)	(0.92)
>4 Special Items	7,830	(3)	0.21	17.91		0.63
			(2.59)	(6.83)		(0.16)
		(4)	0.35		57.43	-0.02
			(4.35)		(8.75)	(-0.51)

[a]A special item (Compustat quarterly item #32) is classified as large if it exceeds 1% of the beginning-of-quarter total assets. Included firms have at least 20 consecutive quarters without a special item. Additionally, included firm-quarters must have consensus forecasts from the third month of the quarter from the IBES database. The resulting sample is composed of 6,504 firms with 113,979 fiscal quarters. Parameter estimates are multiplied by 100 to enhance comparisons. For each regression, the first row contains the parameter estimates, and the second row contains the OLS *t*-statistics (n parenthesis).

[b]Earnings are measured as earnings before special items. Earnings before special items are calculated as "earnings before extraordinary items" adjusted for tax expense and special items. Both the earnings and the special item variables are deflated by beginning-of-period market capitalization.

[c]The regression equation was estimated separately for each of the categories.

[d]The variable NETSI measures all special items, while the categories are based on large special items (those greater than 1% of market value). Thus, the category No Special Items has a coefficient for NETSI.

TABLE 3
ERCS BY QUINTILES OF SPECIAL ITEMS
Cross-Sectional Earnings Response Coefficients[a]

$$CAR_{jt} = b_0 + b_1(UESRW_j / MV_j) + e_j \quad (5)$$

$$CAR_{jt} = b_0 + b_1(UEFOR_j / MV_j) + e_j \quad (6)$$

OLS Regression Results[b]

Quintiles of Special Items/ Market Value	N	Special Item as a % of Market Value	Eq.	Intercept	UEFOR	UESRW
Quintile 1	3,396	0.06	(5)	0.13	73.88	
				(1.34)	(4.70)	
			(6)	0.05		12.92
				(0.51)		(2.17)
Quintile 2	3,397	0.26	(5)	0.23	58.45	
				(2.15)	(4.64)	
			(6)	(0.12)		15.03
				(1.17)		(3.18)
Quintile 3	3,396	0.66	(5)	0.03	69.12	
				(0.27)	(6.07)	
			(6)	(-0.11)		26.40
				(-0.99)		(5.96)
Quintile 4	3,397	1.64	(5)	0.11	47.12	
				(0.92)	(5.34)	
			(6)	-0.04		16.72
				(-0.34)		(4.55)
Quintile 5	3,396	5.7	(5)	0.21	43.36	
				(1.61)	(6.96)	
			(6)	-0.03		12.61
				(-0.20)		(4.16)
Total	16,982					

[a]A special item (Compustat quarterly item #32) is classified as large if it exceeds 1% of the beginning-of-quarter total assets. Included firms have at least 20 consecutive quarters without a special item (beginning after 1983). Additionally, included firm-quarters must have consensus forecasts from the third month of the quarter from the IBES database. The resulting sample is composed of 6,504 firms with 113,979 quarters. For each regression, the first row contains the parameter estimates, and the second row contains the OLS *t*-statistics (in parentheses).

[b]Earnings are measured as earnings before special items. Earnings before special items are calculated as "earnings before extraordinary items" adjusted for tax expense and special items. Both the earnings and the special item variables are deflated by beginning-of-period market capitalization.

In addition, we find that after controlling for the frequency of special items, the information content of pro-forma earnings is higher than that of GAAP earnings before special items. Our results add to the growing evidence that investors respond more to non-GAAP and pro-forma earnings that are in vogue with analysts than to GAAP earnings. Finally, we find that the information content of pro-forma earnings declines with the increase in the magnitude of special items. This result suggests that the *magnitude* of special items plays a more important role in the decline of ERCs than the *frequency* of special items.

REFERENCES

Ball, R. and E. Bartov, 1996, How naïve is the stock market's use of earnings information? *Journal of Accounting and Economics* 21 (3), 319-337.

Bernard, V. L., and J. K. Thomas, 1990, Evidence that stock prices do not fully reflect the implications of current earnings for future earnings, *Journal of Accounting and Economics* 13 (4), 305-340.

Bradshaw, M. T., and R. Sloan, 2002, GAAP versus the Street: An empirical assessment of two alternative definitions of earnings, *Journal of Accounting Research* 40 (1), 41-66.

Burgstahler, D, J. Jiambalvo, and T. Shevlin, 2002, Do stock prices fully reflect the implications of special items for future earnings? *Journal of Accounting Research* 40 (3), 585-612.

Chang J, 1999, The decline in value relevance of earnings and book values. Working paper, Harvard University, Boston. MA.

Collins D.W., E.L. Maydew, and I.S. Weiss, 1997, Changes in value relevance of earnings and book-value over past forty years, *Journal of Accounting and Economics* 24 (4), 39-68.

Dechow, P., M. Hutton, and R. Sloan, 1994, The effect of restructuring charges on executives' cash compensation, *The Accounting Review* 69 (1), 138-156.

Elliott, J. A. and J.D. Hanna, 1996, Repeated accounting write-offs and the information content of earnings, *Journal of Accounting Research* 34 (3), 135-156.

Francis, J., D. Hanna, and L. Vincent, 1996, Causes and effects of discretionary asset write-offs, *Journal of Accounting Research* 34 (3). 117-134.

_____ _, and K. Schipper, 1999, Have financial statements lost their relevance? *Journal of Accounting Research* 37 (3), 319-352.

Frankel, R. and C. Lee, 1998, Accounting valuation, market expectations, and cross-sectional stock returns, *Journal of Accounting and Economics* 34 (3), 283-319.

Hodgson, A. and P. Stevenson-Clarke, 2000, Earnings, cash flows and returns: functional relations and the impact of firm size, *Accounting and Finance* 40 (1), 51-73.

Rendleman, R. J., Jr., C. P. Jones, and H. A. Latane, 1982, Empirical anomalies based on unexpected earnings and the importance of risk adjustments, *Journal of Financial Economics* 10 (3), 269-287.

Sloan, Richard D., 1996, Do stock prices fully impound information in accruals about future earnings? *The Accounting Review* 71 (3), 289-315.

Weil, J. "SEC Warns Against Improper Use of 'Pro Forma' Financial Results." *Wall Street Journal* (December 5, 2001): Money and Investing Section.

Weil, J. "Companies Pollute Earnings Reports, Leaving P/E Ratios Hard to Calculate". *Wall Street Journal* (August 21, 2001): Page One Feature.

Interactivity in a Distance Learning Environment

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ABSTRACT

The purpose of this study is to discuss the benefits of interactivity in a distance learning (DL) course as well as learn how to assess the quality of interactivity in DL courses, utilizing an evaluation rubric.

DL is a new way of teaching and learning. Therefore, faculty must alter both course design and teaching strategies to meet the demands of the innovation, utilizing technologies, and ensuring maximum interaction and interactivity.

But students must take control and more responsibility for their learning and provide objective feedback. The results of the evaluation rubric will be increased student participation, responsibility, and the control of their learning. Faculty will also derive tremendous benefits in that they will do a little less work for higher productivity.

INTRODUCTION

At the Organizational Systems Research Association Conference, in Dallas, TX, last year (2005), I presented a paper titled "Interactive Distance Learning: Suggestions for Effective Teaching." During the literature review of the study, I became interested in another topic. That topic is the theme of my presentation today: Interactivity in a Distance Learning Environment.

This presentation is important because interactivity in a distance learning environment seems to have an impact on student achievement and satisfaction (Zirkin and Sumler, 1995), reported in Roblyer and Ekhaml, (2000). The authors found that in a DL situation, increased student involvement by interaction resulted in increased learning, as evidenced by such assessment strategies as test performance, grades, and student satisfaction.

Emphasizing the importance of DL, Palloff and Pratt (2000), cited in Valentine (2004), agreed that interactivity or "collaborative learning processes assist students to achieve deeper levels of knowledge generation through the creation of shared goals, shared exploration, and a shared process of problem solving." Therefore, the instructor should be aware of this importance in a distance learning course and encourage collaborative learning and a sense of community among the students.

Problem

Studies show that instructors' attitude toward teaching in a distance learning environment, is a major potential obstacle to effective distance learning (Valentine, 2000). For many instructors, interactivity in a DL situation is disruptive. These instructors prefer lectures because lectures give them control and power. For example, a study by Smith (1996), found that about 30% of the nearly 400 respondents to a survey, about distance learning, said that they would never choose DL because they felt that it could never provide the qualities they desire in a face-to-face course. This type of finding gives faculty the wrong impression of DL.

Purpose

The two-fold purpose of this study is to help the participants to:

1. Discuss the benefits of interactivity in a distance learning course and
2. Learn how to assess the quality of interactivity in DL courses, utilizing an evaluation rubric.

LITERATURE REVIEW

Defining learning

Learning is what people do when they want to make sense of the world. It is a process of active engagement, which results in experiences such as increase in skills, knowledge, understanding, values, and the capacity to reflect. Effective learning leads to change, development, and a desire to learn more (Karaliotas, 1998).

Distance Learning

As cited in Sherry (1988), distance learning is the separation of teacher and learner in space and/or time (Perraton, 1988), the student's choice and control of learning rather than the distant instructor's (Jonassen, 1992), and the distant communication between student and teacher, mediated by print or some form of technology (Keegan, 1986). Greenberg (1998) defines distance learning as "a planned teaching/learning experience that uses a wide spectrum of technologies to reach learners at a distance and is designed to encourage learner interaction.

Yannis Karaliotas (1998) defined DL as being an intellectual, social, cultural, and psychological setting, which facilitates and supports learning by fostering interaction, collaboration, and sharing. Moore and Kearsley (1995) found that distance learning is planned learning that normally occurs in a different place from teaching and as a result requires special techniques of course design, instructional techniques, communication technology, and organizational and administrative arrangements.

Evidence from these studies show that the learner, not the teacher, should have control of learning, that interactivity improves learning, and that technology is simply the medium for the transmission of learning to the student.

TWO TYPES OF INTERACTION OF DISTANCE LEARNING

The two aspects of interaction in DL are synchronous and asynchronous (Ngwenya, J., Annand, D., & Wang, E, 2004). Synchronous DL applies to situations where the instructor and students all meet for class at the same time, but may be in different locations. This is a two-way synchronous, DL. Technologies that facilitate the synchronous (or two-way) DL are desktop video conferencing, ITV, chat, and audio conferencing.

At Morehead State University, instructors conduct over 28 DL course offerings in over 12 sites, utilizing various forms of technology and print media,

In asynchronous, or "different time, different place," learning, the instructor and students interact at a distance and not in real time (Midkiff and DaSilva, 2004). Online or Internet courses are appropriate for this kind of delayed instruction. One-way asynchronous technologies (e.g., computer conferencing, e-mail) fall into this category (different place, different time). Students respond by email, chats, troubleshooting, or telephone at their own time and space. Whether it is an ITV or an online course, the need for interactivity is critical since it fosters learning.

Interaction and Interactivity

The distinction between interaction and interactivity should be noted. Gilbert and Moore (1998), cited in Robyler and Ekhaml (2000), note that an accepted definition of interactivity in the literature on computer-mediated instruction is a reciprocal exchange between the technology and the learner. They also state that interaction is an exchange in which individuals and groups influence each other; whereas interactivity is about connections between individuals and

technology. Many researchers, Hank (2005), Sherry (1996), and Karaliotas (1998) believe that interactivity exists between students and faculty as well as between students and technology.

However, in this study, the writer stresses that the terms interaction and interactivity are synonymous. Interaction creates a comfortable atmosphere that enhances feedback and learning. Robyler and Ekhaml, citing Moore, state that there are three main functions of interactivity, as seen from the instructor's point of view. These functions, which form the basis of this study, are the interactivity between the following: 1) Student and instructor; 2) Student and student; and 3) Student and technology.

The researchers believed that the quality of interactivity in DL could be increased. As a result they developed an evaluation rubric that could help faculty to gauge how well they are doing with interactivity in DL. In this study, the Robyler and Ekhaml model has been modified in an attempt to make the evaluation as simple and effective as possible.

Modified Evaluation Rubric

The modified rubric in Tables 1, lists the four elements that contribute to a course's level of interaction and interactivity. These elements relate to:

1. Student-student interaction;
2. Student-design interaction;
3. Student-technology interactivity; and
4. Overall impact of the first three elements on the learner.

Using the Evaluation Rubric

To utilize the assessment rubric, the instructor should circle a description below each heading that applies best to her. After

TABLE 1
How to Assess Interactive Qualities of Distance Learning Courses
(Modified Roblyer and Ekhaml, 2000)

Scale (see points below)	Element #1 Social Rapport-building Activities Created by the Instructor	Element #2 Instructional Designs for Learning Created by the Instructor	Element #3 Levels of Interactivity of Technology Resources	Element #4 Impact of Interactive Qualities as Reflected in Learner Response
Low interactive qualities (1 point each)	The instructor does not encourage students to get to know one another on a personal basis. No activities require social interaction. There is very limited, brief introduction at the beginning of the course.	Instructional activities call for one-way interaction between instructor and students in the delivery of information (e. g., instructor lectures, and delivers text).	Fax, web, or other technology resource allows one-way instructor to student delivery of information (text and/or graphics).	By the end of the course, all students in the class are interacting with instructor and other students *only* when required.
Moderate interactive qualities (3 points each)	Instructor allows students to exchange biographies and do at least one other in-class activity designed to increase social rapport among students.	In addition to requiring students to communicate with the instructor, instructional activities require students to work with one another (e. g., in pairs or small groups) and share results within their pairs/groups.	In addition to technologies used for two-way asynchronous exchanges of text information, such as fax, email, Bb troubleshooting, chatroom or other technology allows synchronous exchanges of written information.	By the end of the course, between 25-50% of students in the class are initiating interaction with the instructor and other students on a voluntary basis (i.e., other than when required).
High level of interactive qualities (5 points each)	Students exchange biographies and the instructor provides a variety of in-class and out-of-class activities designed to increase social rapport among students.	In addition to the requiring students to communicate with the instructor, instructional activities require students to work with one another (e. g., in pairs or small groups) and outside experts and share results with one another and the rest of the class.	In addition to technologies to allow two-way exchanges of text information, visual technologies such as two-way video or videoconferencing technologies allow synchronous voice & visual communications between instructor and students and among students.	By the end of the course, over 80% of students in the class are initiating interaction with the instructor and other students on a voluntary basis (i.e., other than when required).

reviewing all parts and circling the appropriate level, the instructor should add up the points to determine the course's level of interactivity qualities. Low has a score of one point each. Moderate has 3 points each, and high has 5 points each (Roblyer and Ekhaml, 2000). A score of 50 by the instructor is excellent, 40+ is good, and 35+ is average.

METHODOLOGY

The data for this study has been derived mostly from the author's own experiences from teaching ITV and online courses, literature reviews of business periodicals, Internet, online journals, Information Systems Journals, TV news media, and online chart groups. The central point of this study will be a discussion of the application of the assessment rubric to measure the level of interactivity in a distance learning course.

Use of the Rubric

The value of this rubric is that it is simple, can be tested, and can be used constantly over a long period of time in the writer's DL and online courses. After each application, the writer will make changes based on the students' feedback for the improvement of the quality of interactivity.

CONCLUSIONS AND RECOMMENDATIONS

This study is conducted in an attempt to help instructors improve the quality of distance learning courses, by enabling them to increase the level of interactivity of the DL courses. Technology should not be the focus but the process of interactivity that should enable the students to participate, learn, and provide feedback. Palloff and Pratt (2000) state that "technology does not teach students; effective teachers do." The issue is not technology itself, but how it is used in the design and delivery of courses.

It is recommended that faculty should stress more interactivity and less lecture and control in a DL course. Utilizing the evaluation rubric to increase the quality of interactivity will make teachers more effective and students, better learners. It will be ideal also for the instructor to conduct a pre- and post-survey in DL classes to determine how successful students can be based on some personal characteristics.

REFERENCES

Greenberg, G. (1998). Distance education technologies: Best practices for K-12 settings. IEEE Technology and Society Magazine, (Winter) 36-40.

Hank, K. (2005). Types of Interactivity. Indiana Wesleyan University www.studyoverseas.com/distance/interactivity.htm 2005

Karaliotas, Y. (1998). Interactivity in the Learning Environment. Distance Education.H8 02 Project Report, Distance education at OU, United Kingdom.

Midkiff, SF and DaSilva, LA. (2004).Leveraging the Web for Synchronous Versus: Asynchronous Distance Learning. http://www.shockandawe.us/mscis/313/Midkiff.pdf

Moore, M. G., & Kearsley, G. (1996). Distance education: A systems view. Belmont, CA: Wadsworth. . (St. Philip's College, 2003).

Ngwenya, J., Annand, D. & Wang, E. (2004). Supporting asynchronous discussions among online learners. Online Journal.

Palloff, R. & Pratt, K. (1999). Building learning communities in cyberspace: Effective strategies for the online classroom. San Francisco: Jossey-Bass Publishers.

Roblyer, M. D., & Ekhaml. (2000). How Interactive are your distance courses? A rubric for assessing interaction in distance learning. http://www.westga.edu~distance/roblyer32.html

Sherry, L. (1996). Issues in Distance Learning. International Journal of Educational Telecommunications, 1 (4), 337-365.

Smith, C. K. (1996). Convenience vs. connection: Commuter students' views on distance learning. Paper presented at the Annual Forum of the Association for Institutional Research, Albuquerque, New Mexico. (ERIC Document Reproduction Service No. ED 397 725)

Valentine, D. (2000). Distance learning: promises, problems, and possibilities. Online Journal of Distance Learning Administration, Volume V, Number, III, (F 2002), State University of West Georgia, Distance Education Center.

Intrapraneurship
Within a Multi-culture Environment

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ABSTRACT

I would like to share with you a few of my experiences from being in a number of Intrapreneurial companies and having started an Entrepreneurial venture. You will be the judge on the title of this topic and presentation.

1INTRAPRENEURIAL SPIRIT:

A. What is it?
   a. INTRAPRENEURSHIP is the capacity to internalize within a large professional organization
   b. ENTRENPRENEURIAL SPIRIT that permeates smaller individually owned businesses.
   c. Simply put, INTRAPRANEURSHIP is ENTREPRENEURSHIP practiced within established Organizations.
   d. Two definitions spring to mind:
      ENTREPRENEURSHIP is:
      1. Process of creating value by bringing together a unique packages of resources to exploit an Opportunity.
      2. Pursuit of opportunity without regard to resources currently controlled.
      (Chris Fox, Inc.)
   e. First, ENTREPRENEURSHIP is real and we have seen evidence from the time of Mr. Chrysler in the establishment of this fine company that is now joined with Daimler Benz to form a global company.
   f. According to Webster's Dictionary, an entrepreneur is defined as 'one who organizes and directs a Business undertaking, assuming the risk for the sake of profit.' Entrepreneurs are after one thing and that is success, and success is measured in profits.
   g. There are a number of examples of ENTREPRENEURS that have established fine businesses:
      1. Warren Buffett with Berkshire Hathaway, a holding company.
      2. Michael Dell with Dell Computer, from his dorm room.
      3. EBAY, an online auction service that anyone can use.
      4. And many others.
   h. ENTREPRENEURS lay it all on the line with their brainpower, ideas and financial assets. They take on all the risk for success or failure as we have seen from the E bubble in the late 1990's and early 2000's.
   i. INTRAPRENEURS on the other hand are inside a corporation or organization like a university for example. They seek out others that have a desire, interest and willingness to try new things and ways of doing business, new products, new services and ways to approach, remove or diminish the demotivators of life. They ACT and THINK as an OWNER in all that they do, contemplate and say. They are IDEA CHAMPIONS of causes and believe that they can make a difference each day.
   j. INTRAPRENEURSHIP is the Process rather than an Event that causes radical change. It is important to realize that an organization needs to be in a constant state of change and resiliency as a process, in contrast to avoiding Benchmark Traumatic periods of change that force restructure and survival modes. INTRAPRENEURSHIP is the process of evolving rather than a single mode event.
   k. It helps and supports this idea of constant smooth change and is an opportunity to maximize and avoidance of Crisis driven event change that is so painful, disruptive and dislocates human capital within an organization. INTRAPRENEURSHIP IS:
      1. Innovating changing based upon environment
      2. Organic on going activity
      3. Never Crisis event activity
      4. Difference between the Tradition and the New Company:
      5. Mentoring
      6. Encouraging
      7. Alters status quo
      8. Harnesses energies of talented renegades
      9. Give sponsorship to promising businesses that are unrelated to company's cash cows.
      10. Encourages collaboration outside normal reporting lines and departments.
      11. Promotes 'Skunk works' cooperation.

B. Top Management Buy-in

II. CORPORATE CULTURE:

A. Actual
   a. A great deal of modern day innovation seems to have come forth from small firm and their business process of quick, flexible and out of the box thinking.
   b. The great challenge of large corporations is how to grow internally and how to deal with global competition intensity within a slow economy that is limited by distinct and narrow corporate culturally restrictions and controls. Entrepreneurial Spirit will permit the naturally bureaucratic business to
   c. Innovate comparable to smaller low bureaucratic nimble and flexible companies.
      1. Innovation fosters low bureaucratic spirit and a new reality:
      2. Tolerance for failure (error)
      3. Willingness to accept risk orientation
      4. Open minded and flexibility
      5. Listening mentality
      6. Encourage out of the box thinking
      7. Top Management Buy In.

B. Traditional: Structured sameness is responsible for falling behind competition. Need to change to accept tolerance, risk and out of the box thinking adopting the courage to accept new and radically different ideas.

C. Extent Targeted: Are the areas within the corporate structure that have the best chance of success. Identification of an area to 'bootleg' new idea and business develop outside the normal lines of span of control and authority.

D. Co-Intrapreneurship: a need for corporate practice as evidenced by changes in the business environment and management philosophy have led to an increasing number of companies encouraging internal entrepreneurship, not only from their managers, but from all employees.

Quoting from several corporate visions or management principles:

- 'Everyone behaves in an intrapreneurial, no bureaucratic and productive manner (IBM).'
- 'We ask our employees to be "entrepreneurs" in there own affairs, to recognize the precise (Siemens).
- 'We build on independence; i.e. we predetermine a framework…we promote and reward intrpreneurial behavior and the willingness to take a risk (CIBA).'
- 'We think, decide, and behave in an intrapreneurial way (UBS-Swiss Bank Corporation).'
- 'Outstanding and innovative products and services will be the focus and essential components of
- value driven management. This requires a management philosophy which is based on intrapreneurial thought and behavior (Daimler Chrysler).'

III. MULTICULTURAL VS. DIVERSIFIED CULTURE

A. Overlaid on another culture.
This is s major challenge, as evidenced by any joint ventures of cultures from two countries, companies and organizations within a company. It needs a great deal of free flow of dialog to be successful.

B. Non-homogenized.

C. Other

IV. MOVING TOWARD A SINGLE CORPORATE CULTURE

A. Hybrid

a. Intrapreneurial Companies:

b. Shorten the search for funding

c. Offer stable paycheck as an idea germinates

d. Find creative ways to reward people

e. Longer time horizons than venture capitalists allow

f. Allow people to speak their minds without fear of reprisal

g. Formal process from idea to product to market

h. Understand the balance between structure and spontaneity

B. Blended

a. Bootleg of projects unknown to others until ready to see the light of day

b. Skunk works which are allowed of passionate group of "Champions" that are like minded

c. In cutting across operating boundaries and making something happen without the red tape.

C. Ten Commandments (Gifford Pinchot, Intrapreneuring, Why you don't leave the corp. to become an Entrepreneur'):

1. Do any job needed to make your project work regardless of your job description.
2. Share credit wisely
3. Remember, it is easier to ask for forgiveness than permission
4. Come to work each day willing to be fired.
5. Ask for advice before asking for resources.
6. Follow your intuition about people; build a team of the best.
7. Build a quiet coalition for your idea; early publicity triggers the corporate immune system.
8. Never bet on a race, unless you are running in it.
9. Be true to your goals, but realistic about ways to achieve them.
10. Honor your sponsors.
11. The 11th (WAP): Never bet the house, a mortal blow to the corporation.

V. Benefits/ Exploitation of Diversity:
This can be very empowering and effective by taking the strength of characteristics from various cultures and putting them together in one effective business unit. It is the melding the best of American and European preparation, skills and experience along with a strong dose of INTRAPRENEURSHIP.

VI. Examples

A. Corporate

a. 3M permits many of its employees to devote a certain amount of their work time to total freedom.
- That is to anything that they would like to pursue. It is an example of classic encouragement to
- Incubate and pursue new ideas, professional growth or just think. The results have been outstanding in terms of morale and new business generated in products, services and process improvement.
- No idea is ever viewed as absurd or ridiculous by top management. Mentors encourage development of this type of thinking. Post It Notes and hundreds of other unique products are examples of
- This out of the box 'freedom to think and incubate'.

b. DESA is a true example of Entrepreneurial thinking in action. It had been a company that started
- With an engineer, Gene Briggs in 1955 inventing the oil fired space heater that you have seen
- Along a football field during the late fall and winter cold weather. It evolved from a single fuel
- External heating product, single domestic market (1955-1979) into a multi-fuel (oil, gas, electric)
- External/internal heating device company serving over 40 countries worldwide with sales going
- From $6 mil to $250 million in the next twenty years.

c. A model that may be worth considering for the automotive industry is one like employed at Microsoft and other companies where there are "skunk-work" type groups. These groups would be focused on well-defined objectives which are higher risk-return

compared to the typical individual, functional activities. Rewards should be aligned with the objective. These groups are commonly multi-disciplined and the task is not best accomplished by an individual. A key to any INTRAPRENEURIAL effort is managing the transitions that people will undergo. In the "skunk-works" environment people will transition to other skunk-works and back to functional / traditional roles. Training, leadership, planning and communication are all keys for the organization to this well.

- Considerations for Implementation:
- Assessment of business environment
- Assessment of internal situation and culture
- Establishment of objectives for INTRAPRENEURIALISM
- Determine implementation plan
- Overall organizational development objectives
- Individual group (skunk-work) objectives
- Develop human resource development plan and reward structure
- Implement post work evaluation system
- Focus on alignment of group work with overall business goals
- Top Management Kick Off (Cultural transition require constant reinforcement).

B. Western Kentucky University

a. Office of Global Business was formed in March, 1999 to be a practical outreach and a bridge from the Gordon Ford College of Business to the Community, Industry and secondary schools.

- This has been accomplished through workshops on how to do international business,
- Seminars on critical issues such as NAFTA, Ethics in International Business and
- Executives on campus. Fifteen companies serve on an active International Executives
- Advisory Board. Students serve as the resources earning college credits as interns,
- Project team assignments and part and full time employment. Companies are beneficiaries in having research projects completed that are of a quality of major consulting firms.

b. Global Automotive Conference series was formed from an idea after a consulting visit to a number of automotive plants in Brazil, Argentina, Germany and the US. It is a true partnership between the University's Gordon Ford College of Business and Automotive Industry (OE and Tier suppliers) along with government (state and Federal US Department of Commerce and local (economic developers) and Kentucky World Trade Center).

- The result has been four annual quality conferences that focus on real world critical timely
- Issues that impact all that deal in the automotive industry and can be applied to all
- Businesses. The goal of the annual conference series is to provide the target audience of executive and middle management with one or two skills or ideas that can apply in their professional lives.
- Topics have been:
  2000 Supply Chain and strategic alliances.
  2001 ECOMMERCE
  2002 GLOBAL BENCH MARKING
  2003 SURVIVAL STRATEGIES
  April 19-20 DRIVING TO THE NEW BUSINESS MODEL: WHERE WILL YOUR BUSINESS BE IN FIVE YEARS.

IT Innovations in the Classroom: Weighing the Costs and Benefits

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ABSTRACT

There is no doubt that information technology (IT) has undergone a major transformation in the past few years. Incoming undergraduate students are saturated with IT before they even reach the classroom: their extensive use of cell phones, PDAs, personal computers, MP3 players, and so many other gadgets—both for educational and entertainment purposes— sets them apart from yesteryear's students who came in much less experienced in the IT world. It stands to reason, then, that with their advanced prior knowledge, these students expect their college experience to carry them even further into the wonderful world of technology. Not only are IT educators expected to be up-to-date with the latest innovations, but educators in other fields also are expected to incorporate technology into the classroom experience. At what cost does this transition come, and are the benefits really worth the investment? The authors posit that once the benefits and costs are weighed, the rewards of adopting IT innovations are well worth the required investments.

INTRODUCTION

Educators are pressured at every level to implement IT innovations —from techno-savvy students' expectations to presidential initiatives on education. Students expect to use computer-related technology in their coursework, and to gain the skills they will need to use the technological tools required of their careers (Gilbert, 1996). Publishers fill their catalogs with computer-based curriculum materials and wage intense campaigns to persuade educators to adopt these resources. Governors, legislators, and regents are increasing funding for new technology initiatives such as virtual classrooms.

What impact does the technological revolution really have in the classroom? Do the new computer-based educational materials, equipment, and computer networks really enhance education? And if so, is adoption of new technology worth the investment?

THE IT DIFFERENCE IN THE CLASSROOM

There is little agreement about the measurable effects of technology in the area of academic productivity; however, it is generally accepted that technology has made a significant impact on access to information. But as Privateer (1999) asserts, "There is little doubt that continued concentration on technology as a productivity or information-access enhancer, at the expense of using it to revolutionize pedagogy, will keep technology from realizing its true revolutionary destiny."

Gilbert (1996) estimates that "more than 75 percent of all U.S. undergraduate education consists of traditional lectures, teachers leading classroom discussions, students reading textbooks, and so on." While these methods are well-respected, they have become less effective because students' predominant learning styles have changed. And as educators become more aware that traditional methods are increasingly less successful, they are reporting that their teaching methods are improved by the use of information technology (Henriksen, 1998). Students, faculty, and the general public realize that technology can make a significant positive impact on the quality of teaching and learning, the level of student motivation and engagement, and the intensity of career preparation.

Educational psychologists have described three basic types of learning styles: visual, auditory, and kinesthetic. Visual learners learn best through a multi-sensory approach using an array of graphics, color, and movement. Auditory learners benefit from lecture-style instruction. Kinesthetic learners build knowledge through hands-on experiences. It probably comes as no surprise that approximately 60% of students are categorized as visual learners, partly attributable to their extensive experience with television and video games (McCormick, 1999, as reported by Hall and Elliott, 2003). If learning styles have shifted, teaching methods must follow suit, and technological innovations have much to offer to improve teaching and learning.

Kozma and Johnston (1991, as cited by Green & Gilbert, 1995) have studied classrooms in a variety of settings across the U.S. Their findings led them to propose seven ways that IT has redirected the classroom experience:

1. "From reception to engagement." In higher education, students are moving from passive reception of knowledge to a more active role in their own education. The move from reading textbooks and listening to lectures to gathering information from Internet sources and interacting through technological communications has created a more engaging form of learning.
2. "From the classroom to the real world." With active engagement in acquiring knowledge, the great divide between classroom-acquired data and real-world application has decreased. The immediate application of a learned skill reinforces the newly acquired knowledge.
3. "From text to multiple representations." Students and educators find that using IT innovations expands their ability to express ideas in ways other than linguistic-based text or speech. Other symbol systems are finding their way into legitimate academic usage.
4. "From coverage to mastery." Educators are using computers not only to instruct, but to drill and provide hands-on practice of concepts taught in the classroom, moving students from simply covering the curriculum to a more comprehensive mastery of the material.
5. "From isolation to interconnection." Not only is the student drawn into a more interactive role with fellow learners and the community at large, but learning that engages technology typically leads to an examination of

new ideas within the context of other related ideas and events.

6. "From products to processes." Through experiences with technology, students are more actively engaged in the process of creating knowledge rather than focusing too much on the end product of academic work. The end product continues to be important, but the process that the student used to create the end product can more readily be reproduced by the student outside the classroom. Students are learning "how to use tools that facilitate the process of scholarship."
7. "From mechanics to understanding in the laboratory." When scientific experiments can be reproduced and explained through technology rather than using expensive and hard-to-maintain laboratory equipment, the student is freed to spend more time exploring alternative solutions to scientific questions, as real scientists do.

Privateer (1999) contends, "With the power to change the ways in which we educate, instructional technologies … may either write higher education's obituary … or, like healthy genes, may lay the foundations for twenty-first-century colleges and universities."

BUILDING A UNIVERSITY SUPPORT SYSTEM THAT WORKS

Hall and Elliott (2003) note the challenges that universities face in the process of integrating technology into the teaching/learning environment. One such challenge is lack of institutional support (Barley, 1999). Parker (1997) found that many educators are willing to adopt technology in preparation and in teaching if they are given the proper support by the university: equipment, support personnel, and training.

Backhouse (2003) asserts, "Teachers need support specific to the technology they are planning to implement, and they need it when they are preparing to use the technology with their students." Timely technological support is essential for effective integration of new resources. Green and Gilbert (1995) outline four basic levels of integration of information technology in the teaching and learning environment, the benefits obtained at each level, and the supports required to optimize those benefits:

1. Personal productivity—Educators use word processing, spreadsheets, e-mail, automated registration systems, and electronic grading programs. These IT applications have no direct effect on the teaching or learning experience. University support services in this area are mainly technical in nature: hardware and software maintenance and initial training.
2. Broad-based enhancements to traditional teaching methods—Campus improvements of this nature may include "wiring" classrooms for computers and projection devices. These changes add to the quality of content and communication without modifying teaching method or curriculum content. Again, support services are primarily technical: hardware maintenance and initial training, plus the acquisition of course-specific computer-based materials.
3. Enhancements that reflect/require a redirection in pedagogy—Examples include computer-based simulations (in science courses, for instance), Internet-based courses, or the use of networked computers to exchange drafts and editorial comments in English composition courses. The same supports are required; however, the assistance with locating, acquiring, and integrating discipline-specific or course-specific computer-based materials is essential. As faculty use of this level of IT intensifies, so must university support increase to assure student and faculty access to computer software, CD-ROMs, revised and updated text resources, and Internet access.
4. The "final frontier:" changing content—At this level, educators are looking at their work in an entirely new light. Innovations in IT have made possible representations and manipulations that may have seemed impossible before: e.g., geographical information systems, theatrical lighting designs, musical notation, and performance. Educators have not only adopted IT innovations, but also a new way of thinking about their subject matter. "In this context, information technology becomes both the reason for—and means of—changing curriculum content." All the university supports necessary for the third level are needed here as well. In addition, these innovative educators need to work with publishers, disciplinary associations, and peer groups to revise the curriculum.

The level of support that educators receive as they are adopting and implementing new skills and knowledge significantly impacts the success rate. In their 1995 report, Joyce and Showers noted that when there was no peer structure for follow up, only 5-10% of the study participants reached successful implementation. When peer coaching teams were involved, the rate went up to 75%. When entire school faculties were organized into peer coaching teams for the follow up, the rate reached an astounding 90%.

One support that frequently goes untapped is the student assistant. Gilbert proposes that many students have extensive skills and knowledge about IT—and most professors seem to have little problem accepting help from them. McCorkle, Alexander, and Reardon (2001) offer an example of a program that works. At the University of Northern Colorado, a department may identify a graduate or undergraduate student with advanced technological skills to be appointed the "technology fellow." The college pays an annual stipend. The technology fellow provides technology support for the faculty of the department, assisting them in the integration of technology into their courses.

Successful implementation of a student technology assistant requires attention to recruitment, training, supervision, and rewards. Students usually need some additional technological training as well as training in communication and service manners. Professors get the technological support they need, and the student acquires experience and skills needed to be successful in his or her profession, as well as an attractive entry on their resume. (Gilbert, 1996).

Gilbert (1996) also proposes faculty mentors as a means of increasing the availability of support while keeping costs manageable. Educators who are early adopters are excellent choices for structured peer mentoring programs. Tactfully done, peer mentoring in technology can be quite successful. Mentors must be trained, with expectations and limitations clearly outlined, and rewards should be meaningful, such as stipends and release time. Tenure can be a factor as well. For untenured faculty, time spent mentoring other faculty members may be perceived as better being spent on research or other factors that are more heavily weighted in tenure decisions. Tenured mentors, however, can be invaluable to colleagues (Gilbert, 1996).

McCorkle, Alexander, and Reardon (2001) build on the idea of a faculty mentor with an outline of the benefits and expectations of such a program:

1. Mentoring of individual faculty (especially the more techno-phobic).

2. Development of short, noncredit courses and workshops to enhance discipline-specific technological competencies among faculty and students.
3. Updating technical support services for new technologies.
4. Creation of a curriculum for enhancing the technology qualifications of departmental majors.

Finally, a key element in the effective integration of new technology is institutional commitment. Universities must commit to creating and maintaining the relevant infrastructure, including the library, academic computing, faculty development, the bookstore, and other campus organizations. Broad-based commitment from individual faculty members is also required, not only to implement the specific IT at hand, but also to create and propagate a culture of IT adoption throughout the academic life of the university (Gilbert, 1995).

OVERCOMING UNIVERSITY OBSTACLES

One of the primary obstacles to the adoption and integration of IT innovations is faculty resistance by faculty members who may have earned their graduate degrees without technological innovations. The computer skills they have acquired on the job may seem adequate for their own purposes, and while they may be aware of the various resources available (Internet, databases, multimedia resources, and software), they lack the motivation, ability, time, or financial resources to adopt unfamiliar technologies (McCorkle, Alexander, and Reardon, 2001). Schrum (1999) cites a survey conducted by the National Center for Educational Statistics (NCES, 1999) indicated that less than 20% of current teachers reported feeling very well prepared to integrate educational technology into classroom instruction.

While a university may be equipped and "geared up" to embrace a specific technological advance, yet another innovation is just around the corner. Gilbert (1996) argues that universities must "develop the ability to live with the frequent arrival of new educational options and new competitive challenges," i.e., encourage educators to stay current with new instructional materials and technological developments related to their fields. Administrators should expect to provide the equipment, time, incentives, training, and other support services necessary to get the job done.

University administrators may believe they have a good technical support system in place, but often they overlook the fact that most IT support is concentrated in IT and business departments. Little priority is given to support for individual professors, especially in non-IT centered departments; Computer lab issues usually take precedence over faculty needs, even though students are affected in both situations. Often, the tech support employees lack the expertise to support the specialized demands of different departments (McCorkle, Alexander, and Reardon, 2001).

Lueddeke explains that another problem within the university setting is role conflict. Crimmel's (1984) observation from twenty years ago, "Hired to teach, but paid to publish," still holds true. Massy and Zemsky (1995) identify two of the main barriers to the integration of IT innovations as: 1) few incentives for innovative teaching but significant incentives for research, and 2) the lack of specific outcome and performance measures for curriculum related to new technology-based teaching. In a study of factors that hinder or support effective teaching, Massey, Wilger, and Colbeck (1994, as reported by Lueddeke, 1999) also concluded that one of the main impediments seems to be the teaching-research dichotomy.

The current reward system discourages educators from investing the necessary resources to adopt the most current pedagogies and utilize the most current technologies; "cutting-edge" status viewed as a lofty and possibly unattainable goal. Rewards are available for publishing, teaching, and service, but not for the time and energy spent revamping one's teaching style to incorporate the latest technology. In fact, it may seem to be a detriment to teaching evaluations and reputation if the technical and university support systems are not in place to assure successful integration of any new innovation into the classroom (McCorkle, Alexander, and Reardon, 2001).

STRATEGIES TO ENCOURAGE UNIVERSITY ADOPTION OF TECHNOLOGY

Hall and Elliott (2003) identified several strategies for implementing a laptop learning environment into a School of Business setting. They credit Geoghegan (1994) and Rogers (1983) for some of the bases of the strategies. We have adapted their suggestions for incorporating other IT innovations into any university classroom.

1. Get the "technology leaders" (early adopters) and "opinion leaders" (the visionaries) of the department to agree to support IT innovations. Communicate realistic expectations early to avoid overly optimistic or pessimistic attitudes.
2. As you move to the mainstream faculty, demonstrate that the new technology can enhance the teaching process and student learning. Draw a "best interest" picture for both faculty and students, showing exactly what the new technology can accomplish.
3. Exercise positive peer pressure to win over faculty members who have a negative picture of change. Show them that change is not a "necessary evil"—it's simply necessary. However, Gilbert cautions change initiators to avoid setting up dichotomies that paint adopters as "good guys" and non-adopters as "bad guys." This kind of approach disregards the time and effort required for transitions, as well as intelligent individual preference.
4. Reduce resistance by phasing in the changes over a specified period of time, which allow faculty to make their own choices about participation. Offer incentives such as release time, prime teaching schedules, and additional graduate assistants.
5. Keep selling the idea. Document the benefits and advantages. Avoid unrealistic claims. Bring in faculty and students from other schools who can share first hand experiences.
6. Emphasize the IT innovation's compatibility with teaching styles, student needs, and faculty development. Show what problems will be solved or reduced. Remind educators that it is a tool to help them improve teaching, not a change in course content.
7. Use technical support staff and an initial core group of supporters to provide training and peer support. This provides a level of comfort and eases the tension that changes often create.
8. Recognize and reward faculty members who are willing to try innovative technology. Change requires time and effort, and those who are willing to do so need to experience, at the very least, recognition for a job well done.

PROFESSIONAL DEVELOPMENT AND/OR ADVANCEMENT

Johnson, Schwab, and Foa (1999) affirm, "The technological revolution has the potential to provide the impetus, tools, and new structures to transform the practice, art, and meaning of teaching".

But possessing the latest technology does not necessarily mean higher quality education is taking place. It must be skillfully used in order to produce desirable results. Educators need to feel confident in their ability to use available technology, understand the potential of the technology for educational purposes, and find meaningful ways to incorporate it into their preparation and teaching routines (Chisholm, Carey and Hernandez, 2002). Many educators struggle with knowing that useful technology is available, perhaps even in their department, yet lacking the resources understand and incorporate these tools into their teaching practices (Johnson, Schwab, and Foa, 1999).

For most educators, technology adoption begins in the personal productivity phase. Even this small step can help faculty become better academicians (McCorkle, Alexander, and Reardon, 2001). The communication expansion option offered by electronic mail alone can transform the communication aspect of an educator's work, making interactions with distant colleagues easier and more frequent. Co-authorship with a broad cross-section of educators becomes much more viable. From collaboration to submission, review, and publishing, the entire process can be significantly expedited. The Internet provides easy access to resources available at numerous university libraries. University and academic web sites with course outlines and syllabi promote the exchange of pedagogical and course content ideas (McCorkle, Alexander, and Reardon, 2001).

While this first step is immensely important, it is imperative that faculty go the next step and incorporate IT into their teaching strategies; even a small movement in this direction is significant to students. Perhaps one first step should be teaching students how to use the Internet for attaining educational and professional goals, an aspect of technology often overlooked by students who have used computers primarily for word processing, games, and communicating with friends and family.

Educators who desire to move from a comfortable position among IT users into the forefront of early adopters must invest the time and financial resources (often from their own pocket) for technological advancement. They must seek out self-study opportunities, on-campus training workshops, and conferences. They must be prepared to deal with many frustrations in the integration process and build a network of support. These educators face an uphill battle, but they have determined the battle is worth fighting (McCorkle, Alexander, and Reardon, 2001).

SNAPSHOT OF AN EDUCATOR ON THE VERGE OF IT ADOPTION

The greatest obstacle faced by educators considering IT adoption may be all in the mind. In "An 'Online' Experience," moderated by Gilbert (1995), Geoghegan identifies the psychological and social factors that create a "veritable chasm" between early adopters and the mainstream. Early adopters tend to be risk takers and experimenters, focused on revolutionary change, while their mainstream colleagues favor evolutionary change and are hesitant to take risks. Early adopters are generally self-sufficient, while the mainstream needs significant support, or significantly different support than their predecessors in IT adoption. Most educators fall into the mainstream, but the good news is that mainstreamers can effectively adopt IT innovations; furthermore, mainstreamers can choose to become early adopters and get in on the front end of the excitement.

Educators who are potential rather than actual adopters find they must reevaluate their self-efficacy; if they have the power to teach—to move minds in the classroom—perhaps they also have the power to learn and adapt new technologies into classroom instruction. Furthermore, the mind game extends to the next obstacle: the committee (Gillard, 2004). Many adoption decisions are made by committees, often involving educators, administrators, and technical support staff, among others. Once an educator decides a certain innovation is desirable, the question arises: "Can I convince the committee that this is a step in the right direction?"

Unrealistic expectations, both positive and negative, can become roadblocks to successful IT advancements as well (Green and Gilbert, 1995). Realistic, informed expectations are crucial to bringing information technology more fully into the educational environment.

CONCLUSIONS

There are few if any segments of 21st century businesses and organizations unaffected by changing technology. Robots, OCR readers, scanners, digitizers, wireless fidelity, and many other technologies are widely used. This increasing reliance on technology has precipitated a shift in the labor market, producing a growing supply of knowledge workers and professionals. The prevalence of computer and other information technologies, in all fields and occupations, makes information access and information literacy essential for these workers. "Consequently, colleges and universities would be doing a major disservice to their students if they failed to provide appropriate opportunities (including structured curricular experiences) to develop and enhance information technology skills as part of the undergraduate experience" (Green and Gilbert, 1995).

The demand for technology-enhanced learning environments no doubt will grow substantially over the next decade as society, the academic community, and students continue to expect the educational process to employ technology comparable to that found in the "real world" (Hall and Elliott, 2003). As Privateer (1999) posits, "teaching has to become a 'value-added-intelligence producing' occupation if it is to survive as a knowledge-producing activity without losing competitive edge to corporate universities, those we see already flourishing every time a Motorola, an IBM, an Intel, a UniSys, or a Microsoft inaugurates a 'learning campus' to support their research and development interests." Moreover, the teaching process must incorporate technology to provide students with meaningful activities (Charp, 2000). As the availability of computers and networks increase in schools, computer-based educational materials become more practical, increasing the opportunity for educators to make student experiences richer and more meaningful. It is essential that educators seize the opportunity.

Gilbert (1996) and Charp (2000) make several points that summarize many of the observations discussed above. The first four points are Gilbert's; the remaining three are Charp's.

1. Information technology and information resources are becoming key assets in the increasingly intense competition for students, faculty, and funding.
2. No individual faculty member can find or know all teaching options using information technology that might be relevant for a particular course; mechanisms for sharing valuable information among faculty and others must be provided.
3. Educational uses of information technology are improving student learning.
4. Focus on teaching and learning first, technology second.
5. Simply integrating technology into the curriculum will not by itself improve academic performance. The need for thoughtful and appropriate selection of how and where technology should be integrated is essential
6. The success or failure of technology and its integration into the instructional program is more dependent on human and contextual forces than on hardware, software, or connectivity.

7. Using technology to improve learning requires new methods and materials.

There are costs associated with integrating technology to improve learning. Developing new methods and new materials takes time and planning. Our focus, however, must be on our students. They require, deserve, and by their choice of schools, demand a quality education. Technology plays an enormous role in achieving that goal.

REFERENCES

Backhouse, B., 2003. Information and Communication Technology Integration: Beyond the Early Adopters. *TechTrend* 47(3), 5-8.

Barley, S.R., 1999. Competence without Credentials: The Promise of Computer-Based Distance Education. Retrieved June 11, 2004 from http://www.ed.gov/pubs/Competence/section2.html

Charp, S., 2000. Technology Integration. *T.H.E. Journal*. Retrieved June 2, 2004 from http://www.thejournal.com/magazine/vault/A2619.cfm

Chisholm, I.M., Carey, J., Hernandez, A., 2002. Information Technology Skills for a Pluralistic Society: Is the Playing Field Level? *Journal of Research on Technology in Education* 35(1), 58-79.

Crimmel, H., 1984. The Myth of the Teacher-Scholar. *Liberal Education* 70(3), 183-198.

Geoghegan, W.H., 1994. What Ever Happened to Instructional Technology? Paper presented at the 22nd Annual Conference of the International Business Schools Computing Association. Baltimore, MD.

Gilbert, S., 1995. An Online Experience: Discussion Group Debates Why Faculty Use or Resist Technology. *Change* 27(2), 28-46.

Gilbert, S.W., 1996. Making the Most of a Slow Revolution, *Change* 28(2) 10-23.

Gillard, S. 2004. IT Educators and IT Adoption. *Journal of Issues in Informing Science and Information Technology* 1(1), 805-811.

Green, K.C., Gilbert, S.W., 1995. Great Expectations. *Change* 27(2), 8-18.

Hall M., Elliott, K.M., 2003. Diffusion of Technology Into the Teaching Process: Strategies to Encourage Faculty Members to Embrace the Laptop Environment. *Journal of Education for Business* 78(6), 301-307.

Henriksen, J., 1998. Sources and Information: Identifying and Implementing Technologies for Higher Education. *New Directions for Community Colleges* 101(1), 91-98.

Johnson, M.J., Schwab, R.L., Foa L., 1999. Technology as a Change Agent for the Teaching Process. *Theory into Practice* 38(1), 24-30.

Joyce, B., Showers, B., 1995. Student achievement through staff development: Fundamentals of school renewal, 2nd ed.. White Plains, NY: Longman Publishing, Inc.

Kozma, R.B. Johnston, J., 1991. The Technological Revolution Comes to the Classroom. *Change* 23(1), 10-13.

Lueddeke, G.R., 1999. Toward a Constructivist Framework for Guiding Change and Innovation in Higher Education. *The Journal of Higher Education* 70(3) 235-260.

Massey, W.F., Wilger, A.K., Colbeck, C.L., 1994. Overcoming "Hollowed" Collegiality. C*hange* 26(4), 11-20.

Massy, W.F., Zemsky, R., 1995. Using Information Technology to Enhance Academic Productivity. Retrieved June 11, 2004 from http://www.educause.edu/ir/library/html/nli0004.html

McCorkle, D.E., Alexander, J.F., Reardon, J., 2001. Integrating Business Technology and Marketing Education: Enhancing the Diffusion Process through Technology Champions. *Journal of Marketing Education* 23(1), 16-25.

McCormick, S., 1999. The Case for Visual Media in Learning. *Syllabus* 12(7), 4-6.

Parker, D.R., 1997. Increasing Faculty Use of Technology in Teaching and Teacher Education. *Journal of Technology and Teacher Education* 5(2/3), 105-115.

Privateer, P.M., 1999. Academic Technology and the Future of Higher Education: Strategic Paths Taken and Not Taken. *The Journal of Higher Education* 70(1), 60-79.

Rogers, E. M., 1983. Diffusion of innovations, 3rd ed., New York: The Free Press.

Schrum, L., 1999. Technology Professional Development for Teachers. *Educational Technology Research and Development* 47(4) 83-90.

Lead Students Into Learning

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ABSTRACT

This paper describes what I term a lead-in exercise but has been called a hook by Harvey Brightman of the Masters Teachers program. Lead-ins are situations presented to students. These students often have a lifetime learning impact on students and open a new area of learning that goes beyond the here is the concept to be learned memorize it for the next test. Lead-ins allow students to assume the role of self-discovery and the use of critical thinking skills that allows students to achieve a higher level of cognitive understanding. This paper outlines some characteristics of a good lead-in or hook to a new learning unit or related series of presentations.

INTRODUCTION

Active learning can improve the learning process. This paper builds on work of Harvey J. Brightman and Robert Elrod that discuss the use of an opening application or "hook" to stimulate interest. This paper adds to the three key reasons Brightman and Elrod state as the keys to a good hook or application opening. I refer to the opening application as a lead-in because I used it to lead students into learning. I build a framework for an effective lead-in based on Bloom's Taxonomy of Learning Domains. I cite a dozen characteristics of a good lead-in. I then give three detailed examples of lead-ins I have used with success in my introductory finance courses. Finally, I make concluding remarks.

LITERATURE REVIEW

This paper sets up a framework for designing effective lead-ins based on my experiences and on Bloom's, 1956, Taxonomy of Learning Domains. Lead-ins often entail higher levels of understanding of a new situation, such as evaluation and analysis, that not achievable by the traditional techniques of telling students what the new concept or model is and that students should memorize that and then develop a low level of understanding to do well on future assessments. A checklist or framework for creating effective lead-in exercises or hook is developed.

While the authors discus how a good hook can have three redeeming qualities. One, students have some subject knowledge or ability to solve the presented hook or application opening. Two, that is the process of solving the problems students should see how they actually have poor problem-solving or decision-making skills. In other words, the hook shows students they need the theory or concepts that the instructor can teach them. Finally, an application can show the incredible power of the new material being introduced. In other words, students will want to learn the new material because they have been so impressed about the ability of the new material to solve the issues.

CHARACTERISTICS OF A LEAD-IN

In this section I outline twelve characteristics of an effective lead-in. A good lead-in should not meet every category of an effective lead-in. For example, the shock value of lead-in may sacrifice the amount of learning that can take place.

A lead-in has the purpose of introducing students to studying a new subject area. A good lead-in should contain several of the following properties.

1. **Students** should be eager to solve or perform task (find interesting).
2. Students must be able to work on (not too difficult).
3. Students should enjoy.
4. Students have some knowledge on how to solve based on personal life experiences are based in previous course work.
5. **The problem**, situation, or approach is new or unfamiliar. Particularly, in the questions students are asked or in the manner it is suggested students approach the problem.
6. The students need and value a resolution from the instructor. For example, if the situation was based on real-life (a case), what happened? Is the students' solution correct. If so, the instructor must demonstrate the need for theory or the need for the instructor.
7. In cases where there is no straightforward answer, what criteria does the instructor give for evaluating a decision.
8. Students can see how real-world decisions are much harder than textbook decisions.
9. **The lead-in** can be referred to by the instructor to illustrate a point or to tie in the different components of the course together.
10. Students can see there is more than one way to solve a problem.
11. **Students should remember** the lead-in.
12. Students see need for new theories to apply to their previously accepted views.

Learning Objectives

Table 1 gives a description of the cognitive levels of learning and some sample verbs based on Bloom's Taxonomy. Lead-ins are effective because they force students to employ higher levels of level from the beginning. This may result in higher retention rates of course material in the long-term. Basically by examining the why and how of a new situation instead of just attempting to memorize a new concept, a higher level of learning is achieved and retained. This is largely theoretical as there has been no studies examining the relationship between lead-in and retention rates.

I contend the lead-ins are effective because students begin a new area of study or learning at higher levels on Bloom's Taxonomy of Learning Domains. I give three examples of lead-ins I have effectively used in class.

EXAMPLE OF LEAD-INS

In this section I three lead-ins I have effectively used in my introductory finance courses. The first lead-in, I use on the first day of class. The second lead-in is an example other instructors may use

Table 1
Description of Cognitive Level of Understanding and
Some Verbs for Use in Designing Learning Outcome Statements (LOSs), by Cognitive Level

Cognitive Level	Description	Sample Verbs
Knowledge	Remember by recall or recognition	Define, describe, select, list, itemize, arrange, name, recall, label, reproduce
Comprehension	Simple understanding Restate in one's own words	Restate, discuss, describe, identify, interpret, infer, explain, calculate, compute, locate, obtain, reword, summarize, illustrate, paraphrase
Application	Using general knowledge in a new, specific, and concrete situation Put theory into practice Use knowledge to solve or interpret real circumstances	Demonstrate, use, show, interpret, decide, calculate, solve, create, compute, prepare, apply, choose, report, respond to, distinguish, perform, respond
Analysis	Breaking down information into separate parts and making inferences Interpret elements and reliability of individual components	Infer, differentiate, separate, rank, solve, analyze, examine, calculate, break down, compare, measure, test, graph, diagram, plot, extrapolate, value
Synthesis	Developing new model or way of thinking	Create, formulate, plan, design, construct, organize
Evaluation	Judging information or knowledge against some appropriate criteria.	Judge, compare, select, justify, conclude, propose, reject, evaluate, determine, revise, assess

Based on Bloom's, 1956, Taxonomy of Learning Domains

or begin to employ—the case or real-life example. The third lead-in introduces a topic that might otherwise be resisted by students—the need to learn statistics or other financial methods that students may initially resist as too difficult.

An Introductory Lead-in

First day of class sets the stage for the whole semester for learning and teaching. An instructor must decide whether to start with introductions, to give a synopsis of the course, or just go over the syllabus and call it a day. I like to start the course immediately with a lead-in. This fits with my teaching philosophy that students must think. Figure 1 is an outline of the lead-in I use for introductory finance courses. The words in italic indicate the levels of learning domain students use from the beginning of the course: *select* and *name* (knowledge), *select*, *justify*, *reevaluate*, and *assess* (evaluation), *rank*, *apply*, and *examine* (analysis), *choose* (application), and *discuss* (comprehension).

Figure 1
Lead-in to Introductory Finance Course

(This figure outlines the lead-in to an introductory finance course. The lead-in explores the one of the most fundamental concepts in finance: the goal of the corporation. Italic words highlight the verb that corresponds with the levels of learning domains.)

Step 1 Students, working individually, *name* and write down the goal of the corporation.

Step 2 Groups of three or four are formed to complete the following tasks:

- Task 1 *Select* the goal of the corporation
- Task 2 If necessary, *rank* the goals from most appropriate to least.
- Task 3 *Justify* Task 1 or Task 2

Step 3 Students are given objectives of a good goal and given the following tasks:

- Task 1 *Apply* the new objectives to their goals.
- Task 2 *Reevaluate* and *assess* their goals
- Task 3 *Choose* the goal of the corporation

Step 4 Students *discuss* their findings.

Step 5 Students *examine* the potential goal of the corporation to maximize firm value.

Step 6 Students *propose* a solution.

Based on lead-ins given to introductory finance classes. May contact author for more details. For example, what time limits how an even distribution of potential goals is achieved.

Students can immediately begin working on this lead-in or project. Students from personal experience or previous course work (accounting or business economics) have preconceived notions of the goal of a corporation. The same goals that a cross-section of the general population would name or to maximize profits, to maximize revenue, to maximize market share, and to maximize customer satisfaction. Of course, the student who has read ahead can be identified if the financial textbook goal of maximizing shareholder wealth is given. The justifications students give may be not be well-founded. So the lead-in will serve the purpose of giving students the financial theory to solve this problem. The lead-in is neither too difficult or too easy. While it may seem easy to name or list the goal of the corporation, students will quickly learn that justifying their choice is a much more difficult proposition. The question may be nothing new, but the justification process places students in unfamiliar territory.

The new material that students are given by the instructor concerns what makes a good goal and what is the criteria for judging goals. A manager must be able to measure whether the goal is being achieved and the manager must receive feedback on whether achieving goal frequently enough to make managerial decisions. Maximizing profits may be the goal must often cited by students or ranked highest. The three questions that help lead students 1) is there more than way to measure goal 2) what is the correct time frame for maximizing, and 3) how often is the measure available. There is no one clear measure of profits. There are hundreds of acceptable ways to measure profits. A company has discretion on how to account for revenues (recognition of revenues), and on expenses (depreciation and inventory methods and accounting for bad debt expenses). Students must wrestle with the question when should maximization take place. Should managers maximize profits in the short-term, for the next year, or in five year? Now the simple maximize profits goal is a lot harder to quantify and act on. Finally, since financial statements are created quarterly, managers cannot make day-to-day decisions to make adjustments to better achieve the goal. The goals of maximizing revenue, market share, or customer satisfaction all become inappropriate goals that can be measured in a variety of ways, the question of what time

frame to maximize is difficult to determine, and accounting or survey data takes a long time to collect an act on.

To wrap up the lead-in, students examine maximization of firm value as a goal and then propose the goal of the corporation. If students determine that maximizing shareholder wealth is the goal of the corporation, then one of the most fundamental concepts of finance has been discovered by the student. That is why I also refer to lead-ins as discovery learning. In other instances, the instructor will need to step in to provide the knowledge that students are eagerly wanting to hear. One of the most redeeming qualities of this lead-in is that it can be referred to throughout the course. By big picture figure map of the course the goal of the corporation is the top box with all lines and arrows pointing to it. Given the importance of this financial concept, it is nice to have an exercise that students enjoy learning and understanding in detail.

A Case Lead-in

Cases based on real-life events are often effective lead-ins, especially if there is some shock value. Figure 2 is an outline of the case lead-in I use for my introductory finance course: the case of Ford Pinto. The words in italic indicate the levels of learning domain students use in the Ford Pinto case: *identify* and *discuss*, and *explain* (comprehension), *analyze* (analysis), and *evaluate*, *judge*, and *propose* (evaluation). The actual case is a few pages long and contains such materials as the company's diagram of the tank problem and an excerpt from the company's Chairman and CEO with respect to production guidelines.

This figure outlines the use of a case or real-life example as a learning tool and lead-in to a new topic. Words in italics correspond with sample verbs in the levels of learning domains.

Figure 2
Case Lead-in to Introductory Finance Course

(This figure outlines the use of a case or real-life example as a learning tool and lead-in to a new topic. Words in italics correspond with sample verbs in the levels of learning domains.)

Step 1	Students read case.
Step 2	Students answer questions. What appears to be Ford's goal? (*identify*) What criteria is used to decided whether to not to produce a safe automobile? (*identify*)
Step 3	Students are asked to: *Evaluate* Ford's by *analyzing* its inputs. *Judge* and *propose* a more appropriate way to make investment decisions, if necessary.
Step 4	Students *discuss* their findings.
Step 5	Students *assess* ethics of Ford's CEO.
Step 6	Students are given information about CEO's successes and the accolades he received.
Step 7	Students *propose* and *explain* the apparent conflict between the a CEO that allowed unknowing customers to burn to death and a well-respected executive and business person.
Step 8	Students *evaluate* the method used by Ford—the benefit/cost analysis.

Based on case given to introductory finance classes. May contact author for more details.

I use the Ford Pinto case as an introduction to how corporations make the investment decision. Rather than just telling students what the accepted finance theory with respect to making investment decisions, I allow students to reflect and judge how a well-known U.S. company made its company make or break decision. This also represents a great opportunity to discuss ethics, an increasingly important topic that is highly valued by The Association to Advance Collegiate Schools of Business (AACSB) International. The case lead-in ties in with the introductory lead-in, the goal of the corporation.

The Contest Lead-in

To be effective a lead-in needs to be interesting. Like most adults, students love a game and a challenge. The additional inducement of bonus points offer results in students eagerly performing this lead-in. An effective lead-in is characterized by discovery learning. That is, students can either solve or come near to solving an important business problem. One of the most fundamental concepts in finance is the risk/return principle. Instead of giving students the metrics and rationale behind risk/return, students are asked to use their previous personal or course work to tackle the problem. Puzzlers and trivia often provide fun ways to teach and for students to learn. Words in italics reflects the learning domains of Bloom, 1956. Students are required to *identify* and *explain* (comprehension), *interpret* and *distinguish* (application), and *infer* and *examine* (analysis).

The above highlights the biggest pitfall for a lead-in failing miserably: being to hard for students to solve. When I first gave the list, I had four categories where I had a blue-chip company and a defensive stock. Students could only match two and thus were quite frustrated. This lead-in is enhanced as a learning tool because finance statistics and terms such as standard deviation often create a block for students. Through self-discovery or and not even knowing it, students are using finance risk measures to solve the problem. Students are able to match by looking at which stock is the riskiest. When examining the data, students naturally look at how swings in monthly returns and degree of changes in monthly returns can be used to determine which stock is the riskiest. From personal experience, students often know that technology stocks offer high returns. Thus, examining return data for evidence of large returns leads to students making the correct match.

Figure 3
The Contest Lead-in

(This figure outlines the contest lead-in where excitement and motivation is created by having a game element to it.)

Step 1 Students given sheet that contains A, B and C. Students are told that each letter corresponds to either the S&P 500, a technology stock, or a defensive stock (or blue-chip stock). Five years of monthly return data for each security: 1999-2003. I divide class into groups.
Step 2 Students *identify* which security corresponds with which letter. Requires students to *interpret* data and *infer* from data. *Distinguish* by *examining* specific data. *Determine* the security based on information given.
Step 3 Students win by *explaining* how they arrived at their answer.

Based on case given to introductory finance classes. This could be used for an investments course. May contact author for more details.

CONCLUSION

Based on student teaching evaluations and surveys handed out after doing lead-ins, students find them quite helpful in the learning process. However, one has to be wary of such a small assessment tool. A formal assessment with multiple teachers across multiple courses would give insight to the effectiveness of using lead-ins

to create discovery learning that has an impact on students for semesters and even years into the future.

REFERENCES

Bloom, Benjamin, 1956, "Taxonomy of Educational Objectives: Handbook 1, The Cognitive Domain", Longman.

Brightman, Harvey J., and Robert Elrod, "From Worst to First: The anatomy of an innovative MBA science course," Decision Line, March 2000.

Monitoring Software for a H.323 Video Conferencing Distance Learning Network

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ABSTRACT

Video conferencing by IP based H.323 protocols allows for synchronous distance learning classes in two or more locations Class time can be maximized by constant network and classroom equipment monitoring. Software has been developed to allow for a quick, compact visual indication of connectivity and conference status.

H.323 VIDEO CONFERENCING FOR DISTANCE LEARNING

Use of video conferencing technology based on TCP/IP and H.323 protocols continues to expand for both business and educational purposes. Video conferencing can now be implemented at the desktop, in the conference room and in classroom settings.

Delivering synchronous distance learning classes on a daily basis via a combined local and wide area network (LAN/WAN) is facilitated by constant monitoring of network connectivity and H.323 classroom equipment status.

MONITORING SOFTWARE

Software for this purpose was developed to display a concise visual summary of the availability and usage of H.323 compressed video equipment attached to a LAN/WAN network. When the application is in use on a Microsoft Windows desktop PC a compact grid display is located at the lower left of the screen (Fig. 1). This allows network monitoring while other applications are in use.

The video conferencing sites to be monitored are enumerated in an INI formatted text file in the same folder as the application EXE file. Site information consists of a recognizable site name and associated IP address.

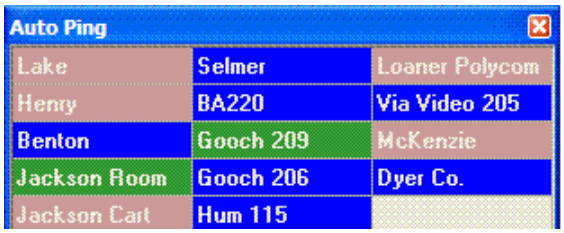

Figure 1

The application software was developed using the Delphi 7 integrated development environment (IDE) [Borland] in the Object Pascal language. By using the Orpheus OvcTable and OvcTVString components [TurboPower] each cell in the displayed table canto assume a color indicating the status for a particular site. A site displayed in red is off line (unpingable). A site displayed in blue is connected to the network and turned on (pingable). A site displayed in green is currently connected in a video conference. When the cursor hovers over a site involved in a video conference, the IP of the other site in the conference is displayed in the caption of the application.

Additional components are used to achieve these functions. IdIcmpClient [Indy] is used to implement the testing for network connectivity via the ICMP protocol [Postel]. Each site is contacted (pinged) only once per minute with a single 1300 bit packet. This simulates the size of video packets for appropriate latency while minimizing network bandwidth utilization.

The SNMPGet function in the SnmpSend unit [Ararat] enables detecting a site in a video conference and the IP address of the other site involved in a video conference.

The SNMP interface [Case] of video conferencing and other network equipment can be explored using GetIf software [Simonet]. This allows selection of the SNMP OID name and number for items of interest such as video conference status and connected site IP address.

To do list

Future enhancements could include support for additional H.323 video conferencing equipment vendors. Currently only the Tandberg private MIB interface is supported by the SNMP active conference data collection features. Video conference connected site names could be displayed instead of IP address via database, file or DNS lookup. Visual indication of excessive latency, jitter or packet loss which can impact video and audio quality could be added. Notification by email, text or instant message of dropped connections would have to allow for at least a single lost packet since some WAN connections display slight packet loss.

CONCLUSION

Continuous H.323 video conferencing network monitoring can reduce downtime during scheduled distance learning classes and meetings. A compact, visual display of network and conference status has been developed. This can increase time on task during class and reduce technology related distractions.

ACKNOWLEDGEMENT

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SOURCE CODE

```
unit Unit1;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics,
Controls, Forms,
  Dialogs, ovctcmmn, ovctcell, ovctcstr, ovctcedt, ovcbase, ovctable,
  StdCtrls, Grids, IdBaseComponent, IdComponent, IdRawBase,
IdRawClient,
  IdIcmpClient, ExtCtrls, IniFiles, Math, IdException;

type
  TForm1 = class(TForm)
    OvcTable1: TOvcTable;
    OvcTCString1: TOvcTCString;
    IdIcmpClient1: TIdIcmpClient;
    Memo1: TMemo;
    Timer1: TTimer;
    StringGrid1: TStringGrid;
    StringGrid2: TStringGrid;
    Edit1: TEdit;
    StringGrid3: TStringGrid;
    procedure OvcTable1GetCellData(Sender: TObject; RowNum,
      ColNum: Integer; var Data: Pointer; Purpose:
TOvcCellDataPurpose);
    procedure FormPaint(Sender: TObject);
    procedure IdIcmpClient1Reply(ASender: TComponent;
      const AReplyStatus: TReplyStatus);
    procedure Timer1Timer(Sender: TObject);
    procedure OvcTable1MouseDown(Sender: TObject; Button:
TMouseButton;
      Shift: TShiftState; X, Y: Integer);
    procedure Memo1Click(Sender: TObject);
    procedure Button2Click(Sender: TObject);
    procedure OvcTable1MouseMove(Sender: TObject; Shift:
TShiftState; X,
      Y: Integer);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.dfm}

uses snmpsend;

type
  TSiteData=record
    SiteName:Tstrings;
    SiteIP:Tstrings;
    SiteReply:array of TReplyStatus;
  end;
var
  NumSites:word;

procedure TForm1.OvcTable1GetCellData(Sender: TObject;
RowNum,
  ColNum: Integer; var Data: Pointer; Purpose:
TOvcCellDataPurpose);
begin
    Data:=Pchar(StringGrid1.Cells[ColNum,RowNum]);
end;

procedure TForm1.FormPaint(Sender: TObject);
var
  i,j,k,q:word;
  IPfile: TIniFile;
begin
  IPfile := TIniFile.Create(GetCurrentDir+'\IP sites.txt');
  try
    IPfile.ReadSection('IP Addresses',Memo1.Lines);
    NumSites:=Memo1.Lines.Count;
    i:=5;
    DivMod(NumSites,i,j,q);
    if q>0 then inc(j);
    StringGrid1.RowCount:=i;
    StringGrid1.ColCount:=j;
    StringGrid2.RowCount:=i;
    StringGrid2.ColCount:=j;
    OvcTable1.RowLimit:=i;
    OvcTable1.ColCount:=j+1;
    OvcTable1.ActiveRow:=0;
    OvcTable1.ActiveCol:=j;
    OvcTable1.Height:=104;
    OvcTable1.Width:=(j*102)-2;
    OvcTable1.LeftCol:=0;
    Memo1.Left:=OvcTable1.Width;
    Memo1.Height:=OvcTable1.Height;
    Form1.ClientWidth:=OvcTable1.Width-1;
    Form1.ClientHeight:=OvcTable1.Height-1;
    Form1.Left:=0;
    Form1.Top:=Screen.WorkAreaHeight-Form1.Height;
    for k:=0 to NumSites-1 do
      begin
        DivMod(k,StringGrid1.RowCount,i,j);
        StringGrid1.Cells[i,j]:=Memo1.Lines[k];     {c,r}
        StringGrid2.Cells[i,j]:=IPfile.ReadString('IP
Addresses',StringGrid1.Cells[i,j],
        'not an IP');
      end;
  finally
    IPfile.Free;
  end;
  { Timer1Timer(self);  } { init 1 sec. then 1 min. }

end;

procedure TForm1.IdIcmpClient1Reply(ASender: TComponent;
  const AReplyStatus: TReplyStatus);
  var
    i,j,k:word;
    StatusText:string;
    TheValue:string;
begin
  case Ord(IdIcmpClient1.ReplyStatus.ReplyStatusType) of
    0:StatusText:='OK';
    1:StatusText:='Error';
    2:StatusText:='Timed Out';
    3:StatusText:='Unreachable';
    4:StatusText:='TTL exceeded';
  end;
  for k:=0 to NumSites-1 do
    begin
      DivMod(k,StringGrid1.RowCount,i,j);
      if SameText(IdIcmpClient1.ReplyStatus.FromIpAddress,String
Grid2.Cells[i,j]) then
```

```
        begin
          OvcTable1.Cells.Color[j,i]:=clBlue; {r,c}
          if SNMPGet('1.3.6.1.4.1.5596.10.3.2.1.0','public',
          StringGrid2.Cells[i,j],TheValue) then
          if TheValue='VideoConf' then
          begin
            OvcTable1.Cells.Color[j,i]:=clGreen;
            if SNMPGet('1.3.6.1.4.1.5596.10.3.4.1.3.1','utmcc',
            StringGrid2.Cells[i,j],TheValue) then
            StringGrid3.Cells[i,j]:='TheValue;
          end
          else
            StringGrid3.Cells[i,j]:='';
          Memo1.Lines.Add(StringGrid1.Cells[i,j]); {c,r}
        end;
    end;
  Memo1.Lines.Add('IP='+IdIcmpClient1.ReplyStatus.
FromIpAddress);
  Memo1.Lines.Add('Time='+IntToStr
  (IdIcmpClient1.ReplyStatus.MsRoundTripTime));
  Memo1.Lines.Add('Hops='+IntToStr(IdIcmpClient1.TTL-
IdIcmpClient1.ReplyStatus.TimeToLive));
  Memo1.Lines.Add('Status='+StatusText);
  Memo1.Lines.Add('');
end;

procedure TForm1.Timer1Timer(Sender: TObject);
var
  i,j,k:word;
begin
  Memo1.Clear;
    for k:=0 to NumSites-1 do
      begin
        DivMod(k,StringGrid1.RowCount,i,j);
        OvcTable1.Cells.Color[j,i]:=clRed; {r,c}
        try
          IdIcmpClient1.Host:=StringGrid2.Cells[i,j]; {c,r}
          IdIcmpClient1.Ping(StringOfChar('A', 1300),0);
          Timer1.Interval:=60000;
        except
        on EIdSocketError do
        begin
          ShowMessage('No socket, connect to network');
          RunError(0);
        end;
        end;  {try}
      end;
end;

procedure TForm1.OvcTable1MouseDown(Sender: TObject;
Button: TMouseButton;
  Shift: TShiftState; X, Y: Integer);
var
  C,R:integer;
begin
  OvcTable1.CalcRowColFromXY(X,Y,R,C);
        try
          IdIcmpClient1.Host:=StringGrid2.Cells[C,R]; {c,r}
          IdIcmpClient1.Ping(StringOfChar('A', 1300),0);
        except
        on EIdSocketError do
        begin
          ShowMessage('No socket, connect to network');
          RunError(0);
        end;
        end; {try}
  Form1.ClientWidth:=OvcTable1.Width+Memo1.Width;
end;

procedure TForm1.Memo1Click(Sender: TObject);
begin
  Form1.ClientWidth:=OvcTable1.Width;
  OvCTable1.InvalidateCell(OvcTable1.ActiveRow,OvcTable1.
ActiveCol);
  OvcTable1.ActiveRow:=0;
  OvcTable1.ActiveCol:=OvcTable1.ColCount-1;
  OvcTable1.LeftCol:=0;

end;

procedure TForm1.OvcTable1MouseMove(Sender: TObject; Shift:
TShiftState; X,
  Y: Integer);
var
  RowNo,ColNo:integer;
begin
  OvcTable1.CalcRowColFromXY(X,Y,RowNo,ColNo);
  if StringGrid3.Cells[ColNo,RowNo]<>'' then
      Form1.Caption:='Connected to '+StringGrid3.
Cells[ColNo,RowNo]
  else
    Form1.Caption:='Auto Ping';
end;

end.
```

REFERENCES

Ararat s.r.o. (2005). Ararat Synapse. Retrieved February 1,2005, from http://www.ararat.cz/synapse/

Borland International (2002). Borland Delphi 7.

Case, J., Fedor, M., Schoffstall, M., Davin, J. (1990) A Simple Network Management Protocol (SNMP) RFC 1157. Retrieved May 26,2005, from http://www.rfc-editor.org/rfc/rfc1157.txt

Indy Project. (2005). The Indy Project. Retrieved February 25,2005, from http://www.indyproject.org/

Postel, J. (ed.). (1981) Internet Control Message Protocol - DARPA Internet Program Protocol Specification RFC 792. Retrieved January 25,2005, from http://www.rfc-editor.org/rfc/rfc792.txt

Simonet, Philippe. (2004). Getif version 2.3.1.0. Retrieved October 10, 2004, from http://www.wtcs.org/snmp4tpc/getif.htm#MIB%20Browser

TurboPower Software Company (2001). TurboPower Orpheus. Retrieved 8,2005, from http://sourceforge.net/projects/tporpheus/

On Ibn Khaldun's Contribution to Political Economy

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INTRODUCTION

Abd al-Rahman Ibn Muhammad Ibn Khaldun al-Hadrami, a North African historian, was born in Tunis in 1332 and died in Cairo, Egypt in 1406, five years after his historical meeting with Tamerlane. Ibn Khaldun wrote an important book intending to make history a science. Part of the book is called the *Muqaddimah, the Introduction to History*. In this book he establishes foundations for sociology, economics, and politics within a provocative evolutionary framework. For such significant scholarly accomplishments, Ibn Khaldun can be considered an integral and essential component of African heritage. Arnold Toynbee (1935: 322) in his *A Study of History* considers Ibn Khaldun's philosophy of history, which is stated in *the Prolegomena (the Muqaddimah*), as "undoubtedly the greatest work of its kind that has yet been created by any mind in any time or place." Spengler (1964) thinks that *the Muqaddimah* was "completed in 1377...and issued in printed form in...the 1850's." But before this date "manuscripts of Ibn Khaldun's work were extremely plentiful"(Gates, 1967: 422).

The basic objective of *the Prolegomena* is to utilize scientific investigation in the analysis of social phenomena such as the rise and fall of a dynasty--thus, making history a science--which is the core of Ibn Khaldun's evolutionary system. For Ibn Khaldun, a historian conducting historical investigation should have knowledge in a large number of fields in order to successfully analyze various historical, social phenomena to discover laws determining these phenomena; once these laws are discovered, one can understand (and control) the trend of these phenomena. Utilizing this approach, Ibn Khaldun is able to analyze history using economic, political, and sociological knowledge through an evolutionary intellectual system.

This study is basically intended to demonstrate how people in a particular historical place and time develop and use an evolutionary framework to explain real world phenomena. This paper will outline the basic framework of Ibn Khaldun's evolutionary theory in section one. Section two, which is the fundamental justification for Ibn Khaldun's theory of evolution, presents and analyzes the evolutionary process (the rise and fall) of a dynasty. Section three analyzes the elements of Ibn Khaldun's conception of political economy, upon which strong dynasties can be established and evolved. This section will show that Ibn Khaldun's economic ideas are as worthwhile as those presented by many economists who came centuries after him. The last section is devoted to a summary and conclusions.

IBN KHALDUN'S EVOLUTIONARY THEORY

Ibn Khaldun's evolutionary theory is presented very explicitly throughout his work. He criticizes historians for various reasons, chief of which was their ignorance of change and evolution. Historians, for Ibn Khaldun, overlooked the significance of change, and when they analyze a particular dynasty they "do not turn to the beginning of the dynasty. Nor do they tell why it unfurled its banner and was able to give prominence to its emblem, or what caused it to come to a stop when it had reached its term"(Ibn Khaldun, 1969: 7). Similarly, Ibn Khaldun realizes that nations along with their institutions do change and evolve over time. For example, the old Persian nation was succeeded by the later Persians, the Byzantines, and then the Arabs. Along with these changes, the "old institutions changed and former customs were transformed, either into something very similar, or into something distinct and altogether different." (Ibn Khaldun, 1969: 25).

For Ibn Khaldun, when a general change of conditions occurs, the entire reality transforms. These transformations may be very radical in that they create a new reality with new institutions. He (1969:30) states: "When there is a general change of conditions, it is as if the entire creation had changed and the whole world been altered, as if it were a new and repeated creation, a world brought into existence anew." Although Ibn Khaldun understands changes and transformations, he provides only one factor as the driving force, namely "the contact between different people or classes and the consequence imitation and intermixture" (Issawi, 1950: 8).

Bagehot uses similar idea of contact between people as the factor explaining the formation of races in early time. He (1873: 136) states: "There was some strange preliminary process by which the main races of men were formed; they began to exist very early, and except by intermixture no new ones have been formed since." Also, Bagehot uses imitation as a another way savage people utilize for developing their systems and institutions. Bagehot (1873: 101) points out: "For not only the tendency, but also the power to imitate, is stronger in savages than civilized men. Savages copy quicker, and they copy better....Uneducated people in civilized nations have vestiges of the same condition....The most wonderful examples of imitation in the world are perhaps the imitations of civilized men by savages in the use of martial weapons." Moreover, imitation was used by Rousseau, Darwin, and Tardy, among others, to explain social and political development. Rousseau (1950: 239) uses the imitation by the weak people of the strong people to explain private property and hence inequality, which he considers the first revolution. Darwin (1936: 497) explains: "Now, if some one man in a tribe, more sagacious than others, invented a new snare or weapon, or other means of attack or defense, the plainest self-interest, without the assistance of much reasoning power, would prompt the other members to imitate him; and all would thus profit. The habitual practice of each new art must likewise in some slight degree strengthen the intellect. If the new invention were an important one, the tribe would increase in number, spread, and supplant other tribes." In addition, Tarde (1899 and 1903) thinks that an activity may start either by a new idea (invention) made by intelligent people or by imitation. The new idea will be accepted and spread internationally, creating a homogeneous world community. His logical process works from an invention, imitation, opposition, and then adaptation.

Not only do conditions, institutions, and customs change and evolve over time but even the color of people is subject to evolution and change if the environment (condition) changes, according to Ibn Khaldun. He attributes the blackness and whiteness of people to the climatic conditions of heat and cold. When "People...go through a very severe summer their skins turn black because of the excessive heat." In contrast, in the north the "heat...is weak in this region, and the cold is severe in all seasons. In consequence, the color of the inhabitants is white....Further consequences of the excessive cold are blue eyes, freckled skin, and blond hair"(Ibn Khaldun, 1969: 59-60).

Ibn Khaldun contends that if conditions do change, the color of people will change over time. If people of the south move north and vice versa, then people's color changes from black to white and vice versa as the conditions change. He (1969: 60) argues, "[Black

people] from the south who settle in the temperate fourth zone or in the seventh zone that tends toward whiteness, are found to produce descendants whose color gradually turns white in the course of time. Vice versa, inhabitants from the north or from the fourth zone who settle in the south produce descendants whose color turns black. This shows that color is conditioned by the composition of the air."

If Ibn Khaldun's evolutionary theory is connected to the proposition that "differences of condition among people are the result of the different ways in which they make their living"(Ibn Khaldun, 1969: 91), one can argue that Ibn Khaldun anticipates a simple form of Marx's materialistic interpretation of history. Ibn Khaldun substantiates this point further when he states: "Man is a child of the custom and things he has become used to. He is not the product of his natural disposition and temperament.The conditions to which he has become accustomed...have replaced his natural disposition" (Ibn Khaldun, 1969: 95).

THE THEORY OF A DYNASTIC EVOLUTION

The core of Ibn Khaldun's intellectual evolutionary system is the rise and fall of a dynasty--dynastic evolution and devolution.This dynamic is extremely important to him because, as a scientific historian and important political figure (Gellner, 1981: 224), he was interested in discovering the law that governs the trend of this phenomenon. Also, the pattern of changing dynasties is the normal reality in North African tribes, where Ibn Khaldun lived. Gellner (1969: 6) argues: "every so often, every three generations in Ibn Khaldun's schematized version, a new set of wolves throws up a new dynasty from their own number, replacing the exhausted sheepdogs, and have their turn until the time comes for them to be replaced." Gellner (1964: 142) correctly interprets Ibn Khaldun in that tribes found new dynasties in the cities from which they acquired civilization, but "the inherently unstable balance between the spirit of cohesion [of the tribes] and that of urbanity [civilization] would become upset in the process, and the pointless, cyclical process would repeat itself." This suggests that the evolutionary theory of Ibn Khaldun analyzed in the first section is extended to the dynastic evolution (and devolution) which led him to discuss economic, political, and other issues from an evolutionary prospective. And the idea of how a tribe displaces another was employed by Darwin (1936: 498) stating:

> When two tribes of primeval man, living in the same country, came into competition, if (other circumstances being equal) the one tribe included a great number of courageous, sympathetic and faithful members, who were always ready to warn each other of danger, to aid and defend each other, this tribe would succeed better and conquer the other. Let it be borne in mind how all-important in the never-ceasing wars of savages, fidelity and courage must be. The advantage which disciplined soldiers have over undisciplined hordes follows chiefly from the confidence which each man feels in his comrades. A tribe rich in the ...qualities [of obedience and coherence] would spread and be victorious over other tribes; but in the course of time it would, judging from all past history, be in its turn overcome by some other tribe still more highly endowed. Thus the social and moral qualities would tend slowly to advance and be diffused throughout the world.

To analyze dynastic evolution (and devolution), Ibn Khaldun reaches the basic conclusions outlined below by analyzing the history of four major dynasties, three of which were African. The dynasty of Prophet Muhammed and the Four Caliphs was extended from the Arabian desert to Iraq, Syria, Egypt, North Africa, central Asia, Persia, and Spain. This dynasty was succeeded by the Persians and the Turks. The Fatimite dynasty was founded in Tunis in 909, and expanded over North Africa, and Syria, and reached Baghdad under the Abbaside dynasty. Eventually, it was destroyed by Saladin in 1171. AL Murabitun dynasty (1056-1147) started in Senegal and controlled most of North Africa (Maghrib) and Spain. It was eclipsed by the AL Muwahhidun in 1147. The AL Muwahhidun dynasty (1130-1269) dominated North Africa (Maghrib) and Spain. This dynasty was expelled from Spain in 1212 but dominated North Africa. Finally, it was destroyed by the Berbers of Banu Marin (Issawi 1951 and Hurani 1991).

In his dynastic analysis Ibn Khaldun makes use of Plato's and Ibn Rushed's (Averroe's) analysis (Fakhry 1988). Ibn Rushed (1126-98) was especially interested in dynastic evolution, as he lived in a period when the Muslim dynasty in Spain was on the decline. Also, Ibn Khaldun utilizes the religious writings of Avicennia (980-1037) and AL Ghazzali (1058-1111). Moreover, Muslim historians such as AL Tabari (838-923) and AL Mas'udi (d. 956) and political thinkers such as AL Mawardi (d.1058) were quoted by Ibn Khaldun. When Ibn Khaldun uses these writings, he is unique, distinct and superior in his dynastic analysis. Flint (quoted in Issawi, 1950: 14) stated that for Ibn Khaldun: "...Plato, Aristotle, and Augustine were not his peers, and all others were unworthy of being mentioned along with him." Similarly, Issawi (1950: 24) points out: "And if...[Ibn Khaldun] had no predecessors he certainly had no successors in the world of Islam."

Ibn Khaldun believes that a dynasty passes through five stages. The first stage is the stage of success, the overthrow of the previous dynasty and the establishment of a new royal authority: power through the state. In this stage, "the ruler...collects taxes, defends property, and provides military protection....He does not claim anything exclusively for himself" (Ibn Khaldun, 1969: 141). The first stage can be called the stage of the rising dynasty, and the primary elements for this rising (evolution) are group feeling (solidarity) and the availability of money through taxation. Ibn Khaldun (1969: 246) states: "Any royal authority must be built upon two foundations. The first is might and group feeling, which finds its expression in soldiers. The second is money, which supports the soldiers and provides the whole structure needed by royal authority."

Solidarity is defined as "affection and willingness to fight and die for each other"(Ibn Khaldun, 1969: 123). This group feeling makes the dynasty very powerful, because every citizen supports and defends the dynasty. [Kropotkin (1906) considers cooperation or mutual aid a factor in evolution. He brings this factor because he thinks that Darwin's followers have overlooked cooperation and concentrated on competition as the only factor in evolution) Ibn Khaldun (1969: 130) points out: "the temper of dynasties is based upon group feeling. If the group feeling is strong the (dynasty's) temper likewise is strong, and its life of long duration." Also, group feeling generates superiority which in turn breeds leadership. Gellner (1981: 25) rightly considers this statement as "perhaps the most important single sentence in Ibn Khaldun's sociology: domination, authority, are the rewards of social cohesion."

Money which the dynasty obtains through taxation is the second foundation. Citizens pay their taxes to the government (the ruler), and this money is mostly spent for building a strong army. Taxes which are not heavy are easily obtained in this stage, because business activity performs exceptionally well. This suggests that business paying the taxes represents the economic base of the dynasty, a base on which the dynasty can expand.

As the dynasty secures the necessary support through group feeling and money, it expands until the support is exhausted. Ibn Khaldun (1969: 129) explains: "Each dynasty depended on the numerical strength of its supporters. When its numbers were exhausted

through expansion, no further conquest or extension of power was possible." This happened to the Arabs at the beginning of Islam. After the Arabs penetrated Syria, Iraq, North Africa, Western India, Spain, etc., their "numbers were exhausted by that expansion [and] no further conquests could be made by them, and the Muslim empire reached its farthest expansion"(Ibn Khaldun, 1969: 129). And this expansionary process accompanied by the two foundations upon which the dynasty was built constitutes what Kennedy (1989) called in modern jargon the imperial overstretch.

For Ibn Khaldun, a dynasty is rarely established in countries where various social groups with different views exist. He (1969: 130) explains:

> A dynasty rarely establishes itself in lands with many different groups. This is because of differences in opinions and desires. Behind each opinion and desire, there is a group feeling defending it. At any time, therefore, there is much opposition to a dynasty and rebellion against it, even if dynasty possesses group feeling, because each group feeling under the control of the ruling dynasty thinks that it has in itself enough strength and power.

This can be interpreted to mean that as various views and social groups do exist under democracy, a dynasty may face difficulties in establishing itself, or may not last for long period of time.

At any rate, the dynasty is in full strength during the first stage and it is on the rise. In the second stage, which one can call the stage of the ruler's selfishness, the ruler controls his own people and claims all the dynastic achievements for himself. Ibn Khaldun (1969: 141) describes the situation as: the "ruler gains complete control over his own people, claims royal authority all for himself, excluding them, and prevents them from trying to have a share in it." As a result of the ruler's selfish behavior, a division (or conflict) is initiated between the people and their ruler (government).

The third stage is the stage of leisure and tranquility. The ruler builds large buildings and monuments, and initiates big construction projects and spacious cities. He inspects soldiers and presents gifts to ambassadors, and does a variety of things to impress friendly dynasties and frighten others. This stage, according to Ibn Khaldun (1969: 142), "is the last during which the ruler is in complete authority." In the fourth stage, the ruler imitates his predecessors, because he "thinks that to depart from tradition would mean the destruction of his power"(Ibn Khaldun, 1969: 142). Andic (1971: 31) describes this stage "as one of stagnation characterized by contentment, peacefulness and imitation."

In contrast to the previous stages, the fifth stage is the stage of waste and squandering. The ruler wastes resources on pleasures and amusements, and acquires parasitical followers. The ruler seeks to destroy the people (his original followers) who helped him to establish the dynasty. Ibn Khaldun (1969: 146-47) explains:

> In order to prevent [his followers] from seizing power, and in order to keep them away from participation in it, the ruler needs other friends, not of his own kin, whom he can use against (them) and who will be his friends in their place....This, then, announces the destruction of the dynasty and indicates that chronic disease has befallen it, the result of the loss of the group feeling on which the (dynasty's) superiority has been built....Thus, the dynasty came to belong to people other than those who had established it. Power went to people other than those who had first won it.

This causes the first foundation, the group feeling on which the dynasty was based, to break down.

Similarly, the second foundation on which the dynasty was built, money or tax revenue, weakens over time. The shortage of tax revenues usually results from the extravagant expenditures practiced by the ruler and prominent citizens and from the heavy taxes imposed on businesses. Ibn Khaldun (1969: 249) explains: "The expenditures of the ruler, and of the people of the dynasty in general, grows. This (tendency) spreads to the urban population. It calls for increases in soldiers' allowances and in the salaries of the people of the dynasty. Extravagant expenditures mount. It spreads to the subjects, because people follow the (ways) and customs of the dynasty." [The ideas of extravagant expenditure and emulation were later rediscovered by Veblen (1899) and Dusenberry (1949)]. In order to get the necessary money (tax revenues), the ruler "must invent new kinds of taxes. He levies them on commerce. He imposes taxes of a certain amount on prices realized in the markets and on the various (imported) goods at the city gates....In the later (years) of a dynasty, taxation may become excessive. Business falls off, because all hopes (of profit) are destroyed, permitting the dissolution of civilization....This situation becomes more and more aggravated, until the dynasty disintegrates" (Ibn Khaldun, 1969: 232).

It should be noted that for Ibn Khaldun the gradual growth of luxury contributes significantly toward weakening the dynasty and corrupting people's character. He (1969: 135) points out: "Luxury corrupts the character....People lose the good qualities that were a sign and indication of royal authority. They adopt the contrary bad qualities." Also, he (1969: 134) argues, "When people get accustomed to a great number of things, their expenses are higher than their allowances and their income is not sufficient to pay their expenditures." As luxury increases, government has to accommodate people--possibly through a welfare system--and has to increase tax revenues. "And when the tax revenues must go to pay for recently increased allowances....the militia decreases in number....Eventually, the army is reduced to the smallest possible size. The result is that the military defense of the dynasty is weakened and the power of the dynasty declines"(Ibn Khaldun, 1969: 134-35). Rousseau (1950: 279) thinks that luxury "which cannot be prevented among men who are tenacious of their own convenience and of the respect paid them by others. Soon completes the evil society had begun, and, under the pretence of giving bread to the poor, whom it should never have made such, impoverishes all the rest, and sooner or later depopulates the State."

Not surprisingly, Ibn Khaldun's theory of dynastic decline (devolution) anticipates Paul Kennedy's theory of imperial overstretch. Professor Wallace C. Peterson (1991: 32) thinks that Professor Kennedy's theory of imperial overstretch is two-fold. "First, every great power...requires a solid economic base to support the military capability....Second, the cost of sustaining and projecting military power eventually exceeds and undermines the nation's economic base, leading therefore to imperial decline." This theory is fundamentally analogous to Ibn Khaldun's theory.

THE POLITICAL ECONOMY OF A STRONG DYNASTY

The analysis of the dynastic evolution (devolution) provides the key for Ibn Khaldun's political economy. As has been indicated, money through taxes and strong business activity constitute the foundation for a rising dynasty. In other words, economic analysis becomes an urgent requirement for a strong dynasty; consequently, Ibn Khaldun suggests the following elements of political economy. He starts with the division of labor, an issue that Adam Smith (1976) started with as well. Ibn Khaldun attributes a significant role to the division of labor in increasing the wealth of a dynasty. He (1969: 45) explains:

> ...the power of the individual human being is not sufficient for him to obtain (the food) he needs, and does not provide him with as much food as he requires to live....Thus, he cannot do without a combination of many powers from among his fellow beings, if he is to obtain food for himself and for them. Through cooperation, the needs of a number of persons, many times greater than their own number, can be satisfied

For Ibn Khaldun, not only is specialization important in the production of commodities (Boulakia 1971) but it is also viable in the production of knowledge: it is very difficult for an individual to master more than one specialty or field. He (1969: 318) points out:" This extends even to scholars whose habit has to do with thinking. (The scholar) who has acquired the habit of one particular science and masters it completely will rarely achieve the same mastery of the habit of another science, and if he were to study another science, he would, except under very rare circumstances, be deficient in it."

Having explained the division of labor, Ibn Khaldun considers social organization as a necessary condition for human beings. Without social organization it is impossible for individuals to produce and survive. This is because social organization creates cooperation and interaction between those individuals, allowing them to implement and achieve their tasks; this emphasis was analyzed further by Frank Knight (1967). Ibn Khaldun (1969: 151) asserts: "...human beings cannot live and exist except through social organization and co-operation for the purpose of obtaining their food and other necessities of life." And for these basic remarks (and for others that will be described shortly), one can correctly contend that Ibn Khaldun is one of the pioneers in sociology (Schmidt 1978).

With respect to the source of value, Ibn Khaldun holds that not only is labor the source of value, a similar position to that of Sir William Petty (Hull 1963), Adam Smith (1976), David Ricardo (1973), and Karl Marx (1970), but that labor is also the basic force for the creation of profits and development of cities and civilizations. Ultimately, labor will become source for dynastic evolution. Even if profit "results from something other than a craft, the value of the resulting profit and acquired (capital) must (also) include the value of the labor by which it was obtained. Without labor, it would not have been acquired" (Ibn Khaldun, 1969: 298). He (1969: 298) continues: "Everything comes from God. But human labor is necessary for every profit and capital." Moreover, "...the capital a person earns and acquires, if resulting from a craft, is the value realized from his labor." For Ibn Khaldun, even the property of nations has come from labor. He (1969: 302) states:

> ...it should be known that treasures of gold, silver, precious stones, and utensils are no different from other minerals and acquired (capital), from iron, copper, lead, and any other real property or (ordinary) minerals. It is civilization that causes them to appear, with the help of human labor, and that makes them increase or decrease. In sum, a strong dynasty must have skilled human labor.

Ibn Khaldun outlines the significance of freedom of choice by arguing that individuals should do what they know best in order for a dynasty to rise. Forcing workers to do things outside their fields makes them lose their income and will destroy civilizations. He (1969: 241) points out:

> ...if they are obliged to work outside their own field and are used for forced labor unrelated to their (ordinary ways of) making a living they no longer have any profit and are thus deprived of the price of their labor, which is their capital (asset). They suffer, and a good deal of their livelihood is gone, or even all of it. If this occurs repeatedly, all incentive to cultural enterprise is destroyed, and they cease utterly to make an effort. This leads to the destruction and ruin of civilization.

As for the idea of relative price, Ibn Khaldun (1969: 276) explains price determination according to market mechanism (demand and supply): "If...the inhabitants of a city have more food than they need...the price of food is low...[When] a city has a highly developed, abundant civilization...there is a very large demand for those conveniences....This results in a very great shortage of such things.... Thus, as one can see, prices come to be high." He (1969: 277) continues that if there is "no demand for conveniences, because the inhabitants are few and their condition is weak...little business is done by them, and the prices there, consequently, become particularly low." For example, public baths are constructed by rulers and chiefs and put into operation. "However, since there is no demand for them from the mass of the people, they are soon neglected and fall into ruin. Those in charge of them speedily leave them, because they have little profit and income from them"(Ibn Khaldun, 1969: 292). It follows that market mechanism is a very important component for a healthy economy and a strong dynasty.

As for the cost of production, Ibn Khaldun explains that it has a direct impact on the price of the product. The increased cost of production for whatever reason will lead to increased prices, whereas low costs of production will result in low prices. Ibn Khaldun (Issawi 1951: 73-74) explains:

> [In] the coastal and hilly regions, whose soil is unfit for agriculture, [inhabitants] were forced to apply themselves to improving the conditions of those fields and plantations. This they did by applying valuable work and manure and other costly materials. All this raised the cost of agricultural production, which costs they took into account when fixing their price for selling. And ever since that time Andalusia [Spain] has been noted for its high prices....The position is just the reverse in the land of the Berbers. Their land is so rich and fertile that they do not have to incur any expenses in agriculture; hence in that country foodstuffs are cheap.

Profit, for Ibn Khaldun, is the reward for undertaking risk, an idea that was rediscovered by Frank Knight (1921). To increase profit, he argues, "Buy cheap and sell dear"(Ibn Khaldun, 1969: 310). Ibn Khaldun (1969: 311) explains: "Commerce means the buying of merchandise and goods, storing them, and waiting until fluctuation of the market brings about an increase in the prices of these goods. This is called profit."

Ibn Khaldun continues, "Commerce means increasing one's capital by buying merchandise and attempting to sell it for a price higher than its purchase price, either by waiting for market fluctuations or by transporting the merchandise to a country where that particular merchandise is more in demand and brings higher prices, or by selling it for a higher price to be paid at a future date" (Ibn Khaldun, 1969: 312). In other words, a merchant is a risk-taker, and for Ibn Khaldun a person who does not want to take a risk should avoid business activity. He (1969: 313) explains: "...the person who is afraid or unaggressive...must avoid commerce. He risks the loss of his capital." For him, "Commerce is a natural way of making profits. However, most of its practices and methods are tricky and designed to obtain the (profit) margin between purchase prices and sale prices"(Ibn Khaldun, 1969: 300).

Although profit is explained by risk, Ibn Khaldun believes that profit does not exist without labor. He (1969: 298-99) explains: "It has thus become clear that gains and profits, in their entirety or for the most part, are value realized from human labor....It should be known

that when the (available) labor is all gone or decreased because of a decrease in civilization, God permits profits to be abolished."

If profit is higher than what is needed, capital accumulation will continue. Ibn Khaldun (1969: 297) argues that "profits will constitute his [the entrepreneur's] livelihood, if they correspond to his necessities and needs. They will be capital accumulation if they are greater than (his need)." And capital accumulation generates rapid economic growth and a strong dynasty, a result of profits created by human labor.

With respect to the idea of free trade, Ibn Khaldun approaches it by contending that as labor increases, the production of goods and services will also increase. This production can satisfy the needs of a country's people, and the surplus may be exported to other countries through free trade. This surplus of production (and free trade) will generate more wealth, according to Ibn Khaldun. He (1969: 273) argues:

> If the labor of the inhabitants of a town or city is distributed in accordance with the necessities and needs of those inhabitants, a minimum of that labor will suffice. The labor (available) is more than is needed. Consequently, it is spent to provide the conditions and customs of luxury and to satisfy the needs of the inhabitants of other cities. They import (the things they need) from(people who have a surplus) through exchange or purchase. Thus, the (people who have a surplus) get a good deal of wealth.

Free trade, for Ibn Khaldun, increases people's satisfactions, enhances business profits, and augments the wealth of trading nations; hence, it supports the rise of a dynasty. He (1969: 310-11) states:

> The merchant who knows his business will travel only with such goods as are generally needed by the rich and poor, rulers and commoners alike. (General need) makes for a large demand for his goods....It is more advantageous and more profitable for the merchants' enterprise....Thus, merchandise becomes more valuable when merchants transport it from one country to another.

And "valuable merchandise" describes "Ibn Khaldun's perception of the [welfare] gains of trade" (Oweiss, 1988: 122).

For Ibn Khaldun, higher taxes devastate economies and destroy all civilizations. His view on taxes and economic activities anticipates supply-side economics, asserting that reduction of tax rates generates a higher economic growth. He (1969: 230) argues: "At the beginning of the dynasty, taxation yields large revenues from small assessments. At the end of the dynasty taxation yields small revenue from large assessments." (President Reagan stated this point in his remarks at the Illinois Forum Reception in Chicago on September 2, 1981 and in his News Conference on October 1, 1981). Also, "When tax assessments and imposts upon the subjects are low, the latter have the energy and desire to do things. Cultural enterprises grow and increase, because the low taxes bring satisfaction. When cultural enterprises grow, the number of individual imposts and assessments mount. In consequence, the tax revenue, which is the sum total of (the individual assessments) increases"(Ibn Khaldun, 1969: 230). He (1969: 230) continues, if "the assessments increase beyond the limits of equity," the "result is that the interest of the subjects in cultural enterprises disappears, since when they compare expenditures and taxes with their income and gain and see the little profit they make, they lose all hope. Therefore, many of them refrain from all cultural activity. The result is that the total tax revenue goes down as individual assessments go down."

When taxes are heavy, "civilization is destroyed, because the incentive for cultural activity is gone"(Ibn Khaldun, 1969: 231). This is so, because--as just indicated-- when taxation becomes excessive, "business falls off, because all hopes (of profit) are destroyed, permitting the dissolution of civilization and reflecting upon (the status of) the dynasty [as it] disintegrates"(Ibn Khaldun, 1969: 232). In contrast, Ibn Khaldun believes that tax exemption will augment the stock of capital and profits. He (1969: 234) argues: "Exemption from taxes and custom duties is more likely than anything else to cause one's capital to grow, and it brings quick profits." This in turn establishes a strong dynasty.

According to Ibn Khaldun, a nation's prosperity is an outcome of the amount of labor available, not the availability of gold and silver, as the mercantilists, such as Thomas Mun (Anikin,1979, p.45), have argued. He (1969: 279) explains:

> The great amount of available labor...brings wealth. A great surplus of products remains after the necessities of the inhabitants have been satisfied. This provides for a population far beyond the size and extent of the actual one, and comes back to the people as profit that they can accumulate. Prosperity, thus, increases, and conditions become favorable. There are luxury and wealth. The tax revenues of the ruling dynasty increase on account of business prosperity.

Productivity, for Ibn Khaldun, works to create more prosperous economic conditions which represent the basic foundations for a rising dynasty. He (1969: 238) argues: "Civilization and its well-being as well as business prosperity depend on productivity and people's efforts in all directions in their own interest and profit. When people no longer do business in order to make a living, and when they cease all gainful activity, the business of civilization slumps, and everything decays." In other words, without continuous increases in productivity a dynasty will be on the decline. Economists such as Professor Wallace C. Peterson (1994) think that to raise the American standard of living and to eradicate the silent depression, productivity has to increase, a view consistent with that of Ibn Khaldun.

With respect to the relationship between government and capitalists, Ibn Khaldun's view is that a strong dynasty provides governmental protection to the capitalists, that is, protection of capitalists' properties from envious groups. This is because a capitalist may possess a great deal of property. Amirs and rules become jealous of him. "They envy him and try every possible trick to catch him in the net of a government decision and to find an obvious reason for punishing him, so as to confiscate his property" (Ibn Khaldun, 1969: 281). The issue of envy is considered by Hayek (1960: 93) as an important source of "social (distributive) justice." In essence, confiscation of property according to Ibn Khaldun is an unjust act. He (1969: 240) states: "Those who take away property commit an injustice...Those who, in general, take property by force, commit an injustice."

Government involvement in the economy (or extension of the public sector) is erroneous, according to Ibn Khaldun, because it drives private business out of economic activity--crowding out--and reduces tax revenues; hence civilizations get destroyed (Ibn Khaldun, 1969: 232-33). In addition, for Ibn Khaldun government contributes to business slumps if it is corrupted. He (1969: 237) explains:

> dynasty and government serve as the world's greatest market-place, providing the substance of civilization. Now, if the ruler holds onto property and revenue, or they are lost or not properly used by him...business slumps and commercial profits decline because of the shortage of capital.

Once profit declines, accumulation of capital weakens, and so does economic growth; hence, the dynasty becomes powerless.

Ibn Khaldun (1969: 238) also argues, "If government business slumps and the volume of trade is small, the dependent markets will naturally show the same symptoms, and to a greater degree." But government spending (and expenditures by the ruler's entourage) for him may be very helpful for business activity in that the expenditure of the ruler's entourage "provides more of the substance of trade than that of any other (group)" (Ibn Khaldun, 1969: 237). Gellner (1981: 34-5) comments on this conclusion as "one of the most eloquent..anti-Milton Friedman pleas ever made. But...Ibn Khaldun... was no lefty [and] was opposed to state enterprise."

Ibn Khaldun believes that government should not intervene or confiscate private property or affect it, because government intervention results in a loss of incentive. Expropriation, for Ibn Khaldun, is self-defeating for any government because it is a form of oppression, and oppression ruins societies and civilizations. Further, government must provide protection to the capitalists, and heavy taxes destroy business activity and civilizations because they reduce profits and incentives.

SUMMARY AND CONCLUSIONS

To analyze the rise and fall of a dynasty, Ibn Khaldun starts with the theory of evolution: the color of people and of the origin of human beings; these characteristics change if the environment alters. This contribution was very significant in his time. In fact, Darwin (1936: 6) reviewed several studies related to his work, and some of those studies were related to the impact of external conditions on organic and inorganic structures. Darwin (1936: 3-4) cited Lamarck and Geoffroy Saint-Hilaire for the same result: changes are caused by the conditions of life. Darwin concluded that "Changed conditions of life are of highest importance in causing variability" in the development of domestic species and plants. The basic idea, in any event, is the effect of external conditions on people and institutions.

Having stated his evolutionary framework, Ibn Khaldun analyzes the evolution (the rise and fall) of a dynasty. The rise of a dynasty is a result of solidarity (group feeling) and accumulation of money generated by a boom in business activity--the economic base of a dynasty. Having explained the sources of solidarity, Ibn Khaldun provides the foundations of political economy for a strong dynasty. The main elements of his political economy are free market and competition, free trade, less taxes, availability of skilled human labor, and less government intervention in private business. In addition, government has to protect capitalists and support their business activities. In this context, Ibn Khaldun develops the optimal theory of taxation which supply-side economists recommend for several American presidents such as President Reagan program for economic recovery. Moreover, Ibn Khaldun believes that economic growth and business activity (and hence a dynastic evolution) depend on productivity and people's efforts, a view that is shared by modern economists.

In addition to his contribution to political economy, Ibn Khaldun provides excellent contribution, used in sociology and economics, which is the issue of imitation. This concept was used in similar context to explain how changes and development are diffused among people and countries. Economically, imitation is very consistent with the concept of competition. Producers enter in an industry (they do the same thing), where the rate of profit is high. Eventually, the rate of profit is equalized .

This analysis suggests that Ibn Khaldun's generalizations are very useful for the evolutionary trend of modern nations. Even more, Ibn Khaldun's writings, which are based on African conditions,, are both scientific and stimulating. They can be considered a valid addition to the monumental contributions of African people to modern civilization. But the basic problem with Ibn Khaldun's economic analysis is his support to free market and capitalists. Ibn Khaldun does not recognize in his time the exploitive nature of the free market system. He may have had in mind Islam. In other words, poverty is not tolerated under that system as people and governments use tax revenue and donation to help the needy people.

REFERENCES

Andic, S. 1965. "A Fourteenth Century Sociology of Public Finance," Public Finance 20/1-2 (no month): 20-44.

Anikin, A.V. 1979. A Science in its Youth: Pre-Marxian Political Economy. New York: International Publishers.

Bagehot, Walter. 1873. Physics And Politics; Or Thoughts On The Application of The Principles Of "Natural Selection" And "Inheritance" To Political Society. New York: Appleton.

Boulakia, J. C. 1971. "Ibn Khaldun: A Fourteenth Century Economist," Journal of Political Economy 79/5 (September/ October): 1105-1118.

Darwin, Charles. 1936. The Origin of Species by Means of Natural Selection, Or the Preservation of Favored Races in the Struggle for Life And The Descent of Man And Selection In Relation To Sex. New York: The Modern Library

Duesenberry, J. S. 1949.Income, Saving and the Theory of Consumer Behavior. Cambridge, Mass: Harvard University Press.

Fakhry, M. 1988. "The Devolution of the Perfect State: Plato, Ibn Rushed, and Ibn Khaldun," In Atiyeh, G.N. and Oweiss, I.M. (eds.) Arab Civilization: Challenges and Responses. New York: State University of New York Press, pp. 88-97.

Gates, W. E. 1967. "The Spread of Ibn Khaldun's Ideas on Climate and Culture," Journal of the History of the Ideas 28/3 (July/ September): 415-422.

Gellner, E. 1961. "From Ibn Khaldun To Karl Marx," Political Quarterly 32/4 (October/December): 385-392.

---------. 1964. Thought and Change. Chicago: The University of Chicago Press.

---------.1969. Saints of The Atlas. Chicago: The University of Chicago Press.

---------. 1981. Muslim Society. Cambridge: Cambridge University Press.

Hayek, F. A. 1960. The Constitution of Liberty. Chicago: The University of Chicago Press.

----------. 1984. "Dr. Bernard Mandeville," In Nishiyama, C. and Leube, K. (eds.) The Essence of Hayek. Stanford: Hoover Institution Press, pp. 176-194.

Hourani, A. 1991. A History of the Arab Peoples. New York: The Warner Books.

Hull, C.H. 1963. The Economics Writings of Sir William Petty. New York: Augustus Kelley.

Ibn Khaldun. 1950. An Arab Philosophy of History, selection from the Prolegomena of Ibn Khaldun of Tunis (1332-1406), translated from Arabic and arranged by Charles Issawi. London: Paragon Book.

----------. 1958. The Muqaddimah: Introduction to History, translated from Arabic by Franz Rosenthal, three volumes. New York: Pantheon.

----------. 1969. The Muqaddimah: Introduction to History, translated by Franz Rosenthal, edited and abridged by N.J. Dawood. Princeton: Princeton University Press.

Kennedy, P. 1989. The Rise and Fall of the Great Powers: Economic Change and Military Conflict From 1500 to 2000. New York: Vintage Books.

Knight, F. 1921. Risk, Uncertainty and Profit. New York: Houghton Mifflin.

----------. 1967. The Economic Organization. New York: Augustus Kelley.

Kropotkin, Peter. 1902. Mutual-Aid: A Factor of Evolution. Boston: Mass. Horizons.

Marx, Karl. 1970. A Contribution to the Critique of Political Economy, edited by Maurice Dobb. New York: International Publishers.

Keynes, J. M.. 1936. General Theory of Employment, Interest and Money. New York: Harcourt.

Oweiss, Ibrahim M. 1988. "Ibn Khaldun, the Father of Economics," In Atiyeh, G.N. and Oweiss, I.M. (eds.) Arab Civilization: Challenges and Responses. New York: State University of New York Press, pp. 112-127.

Peterson, W. C. 1991. "The Silent Depression," Challenge. 34/4 (July/August): 29-34

----------. 1994. Silent Depression: The Fate of the American Dream. New York: Norton.

Rabi, M. M. 1967. The Political Theory of Ibn Khaldun. Leiden: Brill.

Ricardo, D. 1973. On the Principles of Political Economy and Taxation. London: Guernsey Press.

Rousseau, Jean Jacques. 1950. The Social Contract and Discourses. Translated by G.D.H. Cole. New York: Dutton.

Schmidt, N. 1978. Ibn Khaldun, Historian, Sociologist and Philosopher. Lahore, Pakistan: Universal Books.

Smith, A. 1976. An Inquiry into the Nature and Causes of The Wealth of Nations Chicago: University of Chicago Press.

Spengler, J. J. 1964. "Economic Thought of Islam: Ibn Khaldun," Comparative Studies in Society and History 6/3 (April): 268-306.

Tarde, G. 1903. Laws of Immitation. Translated by Elsie C. Parson: New York: Henry Holt.

----------. 1899. The Social laws. Translated by H.C. Warren. New York: The MacMillan Company.

Toynbee, A.J. (1935). A Study of History, Volume III. New York: Oxford University Press.

Veblen, T. (1899). The Theory of Leisure Class. New York: The MacMillan Company.

Pitfalls in Riding the Screaming Dragon: Warnings from an Entrepreneur's Rush to Crack the Chinese Fast Food Market

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ABSTRACT

Many U.S. businesses have been feeling the seductive allure of the Chinese marketplace. Business organizations see a Chinese economy that promises growth rates that may be unparalleled anywhere else in the world. In their haste to take part in this rapidly growing economy, however, many businesses, particularly entrepreneurial organizations, often lose sight of the great pitfalls that may lie in front of them. This paper presents a timeline of the activities of an entrepreneurial start up company trying to compete in a Chinese market dominated by major international corporations. Using published checklists for doing business in China, the authors compare the experiences of this entrepreneurial organization with the advice of experts within international business. A comparison is made between the recognized issues in doing business in China with the start-up's plans and the outcomes during the first year of operation on five fronts: management, marketing, operations, finance, and Chinese company law. Such insights could serve as guidelines or as warnings for other such adventurous entrepreneurs in alerting them to the vagaries of doing business in China, even by the "book".

THE GREAT CHINESE MARKETPLACE

It seems unlikely that there is any other country in the world that has captured the attention of US businesses looking to expand overseas with quite the fervor of China.

Many U.S. companies (as well as many others around the world) can't seem to hasten efforts to compete within the Chinese marketplace quickly enough. Having captured so much of American (as well as the rest of the world's) business' attention, researchers have been examining this burgeoning marketplace for years and have provided much advice for American businesses willing to take the risks of plunging into China. Recent research advice has typically focused on key areas such insights into understanding Chinese consumers (Zhou and Belk 2004; Kim, Forsythe, Gu and Moon 2002) and in building relationships with such consumers (Luo, Griffith, Liu, and Shi 2004) or in approaching the Chinese marketplace with the appropriate market orientations (Lee and Dawes 2005; Luk, Yau, Tse, Sin and Chow 2005; Qu and Ennew 2005). The majority of such advice is particularly applicable for large organizations that already have very significant resources available. Consistently, specific case studies on business in China tend to focus almost exclusively on the success and failures of large organizations, such as Cui's (1998) examination of multinational corporations in China which illustrates the activities of companies such as AT&T, McDonald's, and Motorola among others. There is, unfortunately, very little fundamental advice, however, for the smaller entrepreneur who is also hungry to take advantage of this large economy with such huge potential growth. The purpose of this paper is to compare the experiences and outcomes of one such entrepreneurial organization looking to grow within the Chinese marketplace with the advice of previous researchers. In so doing, this paper presents a still developing case study of an entrepreneurial company that has entered the Chinese fast-food marketplace and it offers insights into the entrepreneurs' lessons learned by comparing how closely (or distantly) they have followed the advice of "experts" in entering the Chinese marketplace. Such a comparison should be useful for other entrepreneurial organizations in their start-up efforts within the Chinese marketplace.

THE SEDUCTIVE ALLURE OF CHINA

Crain (2004) refers to China as an "unstoppable phenomenon" (p. 28) – and with good reason. Once viewed as the exemplar of anti-capitalism, China now looms as the 800-pound economic gorilla…the market that could ensure commercial success well into the middle of the 21st century. With 1.3 billion people in total and a rapidly growing affluent, urban population, China has become part of the growth strategy for many major U.S. corporations. Coca Cola, for example, predicted in 1998 that its $2 billion investment in China, India, and Indonesia could produce sales growth of 24% per year indefinitely compared to its 5% growth in the United States (Arnold and Quench, 1998).

Arnold and Quelch (1998) state that "fast food chain KFC is pioneering its largest restaurants in China, which are, on average, twice the size of outlets in the United States" (p. 11). As it celebrated its 1000th restaurant milestone in January 2004, KFC noted that "China is driving double digit sales growth for the fifth consecutive year and [generating] record operating profit" (Li 2004, p. 1). Allowing hope for smaller organizations, Arnold and Quench (1998) also indicated that there "is potential for smaller players in an industry to competitively leapfrog. …Mary Kay Cosmetics [for example] … is giving its much larger competitors such as Avon tough competition in the emerging markets such as Russia and China where both companies started about the same time" (p. 11). Offering additional aid to American companies of all sizes, the U.S. Government export promotion policy throughout the 1990s was focused on helping large American corporations gain access to large and emerging markets (Arnold and Quench, 1998).

International business experts, however, have repeatedly warned potential entrants to be aware of the unique characteristics of Chinese business that make doing business in China extremely risky and unpredictable. While numerous "checklists" for doing business in China exist, most are somewhat similar in form as that published by the U.S. Commercial Service (see the Buyusa.gov website). The eleven warnings are:

1. Have Clear Contract Terms
2. Make Certain your Project is Economically Viable
3. Know Your Partner
4. Know the Rules
5. Search for Problems Before they Materialize
6. Do a Thorough Risk Analysis
7. Mind the Store
8. Expect Virulent Competition
9. Get Paid
10. Watch Your Intellectual Property Rights
11. Establish a presence in China

This checklist issues a general tone of being extremely cautious and hints that Chinese Company Law, which has only been in effect since July 1994, allows for foreign entry, but still restricts the kind and type based on national policy.

Similarly, the British Embassy in Beijing brings us their "Golden Hints" for doing business in China (in British English) (see the Chinese-school.netfirms.com website). Note that the British Embassy list seems to focus on the differences between the Western and Chinese approach to business and business culture and the impact these differences have on the success of Chinese market entries.

1. Take all the Time in the World
2. Separate Fact from Fiction
3. Build Relationships
4. Cultivate Guanxi (pronounced gwan shi -- this refers to business and political contacts)
5. Take Care with Contracts
6. Mobilize Local Assets
7. Respect Face
8. Accept the Pecking Order
9. Know the [Chinese] Tricks of the Trade
10. Play the Game Yourself

Following the items on these lists may prove to be very valuable for companies with significant resources to support such activities. The entrepreneurial organization, however, may argue that it simply does not have sufficient resources (be it economic, temporal, or human resources) to support taking "all the time in the world" or to know "their partner," "the rules," or any "problems before they materialize." Without such resources, the entrepreneurial firm faces a very different array of concerns in trying to achieve success in entering the Chinese marketplace. Such an entrepreneurial firm basically faces three options it is to enter thee Chinese marketplace: (1) it could partner with a sufficiently large organization that does offer such resources (which is unlikely to present the entrepreneur with a good contractual arrangement given their differences in size and inputs); (2) it could search for some means of obtaining sufficient resources (which also unlikely to yield desirable levels of control and rewards even if such a possibility were to exist); or (3) it could enter the Chinese marketplace without following all of the advice provided by the "experts." Like many others, the entrepreneurs in the developing case study that this paper presents (see below) opted for the third option – not following all of the advice of the experts in entering the Chinese fast-food marketplace.

THE WESTERN-STYLE FAST FOOD MARKET IN CHINA

The market for Western –style fast food has mushroomed in the last ten years. KFC now has over 1200 stores and is adding 200-300 per year (Yum Brands Quarterly Report for 3Q 2004). MacDonald's has 600 stores and plans on opening 10 per year (MacDonald's Annual report for 2003. KFC recently announced plans to open their investment opportunities to franchise operators after opening only corporate owned units to date.

What drives this mania for fast food in the Chinese market?

First, China has the fastest growing economy (8% GDP Growth per year) and has become the world's third largest market (see www.exportinfo.org). Hidden inside the raw growth is the explosion of the urban population and the massive increases in expenditures for consumer goods. While rural Chinese population growth has been held in check, population growth in China's urban centers (cities with population over 1,00,000) has exploded. As an example, Shanghai grew from 8.2 million to 13.1 million and Chongqing grew from 3.12 million to 15.3 million between 1990 and 1997 (see the UCLA Center for Asian Studies website and the Paulnoll.com websites). Chongqing is perhaps an exemplar of the growth. The 15.3 million-population figure is just for the city center with the total population including the surrounding areas at over 30 million. The rural to urban migration that took more than five decades in the United States seems to be taking only one decade in China.

Second, Consumer spending is growing even more rapidly as a new, more open economy takes hold in China. Legions of young, urban professionals are taking their places in both Chinese companies and the in-country operations for foreign multi-nationals. Professional salaries, low by American and European standards, nevertheless afford both young singles and young families extensive buying power.

Consumer spending for western-style fast food is further accelerated by three factors. One factor is the continuation of government subsidies for housing in urban areas, releasing more income for consumer goods and service purchases (Hsing 2001). A second factor is the particularly high current popularity of Western-style services, fashions, and products among younger Chinese consumers (similar to the popularity that these products have enjoyed among younger Japanese consumers for decades). The third factor is the

driving influence of the four-to-two-to-one phenomenon on spending at KFC, MacDonald's, Subway and other Western fast food restaurants. National population and fertility regulations have led to the predominant Chinese family structure to include four grandparents doting on two children who produce one grandchild. In a sense the spending pyramid is upside down with the focus of family spending on activities enjoyed by the children. Chinese families see going to, sitting in, and eating at Western-style a "fast-food" restaurant as a major social activity.

ENTER AMERICAN FAST FOOD ENTREPRENEURS

This paper presents a case study (which is still in the process of developing) that presents an entrepreneurial organization formed in January 2003. Led by a Chinese American ex-patriot and a local Chinese businessman, the group (which is referred to simply as "The Entrepreneurs") approached a successful American fast food organization for franchising rights in China. One partner understood the American franchisor and one understood Chinese business. The Chinese partner also had critical business and political connections, what the Chinese call "guanxi" (pronounced gwan-shi) to get things done in the complex and convoluted Chinese economy. The Chinese ex-patriot, already successful with other import/export categories, had previously introduced potential Asian franchisers to this same American (franchisor) company. Each opportunity had evaporated either under the influence of the Asian currency crisis, the SARS outbreak, the fall out from 9/11 or a general malaise in Asian economics.

Believing that KFC's and McDonald's' images of focusing on kids left a niche in the market for an upscale, sit-down, family fast food restaurant, the entrepreneurs negotiated for and purchased licenses for ten restaurants in Tianjin (a major import city about 100 kilometers southeast of Beijing) starting in late 2004. The ten-site agreement was signed in August 2004. In anticipation of a successful negotiation, the entrepreneurs had already been busy negotiating for appropriate space, designing the build-out of the space, developing approved suppliers, developing the name, the marketing materials, and devising the overall marketing strategy. With the final signing, the entrepreneurs went into hyper-speed to open their first restaurant in a new shopping mall.

To bolster their financial position in the face of the first unit needs, the entrepreneurs approached a small group of American investors for partial (but not controlling) ownership in return for an immediate capital infusion. The partners included:

1. The second generation son of an American family with strong ties and direct experience with Chinese business and government (another form of guanxi),
2. An independent investor with experience in fast-food and sit-down restaurants
3. An experienced portfolio investment manager.

The entrepreneurs saw gaining the master-franchise for all of China as the major pay-off for their investment. While recognizing how much activity would be required to open the first restaurant, the entrepreneurs also began preparing a business proposal and plan to present to the American fast-food franchisor for obtaining the "master-franchise" (i.e., to

obtain all franchising rights for the specific franchisor for all of China). To assist with the business modeling, marketing analysis, marketing planning, and business planning project aspects of this project, the entrepreneurs hired additional consultants who offered strong expertise in marketing and in understanding Chinese culture and consumers.

RIDING THE SCREAMING DRAGON

What follows is a short timeline chronology of the entrepreneurs' start-up activities to begin marketing in China (often referred to as "Riding the Screaming Dragon") between October 2004 and May 2005. The ups and downs of the entrepreneurs experience are best expressed in a timeline format.

Table 1
Timeline

Period	Major Event	Comments
Spring 2004	The entrepreneurs form in Tianjin, China	Final incorporation would not take place until January 2005.
Summer 2004	Negotiations go well with the Franchisor.	The entrepreneurs begin looking at locations in Tianjin for first unit and developing supplier network.
August 2004	Ten-unit license agreement is signed.	License agreement taps the entrepreneurs' capital heavily.
	First choice location lost to KFC because the entrepreneurs is and an unknown entity.	Franchisor support (training, etc.) will come later.
	Hunt for second choice location accelerates.	Therefore: Search on for additional investors.
September 2004	Initial location chosen in new shopping mall.	The entrepreneurs' Chinese partner heads the selection.
	Agreement signed.	
	Naming, signing, marketing plans started.	Chinese ex-patriot focuses on marketing.
	The entrepreneurs are brought into the picture.	Infusion of capital attracts a fast-food operations expert.
October 2004	Final store design competed modeled on American version.	Will be largest restaurant in Franchisor's history.
	Mall offers "basketball court area" upstairs from the restaurant as and adjunct space virtually free.	The entrepreneurs ask the consultants to help with the plan for obtaining the master franchise.
	Supplier tests against Franchisor food standards start.	Supplier tests go well.
	Brand name translated phonetically.	Name lacks any symbolic Chinese meaning.

Table 1
Timeline

Period	Major Event	Comments
November 2004	Target for mid-December opening set.	
	Construction underway.	
	Marketing agency chosen and at work.	
	Publicity campaign designed.	
	Entrepreneurs approach franchisor about master-franchise.	Franchisor thinks approach is pre-mature.
December 2004	Opening delayed until January due to construction delays.	Consultants' financial models based on industry exemplars of a "Class A
	The entrepreneurs declare the initial location to be "Class A Location"	Location" strategy, and ten units in Tianjin value the business after five years seen at $38 million.
	The entrepreneurs approach the franchisor about expanding in three cities instead of just Tianjin. The franchisor is reluctant.	26 unit - three city model (Tianjin, Beijing, Nanjin) shows five year business of $83 million.
	The entrepreneurs proposes using first ten in three cities instead of just Tianjin.	Franchisor is amenable to option.
	Franchisor has staff on site for training of managers and workers.	Trainers are impressed with commitment and dedication.
	All suppliers cleared for quality and reliability.	Nature of supply agreements not clear. In hands of Chinese partner
January 2005 February 2005	Initial restaurant opens.	Days 1-3 "solid but unspectacular" for a Class A location. Days 4-11 "soft due to weather" Days 12-17 "between solid and soft" Day 13 "big day in preparation for Chinese New Year" Days 14-soft or worse"

Table 1
Timeline

Period	Major Event	Comments
March 2005	Mall developers leave town and mall faces bankruptcy.	Daily sales are mostly soft or worse.
	Initial location declared a "Class B location with long-term potential as population builds out to the site."	Financial models show three cities option business value after 5 years at $27 million
	Franchisor expresses concern about financial control in China.	The entrepreneurs' funds being spent by Chinese partner on office space and executive activity. Daily sales drift downwards as mall empties of tenants.
April 2005	The entrepreneurs debate closing this initial location.	Hesitant because they would lose their "legal presence."
	Debate opens on how to treat the mall for projection purposes.	
	The entrepreneurs learn that Franchisor has been in talks with another potential partner (from Shanghai) with more money and experience.	Out of control spending has tapped most of the entrepreneurs' resources.
May 2005	Chinese government declares that there will be no more international fast food franchises entering China. "Existing" franchises will be allowed to stay and develop. Changes in Chinese international business laws make the entrepreneurs the holder of the master franchise for China.	???

COMPARING AGAINST THE CHECKLISTS

While this case study is still developing, there is an object lesson in reviewing the organization's approach against the "experts'" commonly held admonitions. The following list illustrates how the entrepreneurs' activities compared with the British Embassy's checklist guide. Even a quick scan points out that the entrepreneurs did not follow the checklist very closely -- nor did they have the level of success for which they had hoped at this point in time. The ending is certainly unclear, however, as these entrepreneurs may succeed handsomely, particularly with the favorable changes in the Chinese legal constraints on new fast-food enterprises entering the country.

WHERE DO THE ENTREPRENEURS, THE GROUP, AND THE FRANCHISOR GO FROM HERE?

This multi-national, multi-cultural coalition now appears to be wedded to each other even if it a shotgun wedding brought about by the vagaries of doing business in China, the unpredictability of the Chinese government, and twists of fate. Each member of the triad has a unique challenge going forward:

A. The Franchisor, who does want to compete in China, must now manage three partnerships:
   a. With the entrepreneurs
   b. With the Shanghai group
   c. Between the two potential franchisees.

B. The entrepreneurs face serious internal management and marketing issues.
   a. How to you manage the Chinese partner?
   b. How do your gain financial and operational control?
   c. How do your recover from the disintegration of the initial restaurant situation in a country that is face conscious?

C. The Group
   a. What value do you place on the current "ownership" of the master franchise for China?
   b. Should the entrepreneurs and the Group try to negotiate a buy out while the ban on new franchises is in place?
   c. Should the Group sell their rights directly to the Franchisor at a time when the Franchisor may value added control more than they will later?

With so many questions to sort through, the entrepreneurs have some daunting challenges ahead. As part of the team, the consultants continue their relationship with the entrepreneurs and are awaiting an opportunity to meet with the Franchisor and the Chinese ex-patriot to see how the whole situation will evolve. Many decisions must be made that will be relevant for the success of the entrepreneurs' organization. This case study is early in its development and it continue to build as these decisions are made.

According to the checklists, the entrepreneurs, and perhaps the others as well, did nearly everything wrong. Yet they may be in the proverbial catbird seat. For entrepreneurs, the challenge of China remains an enigma.

Checklist point	**Commentary**
Take all the time in the world	The entrepreneurs obviously operated at the "western" pace driven by immediacy and deadlines.
Separate fact from fiction	The entrepreneurs' due diligence on the mall location was seriously lacking with too much dependence on Chinese partner.
Build relationships	The relationship of trust never had time to develop nor did the lack of that trust have time to become visible.
Cultivate guanxi	The entrepreneurs assumed that their Chinese partner had the right kind and amount of guanxi. A lack of time spent examining relationships on the ground in China left the company vulnerable. To quote the British explanation: "In the wrong place, at an inappropriate time, with unsuitable people, the obligations [of guanxi] can become a trap that is hard to escape."
Take care of contracts	The local agreements left in the hands of local Chinese.
Mobilize local assets	All contacts were filtered through the Chinese partner. There was insufficient direct contact between Chinese Ex-patriot, Group, Franchisor, and local contacts.
Respect face	The entrepreneurs are faced with a challenge of face such that the Chinese partner may not be replaceable or removable. Shanghai group may end up with ownership even if the entrepreneurs have control.
Accept the pecking order	British suggest a two-level approach. Local Chinese for operational issues and Chinese to Foreign Executives to honor the higher echelons. Individuals in China, even if they sense difficulty, are unlikely to speak up or act if it involves someone with higher standing. Franchisor was pushing for a "western-style" CFO shortly after opening.
Know the tricks of the trade:	
A. Control meeting place and schedules	A. Chinese partners are in almost total control of all interactions.
B. Use the threat of other suppliers.	B. "Tested and Approved" suppliers in control. Use of non-standard suppliers threatened for cost control.
C. Use friendship to extract concessions.	C. Not clear if "friendships" will survive experience.
D. Showing anger in calculated ways.	D. No data.
E. Outlast them.	E. No data
Play the game yourself:	
A. Be absolutely prepared.	A. Pace of effort (driven by hoe for master franchise) made preparation a luxury.
B. Play off competitors.	B. "Competitor" was really Franchisor who held the master franchise as leverage.
C. Be willing to cut losses and go home.	C. Clash of "deep pockets" multinational approach and short assets entrepreneurial approach. When everything is at risk, it is hard to leave the game.
D. Cover every detail of a contract before your sign.	D. Not evident, but very real, is the timing overlap among and between contracts, activities, and agreements. The entrepreneurs' corporate documents were filed in December, with the partnership agreement with the entrepreneurs not formalized until after opening. Planning of unit one underway before franchise agreement signed.
E. Be patient.	E. Virtually everything in the project was driven by the need to "get it done now" at all costs.

REFERENCES

Arnold, David J. and Quelch, John A.(1998), *New Strategies in Emerging Markets, Sloan Management Review,* Fall 1998 vol. 40 (1), 7-20.

BuyUSA. gov, "Essential China Advice," Retrieved from the Web June 5, 2005. http://www.buyusa.gov/china/en/doingbizinchina.html .

Chinese-School.netfirms.com "Chinese Business Culture: Golden Hints for Doing Business in China (in British English) from the British Embassy in Beijing," Retrieved from the Web November 15, 2004. http://chinese-school.netfirms.com/goldenhints.html

Crain, Rance (2004), "China's Marketing Potential is Vast – and its Unstoppable," *Advertising Age*, Vol. 75 (38), p. 28.

Cui, Geng (1998), "The Evolutionary Process of Global Market Expansion: Experiences of MNCs in China," *Journal of World Business*, vol. 33 (1), 87-110.

Exportinfo.org, "China" Retrieved from the Web November 15, 2004. http://www.exportinfo.org/region /countries/china.htm

Exportinfo.org, "Understanding the Chinese Business Networking Concept: 'Guanxi'," Retrieved from the Web June 5, 2005. http://www.exportinfo.org/region/

Hsing, Youtin (2001) "The Consumer Revolution in Urban China (Review)" *The Consumer Revolution in Urban China*, ed. Deborah S. Davis, Berkeley: University of California Press, 2000.

Kim, Jai-Ok, Sandra Forsythe, Qingliang Gu and Sook Jae Moon (2002), "Cross-Cultural Consumer Values, Needs, and Purchase Behavior," *Journal of Consumer Marketing*, vol. 19 (6), 481-502.

Lee, Don Y. and Philip L. Dawes (2005), "Guanxi, Trust, and Long-Term Orientation in Chinese Business Markets," *Journal of International Marketing*, vol. 13 (2), 28-56.

Li, Dan (2004), "*KFC's Localization Strategies in Chin*," Retrieved from the Web December 15, 2004. http://blog.lidan.net/archives/000100.html

Luk, Chung-Leung, Oliver H. M. Yau, Alan C. B. Tse, Leo Y. M. Sin and Raymond P. M. Chow (2005), "Stakeholder Orientation and Business Performance: The Case of Service Companies in China," *Journal of International Marketing*, vol. 13 (1), 89-110.

Luo, Xueming, David A. Griffith, Sandra S. Liu and Yi-Zheng Shi (2004), " The Effects of Customer Relationships and Social Capital on Firm Performance: A Chinese Business Illustration," *Journal of International Marketing*, vol. 12(4), 25-45.

MacDonald's Coproation (2003) Annual Report

Paulnoll.com "Population of China's 12 Biggest Cities – 1997" Retrieved from the Web January 3, 2005. www.paulnoll.com/China/Population

Qu, Riliang and Christine T. Ennew (2003), "An Examination of the Consequences of Market Orientation in China," *Journal of Strategic Marketing*, Vol. 11 (3), 201-214.

UCLA Asia Institute, "China's Largest Cities," Retrieved from the Web June 5, 2005. http://www.isop.ucla.edu/eas/ statistics/chinacty.htm

YUM Brands, Inc. (2003), Quarterly report, 3Q.

Zhou, Nan and Russell W. Belk (2004), "Chinese Consumer Readings of Global and Local Advertising Appeals," *Journal of Advertising*, vol. 33 (3), 63-76.

Quality Enhancement Programs: Self Assessment by Governmental Agencies

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ABSTRACT

The accreditation process, usually associated with educational institutions, is used as a model by business and governmental agencies via the self-assessment process. This paper has a secondary focus on the Office of Information and Regulatory Affairs of the federal government and a primary focus on the Government Finance Officers Association certificate program.

The education profession has been pre-eminent in its pursuit of excellence via the certification/accreditation process. The mere hint of an organization losing its accreditation bludgeons fear into the hearts of those involved in the process. Though somewhat bastardized by those in the used-car market, an example being that of the "certified" pre-owned automobile, the concept still holds significance in most organizations. The terms self-assessment, quality control, peer review and institutional effectiveness all denote an organizational interest in self-improvement and meaningful peer review.

Governmental entities are no exception in the trend for self-assessment. Examples of *quasi*-agencies involved in self-assessment are the Office of Information and Regulatory Affairs (OIRA) of the federal government and the Government Finance Officers Association (GFOA) at the state and local levels. Recognizing the daily impact of federal regulations, every president for the past several terms has recognized the need for some type of regulatory oversight and review procedure within the Executive Office of the President. The benefits-cost and cost-effectiveness analysis at the federal level is imputed at the local and state level (GFOA). This paper discusses the establishment of the GFOA and the "certificate of excellence in financial reporting" program.

Recognizing the 20th century demand for increasing professionalism and competence of public officials, academia responded with a plethora of undergraduate and graduate degrees in public administration. Professionalism has been described as the primary outcome of the external force of formalization, the genesis of which is an accepted body of standards. Expertise in a specific area or field and extensive training are required for professional development." (Riverbank) This thrust to increase levels of professionalism provided a dual benefit to local governments--in financial management and in financial reporting. An organization focused on this dual benefit is the Government Finance Officers Association (GFOA). Formerly known as the Municipal Finance Officers Association, the GFOA was established in 1906 to "enhance and promote the professional management of governments for the public benefit" (GFOA, 2004). The GFOA represents a conglomerate of governmental entities with municipalities constituting 43% of its membership. The remaining 57% is a composition of counties, special districts, retirement systems, and states. (Riverbank)

A primary force in the development of a base of accounting and financial reporting standards for governing bodies, the GFOA sponsored independent committees with the charge to develop such standards. The independent committees, with GFOA input, developed a template for generally accepted governmental accounting principles. In 1984, the Governmental Accounting Standards was established and today is directed by an independent committee called the Governmental Accounting Standards Advisory Council (GASAC).

GFOA has provided a myriad of services to independent committees; one of its most renowned achievements is the development of the Certificate of Achievement for Excellence in Financial Reporting Program. Established in 1945, the comprehensive annual financial report (CAFR) program was primarily designed to promote uniformity in financial reporting of governing bodies while reporting all funds and financial transactions occurring during the fiscal year. As an incentive to prepare and publish a standard and usable comprehensive annual financial report, a certificate awards program was established. The certificate has achieved "hallmark" status as governments strive for the public acknowledgement associated with the much-sought-after certificate.

The Certificate of Excellence in Financial Reporting (CAFR) is awarded in eight different categories. These categories include:

1. accounting, auditing, and financial reporting
2. budgeting and financial planning
3. cash management and investing
4. capital finance and debt administration
5. pensions and benefits
6. management and service delivery
7. enterprise financial systems
8. technology

CAFR certification is available to many different governing bodies. In 2003, the GFOA recognized a total of 3,282 governing bodies. Of these 3,282 awards, 50% were municipalities, 14% were counties, 14% were school districts; the remaining 22% represents other agencies. Figure 1 focuses on the increasing trend in the rate of certification for those entities submitting the comprehensive reports.

Although a myriad of detail forms the basis for analysis prior to awarding the certificate, the GFOA focuses its critique on those areas indicated below (www.gfoa.org).

1. local significance and value
2. technical significance
3. transferability
4. documentation
5. cost/benefit analysis
6. efficiency and durability

Figure 1
Reports Submitted and Certificates Awarded For Fiscal Years Ended in 2000 Thru 2002

By Type of Government	FY 00 Reports Processed in 2001		FY 01 Reports Processed in 2002		FY 02 Reports Processed in 2003	
	Submissions	Awards	Submissions	Awards	Submissions	Awards
Municipal	1585	1567	1629	1611	1673	1661
County	452	443	460	455	472	468
School District	427	422	442	434	447	446
Enterprise	245	244	259	259	266	266
Council of Government	17	17	16	15	18	18
State	40	39	42	41	43	41
PERS	145	145	146	144	146	142
Colleges & Universities	44	42	45	44	48	47
Other	180	178	184	181	193	193
Total Reports	3135	3097	3223	3184	3306	3282

Provided by GFOA," 2003 Results"

Numerous are the GFOA recommendations for preparing the comprehensive annual financial report, though only a few are deemed minimally necessary to be an award recipient. A table of contents, including a letter of transmittal, should be introductory to all reports. The basis financial statements accompanied by independent auditor's report are perquisite to a comprehensive report. Figure 2 is a summary checklist for the financial reporting model. Recommendations are of both form and substance.

Figure 2
Checklist for a "Certifiable" Financial Reporting Model

- ✔ Is there, precedent to a full set of basic financial statements, a Management's Discussion and Analysis which compares financial data for the current and preceding fiscal period and which is responsive to comments from any previous CAFR review?
- ✔ Do the financial statements provide both a micro- and macro- perspective of both comprehensive and fund-specific financial statements? Disclosure of inter-related fund activity should be sufficient to allow tracing of transfer transactions. Governmental fund disclosure should include balance sheet, statement of revenues, expenditures, and changes in fund balance. Proprietary fund data should include a statement of net assets, statement of revenues, expenses and changes in fund net assets/equity and a statement of cash flows. There should be disclosure of changes in fiduciary net assets and separate disclosure of any capital contributions, additions to endowments and transfers.
- ✔ Are reserved fund balance and unreserved fund balance distinguished?
- ✔ Is the format in this respective order: revenues; expenditures; excess (deficiency) of revenues over (under) expenditures; other financing sources and uses; special items; extraordinary; and net change in fund balance?

What are the advantages of preparing comprehensive annual financial reports? From a broad perspective, these professional-level reports provide sufficient information to meet the needs of the citizenry, the federal government and of investors.

Education. Government units participating in the Certificate Program are provided with extensive technical accounting and financial reporting reference materials. Officials submitting CAFRs to the certificate program's review process are given individualized confidential feedback relating suggestions for improving the unit's financial reporting process.

Recognition. The Certificate of Achievement, a nationally recognized award, attests to a significant accomplishment by a government unit and its management.

Securities Marketing Aid. Reports qualifying for a Certificate of Achievement provide a detailed vehicle by which market analysts, investors, potential investors and others may access the relative attractiveness of a government unit's securities compared to alternative investment opportunities. These reports are deemed sufficient to meet the disclosure requirements of the Securities and Exchange Commission (SEC) Rule 15e2-12 with regard to issuers of municipal securities.

Clarity and Comparability. CAFRs recognized for a Certificate of Achievement employ standardized terminology and formatting conventions, trend comparison from year to year and between among different government units is facilitated.

Completeness. The financial statements, supporting schedules, statistical narrative explanations required for a Certificate of Achievement help to assure presentation of all fiscal data needed by those with a legitimate interest in the financial affairs of a government unit. These groups include governing boards, investors and creditors, grantor resource providers, taxpayers and others.

Although no direct monetary awards are associated with receiving the CAFR certification recognition, qualified governing bodies usually receive a higher bond rating. A higher bond rating allows for an offsetting lower interest rate, enabling governmental units to lower overall debt obligation. The comprehensive annual report lends credibility to the effort to fairly report financial position.

Albeit via different approaches, the Office of Information and Regulatory Affairs (OIRA) and the GFOA have succeeded in raising the level of professionalism in governmental financial management and reporting. The OIRA payrolls a federal staff to devise solutions to perceived problems. The GFOA utilizes a Special Review

Committee comprised of individuals who are willing to provide public service to the profession. Both organizations are committed to bridging academic theory and real-world practice by embracing standards designed which contribute to the body of knowledge about regulations and their impact on society.

REFERENCES

"Awards for Excellence in Government Finance". GFOA Awards for Recognition. www.gfoa.org . 1-3. 2004.

Dudley, Susan. "The Bush Administration Regulatory Record". Regulation, Winter 2004-2005, 1-9.

Gauthier, Stephen J., "Major Changes to CAFR Statistical Section". Proquest. http://80-proquest.umi.com. 1-4. 2004.

GFOA, General purpose Checklist- New Financial Reporting Model., Certificate of Excellence in Financial Reporting, 2001.

"Mission Statement". Government Finance Officers Association- Strategic Plan. www.gfoa.org . 1-2. 2001.

"Practices". Governmental Accounting, Auditing, and Financial Reporting . www.gfoa.org . 1-2. 1997.

"Using the Comprehensive Annual Financial Report to Meet SEC Requirements for Periodic Disclosure". www.gfoa.org . 1-2. 1996.

"Using Websites to Improve Access to Budget Documents and Financial Reports". GFOA Recommended . . www.gfoa.org . 1-2. 2003.

Rivenbark, William C., "The GFOA and Professionalism in Local Government". Proquest. http://80-proquest.umi.com. 1-6. 2004.

"2003 Results". GFOA. 2003.

Strategic Resources and Foreign Investment: The Case of Chinese Firms

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ABSTRACT

The purpose of this paper is to examine outward foreign direct investment (FDI) from Chinese multinational corporations (MNCs) based on the resource-based view (RBV) of strategic management. Such an approach is of significance because it aims to identify what resource-based analysis contributes to our understanding of outward FDI from Chinese MNCs, and to more broadly compare this approach with the traditional theories on FDI such as eclectic paradigm and transaction cost economy. The central argument of the paper is that, when investing abroad, Chinese MNCs are motivated by seeking the strategic resources which underlie competitive advantage of firms so as to enhance their global competitive position particularly in terms of core competence and organizational capability.

INTRODUCTION

Pioneered by the classic book The Theory of the Growth of the Firm (Penrose, 1959) and brought to the fore largely by the work of Wernerfelt (1984) and Barney (1991), the resource-based view (RBV) of firm has become one of the key developments in recent strategic management research. RBV places emphasis on the importance of firm resources or capabilities in determining competitive advantages (Barney, 1991). Within this line of reasoning, many studies have focused on intangible resources, especially on core competence and organizational capability as the backbone of sustainable competitive advantage of firms.

The RBV of strategic management has also altered the way we think about MNCs and the advantages of internationalization. For a long time, internationalization, such as FDI, has been seen as motivated by the goal to penetrate new market with existing products or by the intension to source raw materials or cheap labor (Dunning, 1993). The development of strategically important resources such as technologies or new products was thought to be concentrated in the home country and then transferred abroad. RBV, however, has argued that internationalization via FDI provides the MNC with a greater possibility to tap into different resources or new knowledge bases and foreign subsidiaries can generate capabilities as critical resources of competitive advantage for the entire MNC (Bartlett & Ghoshal, 1989; Madhok & Phene, 2001). RBV also suggests that the value of firm resources may be driven or determined externally (Miller & Shamsie, 2001), and the contextual environments within which firm resources are developed are crucial for understanding firm capabilities (Priem and Butler, 2001).

However, the empirical application of the theory to strategic management and especially to FDI is surprisingly lack. Moreover, it has yet to be applied in the context of East Asia and particularly in China. By the end of 2004, MNCs from China had cumulatively invested nearly $37 billion worldwide and Chinese enterprises operating overseas reported a sales income of $77.2 billion in 2003 (MOFCOM, 2005). However, the increased outward FDI from China and growing foreign assets and sales from Chinese MNCs have seldom been addressed. As China aspires to become a superpower of international business, trade, and finance and to make its global influence growing, it is imperative to address this critical issue in a timely manner. After all, the "Go Out" strategy, which essentially urges strong Chinese enterprises to invest more overseas so as to sharpen their competitive edge, has become a crucial part of China' national development and it will have a profound impact upon the global business competition.

This paper intends to explain the issue of outward FDI from Chinese companies based on RBV of firm. For an effective analytical purpose, we will present one prominent Chinese multinational: Haier Group Corporation and focus on how Haier uses outward investment as a vehicle to accumulate strategic assets and enhance its sustainable competitive advantage. The rest of this paper is arranged as follows. In the next section, we draw out the theoretical implications of RBV and develop the central hypothesis of the paper. The subsequent section provides general information on how Chinese MNCs invest abroad since the 1990s. In the fourth section, we focus on discussion of Chinese firms and particularly Haier in seeking strategic resources, reflecting on the theoretical implications discussed in the second section and derived from the traditional theories on FDI. Implications and concluding remarks are made in the final section.

RESOURCE-BASED APPROACH AND HYPOTHESIS DEVELOPMENT

In essence, RBV sees the firm not through its activities in the product market but as a unique bundle of tangible and intangible resources (Wernerfelt, 1984). In contrast to the transaction cost perspective which views resources as immediately accessible on fungible factor markets, RBV stresses that inherent immobility or stickiness of valuable factors of production and the time and cost required to accumulate those resources (Peteraf, 1993). RBV also studies the link between the competitive environment and firm capabilities (Barney, 1991) and research premised on RBV has often postulated that unique and valuable firm resources represent crucial determinants of firms' competitive advantage (Black & Boal, 1994).

From a resource-based perspective, firms are idiosyncratic because throughout their history they accumulate different physical assets and, often more importantly, acquire different intangible organizational assets of tacit learning and dynamic routines (Collis, 1991). RBV focuses on a firm's resources and capabilities that enable it to exploit imperfect and incomplete factor market and to generate above-normal rates of return and sustainable competitive advantage. For this reason, a firm's enduring characteristics is acquiring and deploying resources for the generation of rents, and firms' successes depend on whether they can rationally identify and use valuable resources that are rare, difficult to copy and nonsubstitutable (Barney, 1991). According to RBV, resources can be classified mainly as tangible and intangible (Grant, 1991). While tangible resources refer to financial and physical possessions such as production plant, equipments and natural resources, intangible resources include such possessions as patents, reputation, brand name, technology, know-how, and competencies.

For discussion of internationalization such as FDI, two types of resources are of particular importance and they are core competence and organizational capability. A firm's core competence is defined as the vector of the irreversible assets along which the firm is uniquely advantaged and is a shorthand summary of the firm's assets investments, which in aggregate are the fundamental determinants of its strategic position (Colis, 1991). Although core competence reflects the entire system of tangible and intangible resources that the organization has in place, scholars tend to emphasize intangible assets. Prahalad and Hamel (1990), for example, define it as "the collective learning in the organization" (p. 82), which creates "the ability to consolidate corporatewide technologies and productions skills into competencies that empower individual businesses to adapt quickly to changing opportunities" (p. 81). Organizational capability extends the notion of intangible resources as the dynamic routines acquired by the organization (Winter, 1987). It represents the managerial capability to continually improve and upgrade firm efficiency and effectiveness. While building such a capability is necessary to support any corporate strategy, organizational capability can also be a source of sustainable competitive advantage in its own right. The ability to introduce successive new brand offerings, for example, has built and then sustained the market leadership of Kellogg and Philip Morris in cereals and tobacco.

On top of that, resources have been deeply rooted in the history and culture of the firms, which are part of accumulated assets and act as a firm-specific constraint on strategic choice (Bartlett & Ghoshal, 1989). They consist of both intangible cultural heritage and the physical heritage of the firm. The intangible cultural heritage can reflect a number of factors, such as the charismatic leadership style and vision of a dominant, often founding, corporate head. These intangible resources cumulatively provide distinctiveness to every firm's culture and directly influence the administrative context of strategic decision making and affect firm performance in acquiring and deploying resources (Black and Boal, 1994). As Porter (1990: 71) pointed out, competitive advantages of firms can be derived from the "most rapid accumulation of specialized assets and skills, sometimes due solely to greater commitment."

Furthermore, it has been contended that MNCs have global strategic motives when they invest in foreign markets (Bartlett & Ghoshal, 1989; Root, 1994). These motivations are designed to fulfill strategic aims set at the corporate level for the purpose of

maximizing overall corporate performance and to extend far beyond setting up the most efficient affiliate in a single market. In today's global marketplace, firms find it strategically necessary to engage in FDI in one or more countries. As Dunning (1998: 50) argued, "... the most significant change in the motives for FDI over the last two decades has been the rapid growth of strategic asset-seeking FDI, which is geared less to exploiting an existing O [ownership] specific advantage of an investing firm, and more to protecting, or augmenting that advantage by the acquisition of new assets, or by a partnering arrangement with a foreign firm." In essence, FDI can drive a process of internationalization whereby the investor establishes multi-country production bases, obtains the innovative resources, and exposes itself to dynamic competitive environment, thus providing information, making linkages to local establishments, and obtaining valuable learning opportunities.

Finally, in the case of China, even the most advanced Chinese firms are lack of competitive advantage by international standards (Nolan and Zhang, 2002), and the aspirations to globalize their business activities cannot be realized by indigenous managerial and know-how resources (Cai, 1999). As a result, they have to become keen to tap into international resources in order to sharpen their competitive edge particularly in terms of core competence and organizational capability. Indeed, some of the leading Chinese firms including Haier and Sinochem increasingly use internationalization as an effective vehicle to access advanced technologies and other intangible assets for the purpose of achieving competitive advantages of firms (Deng, 2004). On top of that, with China's recent access to WTO, more and more Chinese MNCs are aspirating to join the rank of the "Fortune Global 500." To join or sustain the prestigious list, what the established and fledgling Chinese MNCs desperately need is proprietary knowledge and strategic asset so as to compensate for their competitive disadvantages, and those intangible assets are most likely to be obtained by investing in the advanced economies.

Based upon the above theoretical discussion, the central hypothesis of this paper is that, strategic resources such as managerial know-know and global marketing expertise underlie the competitive advantage of firms and they are hardly available in China domestically. For this reason, when investing abroad, Chinese multinationals are highly motivated by seeking the strategic resources so as to enhance their global competitive position particularly in terms of core competence and organizational capability.

PATTERNS OF OUTWARD FDI FROM CHINA

Over the past two decades, China has made extraordinary achievements in attracting foreign investment. Compared with this inward trend, the outward FDI made by Chinese companies is much slower. However, with a rapid growth of FDI outflows averaging around $3 billion annually in the 1990s, by 2002 China had become the second largest outward investor among all emerging countries just behind South Korea, with the cumulative total of over $37 billion (UNCTAD, 2005). Chinese MNCs have been expanding abroad rapidly so that the 12 largest Chinese firms now control over $30 billion in foreign assets with more than 20,000 foreign employees and $33 billion in foreign sales in 2001 across a broad range of business activities (UNCTAD, 2003). While FDI outflows from China are disbursed on a global basis, there is a strong concentration in a small number of destinations and particularly in Hong Kong (see Table 1).

The drive for Chinese companies to invest abroad appears to gain momentum in the future with consolidation of the central government's "Go Out" strategy and with recent Chinese access to the WTO. This can be confirmed from the fact that, during the first four months of 2005, 250 approved non-trade enterprises were established abroad, with an investment amount of $12.2 billion from the Chinese companies, which is 65.56% and 40.62% increase over the same period of 2004, respectively (MOFCOM, 2005). In addition, based on an influential survey published by UNCTAD in May 2004, among the future largest outward foreign investors in the world, China is ranked in the 5th place, already surpassing Japan.

While they invest abroad, Chinese MNCs share a number of characteristics demonstrated by other MNCs and particularly those based in the emerging countries (e.g., Yeung, 1999). For example, similar to other developing economies, the motives underlying most of the Chinese overseas investment can be classified as: Marketing-seeking, export-oriented, resource-seeking, technology-seeking, and efficiency-seeking. Moreover, facing growing protection against its exports of low value-added finished goods and excess production capacity in host countries, Chinese firms are increasingly engaging in barrier-jumping outward investment to circumvent restrictions, as well as to improve their cost efficiency (UNCTAD, 2001). However, there is one noticeable feature, which is unique to Chinese MNCs when they are engaged in overseas investment, and that is the critical role of the Chinese government.

The Chinese government has, to a great extent, played a crucial role in shaping the structure of the country's outward investment and FDI outflows from Chinese companies can be regarded as part of the government's development scenario and priority (Deng, 2004). Since the 1980s, the government has required the overseas subsidiaries to achieve one of the four goals – introduction of advanced technology, access to raw materials, earnings of foreign exchange, and expansion of exports. Prominent investment projects can be found in each of the requirements. For example, the emphasis on generating hard-currency earnings and access to proprietary technology is evidenced by concentration of Chinese investment in industrialized countries in general and in Hong Kong and the U.S. in particular; the emphasis on tapping natural resources and minerals is underscored by the substantial amount of funds pouring into the category in resource-rich countries such as Australia, Canada, and Peru (see Table 1). Moreover, to realize its goal of building a modern economy, China is also actively wooing its foreign students back by launching a $120m Technology Innovation Fund for technology start-ups founded by returning students. Finally, in China's 10th 5-year plan, formulated in the beginning of 2001, the central government emphasized the need to improve enterprise competitiveness in the global marketplace. One of the key initiatives under the plan is to push state-owned enterprises (SOEs) to increase their international exposure so as to enlarge China's economic space and influence. To achieve that, the government has identified 512 priority companies critical to the country's strategic interest, which will spearhead the aspiration of China. The crucial role played by the Chinese government in shaping the pattern of Chinese outward investment can be attributed to the fact that China is still a socialist economy although increasingly influenced by market forces.

TABLE 1
Top 12 Destinations of Approved Outward FDI from China
(Ranked by cumulative total; millions of US$)

	2001		2002		Cumulative total (up to 2002)		
Destination	No. of projects	Investment amount	No. of projects	Investment amount	No. of projects	Investment amount	% of total investment
Total	232	$707.54	350	$982.68	6,960	9,339.99	100.00%
Hong Kong	26	200.67	40	355.60	2,025	4,074.31	43.62
U.S.	19	53.71	41	151.53	703	834.52	8.93
Canada	4	3.52	4	1.23	144	435.95	4.67
Australia	6	10.05	15	46.57	215	430.96	4.61
Thailand	9	121.29	5	3.95	234	214.71	2.30
Russia	12	12.41	27	35.45	482	206.64	2.21
Peru	2	3.10	N/A	N/A	20	201.22	2.15
Mexico	1	0.23	1	200	45	167.38	1.79
Zambia	3	4.25	1	0.29	18	134.42	1.44
Cambodia	7	34.87	3	5.15	61	125.03	1.34
Brazil	4	31.79	8	9.30	67	119.68	1.28
S. Africa	2	12.39	3	1.65	98	119.30	1.28
Sub-total	95	488.28	148	810.72	4,112	7,064.12	75.63

Sources: MOFCOM, *Almanac of China's Foreign Economic Relations and Trade*. Data refer to the MOFCOM (previously MOFTEC) approved FDI by the non-trade enterprises. N/A: Not available.

The broad outlines of outward FDI from Chinese companies can be explained largely by applying the postulates of the traditional theories such as the eclectic theory (Dunning, 1993) or transaction cost perspective (e.g., Hennart, 1982). In particular, the eclectic paradigm offered a comprehensive approach and is regarded by many as a leading explanation of the growth of multinational activity; it contends that FDI would occur when three conditions (i.e., OLI advantages) are satisfied. In essence, traditional theories of FDI like the eclectic paradigm rely on two major tenets: ownership advantage and market imperfection. According to this view, MNCs venture abroad attempting to exploit ownership advantages rooted in superior technological and organization capabilities originated from the home country, and/or to overcome market imperfection by "internalizing" the foreign operations. These theories explain a great deal of the rationale behind the migration of production activities to overseas locations (Rugman & Verbeke, 1992). Specifically, FDI functions in foreign production can be interpreted as an attempt to overcome "market imperfection" such as rising protectionism, and a way to exploit home country-based competitive advantage in superior technology and quality. However, existing theories would have considerable difficulties in explaining the rationale behind a number of recent FDI activities from less developed countries, where the companies have little home country-based competitive advantage (e.g., Li, 2003; Yeung, 1999).

Moreover, traditional literature on FDI considers headquarters to be at the center and subsidiaries only to constitute the periphery. For example, scholars of transaction cost theory (e.g., Hennart, 1982; Rugman, 1985) have argued that a firm should internalize critical resources, especially intangible resources and that indicates it is unlikely that the development of critical capabilities would be primarily influenced from foreign

subsidiaries of the MNC. However, MNC's ownership advantages do not originate in the parent company any more and the subsidiary plays a role in the creation of firm advantage. As Rugman and Verbeke (1992: 250) argued, "[i]t is the ability of the multinational firm to tap into location-bound knowledge and make it non-location bound, and thus available to the rest of the firm, through various organizational mechanisms, which is critical. This alone allows the firm to leverage its knowledge assets and extract the full rent potential, and could be the ultimate font of advantages for the multinational firm." Indeed, maintaining access to sources of innovations and superior knowledge to allow for opportunities in organizational learning becomes of utmost importance when the basis of competitive advantage of firms is shifting towards a firm ability to create and manage a knowledge and collective learning (Hitt et al., 1997). For MNCs from emerging economies such as China, they seem to be in more urgent need to gain access to technological and organizational innovations in host countries which are typically industrialized countries and which are viewed as a source of innovations (Yeung, 1999).

Finally, traditional theories are less capable of explaining the strategic behaviors of investment decisions of firms (Madhok & Phene, 2001). However, Chinese companies and particularly those large ones with the objective of becoming leading global multinationals, are engaged in overseas investment for the benefit of strategic considerations. These Chinese companies expand abroad often with the encouragement of the government, which is keen to see the development of Chinese conglomerate multinationals modeled on the example of the Japanese and Korean trading houses (Cai, 1999; Deng, 2004). However, the source of O advantage hardly lies at the level of the home country so that more and more Chinese firms are moving to higher value creation activities such as innovation in overseas location. They increasingly use FDI as a powerful vehicle to gain access to technology and innovation in host countries and obtain opportunities for organizational learning and wider strategic choices for future growth.

Therefore, facing the current international business context where FDI has been increasingly used to tap into innovation capabilities abroad, the traditional approaches to FDI need some significant modifications. As RBV of strategic management incorporates the firm-specific level of analysis, it can illustrate the additional insight into strategic behaviors of Chinese companies when they are engaged in foreign investment. This is particularly true when we consider the fact that besides enabling the MNC to exploit some home country-based advantage, the host country potentially provides complementary assets or even new sources of assets to enhance firm's competitive advantage and build system-wide assets, which in turn enable the firm to become more robust in its competition with global or local rivals.

In the following, we will concentrate on the case of Haier Group Corporation – one of the most well-known multinationals in China – as a prominent example to demonstrate how the Chinese company uses overseas investment as a vehicle to seek valuable resources or strategic assets for the purpose of enhancing its competitive advantage. In particular, we will examine Haier's internationalization against the theoretical implications of RBV as drawn out in the second section. In so doing, we attempt to confirm the central hypothesis of the paper and illustrate the explanatory power of RBV on FDI in general and Chinese outward investment in particular. In essence, from the RBV perspective, FDI is viewed as strategic endeavors of the Chinese firm to seek strategic resources or capabilities in terms of tacit knowledge, intangible assets, and innovative technology by establishing a presence in the important foreign countries.

THE CASE OF HAIER GROUP CORPORATION

Numerous examples show that Chinese MNCs invest in the leading foreign markets served by their competitors in order to advance their global interests as part of their global strategies. A case in point is Haier Group Corporation. Haier was incorporated in 1984 and initially produced household refrigerators. Over the past 20 years, the company has grown and prospered. Now Haier has become the No.1 Chinese household appliance giant with a global business turnover of more than $12 billion in 2004 (Haier, 2005). Moreover, Haier brand topped all Chinese trademarks at a 2004 nationwide survey. Haier's achievements and experiences have also been incorporated into the archives and used as MBA teaching material and/or cases by Harvard University, the European Business College and Lausanne Management College.

The story of Haier Group is a great tale of transformation and innovation in China's manufacturing industry. Central to the story is the leadership of CEO Zhang Remin. Mr. Zhang consistently emphasized quality in management, process, and products and integrated all of these concepts through skillful application of Chinese cultural traditions (Yi & Ye, 2003). Widely known as the "brain" of Haier, CEO Zhang's vision not only has driven Haier's activities within the refrigerator industry and its diversification into consumer electronics, but also led Haier to break a number of Chinese management traditions. Under his leadership, Haier has been expanding aggressively and engaged in a number of business initiatives abroad with bold "Western style" investment strategies.

It was Mr. Zhang who first proposed Haier move production abroad and particularly in the U.S.A., even though competitors (and privately other managers) termed the move "a very risky decision." Although Mr. Zhang recognized that America was a higher cost location, he preferred investment there because Haier could better take advantage of the tough market competition there. According to Mr. Zhang's calculation and logics, if Haier could compete successfully in the world's most challenging market like the U.S., it would obtain highly valuable learning opportunities and increase the confidence to be successful in other markets. Moreover, as one of the very first Chinese firms to set up a production plant in the US, Haier could draw on America's expertise in design, research, innovation, and technology, which, in turn, could be transferred within the company's world-wide operations system. It is no doubt that Mr. Zhang's creative vision and innovative ideas are consistently reflected in Haier's development goals and internationalization strategy.

The core of Haier's development is "Creativity, Speed and SBU (strategic business unit)." And its development can be divided into three stages: Building a brand name (1984-1991), diversified development (1992-1998), and going multinational (since 1998). Haier's strategic goal is to internationalize its brand name and to enter the top 500 list of Fortune magazine in ten years. It appears that Haier is well on the track of achieving its strategic goal, largely by working hard to crack open the international market and by investing abroad and localizing facilities around the world. With annual sales of more than $12 billion in 2004, it is certain that Haier will be in the 2005's top 500 list of Fortune magazine. More importantly, by 2004, Haier has set up 15 technological research institutes, 48 development centers, 10 advanced laboratories and 18 design institutes, 10 industrial complexes, and 22 overseas production factories worldwide so as to tap into the resources of innovative capabilities in the host countries.

To implement its globalization strategy, Haier has made huge investments particularly in the United States. In 1999, Haier America was founded, which looks to new growth and success with original products, strategic product distribution and remaining true to its core philosophy of innovation. In earlier 2000, Haier invested $40 million to construct Haier America Industrial Park in Camden, South Carolina. The 110 acres of land is the home of the state-of-the-art refrigerator facility, with an annual capacity of 500,000 sets. The factory focuses on big-volume refrigerators American people like to use and its refrigerators are sold in major U.S. discount chains. Finally, Haier spent more than $15 million acquiring the landmark Greenwich Savings Bank building in Midtown Manhattan in the New York City to serve as headquarters for the Western hemisphere, which opened in March 2002. By using investment in tangible U.S. assets, Haier intends to highlight its commitment to the U.S. market and the high profile investment also indicates that Haier has moved into a new phase for globalization of product design, manufacture and sales and has a strong determination for long-term development in the U.S.A.

The driving forces underlying Haier's investment and particularly in the U.S. can be well illustrated from RBV. Haier's core competence – its technical engineering – is primarily an intangible asset and resides in the quality of its engineering. This allows it to respond quickly and effectively to a customer's request for a particular custom-designed product. Another core competence is more a combination of tangible and intangible assets. Haier's competence is its knowledge of, and capability to serve the needs of, its accumulated customer base with a complete range of products. With a philosophy of best quality, Haier oriented itself to exploit the closest cooperation with its ever-expanding world network of customers, matching its own refrigerator developments with technological breakthroughs in user industries. To do this it has focused on building the technology development capability, and sales and marketing investments and the established customer relationships it already has in place. Most importantly, the overseas investment of Haier aims to strengthen its core competence and explore new sources of intangible resources and innovations rather than simply to exploit its existing core competence. Taking advantage of America's expertise in design, innovation, and technology, Haier has dramatically enhanced its global competitive advantage.

In addition, intrinsic to RBV is the belief that every firm must have the organizational capability to effectively implement its chosen strategy and continually regenerate and upgrade its core competence. The recognition of Haier's core competence was embedded in its culture and building an organizational capability based on continual manufacturing improvements. The company's creative CEO: Mr. Zhang is the greatest proponent of that capability. His philosophy started from a belief. He also recognizes where the responsibility for generating the core competence lies and gives prestige to manufacturing engineers. The concern for mastery of the details has spilled over into the firm's attitude to its employees, with an emphasis on specific skill training as well as extensively training in total quality control and manufacturing techniques. This has also kept learning proprietary at Haier and further built the firm's intangible assets.

In short, overseas investment provides Haier an effective channel not only to exploit some home country-based advantage but more importantly to access intangible resources and innovations, which in turn enable the firm to enhance its existing advantage and build system-wide assets, thereby becoming more robust in its competition with global or local rivals. In other words, through overseas investment, Haier targets at the exploitation of local assets and stimulates development of critical capabilities within the foreign subsidiary, which, in turn, can be transferred within the organization globally.

IMPLICATIONS AND CONCLUSION

In this paper, we draw from a critical review of recent research in RBV to suggest a resource-based perspective on outward FDI from Chinese companies. Specifically, we contend that, in addition to exploiting O advantages of firms and overcoming market imperfection, FDI can also be viewed as a vehicle to maintain access to strategic resources such as reputation and innovative managerial expertise resident in the host country, thus leading to enhancement of competitive advantages of firms. This rationale for FDI takes on added importance in light of the acceleration of China's economic power and intensification of global competition. As a precursor to more quantitative research, we draw on a case study of one Chinese MNC's FDI strategy to shed light on the explanatory power of this new perspective.

While conventional theory views FDI as an attempt by investors to exploit firm-specific advantages in foreign markets, RBV highlights the importance of exploration of valuable resources during the process of internationalization. In addition, firms without competitive advantages can engage in FDI and acquire strategic resources and enhance their competitive positions. According to this view, FDI is often made to seek intangible resources that are essential to the survival and growth of the investor particularly in face of global competition, as opposed to the extraction of economic rent. Without doubt, RBV can shed new light into the outward FDI from Chinese companies – an increasingly critical issue for strategic management. In essence, RBV analysis of, and concern for, the assets a firm accumulates over time, most particularly the intangible assets acquired through the operation of complex international investment environment. As RBV explains the dynamic aspects of firm strategic behaviors with regard to the accumulation and disposition of the firm resources, it sheds new light on the key rationale behind the dramatic increase of outward FDI from Chinese MNCs.

REFERENCES

Barney, Jay. B. 1991. Firm resources and sustained competitive advantages. Journal of Management, 17: 99-120.

Bartlett, C., & Ghoshal, S. 1989. The Transnational Corporation. Free Press, New York.

Black, J. A. & Boal, K. B. 1994. Strategic resources: traits, configurations and paths to sustainable competitive advantage. Strategic Management Journal, 15: 131-148.

Cai, K. G. 1999. "Outward Foreign Direct Investment," The China Quarterly, 160 (December): 856-880.

Collis, D. J. 1991. A resource-based analysis of global competition: the case of the bearing industry. Strategic Management Journal, 12: 49-68.

Deng, P. 2004. Outward investment by Chinese MNCs: Motivations and implications. Business Horizons, 47 (3): 8-16.

Dunning, J. H. 1998. Location and the Multinational Enterprise: A Neglected Factor? Journal of International Business Studies, 29 (1): 45-86.

Dunning, J. H. 1993. Multinational Enterprises and the Global Economy. MA: Addison Wesley.

Grant, R. 1991. The resources-based theory of competitive advantage: implications for strategy formulation. California Management Review, 33: 118-147.

Haier Group Company Website, http://www.haier.com [accessed: May 2005].

Hennart, J.-F. 1982. A theory of Multinational Enterprise. Ann Arbor, MI: The University of Michigan Press.

Hitt, M., Hoskisson, R., & Kim, H. 1997. International diversification. Academy of Management Journal, 40:767-798.

Li, P. P. 2003. Towards a geocentric theory of multinational evolution. Asia Pacific Journal of Management, 20: 217-242.

Madhok, A., & and Phene, A.. 2001. The co-evolutional advantage. International Journal of the Economics of Business, 8 (2): 243-256.

Miller, D., & Shamsie, J.. 1996. The resource-based view of the firm in two environments. Academy of Management Journal, 39: 519-543.

MOFCOM (Ministry of Commerce of the People's Republic of China; previously MOFTEC)). http://www.mofcom.gov.cn [accessed: April 2005].

Nolan, P. and Zhang, J. 2002. The Challenge of Globalization for Large Chinese Firms. UNCTAD, Discussion Papers, No. 162, July.

Penrose, Edith. 1996. The Theory of the Growth of the Firm (3rd ed.). Oxford: Oxford University Press [first published in 1959].

Peteraf, M.A. 1993. The cornerstone of competitive advantage: a resource-based view. Strategic Management Journal, 14 (3): 179-191.

Porter, M. 1990. The Competitive Advantage of Nations. Free Press, New York.

Prahalad, C. and G. Hamel. 1990. "The core competence of the corporation," Harvard Business Review, 68, 79-91.

Priem, R. L., & Butler, J. E. 2001. Is the resource-based 'view' a useful perspective for strategic management research? Academy of Management Review, 26:22-40.

Root, F. 1994. Entry Strategies for International Markets: Revised and Expanded. New York: Lexington Books.

Rugman, A. 1985. Internalization is still a general theory of foreign direct investment. Weltwirschaftliches Archiv, 121: 570-575.

Rugman, A. ., & Verbeke, A. 1992. A note on the transnational solution and the transaction cost theory of multinational strategic management. Journal of International Business Studies, 23 (4): 761-777.

UNCTAD Website, http://www.unctad.org/fdi [accessed: March 2005].

UNCTAD. World Investment Report. Various Issues 1995-2004.

Weneefelt, B. 1984. A resource-based view of the firm. Strategic Management Journal, 3: 147-158.

Winter, S. G. 1987. Knowledge and competence as strategic assets. In D. J. Teece (Ed.), The Competitive Challenge: 159-184. New York: Harper & Row, Publishers, Ballinger Division.

Yeung, W. C. H. (ed). 1999. The Globalization of Business Firms from Emerging Economics. Northampton, MA: An Elgar Reference Collection).

Yi, J., & Ye, S. 2003. The Haier Way. Dumont, NJ: Homa & Sekey Books.

The Impact of College on Worldmindedness: An Empirical Analysis

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ABSTRACT

The purpose of this study was to identify and measure the effects of college on the worldmindedness of undergraduate students. Worldmindedness is defined as a value orientation that allows individuals to extend their emotional identity beyond local, regional, and national affiliations to mankind as a whole. It was hypothesized that increased exposure to college would have a positive impact on the worldmindedness of all students. The study found that neither year-in-college nor credit hours completed had a significant impact on worldmindedness. However, coursework in international studies, college GPA, and membership in pre-professional clubs had significant positive associations with worldmindedness. The study also found significant differences in the level and determinants of worldmindedness for male and female students.

PRESSURE TO INTERNATIONALIZE

A central feature of most definitions of globalization is the idea of a single inter-dependent world in which capital; technology, people, ideas, and cultural influences flow across borders and boundaries rather than being contained for most purposes within nation states or localities (Holton, 1997). The skills necessary for success in this global structure include problem solving, information processing, decision making, and communications, plus the ability to deal with global problems, opportunities, languages, and cultural differences (Oblinger & Verville, 1998).

In higher education, "internationalization" is used to describe degrees, courses of study, and student bodies reflecting the social and economic systems of a world that is increasingly interconnected by global commerce, technology, and mass media (Keohane, 1999). Thus, colleges and universities are increasingly being urged to take internationalization seriously and inculcate it into their pedagogical and administrative decisions. One of the most compelling statements in this regard comes from the Association of American Colleges (1991):

In the final analysis, the real challenge of college, for students and faculty members alike, is empowering individuals to know that the world is far more complex than it first appears, and that they must make interpretive arguments and decision-judgments that entail real consequences for which they must take responsibility and from which they may not flee by disclaiming expertise (pp.16-17).

International understanding not only involves knowledge of and awareness of international events, but a general attitude that reflects heightened sensibility to international issues, people and culture (Carlson & Widaman, 1988). "Worldmindedness" has emerged as the term of choice to capture these dynamics and is characterized by the ability to extend one's self beyond local, regional, and national concerns and affiliations to mankind as a whole, and to find security, membership, and self-esteem within a global context (Glick, 1974).

Implicit in worldmindedness is the understanding that the values of one's own society are not universal and that the values of other societies are just as valid (Kauffmann, Martin, Weaver and Weaver, 1992). For Case (1993, 318), this new worldview involves nurturing perspectives that are "free of stereotypes, not predicated on naive or simplistic assumptions, and not colored by prejudicial statements." These perspectives provide the bearer with the skill to understand the inner logic and coherence of other ways of life, plus the restraint not to judge them as bad because they are different from one's own (Cleveland, Mangone and Adams, 1960).

This study was designed to determine the extent to which differential exposure to college impacts students' levels of worldmindedness controlling for important pre-college characteristics as well as academic and non-academic experiences while in college. It also sought to determine whether the impact of college on worldmindedness is different in magnitude or direction for different kinds of students e.g. male vs. female, white vs. non-white?

Literature

A worldview defines, organizes, and brings order to our lives (Newton and Caple, 1985) and suggests some major sort of unifying perception of "what is and how it is" (Ong, 1969, 4). The literature on worldmindedness dates from the 1940s and is grounded in a broad body of research involving an individual's knowledge base, value structure, and personality as it relates to the world.

Implicit in worldmindedness is the understanding that the values of one's own society are not universal and that the values of other societies are just as valid (Kauffmann, Martin, weaver and Weaver, 1992). As college students move from reliance on absolute principles to an acknowledgement of non-absolute reality they encounter a "paradigmatic barrier," (Bennett, 1986, 59). For students to gain an empathetic understanding of another culture, they must temporarily put aside their own beliefs and enter the new culture's world of assumptions, beliefs and values (Bennett, 1986). This change from a unicultural to a bicultural to a multicultural worldview takes place in the integration of new perspectives into old values and views allowing for ethical choice and actions in a relativistic world (Kauffmann et al. 1992).

Thus, it is no surprise that the original and primary focus of worldmindedness research has been study abroad programs. Murphy (1974) focused on worldmindedness of students who had studied abroad for one year. He found that locus of control, satisfaction of adjustment, and the site of the overseas experience do not affect worldmindedness. Koester (1987) found that students who did volunteer work abroad reported more change in political awareness than those who were abroad merely on vacation or as part of a study abroad program. Hansel (1986), in a review of the literature on study abroad, reports that international awareness, defined as an understanding of, and capacity to empathize with the common needs of people of different cultures, increased markedly in people who spent a year abroad.

The heart of internationalization efforts in many universities is the curriculum. However, Waller (1983) cautions that instead of adding new courses, colleges and universities should find new ways to incorporate an international perspective into existing courses and

programs, thus providing the cohesion so badly needed in college humanities courses. Oblinger & Verville (1998) lament the tendency of many academics to equate globalizing the curriculum with requiring two years of a foreign language. Nevertheless, Genesee and Cloud (1998) found that proficiency in other languages fosters a broader global perspective and greater intercultural tolerance. Tarolli (1984) found an increase in student worldmindedness after participation in a global workshop.

Sharma and Jung (1985) found that interaction with foreign students promotes worldmindedness among American students while Matross, Paige & Hendricks (1982) found that preexisting attitudes, frequency of contact and quality of friendship with foreign students are positively correlated with the global orientation of American students. Anderson (1988) found that despite many attitudinal changes relating to self-concept, cultural differences, and feelings toward the home country, student exchanges between Swedes and Americans did not lead to an increase in worldmindedness.

Queener (1949) found that a person was more likely to be internationalist if his/her parents, siblings, or spouse were internationalist, was college educated, less than forty years old and female. Gleason (1969) concluded that intimate contacts with another culture, attempts to learn and use the local language, and the association with friends of different nationalities all helped to develop an international outlook and a sense of worldmindedness. Deng and Boatler (1993) identified the following variables as influencing worldmindedness: gender, family income level, international experience, foreign language ability, education level and age.

Methodology

The 32 question Sampson and Smith (1957) worldmindedness scale (W-scale) was administered in class sessions to undergraduate students at St. Ambrose University, a private Catholic institution in Davenport, Iowa. Students were also asked for their biographic and educational background. Complete, usable responses were received from 359 students. The following categories of influence constituted the conceptual framework for the study: (a) pre-college characteristics, (b) students' academic experiences while in college, (c) students' non-academic experiences while in college.

The worldmindedness scale was chosen for its high levels of reliability and validity. In developing it, the authors focused on measuring an individual's international orientation, or frame of reference toward international affairs, apart from the individual's knowledge about factual and topical statements about international affairs. The 32-item scale is evenly divided into 16 pro-worldminded items and 16 anti-worldminded items. Sample items include "Immigrants should not be permitted to come into the U.S. if they compete with our own workers" and "The U.S. is probably no better than many other countries." The W-scale consists of eight subscales: Religion, Immigration, Government, Economics, Patriotism, Race, Education, and War. Responses are scored 0-6 and totaled for 32 items, producing a range of scores from 0 to 192 with higher values reflecting greater worldmindedness.

The originators of the instrument cited a split-half coefficient of 0.87 (corrected) and a test-retest coefficient of 0.93 when the instrument was given to university student samples (Sampson and Smith, 1957). Garrison (1961) cited correlations ranging from 0.33 to 0.64 among the eight subscales and the total score. Schell, Sherritt, Lewis and Mansfield, (1986) found the alpha coefficient (internal consistency) for the eight subscales to range from 0.3 to 0.6, with a mean of 0.5, while Deng and Boatler (1993) found the alpha coefficient for the 32 items to be .83.

Validity was tested using the "known group" technique (Smith, 1954) and subsequent research by Smith and Rosen (1958) further validated the sensitivity of the W-Scale in measuring international orientation. The survey research institute at the University of Michigan found the W-scale to have "commendable concern and good criterion related, known group and predictive validity, as well as more than adequate reliability" (Robinson, Rusk and Head, 1968, p. 303).

Analysis

The main data analysis approach used in this study was least squares multiple regression analysis. To determine the extent to which differential exposure to college impacts students' levels of worldmindedness, the dependent variable (the W-scale) was regressed on year-in-college plus all variables judged causally antecedent (i.e. age; gender; race; place of birth; parents' place of birth; level of parents' formal education; ACT score; high school GPA; extent of overseas travel; study abroad experience in high school; friendship with non-Americans; and fluency in a foreign language). The same analysis was conducted for credit hours.

Secondly, all of the college experience variables (academic major; college GPA; study abroad experience in college; cumulative courses taken in internationally-oriented subjects; on- or off-campus residence; and participation in sports, clubs and other extracurricular activities) were added to the equations for year-in-college and credit hours. In determining which variables were significant, the t-test for independent means was applied.

To determine whether the effects of college on worldmindedness were general or conditional, four pre-college control variables (gender, age, race, and ACT score) were selected. A set of cross-product terms was developed between these control variables and the three dummy variables representing year-in-college. This set of cross-product terms was then added to the full regression model (i.e. demographic and pre-college variables, academic and non-academic experiences in college, and year-in-college). An increase in the explained variance (R^2) of the dependent variable associated with the addition of the set of cross-products indicates the presence of conditional effects (Whitt et al, 2000).

Results

The study found that in the presence of controls for pre-college variables, neither year-in-college nor credit hours completed had significant impact on students' worldmindedness. However, ACT score and having a foreign friend were found to have significant positive associations with worldmindedness.

Controlling for important pre-college influences as well as for academic and non-academic experiences while in college, the study found that neither year-in-college nor credit hours completed had a significant impact on worldmindedness. However, coursework in international studies, college GPA, and membership in pre-professional clubs did have significant positive associations with worldmindedness. On the other hand, coursework in international business and participation in athletics were found to have significant negative associations with the dependent variable.

The study found that, in the presence of all control variables (i.e., pre-college + college variables), women and men differed significantly on measures of worldmindedness. Independent of other influences, sophomore women had a significant gain in worldmindedness (.71 of a standard deviation) relative to their freshmen counterparts. Men registered no significant gain in their sophomore year. However, women's gains were reversed in their junior year as they lost ground (- .35 of a standard deviation) to their freshmen counterparts. While women's gains took place exclusively in their sophomore year, men

made their greatest gains in worldmindedness in their junior year (.58 of a standard deviation). This positive trend continues in their senior year with men registering a substantial (.48 of a standard deviation) gain relative to their freshmen counterparts. This is considered a moderate to large size effect (Flowers, Osterlind and Pascarella, 2001).

Table 1
Estimated Effect Sizes of Year-in-College for Women

Year-in-College	B	St. Dev.	Net Effects	Sig.
Sophomore (vs. Freshman)	13.70	19.36	0.71	.05
Junior (vs. Freshman)	-6.68	19.36	-0.35	.10
Senior (vs. Freshman)	-6.67	19.36	-0.34	

Table 2
Estimated Effect Sizes of Year-in-College for Men

Year-in-College	B	St. Dev.	Net Effects	Sig
Sophomore (vs. Freshman)	6.28	22.66	0.28	
Junior (vs. Freshman)	13.13	22.66	0.58	.05
Senior (vs. Freshman)	10.88	22.66	0.48	.05

Another major finding of this study was that, in the presence of all control variables (i.e. pre-college + college variables), exposure to college (as expressed in credit hours) exerts a significant ($p < .05$) positive influence on the worldmindedness of men ($b = 1.46$) but a significant ($p < .05$) negative influence on that of women ($b = -.99$).

Table 3
Significant Variables for Women and Men

Women	Men
Mother's education (positive)	Professional club membership (positive)
College GPA (positive)	Coursework in education (positive)
Participation in ethnic activities (positive)	Courses in foreign languages (negative)
Being a health science major (positive)	Participation in athletics (negative)
Coursework in intl. business (negative)	Out-of-country experiences (negative)

Age was the main variable found to be significant for both men and women. In both cases, it was negatively associated with worldmindedness ($b = - 0.73$ for women and $b = - 1.5$ for men).

DISCUSSION

The mean score for the 359 students in this study was 99.77. This is within the normal range of worldmindedness scores and closely matches the mean of 99.92 found by Boatler (1992) in his study of 295 American students at Texas Christian University. In a separate study at the same institution, Boatler (1991) reported mean scores of 103.94 for female college students and 98.99 for their male counterparts. These scores resemble the mean of 103.78 for women found in this study and the 94.19 for men. Researching the worldmindedness of 203 Canadian business students, Deng and Boatler (1993), found the mean to be 109.85 while Wilson (1975) reported a mean score of 101.91 for 304 elementary school teachers in Des Moines, Iowa.

The analysis reported in this study led to a number of conclusions. First, the findings extend previous research by suggesting that, even in the presence of an extensive set of controls for important individual confounding influences, attendance at a four-year college significantly impacts students' worldmindedness. Hett (1994), in her review of the literature, suggested that students with a higher level of worldmindedness would (a) be female, (b) be juniors or seniors, (c) have taken several internationally oriented courses, (d) often interact with persons from countries and cultures other than their own, (e) be proficient in a second language, and (f) have spent significant time outside their own country. Each of these determinants was addressed by this study and the findings are as follows:

Women recorded higher worldmindedness scores than men (mean = 103.78 vs. 94.19). For each year-in-college, women scored higher than their male counterparts. This is partly explained by the findings of Levine and Cureton (1998) that female college students are more supportive of civil rights and have more positive views of diversity than male students and by Whitt et al. (1999) who found women college students to be more open to diversity than men. However, while women scored higher then men in each year of college, senior women had lower scores than freshmen women (102.78 vs. 106.08). In contrast, senior men recorded higher scores than their freshmen counterparts (95.34 vs. 91.26). Even though men made greater gains in college than women, they still ended up with substantially lower scores in worldmindedness and overall the study found significant negative associations between being male and worldmindedness ($b = - 15.21$ and -14.39).

Juniors and seniors had higher raw scores (means = 101.36 and 100.09) than freshmen and sophomores (means = 97.96 and 99.83). Overall however, no significant association was found between year-in-college and worldmindedness.

The study found that worldmindedness was not significantly related to the overall number of internationally oriented courses taken. Only coursework in international studies was found to have significant positive associations ($b = 2.79$ and 2.56) with worldmindedness, net of confounding variables.

Having a foreign friend was found to have a significant positive association with worldmindedness with b values of 5.98 and 5.42. This is not surprising since studies of interpersonal attraction have repeatedly shown that perceptions of shared interpersonal interests and personal similarity are major determinants of liking (Tims & Miller, 1986).

Second language ability was found to have no significant association with worldmindedness. This is in contrast to Genesee and Cloud (1998) who found that proficiency in other languages fosters a broader global perspective and greater intercultural tolerance.

The total amount of time spent overseas in the aggregate sense was not found to have a significant association with worldmindedness. While study abroad participants had higher raw scores than the mean of the sample, the findings were not significant and are in contrast to those of Hansel (1986) and Yachimowicz (1988). These inconsistent findings are probably the result of various intervening variables, such as types of experiences abroad, and the nature of the interpersonal encounters (Sell, 1983). These variables need to be examined when exploring study abroad as a determinant of worldmindedness.

A major finding of this study is that while the quantity of higher education is not correlated to worldmindedness the quality of that education is. Certain college experiences appear to enhance students' worldmindedness, irrespective of their background characteristics. This is in keeping with Dollar (1991) who found a positive relationship between students' investment of time and energy in their role as student and the quality of college outcomes. Most notably, the current study found a significant positive relationship

between college GPA and coursework in international studies with worldmindedness.

Of all the majors, business recorded the lowest mean score of 94.64, well below the median of 99. Conversely, health science majors recorded the highest mean of 111.01. Of course there is an obvious alternative hypothesis to explain the differences between majors found in this study. Men and women tend to enroll in different majors (Pascarella & Terenzini, 1991), and attendant differences might account for some, if not all, the differences observed.

A surprising finding of this study is the negative relationship between fathers being born in the U.S. and worldmindedness. This association manifested itself in all the regressions with b values ranging from - 27.981 to - 38.301 for the sample as a whole and reaching as high as - 45.067 for male students. In contrast, those whose fathers were born outside the U.S. recorded a high mean score of 119.16. However, this group accounted for just 5.3 percent of respondents and it is also possible that these students may be non-white, a group with a substantially higher mean score than whites.

The results of the present study underscore the likelihood that even within a nominally homogenous group of students, a substantial diversity moderates the worldmindedness effects of attending college. For example, irrespective of individual background characteristics, year-in-college, or number of courses completed, participation in pre-professional clubs has a positive influence on worldmindedness while participation in athletics has the opposite effect. This has important implications for administrators and student affairs professionals.

This study provides evidence of the differential effects of worldmindedness determinants across the sexes, and the nature of these effects are shown to vary by determinant category. In terms of pre-college individual determinants, only mother's education, ACT score, and having a foreign friend received support. Regarding academic determinants, only GPA and coursework in international studies were found to be significant. As for college experience determinants, only participation in ethnic activities and pre-professional clubs received support.

In summary, the results of this study suggest that an extremely worldminded undergraduate student would be a traditional aged female in her sophomore year, having an educated mother, high ACT and college GPA scores, participates in ethnic activities, has a foreign friend, and has taken coursework in international studies. In contrast, the least worldminded student would be a non-traditional aged male in his freshman year, whose father was born in the United States, participates in athletics, has taken coursework in geography and foreign language, and has traveled or lived abroad.

REFERENCES

Anderson, G. E. (1988). A comprehensive case study reviewing the changes in worldmindedness and other attitudes of exchange students from Jamestown Community College and Sodra Vatterbygdens Folkhogskola. Unpublished doctoral dissertation. Buffalo: State University of New York.

Association of American Colleges, (1991). The challenge of connecting learning. Project on liberal learning, study-in-depth, and the arts and science major. Washington, D.C.

Bennett, M. J. (1986). Towards ethnorelativism: A developmental model for intercultural sensitivity. In M. P. Paige (Ed.). Cross-cultural orientation: New conceptualizations and applications. Lanham, MD: University Press of America.

Boatler, R.W. (1991). Business Student Worldmindedness, Journal of Global Business 2 (2), 71-76.

Boatler, R. W. (1992). Low worldmindedness of Latin males: An international business weakness, integration in the Americas: 1992 Business Association of Latin American Studies Proceedings 73-77.

Carlson, J. S. & Widaman. K. F. (1988). The effects of study abroad during college on attitudes toward other cultures. International Journal of Intercultural Relations, 12 (1), 1-17.

Case, R. (1993). Key elements of a global perspective. Social Education, 57 (6), 318-325.

Cleveland, H., Mangone, G. J. & Adams, J. C. (1960). The Overseas Americans. New York: McGraw-Hill.

Deng, S. & Boatler, R. W. (1993). Worldmindedness among Canadian business students: Implications for curricula. Journal of Education for Business, 69 (2), 94-98.

Dollar, R. (1991). College influence on analytical thinking and communication skills of part-time versus full-time students. College Student Journal, 25 (3), 273-279.

Flowers, L., Osterlind, S. J., Pascarella, E. T., Pierson, C. T. (2001). How much do students learn in college?: Cross-sectional estimates using the college BASE. Journal of Higher Education, 72 (5), 565-584.

Garrison, K. C. (1961). Worldminded attitudes of college students in a southern university. Journal of Social Psychology, 54, 147-153.

Genesee, F., & Cloud, N. (1998). Multilingualism is basic. Educational Leadership, 55 (6), 62-65.

Gleason, T. P. (1969). Social adjustment patterns and manifestations of worldmindedness of overseas-experienced American youth. Unpublished doctoral dissertation, Michigan State University.

Glick, E. L. (1974). Towards a comprehensive definition of worldmindedness. Dissertation Abstracts International, 35, 6436A.

Hansel, B. (1986). Literature review: Studies of the impact of the travel-abroad experience (AFS Research Report #28). New York: Research Department. AFS Center for the Study of Intercultural Learning.

Hett, E. J. (1993). The development of an instrument to measure global-mindedness.

UMI Dissertation Abstracts, #9408210.

Holton, R. J. (1997). Some myths about globalization. Advancing International Perspectives. Retrieved July 2, 2001, from http://www.roma.unisa.edu.au/herdsa97/holton.htm

Kauffmann, N. L., Martin, J. N., Weaver, H. D., and Weaver, J. (1992). Students Abroad: Strangers At Home. Yarmouth, ME: Intercultural Press.

Keohane, N. (1999). Majoring in diversity. Business Mexico, 8 (9), 30-31.

Koester, J. (1987). A profile of U.S. students abroad – 1984 & 1985. New York: Council of International Educational Exchange.

Matross, R., Paige, R. M., & Hendricks, G. (1982). American students attitudes towards foreign students before and during an international crisis. Journal of College Student Personnel, 23 (1), 58-65.

Murphy, W. J. (1974). Worldmindedness and overseas study. Ph.D. dissertation, Indiana University.

Newton, F. B. & Caple, R. B. (1985). Once the world was flat: Introduction and overview. Journal of Counseling and Development, 64 (3), 163-64.

Oblinger, D. G. & Verville, A. L. (1998). What business wants from higher education. American Council on Education, Oryx Press, Phoenix, AZ.

Ong, W. (1969). World as view and world as event. American Anthropologist, 71 (4), 634-47.

Pascarella, E. T., & Terenzini, P. T. (1991). How college affects students: Findings and insights from twenty years of research. San Francisco: Jossey-Bass.

Queener, E. L. (1949). The development of internationalist attitudes: The literature and point of view. Journal of Social Psychology, 30, 105-126.

Robinson, J. P., Rusk, J. G., Head, K. B. (1968). Measures of political attitudes. Survey Research Center, Institute of Social Research, University of Michigan, Ann Arbor.

Sampson, D. L. & Smith, H. P. (1957). A scale to measure world-minded attitudes. The Journal of Social Psychology. 45, 99-106.

Schell, B., Sherritt, H., Lewis, M., & Mansfield, P. (1986). An investigation of worldmindedness, satisfaction, and commitment for hirers of foreign student exchanges. Psychological Reports, 59 (2), 911-920.

Sell, D. K. (1983). Research on attitude change in U.S. students who participate in foreign study experiences: Past findings and suggestions for future research. International Journal of Intercultural Relations, 7 (2), 131-147.

Sharma, M. P. & Jung, L. B. (1985). How cross-cultural social participation affects the international attitudes of United States students. International Journal of Intercultural Relations, 9 (4), 377-87.

Smith H. P. (1954). Changes in attitudes resulting from experiences in foreign countries. Unpublished doctoral dissertation, Harvard University.

Smith, H. P. & Rosen, E. W. (1958). Some psychological correlates of worldmindedness and authoritarianism. Journal of Personality 26, 170-183.

Tarolli, E. F. (1984). The effect of a global education workshop on intern teachers' global attitudes. Unpublished doctoral dissertation, Syracuse University.

Tims, A. R. & Miller, M. M. (1986). Determinants of attitudes towards foreign countries. International Journal of Intercultural Relations, 10 (4), 471-484.

Waller, R. A. (1983). The humanities in a global perspective. South Carolina Humanities Scholars Forum.

Whitt, E. J., Edison, M.I., Pascarella, E.T., Nora, A., & Terenzini, P. T. (1999). Interactions with peers and cognitive outcomes across three years of college. Journal of College Student Development, 40, 61-78.

Whitt, E. J.; Pascarella, E. T.; Pierson, C. T.; Nesheim, B. S. E.; Marth, B. P. (2000). Differences between women and men in cognitive outcomes, and the factors that influence those outcomes in the first three years of college. Paper presented at the Annual Meeting of the Association for the Study of Higher Education. Sacramento. California.

Wilson, L. (1975). The attitude of elementary teachers toward nationalism and worldmindedness. Unpublished doctoral dissertation, Drake University, Des Moines.

Yachimowicz, D. J. (1988). The effects of study abroad during college on international understanding and attitudes toward the homeland and other cultures. Unpublished doctoral dissertation, University of California, Riverside.

The Self-Weighted Mean and Mean Waiting Times

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ABSTRACT

This pedagogical note presents some counterintuitive examples of the relationships between the number of servers and the customer mean waiting time. We explain the use of the self-weighted mean for help in exploring certain types of waiting time scenarios, and develop algebraic and graphical support for student understanding of the factors at work.

INTRODUCTION

Imagine the following question on an exam in the Operations Management course:

Two buses per hour run continuously from City A to City B. Passenger arrive randomly (let's assume they don't have watches) at the bus station to catch the next bus. The mean waiting time for passengers is:

__ a. 60 minutes
__ b. 30 minutes
__ c. 15 minutes
__ d. not enough information provided

The most tempting answer may be c, 15 minutes, because under the assumption that the buses leave exactly 30 minutes apart, the mean wait time is indeed 15 minutes. This is because a passenger arriving randomly during any interval waits an average time equal to half the interval's duration. With both intervals being 30 minutes of time, the mean wait time is of course 15 minutes.

But what if the buses leave on the hour (:00) and then again at :20. Would this change the mean wait time? The answer is yes, even though the half intervals are now 10 and 20 minutes, which at first may appear to yield 15 minutes once again as a mean wait time. However, as van Dijk (1997) points out, the randomly arriving passenger is more likely to show up in a longer time interval than in a shorter one; thus more weight should be given to the longer interval. Specifically, each half interval should be weighted according to its duration.

THE SELF-WEIGHTED MEAN

In an article analyzing different aspects of measuring "average" speeds of vehicles on the highways, Falk et al. (2005) call this weighted average the "self-weighted mean" (SWM). The SWM can be thought of as

$$SWM = \Sigma(hi)^2 / \Sigma hi \qquad (1)$$ where hi is each half interval

Thus, for the two half intervals of 10 and 20 minutes,

$SWM = (10^2 + 20^2) / (10 + 20)$
= 16.7 minutes mean wait time, which of course makes 'd' a better answer than 'c' for the multiple choice question.

A more extreme and unlikely case would be the second bus in each hour leaving five minutes after the first bus. Equation (1) results in a mean wait time of about 25.4 minutes for this case.

On the other hand, if the two buses do depart exactly 30 minutes apart, the SWM for this situation is

$SWM = (15^2 + 15^2) / (15 + 15)$
= 15 minutes, making 'c' a correct answer, but only for this special case. That is, for equal half intervals of waiting time, the mean wait time is equal to the (unweighted) mean of half interval wait times.

APPLICATIONS OF THE SWM

Patil et al. (1988) refer to the SWM as size-biased sampling; and like van Dijk (1997) employ the SWM concept to explain why measurements from a radar gun at a stationary point on the speeds of cars passing this point during a given time span would be used to compute a SWM of speeds, and not the apparent 'standard' arithmetic mean, despite the general appearance such sampling might convey as to having obtained a true random sample of speeds. Simply put, the faster you drive the more likely you are to pass the point on the road where the measurements are taken. Patil et al. also call on the SWM to explain why in medical screening for chronic diseases such as cancer, the cancers found by screening are generally less further along and growing more slowly than those detected by other means.

ANOTHER TEST QUESTION

Given the bus scenario described above, a third bus per hour is now added; as a consequence the mean passenger waiting time will be reduced.

___True ___ False

Having gotten this far into the paper, the reader may correctly anticipate that the statement is false, even though on the surface this may seem counterintuitive. Again the culprit is the SWM, or perhaps rather, the variability possible in wait interval duration.

For the ideal case of departures at :00, :20, and :40 or other times twenty minutes apart, the SWM result is the same as the simple arithmetic mean:

$SWM = (10^2 + 10^2 + 10^2) / (10 + 10 + 10)$
= 10 minutes, a reduction of 5 minutes, compared to the (ideal) two-bus scenario.

But for intervals of non-uniform length, the SWM will exceed the theoretically ideal mean. For instance for bus departure times of :00, :08, and :16, the SWM will come out to be about 17.2 minutes, an increase of 2.2 minutes compared to the two-bus ideal, illustrating that the true-false statement above can be false, despite the "obvious" assumption that the passengers' wait times will benefit from the additional service.

(The computation is:
$SWM = (4^2 + 4^2 + 22^2)/(4 + 4 + 22) = 17.2$ minutes.)

BREAKEVEN

It is possible to solve for a "breakeven" point of sorts; that is, to determine how much variation from the ideal departure times of the three-bus scenario would result in the same mean wait time as the (ideal) two-bus scenario, which is 15 minutes. (The solution given below is only for two of the three intervals being the same duration). It therefore quantifies the level of mismanagement that makes the poorly run three-bus scenario equal to the well-run two bus scenario, with respect to mean waiting time.

Letting x = half interval length, use the SWM expression to set up this equation:

$$[x^2 + x^2 + (30-2x)^2] / 30 = 15 \text{ minutes.}$$

Rearranging and simplifying yields a quadratic expression:

$$x^2 – 20x + 75 = 0,$$

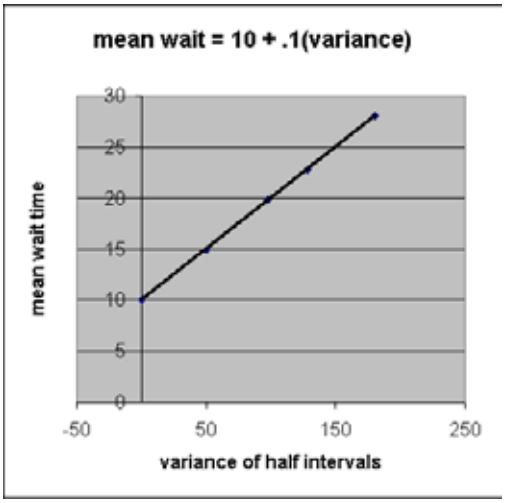
with roots 15 and 5 (feasible) obtained by the quadratic formula (or simple factoring in this case). Departure times of :00, :10, and :20 (or half intervals of 5, 5 and 20) do in fact yield an average wait time of 15 minutes, as the desired "breakeven" point..

BREAKEVEN VIA GRAPHING

To gain further insights into the extent to which departures from the ideal bus arrival times affects average passenger wait times, we plotted several points on a scatterplot where X = half interval variance and Y = mean wait time (see Figure 1).

For instance, X = 0 for the ideal situation of half intervals = 10, 10, and 10, resulting of course in an average wait time of 10 minutes. As shown by algebra above, half intervals of 5, 5, and 20 (σ^2 = 50) produce a mean (also breakeven) wait time of 15 minutes for the passengers. Any variance less than 50 in the half intervals thus represents an improvement over the two bus scenario running ideally; any variance more than 50 represents an increased wait time mean. The right-most point on the graph assumes a one minute minimum between consecutive bus departures, generating half intervals of .5, .5, and 29 minutes (σ^2 = 180.5), and the maximum mean wait time for the three bus scenario: about 28 minutes. Note in Figure 1 that the relation between variance of half intervals and average wait time is exactly linear with slope equal to .10.

Figure 1
Mean wait time as a function of half interval variance



SUMMARY

Through the use of some admittedly arbitrary and less-than-desirable scheduling choices about running a bus operation, we have developed some instances where the results may differ from what undergraduate students in a Production or Operations Management course may presume to be possible. We highlight the self-weighted mean as the cause of such phenomena, and use algebra and graphical analysis to further understand the effects of poor spacing of departure times in a bus operation type of situation.

REFERENCES

Falk, R., Lann, A. & Zamir, S. (2005). Average speed bumps: Four perspectives on averaging speeds. Chance, 18, 25-32.

Patil, G., Rao, C. & Zelen, M. (1988). Weighted distributions. In Kotz, S. & Johnson, N. (Eds.), *Encyclopedia of Statistical Science*, 9, 565-571, New York: Wiley.

van Dijk, N. (1997). To wait or not to wait: That is the question. Chance, 10, 26-30.

Understanding the CRM Process: The Importance of Internal Members and Their Perceptions Within a Major IT Services Provider

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ABSTRACT

There is a lack of adequate research in the field of CRM strategies. The integration of the systems and processes involved, internally and externally, outline the need for the development of a conceptual framework that can facilitate research and discussion of CRM issues amongst academics and practitioners.

The purpose of this paper is to explore organisational management issues in CRM and assess how an organisation's members perceive CRM. The paper is based on a survey of 25 sales and service personnel within a major computer and IT services provider.

The study provides insight into the evolution of CRM systems, the processes involved such as the input activity, value creation and performance measurement. The paper highlights the implications for marketing theory and practice and also makes research recommendations for the future.

INTRODUCTION

The expansion of information technology (IT) and the globalisation of business must take cognisance of the importance of customer retention and of customer relationship economics. These, among the other trends, stimulate change in mainstream marketing. Such change may be due to intense competition, fragmentation of markets, generally high levels of product quality and more demanding, rapidly changing customer buying patterns. Previous research suggests that enduring relationships with customers cannot easily be duplicated by competitors and this gives firms a competitive edge. Yet, relationship marketing is a relatively new expression that is now widely used in marketing and appears to encompass areas such as micromarketing, database marketing, one-to-one marketing, loyalty marketing, wrap-around marketing, customer partnering, symbiotic marketing and interactive marketing (Buttle, 1999).

This paper provides a literature review on the key themes in the field, namely CRM and the formation of managerial and employee perceptions. It then offers insights into a methodology to assess its impact on a business using an in-depth case study. The study finds previous empirical support for the conceptualisation and concludes with the implications for theory and practice as well as provides directions for future research.

LITERATURE REVIEW

Relationship building and management, or what has been labelled relationship marketing (RM), is a relatively new approach that has entered the marketing literature (Gronroos, 1994; Gummeson, 1995; Morgan and Hunt, 1994). The term RM has become a buzzword, with the concept being used to reflect a number of different themes and "catch-all" phrases (Brodie et al., 1997; O'Malley and Tynan, 2000). RM has been debated widely as a new paradigm with Gummesson observing that it is still unclear in its operational aspects. He defines RM as "marketing seen as interactions, relationships and networks" and contributed a theory of RM which he called the 30R approach (Gummesson, 1994; 1996).

It has been observed that CRM involves utilising IT to implement relationship marketing strategies (Payne, 2001). Payne argued that CRM is 'information-enabled relationship marketing' and presented CRM as a set of five interrelated cross-functional strategic processes; the strategic development process; value creation process; multi-channel integration process; information management process; and the performance assessment process. It has also been suggested that IT can be used as a source of competitive advantage for integrating the marketing function with other functions such as operations, customer service, sales, human resource management, and finance via credit control which are the essential ingredients in driving customer satisfaction (Zineldin, 2000). The main objective of CRM is to develop and maintain a mutually beneficial long-term relationship with strategically significant customers. This echoes Buttle's idea of the S.C.O.P.E model of CRM where the central constituency in the model is the customer, (C) with the other four constituencies are suppliers (S), Owners / investors (O), employees (E), and other partners (P). He argued that these "constituencies must be managed and co-ordinated to ensure that preferred value propositions are created, communicated and delivered to the selected customers" (Buttle, 2000). Recent reports by some suggest that CRM is a term for methodologies, technologies and e-commerce capabilities used by companies to manage customer relationships (Stone, 2000). As information and technology underpin the whole CRM model it is recognised that integrated CRM strategies require integrated systems. Others suggest that CRM is a supporting element in developing or facilitating relationships (Ford et al., 1998). Therefore, there is a need for more research in the field of CRM strategies, in the integration of systems, in the processes involved, internally and externally.

Peppers and Rogers (1995), suggest that new technology companies should compete for share of customers rather than for share of markets and the task is to make individualized offerings and establish one-to-one collaborative relationships with customers.

The study pursues a process-based approach as shown in figure 1. The knowledge of customers can be codified. Good data quality management helps in understanding how much potential business a customer is likely to generate (Ballantyne, 2000). This empowers the firm in its strategic choices, enables further interaction and customisation of the product and offering of its services (Plakoyiannaki and Tzokas, 2000). The objective of this paper is to view CRM as the effective use of information and communication technology using integrated CRM software for changing business processes and building technology solutions that can enable businesses to acquire new customers, retain existing ones and maximise their lifetime value.

The paper first refers to the various functions or support activities within CRM systems, followed by customer value management and finally, it focuses on performance.

CRM SYSTEM/ INPUT ACTIVITY

The effective management of information has a crucial role to play in CRM. Information is critical for product tailoring, service innovation, for providing a single and consolidated view of the customer, for calculating customer life-time value and for establishing an integrated multi-channel capability (Peppard, 2000). CRM systems are a support activity that holds and analyses information in different formats that are easily accessible by any person who needs them (Lennox, 1993). McDonald (1994) defines this data as a "collection of computer hardware and software to hold and analyse information about an organisation's customer, competitors, product and their markets".

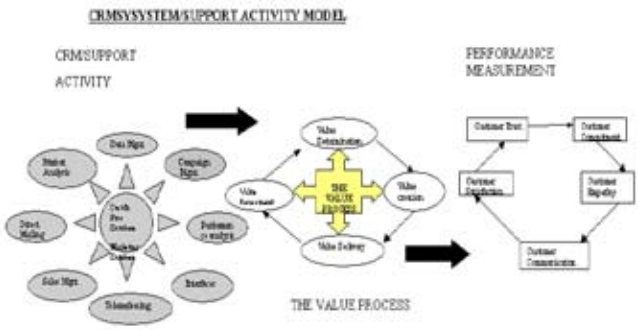
As seen in Figure 1, a central activity in CRM is exploiting customer insight and information to create profitable customer relationships (Stone, 2000). The customer database becomes crucial for a range of marketing activities such as direct mailing, campaign management and so on which, in turn, drive the value process. This is a representation of the essential structure of the information used in business. It provides a vehicle for negotiating the development of a common inter-organisational system that includes the exchange and sharing of information. These systems suggest an expert diagnosis of a situation or the probable implications of a course of action. A firm is dependent on the information from its CRM system for product tailoring; for service innovation; for providing a single and consolidated view of the customer; for calculating customer life-time value; for establishing an integrated multi-channel capability (Peppard, 2000).

VALUE ADDING ACTIVITY

Value and relationship value has received increasing attention in the relationship marketing literature (Gronroos 1994; Tzokas and Saren, 2000; Payne, Holt and Frow,

1999). Building on this research the CRM model (figure 1) integrates the customer database and CRM support activity with the core concept of relationship value management.

Customer value management has been defined as "a methodical approach for achieving the strategic, profitable and competitive positioning and alignment of a company's essential capabilities- its processes, organisation and infrastructure – and where appropriate, the value chain forms a part in ensuring that a company meets the needs of current and future target customers" (Stone, 2000). Piercy (1998), also provides an analytical framework that illustrates how the different dimensions of an



Source: Authors

organisation's processes lead to customer value. An important criterion for targeting customers is their actual and potential value to the company. This value is based upon what customers pay or might potentially pay for the benefits delivered by the company to customers. The aim of the customer value process is to optimise the value delivered to customers, to enable more value to be extracted from more customers. This is achieved through assessment, determination, creation and delivery.

PERFORMANCE MEASUREMENT

The final piece of the model is integrating several components of relationship management into a performance measurement assessment tool. Such components of successful relationship have both theoretical and empirical support (Gupta, 1983; Juttner and Wehrli, 1994; Dawar et al., 1996; Ali and Birley, 1998). In view of the number of potential variables in any relationship, we concentrate on variables which, according to the literature, are deemed relatively more important in most relationships, especially in an international context. As seen in Figure 1, these variables are: Commitment, Trust, Customer empathy, Satisfaction and Communication.

METHODOLOGY

The literature review leads a process theory approach that incorporates the CRM system/support activity model. As changes are taking place through industries, there is a surge of interest among organisational researchers in process theory and dynamic phenomena such as organisational learning (Cohen & Sproull, 1991), competitive interaction (Illnitch, D'Aveni, & Lewin, 1996), innovation and change (Van de Ven & Huber, 1990), and strategic evolution (Barnett Burgelman, 1996). As seen in Figure 2, process research is concerned with understanding how things evolve over time and why and how they evolve (Van de Van and Huber, 1990).

One of the main reasons for adopting a qualitative process approach is to take into account the context (Yin, 1994). Mohr (1982), to artificially separate variables and events, although, in practice, a phenomena of different kinds are intertwined (Langley, 1999). Process research deals with the evolution of relationships between people or with the cognitions and emotions of individuals as they interpret and react to events (Peterson, 1998). Van de Ven & Huber (1990) observe that process theorization needs to go beyond surface description to penetrate the logic behind observed temporal progressions, whether simple or complex.

The research has been conducted with a major high-tech, multi-national corporation, which has implemented CRM systems application worldwide. The organisation anticipated that the system would allow hundreds of thousands of its employees, business partners, and customers to share crucial information. The approach in this study is a qualitative one involving in-depth exploration of the complex processes involved, attitudes and behaviours of mangers and staff to the system and its impact. This was done by interviewing sales managers, sales people and managers in related posts within the firm from a supplier perspective. The aim of the study was to gain understanding not only of the use of the CRM system but their attitudes and perception of relationship marketing and the criteria they consider important between the buyer and seller by using semi-structured questionnaires.

Process theory

The case study firm is a multinational company with long standing reputation in the business, social and technology fields worldwide. They can be considered innovation leaders in the development of industry's most advanced information technologies including computer systems, software, storage systems and microelectronics.

Their CRM system operates worldwide along with full hardware and software support since October 2001. It is thought to be the largest customer relationship management system in the world allowing its sales personnel and global services consultants to review a customer's complete account history and determine potential product and services requirements before making a sales call.
The interviewees consisted of one senior national manager, 5 middle level managers and 19 consultants with respondents ranging from varying knowledge levels and experience of CRM systems in the UK.

Figure 2
Explaining strategic change with a process model

Strategy 1

Strategy 2

- Events
- Activities
- Choices

Sources: Langley, (1999), "Strategies for theorizing from process data", Academy of

As noted, the approach in this research is a qualitative one using a semi structured questionnaire consisting of about 29 questions. The research involved in-depth exploration of the complex processes involved as well as their attitudes and behaviours. Interviews were performed face to face with one interviewee at a time. The interviews were tape recorded and lasted between 45 and 90 minutes. All interviews were fully transcribed with data reduction being performed in several stages. First, key sentence or thoughts from each transaction were highlighted and summarized, still keeping the respondents sentences separated. Secondly, all summaries were joined in order to keep all different kinds of sentences or thoughts but deleting sentences with the same exact meaning. Thirdly all sentences were cut loose and grouped together based on their meaning. This was when the dimensions started to take form. Based on these groups of sentences, dimensions were extracted.

The next part of the analysis consisted of applying the dimensions to the transcriptions to understand its context and relevance to a respondent. The transcriptions were taken one by one and each respondent's values of the dimensions were noted in a respective cell. Finally, deeper understanding of the dimensions and their interactions were reached through synthesis. Relating different dimensions, and going over the transcriptions several times led the researcher to achieve better understanding.

RESULTS

The findings from this research are reported in the following manner: firstly the inputs to the customer database are considered followed by the assessment of the value process and finally the evaluation of the performance measurement dimension.

INPUTS

The results suggest that the system enables the firm to establish and maintain contact with the customers, ensure that they are highly satisfied and identify opportunities to provide optimum service delivery and make sure that these are turned into real revenue. The benefits of CRM software are perceived as a tool to reduce costs and shorten the sales cycles. It also reduces the time to sell when removing the duplication

of work; duplication of effort and making sure that staff are up-to-date with what is going on with the customer:

"Everything is to do with day-to-day running of business so that when customers call up you have a record of their history and if there is a genuine problem that nothing has been done about you can try help them and make them feel a bit better." (13)

The results also suggest that the critical determinants for the success or failure of the system revolve on two things: customer satisfaction and revenue.

The customers are classified as high, medium or low value customers and graded between 0 and 9 with 9 being good and zero category customers being those who are not anticipated to do business in the next 12 months and are appropriately managed.

It has been observed that each customer's account contains contact details such as their phone numbers, fax number as well as web site address if they have one, postal address, account date, the representative assigned to the customer, their industry type and the contact history. This helps the representative to comprehend their profile before contacting the customer:

"A huge amount of data is being held. We have a record of all the contact information we have with the customer. So whenever there is a conversation with the customer, that is recorded. We also record (who are involved) in the sales cycle with the customer. We have records of equipments and the solutions the customer has installed. What the nature of the project is etc ---central --- so anyone of the organisation can have access to that." (11)

The researcher found that the information, which is held in the system, is very convenient that even if one of the staff leaves the company the details are fed in the system and is regularly updated. If the customer mentions that the company representative may visit after a gap of six weeks, then they record that the call should be made in six weeks time to ensure that the company meets the expectations of the customer. The system would remind the concerned representative about the call to be made and it operates in such a way that there is not much duplication.

The representative can also view the accounts and see the opportunities for sales and the system provides a detailed description of how and when the opportunity rose and when it was completed. The objective of the system is to establish a proper contact customer relationship and opportunity management.

The results suggest that it has not yet achieved the objectives of the sales and marketing system as the information has not yet been integrated adequately which is considered to be a major draw back. Nevertheless the overall objectives of the company have been achieved, however, not through the system. The results found that the system is a strategic investment for the company which was introduced as an agent of change.

It is perceived that the company is much better at customer relationship management when they have six people working on one account rather than relying solely on a system to have better coverage on key accounts.

VALUE PROCESS

The common value stated in reference to the relationship between a salesperson and a customer was having a good and satisfying relationship with the customer. It is believed that the key factors to help maintain that relationship are trust and reliability. The salesperson needs to understand the precise needs of the customer and fulfil the need in an appropriate and timely manner. Six respondents mentioned that they are the main source of providing information to the customers which enables them to identify the opportunities. All this would make the business easier and in turn lead to more profit which was mentioned by three respondents. One respondent felt that the software has enabled them to have a common system in a consistent format and develop an e-commerce strategy.

For example one of the respondent stated that:

"The key value within the organisation is obviously to make sure that the customer receives what they need, when they need it, on time." (7)

Another respondent stated that:

"The value in the relationship, I would say, is creating a good route to market groups; having a valued business partner helps us to get goods out into the country ready for distribution. The more seamless that relationship, the quicker and more flexible it is to get goods out and the more respect and value we can win in the market place"(20).

It is believed that the value between the sales person and the customer is that the sales person has got to know the customer and make sensible offers. An organisation has to be very careful in giving dates for delivery and ensuring that the delivery is accurately implemented. Reliability is key for building trust with the customers.

One respondents stated that:

"….so the more emphasis you give to the customers' needs and expectations and the more you attempt to meet and even exceed these expectations, then obviously the value will increase dramatically. So customer relationships are essential." (27)

The results suggest that the value to the customer is the salesman, who can provide solution or the products that could help the customer to complete the task. Value is knowledge and the interpretation of how the product can actually satisfy the customer's needs.

One respondent stated that:

"The value to the customer is going to be the salesman, I think that it is other view from which the customer's requirements can be translated into the solution or the products that could help the customer to complete the task or whatever. So the value is knowledge product or knowledge and the interpretation of how the product can actually satisfy the customer's need so as that value. The value of the customer to salesman is that the customer can define that clearly his requirement and he gives the salesman the long-term relationship, which he can build on and satisfy"(18)

It is reported that there is a lot of value between customers and organisation. It is, about trusting relationships, built on friendship, openness, clear understanding of the requirements and both parties getting into mutually beneficial relationships.

The results also suggest that the value produced and delivered depends on circumstances. There are different ways of producing capital products and services that are delivered to the customer. It is produced in a combination of understanding the requirements and selling by customer driven.

The value is produced when the customer accepts the proposal. It is suggested that there is no value unless the sale is made or the business is transacted. Some suggest that it is to do with the PR relationship by taking extra effort and visiting the partners and customers weekly or fortnightly and working through their orders and trying to get a good understanding of what is important to them.

The results suggest that trust and appropriateness are some of the variables perceived by the customers. It is the trust in the individual staff or organisation, who would understand, what the customer needs are. Therefore the value that is perceived by the customer in this company is that the company would understand them, and build appropriate solutions that will take into account a long-term relationship between the organisations. It's about the organisation helping them with problems that the customers struggle with.

It is believed that the value perception affects the company by retaining the customer for number of years. Value is delivered by long-term relationships. It is suggested that revenue is generated more efficiently by long-term relationship than revenue delivered by short-term aggression.

The role of the sales people in producing and delivering is to make the company's proposition look attractive to the customer. Unless the sales person sees things from the customer's perspective, they would not be able to develop and maintain profit. The role of the salesperson is to ensure that customers understand the organisation's products and their requirements and expectations are set and met.

One respondent stated that:

"So to me the value is in appropriate, right time and right offers. If you have a customer that you can only see for an hour a week you have to make use of that time and that can be done if you know the account, and also make good use of your time. If you don't know the account it won't matter how good the product you are selling is, if you don't relate it to the customers needs. So that value to me is very much being appropriate"(12).

The staff in the organisation should have passion for the business and have adequate knowledge of the product. Staffs need to be proactive, hardworking and responsive in their day-to-day work, seeking to help the customer when approached with their problems.

Customers evaluate the salesperson's performance based on their knowledge and respecting the priorities of the customer. Customers are looking for proactive

salespeople who are available, responsible and credible. It is found that long-term relationships can be established only if the salesperson is trustworthy, reliable and committed.

PERFORMANCE MEASUREMENT

The results suggest that the CRM system does not help in the creation and sustenance of the relationship between the organisation and its customers but simply helps to work better with the customer. It is the people and their personal aspects, which is key for CRM. The system gives the salesperson information to help understand the customer's needs.

One respondent stated that:

"I would not say that it is a front-end customer system, so the customer does not see it. They see the other tools. So the system cannot claim to build relationships. But I would say that our customers might be more satisfied than they were 2 years ago, but I don't think that increase in satisfaction is due to the system. I think that we have, over that period, grown more to understand what they need and the whole nature of the business." (1)

It is suggested that the relationship is always a two way process and the CRM system has not helped this. The system has only provided good information and allows the salesperson to be proactive in building that relationship. It is found that the CRM system is basically a strategic tool. It is suggested that the customers are aware that the organisation has become better at giving information and is being proactive:

"They did not see the system as a big shining light coming in. No it did not bring a lot to the customer relationship. But bear in mind that I am only talking about the fulfilment part of the system." (4)

The results suggest that there has been problems with the system during the implementation phase in Europe which has not been satisfactory to the customers. Moreover the CRM system doesn't help in developing customer relationship and doesn't help the salesperson to capture all the informal information about the relationship. It is also found that the CRM system helps sales strategies but not the marketing strategies. It has also been found that although there have been weaknesses with the implementation, the strength has been in maintaining the contact information in one place.

There is no formal evaluation method in place and occasionally there have been global surveys about the delivery methods and sales compensation plan. Staff suggested that the system is being imposed on the people who don't understand selling and also reported that it was not integrated with Lotus notes which in addition staff have to refer to as well.

DISCUSSION AND LESSONS LEARNT

While relevant literature has discussed CRM practice from the viewpoint of vendors and consultants, to date, there is little empirical evidence that presents the understanding of organisations regarding this process. This study provides a holistic understanding of CRM's perception of organisational members.

This case study demonstrates that the CRM system cannot claim to build relationships with the customers though it provides vital information about its customers. It is believed that the relationship binding factor has less to do with software and more to do with the people. With out the information about the customer, the sales person job would be so much harder and therefore it is a combination of both.

The CRM system helps build the relationship between customers and the organisation by providing the right information about the customers in order to keep track of things and prevents duplication.

The evidence suggests that the CRM system has not been helpful in creation of the relationship but believe that it has helped the organisation in building relationship with the customers. It is also believed that it has helped in sustenance of relationship once the relationship is actually established. The system itself doesn't help to make the initial contact, however once the contact has been established and once the organisation has information of all the dealings with the customers, it has helped to have a more growing relationship because the organisation can see the complete picture of the customer. According to this study, the system hasn't helped in creation of relationship and it is the people and the personal touch and on the spot handling which builds the relationship.

Respondents for the organisation believe that after they have established the working relationship, they are aware that they can get more accurate information on the spot and they are able to sense that this has been due to the system, which provides the information. The results show that since the implementation of the system, in a period of 18 months, they are able to understand their business a little bit better and fulfil customers' requirements better.

IMPLICATIONS AND DIRECTIONS FOR FURTHER RESEARCH:

This study provides insight into the evolution of CRM systems and their perception within the organisation. To the best of the author's knowledge, systematic and holistic endeavour to explore the CRM system seems to lack from existing literature.

The CRM system does mean different things to different respondents. The results of this case study have implications for both theory and practice. The author reflected on 13 dimensions within CRM systems.

These can be described as follows:

Strategic– the majority of customers believe that the CRM system provides a single enterprise view of every customer for more successful service and support.

Operational – within the operational advantages in CRM system, reducing waste in terms of resources is considered the most important amongst this category.

Marketing– majority of respondents are of the view that the CRM system facilitates more effective cross selling of products for an organisation.

Loyalty – respondents believe that the level of loyalty between the customer and the organisation has improved since the inception of the system

Trust – majority of the respondents believe that the degree of trust between the customer and the organisation has not increased substantially as a result of the system

Customer satisfaction – during the 18 months since the implementation, it is believed that the management consider that the customer management is now a main role in the organisation.

Profitability – majority of the respondents strongly believe that the CRM system has the potential to enhance profitability

Communication – after the implementation of the CRM system respondents indicate that there has been enhanced quality communication between the organisation and the customers. Majority of the respondents believed that the system has put them ahead of competition by improving communication with the customers.

Customer planning –respondents trust that the CRM system has enabled them to determine the worth of an individual customer and plan activity.

Acquisition – majority of the respondents identified that the CRM system has not enabled them to understand the reason for near misses in acquisition activity.

Customer retention – majority of the respondents strongly agree that the CRM system helps them in customer retention activity.

Performance measurement – respondents strongly believe that they are able to measure the performance within the organisation.

Information management – the research has identified that the system has played a key role in information management that aids them in planning activities for customers and prospect can be stored on the customer database.

Overall the findings provide useful lessons to organisations planning to introduce a CRM system and organisations may gain insights into the successful implementation of CRM. The case study suggests that best practice of CRM requires the alignment of three components that forms the basis of customer-relating capability: inputs, value creation and performance.

REFERENCES

1. Adrian Mello, 2002, "Six mistakes that will sink you CRM". Wwwzdnet. com, March 18, 2002.
2. Adrian, "Customer Retention: A New battleground for utilities", address at the 1996 Research Conference on Contemporary Knowledge of Relationship Marketing, Emory University Centre for Relationship Marketing, Atlanta, Georgia, 1996.

3. Ali, H and Birley (1998), "The role of trust in the marketing activities of enterpreneurs establishing new ventures", Journal of Marketing Management, Vol. 14 No. 7, pp749-63.
4. Ballantyne (2000), "Internal relationship marketing: strategy for knowledge renewal", The International journal of bank Marketing, Vol 18, Issue 6.
5. Barnett, W P & Burgelman, R A (1996), "Evolutionary perspectives on strategy", Strategic Management Journal, 17 (special issue): 5-20.
6. Berry, (1983), "Relationship marketing", In: Berry, G. L Shostack and G. Upah, Emerging perspective on services marketing. Chicago: American Marketing Association, 25-28.
7. Berry, Leonard L, "1995, "Relationship Marketing of services-growing Interest, Emerging perspectives", Journal of the Academy of Marketing Science 23 (Fall): 236-245.
8. Berry, Leonard L. and A Parasuraman, 1991. Marketing Services, New York: Free Press, 136-142.
9. Brodie, R., Coviello, R., Brookes, R. and Little, V. (1997), "Towards a paradigm shift in marketing? An examination of current marketing practices", Journal of MarketingManagement,Vol.13,pp.383-406.
10. Brown, Stanley, 2000, "Customer Relationship Management", John Wiley.
11. Buttle, F (1999), "Relationship Marketing: Theory and Practice", Paul Chapman Publishing Ltd.
12. Buttle, F (2002), "ROI on CRM: a customer –journey approach", http://www.crm-forum.com.
13. Buttle, F. (2002 a), Teaching notes: MGSM 985, Macquarie Graduate School of Management, Macquarie University, North Ryde, NSW 2109, Australia.
14. Buttle, F. (2002a), "The CRM Value Chain", http://www.crm-forum.com.
15. Buttle, F. (2002b), "ROI on CRM", Proceedings of the Academy of the marketing annual conference, Notingham, UK.
16. Christian Gronross, "From Marketing mix to relationship marketing: towards a paradigm shift in marketing", Management Decision, 32, 2 (1994): 4-20.
17. Cohen, M. D & Sproull, L. S (1991), "Editors introduction: Special issue on organisational learning: Papers in honour of James G. March. Organisation Science, 2(1).
18. Conway and Swift (2000), "International relationship marketing – the importance of psychic distance", European Journal of marketing, vol 34, Issue 11 & sol; 12.
19. Dawar, N., Parker, P. M. and Price, L. J (1996), "A cross-cultural study of interpersonal information exchange", Journal of International Business Studies, Vol. 27 No. 3, pp. 497-516.
20. Don Peppers and Martha Rogers (1995), "A new marketing paradigm: share of customer, not market share", Planning Review, March-April 1995 v23 n2 p14 (5).
21. Don Peppers and Martha Rogers(1994), " Building loyalties via one-on-one marketing", Business Marketing, August 1994 v79 n8 pD4 (3).
22. Ford, D., Gadde, L.-E., Håkansson, H., Lundgren, A., Snehota, I., Turnbull, P. and Wilson, D. (1998), Managing Business Relationships, Wiley.
23. Gorski, D. (1994), "Sales & Marketing Systems – A real way to achieve competitive advantage", HCG publications, 1994.
24. Gronroos, Christian. 1994, "A services quality model and its marketing implication", European journal of marketing 18(4); 36-44.
25. Gummesson(1994), "Quality Management in service Organisation", Stockholm, Sweden: International Service Quality Association, University of Stockholm.
26. Gummesson(1995), "Relationship Marketing: The Emperor's New Clothes or a Paradigm Shift" in research Methodologies for the New Marketing (Latimer, UK: ESOMER/EMAC, 1996): 3-19.
27. Gupta, M (1983), "A basis for friendly dyadic interpersonal relationships", Small Group Behaviour, Vol. 14 No. 1, pp. 15-33.
28. Illinitch, A. Y., D'Aveni, R. A., Lewin, A.Y. (1996), "New organisational forms and strategies for managing in hyper competitive markets", Organisation Science, 7: 211-221.
29. Juttner, U. and Wehrli, H. P. (1994), "Relationship marketing from a value system perspective", International Journal of Service Industry Management, Vol. 5 No. 5, pp 54-73.
30. Langley, A (1999), "Strategies for theorizing from process data", Academy of management review, Vol 24, pp691-710.
31. Lennox, (1993), "An intelligent approach to integrating marketing databases with other technologies", HCG publications, 1994.
32. McDonald, (1994), "Sales & Marketing Systems – A real way to achieve competitive advantage", HCG publications, 1994.
33. Merlin Stone and Bryan Foss (2003), "Customer Relationship Management, Where do we go from here?", www.softwareinformation.com.
34. Morgan, Robert M. and Shelby D. Hunt (1994), "The Commitment-Trust Theory of Relationship Marketing," Journal of Marketing, 58 (July), 20-38.
35. O'Malley, L. and Tynan, C. (2000), "Relationship Marketing in Consumer Markets:rhetoric or reality? European Journal of Marketing, 34 (7), pp797-819.
36. Parusuraman A, Valarie A. Zeithaml, and Leonard L. Berry. 1994, "Reassessment of exceptation as a comparison standard in measuring service quality: Implication for further research", Journal of marketing 58(1): 111-124.
37. Payne, A, Holt, S, Frow, P, (2000), "Integrating employee, customer and shareholder value through an enterprise performance model: an opportunity for finance services", The International Journal of Bank Marketing, Vol 18, Issue 6.
38. Payne, Holt & Frow (1999), "Relationship Value Management: Exploring the integration of Employee, customer and shareholder value and Enterprise performance models", Proceeding of 7th International Colloquim in Relationship Marketing.
39. Peppard, (2000), "Customer Relationship Management(CRM) in Financial services", European management journal, Vol 18, no 3.
40. Peppers and Rogers (1995), "A new marketing paradigm: share of customer, not market share", Managing service quality, Vol 5, Issue 3.
41. Piercy (1998), "Customer satisfaction and the internal market", Journal of marketing practice: applied marketing science.
42. Plakoyiannaki and Tzokas N. (2000), The CRM Institute, Internal Document, University of Strathclyde, Glasgow.
43. Stone (2000), "Paradigm in customer management", http://www.crm-forum.com/academy/pcm/sld01.htm.
44. Tony Davis (2002), "Six myths of CRM", www.crm-forum.com.
45. Tsokas and Saren (2000), "Value transformation in Relationship marketing", http://www.crm-forum.com/academy/pcm/sld01.htm.
46. Van de Ven, A. H & Huber, G. P (1990), "Longitudinal field research methods for studying processes of organisational change, Organisation Science, 1: 213-219.
47. Zineldin (2000), "Beyond relationship marketing: technologicalship marketing", Marketing Intelligent & Planning, Vol 18 Issue 1 Date2000

Using A Marketing Strategic Planning Process As A Tool For Pursuing AACSB Accreditation In A Business School

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ABSTRACT

Focus group studies among professors, MBA students and undergraduate students at North Carolina Central University's School of Business (NCCU) were conducted to facilitate a marketing strategic planning process for the school. (NCCU is a historically Black University that is part of the state of North Carolina's university system.) The outcomes of the focus groups subsequently became great resources for the school's pursuit of AACSB (American Assembly of Collegiate Schools of Business) accreditation. The process revealed that utilizing marketing strategies within the operations of the school as a basis for formulating strategic plans, provides invaluable input with respect to identifying and solidifying the mission of the school, creating a clear positioning strategy, and ensuring that the requisite processes are in place for gaining desirable student outcomes (i.e. job placement, preparedness for graduate school). Hence, the use of marketing strategies in the operations of the school proved to be a great strategy for solidifying the kinds of activities needed to pursue AACSB accreditation.

INTRODUCTION

This paper describes focus group studies that were conducted as a mechanism for using marketing strategy practices (i.e. identifying the perceptions, wants and needs of constituents of the school) at North Carolina Central University's School of Business (NCCU) to build a strategic plan for the school. In doing so, empirical data were built that the Dean could use for informing the process of revamping the vision for the school.

The idea of conducting the focus groups evolved from the newly appointed Dean's desire to use a marketing driven approach to affecting operational strategies in the School of Business. The Dean's vision of using marketing processes for strategic planning was coincidentally underway at a time in which the School of Business was in the process of pursuing AACSB (American Assembly of Collegiate Schools of Business) accreditation. Initially, the two activities were not explicitly intended to leverage one another.

As the process of incorporating marketing strategies into overall strategic planning for the School of Business evolved, the results of the feedback from the various focus groups were analyzed. It soon became very obvious that the focus group activity was providing information that could not only inform the strategic planning process for the school, but could also inform the process for pursuing AACSB accreditation.

BACKGROUND

In 1981, Kotler and Murphy raised the issue of institutions of higher education using strategic planning as a means for these institutions to "set priorities... overcome inertia and make long-overdue choices – that are greatly consumer oriented" (Kotler and Murphy 1981). The latter part of their advocacy (making choices that are consumer oriented) infers that utilizing marketing practices in a strategic manner in higher education operations could be instructive in the strategic planning process. One of the central themes in marketing is that the activities of an organization should be focused on the wants and needs of the consumer.

Kotler and Murphy define strategic planning "as the process of developing and maintaining a strategic fit between the organization and its changing marketing opportunities" (Kotler and Murphy 1981). These activities include performing an environmental analysis of the institution. These environments include internal and market environments. Inherent in those environments are the constituents of boards of directors, administrators, faculty, staff, students and alumni. The environmental analyses (in concert with other strategic analyses metrics) help organizations gain clarity about their goals and objectives and provide insights on changes that need to be made.

Liu (1998) contends that, "Marketing can make a significant contribution to institutional strategic planning through its analytical, humanistic, and integrative abilities." Based on the fact that in its purist form, marketing practice is driven by the wants and needs of the customers to whom goods and services offerings are directed, the use of marketing in strategic planning is extremely helpful. This can particularly be the case in the instance of strategic planning for institutions of higher learning.

History has provided a variety of examples for demonstrating the ways in which marketing has been used in institutions of higher learning. In many of those instances, marketing practices were utilized to ascertain the wants and needs of prospective students and their parents so as to develop the types of recruiting tools that would be effective in attracting students to campuses and ultimately increasing enrollment (Ogbeuehi and Rogers 1990; Turner 1996; Peterson and Bryant 1999). Marketing was also utilized in higher education to improve upon job placement records (Turner 1996).

This paper contends that marketing has been underutilized as a tool for developing the strategies for institutions of higher learning.

Unlike much of the previous utilization of marketing oft times for the creation of promotion and advertising tools for a university or school, marketing needs to be more of an essential part of determining the objectives and strategic direction a school will take. This paper extends that belief further to suggest that incorporating marketing practices into strategy formulation for an institution of higher education, can provide the requisite groundwork for having effective programs and ultimately pursuing accreditation.

Having effective education programs is essential to the viability of a school or college irrespective of the discipline of the program. Business programs in particular have been under scrutiny for several decades in part addressing their abilities to deliver programs that adequately address the business issues of modern existence while instilling core business principles. The AACSB, the larger of the accrediting agencies for schools of business, has been particularly interested in this issue. This accreditation agency has grappled with the idea of the degree to which the best formed business programs are constructed as a result of their respective Deans controlling the accreditation process or from faculty controlling the process. According to Henninger (1998), little empirical evidence exists to facilitate knowledge regarding whether Deans are in fact pivotal in bringing about change in their institutions.

North Carolina Central University's School of Business acquired a new Dean in the fall of 2004. This was the same semester in which the school was scheduled to have its accreditation visit. Part of the new Dean's analysis of the school's operations was his review of the school's image, mission and strategic plans. Smith and Cavusgil (1984) contend that institutions must determine their general mission or purpose, whether that mission is still valid and useful, and how the institution is viewed by its various publics.

The new Dean had a philosophy that utilizing marketing strategy planning was a key aspect of developing a strategic plan for a business school. This paradigm suggests that although the guiding force for business program development is the Dean, the process becomes one that incorporates input from key constituents who will subsequently own, drive and efficiently execute on the school's strategies. Hence, this is more of a participative paradigm as opposed to a controlling paradigm.

The framework for the utilization of a marketing strategy planning process at NCCU came largely from the tenets of Sevier (1998). Sevier contends that a comprehensive approach to utilizing marketing in an institution of higher learning is essential to that institution's ongoing viability. He believes that this marketing approach is particularly critical in a macro-educational environment which in part consists of: changing demographics of college students, rising tuition costs, the proliferating impact of public universities and the greater involvement of states in managing these public institutions. Each of these factors was in fact a part of the environment in which NCCU was operating.

In a study by McGrath (2002), in which he measured the attitudes of higher education professionals, results indicated that respondents believed that marketing practices were 'critically important' to their institutions' future. Conversely, earlier research by Michael (1993) indicated that although 96 higher education administrators in Alberta, Canada were using marketing in their institutions, it was used primarily for increasing resources. A small minority was engaged in comprehensive marketing planning. This paper contends that it is the use of marketing in a more comprehensive manner that provides essential strategic tools for making a difference. Moreover, those same tools are useful for pursuing accreditation.

METHODOLOGY

One methodology that has been documented with respect to incorporating marketing practice into strategic planning efforts has been that of the utilization of focus groups. In one such study, results revealed that focus group research in a higher education setting was instrumental in refining market positioning and promotion for a school (Ashar and Lane 1996). In another instance, the focus group approach resulted in savings on institutional resources (Urban 1990).

Focus group sessions were conducted among three key constituents of NCCU's Business School (faculty, graduate students and undergraduate students). A follow-up presentation regarding focus group outcomes was made to the School of Business Board of Visitors, consisting of School of Business alumni.

The purpose of the focus groups was to ascertain the respective constituent groups' perceptions of the school and their experiences while being there. Each of the sessions culminated in the participants performing a gap analysis between what they perceived as what's needed for North Carolina Central's Business School to be successful versus how the school was performing on those success factors.

During each of the focus groups, participants were asked (in part) to brainstorm on the subjects of, "What makes a successful business school in general?" and "What makes for a successful North Carolina Central University School of Business?" They were then asked to rank order the lists as a group activity.

The first focus group was held with business school faculty members. There were seven individuals in this group. The school of business has a total of fifty-five faculty members, not including faculty who have Deans' level positions. The group was representative of the variety of types of long-term faculty positions in the school. There were three assistant professors, an associate professor, a long-term adjunct professor and two professors who also hold senior staff positions (i.e. program director).

The second focus group was held with graduate students. (NCCU has an MBA program consisting of 70 students.) There were four students in the MBA focus group. The group was comprised of first and second year students and international students. The third focus group was held with undergraduate students. The undergraduate program is the largest program in the business school. There are 1200 students enrolled in the undergraduate program. Six students participated in the undergraduate focus group. They represented sophomores, juniors, seniors and transfer students. They also represented both traditional and non-traditional students.

RESULTS

The following results indicate the rankings from the constituent groups on selected exercises from the focus groups. The results indicate the respective constituent groups' rankings on the characteristics of a successful NCCU Business School, Tables 1-3.

Although the respective constituent groups derived discrete terms for success characteristics at NCCU, there are synergies among the groups. The faculty articulated "placement" as a success characteristic. This is echoed in part by "preparing students well" in the MBA focus group and "good resources" in the undergraduate group. Likewise, "transformation" was described by faculty and is captured under "providing an overall business education... uniquely appropriate for the student population at NCCU" and "accessible professors" under the MBA and undergraduate groups respectively. Finally, "understanding the student population," described by faculty

Table 1
Faculty's Top Voted Characteristics of a Successful NCCU School of Business

Characteristics	Votes
Placement	4
"Transformation" *	3
Understanding the student population	2
AACSB Accreditation	2
Dynamic academic program	2
Academic enhancement	2
Experiential learning	2

*Transformation is defined as the school's ability to effectively strengthen the skills sets of students entering NCCU's business school who aren't as well prepared as other students.

Table 2
MBA's Top Voted Characteristics of a Successful NCCU School of Business

Characteristics	Votes
Managing Resources Well	4
Everyone Prioritizing the Student	2
Having Accountability for the School's Strategic Plan	3
Providing an overall business education offering/experience that is uniquely appropriate for the student population at NCCU	2
Preparing students well (i.e. preparation for industry, attire, knowing themselves, having a resume)	3
School personnel having a "business" disposition towards their roles (i.e. customer service, recognizing stakeholders)	2

Table 3
Undergraduates' Top Voted Characteristics of a Successful NCCU School of Business

Characteristics	Votes
Effective School of Business Taskforce	3
School operates like a "business"	3
Good Resources (i.e. standardized practice tests, placement)	3
Accessible professors	2
Students taking initiative	2
Better staffing and use of personnel	2
Funding	2

is captured by "having accountability for the school's strategic plan" and "effective school of business taskforce" in the MBA and undergraduate focus groups respectively.

DISCUSSION

Accreditation was implicitly as well as explicitly discussed during the focus group sessions. The general consensus across the groups was that the NCCU School of Business must be clear about its mission as an institution. It must then ensure that it has a strategic plan that is true to that mission.

The respondents agreed that the Business School must maintain and support what it is and who it serves and strive to be the best at being itself. In the case of NCCU's Business School, the school attracts an eclectic set of students with respect to backgrounds, preparedness, motivation, self-esteem, etc. The school needs to therefore recognize that the strength in its strategic marketing position is in establishing academic excellence for those students who are high achievers, yet providing the necessary infrastructure to develop (transform) students who might not be adequately prepared when they first enter the school.

In the professors' focus group session, there was discussion regarding the fact that the school needs to ensure that an infrastructure remains in place to accommodate providing students with some of the basic skills they need. It is of note that the MBA's felt they as well were to a degree, in search of "filling the gap" with gaining the appropriate tools and skill sets needed to be optimally successful in the business world, particularly with respect to gaining a better orientation on the standards and mores of business protocol and business culture.

The aforementioned concepts allude to the central marketing concept of focus on the customer. Constituent responses, by and large, were related to how well the school serves its customers, those primarily being its students (in addition to its constituent populations).

All of the participants in all of the focus groups were particularly pleased that the focus group activity was taking place in the school and that they had been invited to participate in that feedback process. These respondents also expressed the fact that ongoing focus group type activities were essential to the school being abreast of the issues that face the respective constituencies and therefore ultimately impact the school's operations. The participants noted that the activities should be a routine aspect of a dynamic strategic planning process.

CONCLUSION

Utilizing focus groups as a research methodology within a marketing strategy framework for determining current perceptions of the school in order to build upon the strategic planning process for the school, proved to be an invaluable exercise. Because the School of Business was at the time undergoing pursuit of AACSB accreditation, the subject of accreditation became a part of the undertone of the discussions. Ironically, it was the respondents who pointed out that if the School of Business considered the feedback from the focus groups, the school would inherently be well-poised for pursuing accreditation. The marketing plan strategy components proved to parallel some of the key aspects of the inputs for getting accreditation. Those areas include:

- Solidifying the mission of the school
- Appropriately positioning the school vis-à-vis, its mission
- Engaging in activities that support the mission
- Clearly identifying the markets served by the school
- Knowing the needs of the constituent populations (including students, professors, staff, alumni, administrators, donors, recruiters)
- Gaining appreciation for the dynamic nature of the environment in which the school must operate
- Instituting processes for continuous feedback from constituent populations

Revisiting these tenets reinforced the idea that every institution has the opportunity to achieve greatness with respect to the mission it has established for itself. The key is that it must be clear about its mission, execute a plan that is true to the mission, and ensure that the feedback mechanisms are in place to ensure that its operations are keeping pace with the dynamic environment in which it must excel. Success at achieving those objectives is part of the prerequisite for pursuing and achieving accreditation.

REFERENCES

Ashar, Hanna and Maureen Lane (1996). "Focus Groups Help to Focus the Marketing Strategy." Journal of Marketing for Higher Education **7**(2): 33-41.

Henninger, Edward A. (1998). "Dean's Role in Change: The Case of Professional Accreditation Reform of American Collegiate Business Education." Journal of Higher Education Policy & Management **20**(2): 203-214.

Kotler, Phillip and Patrick E Murphy (1981). "Strategic Planning for Higher Education." Journal of Higher Education **52**(5): 470-489.

Liu, Sandra S. (1998). "Integrating Strategic Marketing on an Institutional Level." Journal of Marketing for Higher Education **8**(4): 17-28.

McGrath, John M (2002). "Attitudes about Marketing in Higher Education." Journal of Marketing for Higher Education **12**(1): 1-14.

Michael, Steve O. (1993). "Administrators' Perceptions of Institutional Marketing." Journal of Marketing for Higher Education **4**(1-2): 3-25.

Ogbeuehi, Alphonso O and Hudson P Rogers (1990). "Recruitment for Higher Education: Targeting the Excellent High School Student." Journal of Marketing for Higher Education **3**(1): 67-77.

Peterson, Robin T and Frank K Bryant (1999). "Portrayal of Older Students by Colleges and Universities." Journal of Marketing for Higher Education **9**(3): 25-38.

Sevier, Robert A. (1998). Integrated Marketing for Colleges, Universities, and Schools: A Step-by-Step Planning Guide. Washington, DC, The Council for Advancement and Support of Education.

Smith, Lois R. and S. Tamer Cavusgil (1984). "Marketing Planning for Colleges and Universities." Long Range Planning **17**(6): 104-117.

Turner, Martha R (1996). "Campus Recruiting: What the Recruiters are Looking For." Journal of Marketing for Higher Education **7**(4): 35-48.

Urban, David J. (1990). "Qualitative Research Applications in Developing College Marketing Plans." Journal of Marketing for Higher Education **3**(1): 29-47.