APUBEF

Association of Pennsylvania University Business and Economics Faculty

2006 Fall Proceedings

Edited by:

Jerry Belloit
Clarion University of Pennsylvania

Association of
Pennsylvania University
Business & Economics
Faculty
(APUBEF)

29th Annual Meeting
October 5 – 6, 2006

Days Inn
240 South Pugh Street
State College, PA

Editor

Jerry Belloit
Clarion University

Program Chair

Dean Frear
Wilkes University

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APUBEF has been formed for the purpose of:

(1) Fostering economic and business scholarship and fellowship among business and economic faculty throughout the region.

(2) Fostering professional development of faculty, by encouraging them to engage in research and submitting papers for presentation to the annual meetings of the Association.

(3) Publication of the *Pennsylvania Journal of Business and Economics*, a broad-based forum to which faculty may submit scholarly research. *The Pennsylvania Journal of Business and Economics* is a double-blind referred publication. It is listed in Cabell's Directories of Publishing Opportunities.

October Meeting Program

Association of Pennsylvania University Business and Economics Faculty (APUBEF)

29th Annual Meeting October 5 & 6, 2006

Days Inn

240 South Pugh St.
State College, PA 16801
(814) 238 - 8454

APUBEF

Thursday, October 5, 2006:

7:30 am – 9:00 am **Registration** **Breakfast**

8:00am **Norman Sigmond,** President **Welcome**

APUBEF Annual Fall Business Meeting
Norman Sigmond, President

8:05 am – 9:35 am <u>**Session 1**</u>
Session Chair: …………………………….. **Jerry Belloit**

Hey, Senior! - Who decides what's gonna happen to you?
Gene Remoff, Lycoming College

Forging Financial Accounting Standards: An Analysis of Management's Input
Claudia Tyska, Richard Stockton College of New Jersey

Can a Change in Dividend Policy Change Beta? The Case of Microsoft
Karen Randall, Ursinus College
Henry Check, Kutztown University

9:35 am – 10:35 am <u>**Session 2**</u>
Session Chair: …………………………… **Claudia Tyska**

Demographic Characteristics of Rural Female Entrepreneurs
Dean Frear, Wilkes University

Questioning the Impact of Organizational Memory on Organizational Performance: A Case Study of the Studebaker Corporation
Irwin Siegel, Pennsylvania College of Technology

Alternative Energy Tax Subsidies: An Examination of the Alternative Energy Tax Incentives of the 2006 Energy Act
Anthony Grenci, Clarion University of PA
Jerry Belloit, Clarion University of PA

10:35 am – 10:50 am **Coffee Break**

10:50 am – 12:10 pm **Session 3**

Session Chair: …………………………….. **Jonathan Kramer**

Color and the International Marketplace

Paul Sable, Kutztown University
Ocan Ackay, Kutztown University

Circular 230 Changes, Form or Substance?

Barry H. Williams, King's College

Getting to the Heart of the Human Resource Professional

Diane Galbraith, Slippery Rock University

12:10 pm – 1:10 pm **Lunch**

1:10 pm – 2:10 pm **Session 4**

Session Chair: ………………………………… **Barry H. Williams**

Any Questions?: Experiments in Getting Students to Ask Questions.

Leon Markowicz, Lebanon Valley College

Values of Turkish University Students

Donald Thompkins, Slippery Rock University
Patricia Thompkins, Koc University, Istanbul, Turkey

Critical Thinking In Mis And Dss: Using Bloom To Revise Course Materials

William Eddins, York College of PA

2:10 pm – 3:30 pm **Session 5**

Session Chair: …………………………….. **William Eddins**

Intra National Trade and Pollution: Evidence from the United States

Martina Vidovic, Bloomsburg University

Mind Mapping: Value-added for Students and Faculty

Gary Armstrong, Shippensburg University
Mary Myers, Shippensburg University

The Transformation of the Commercial Banking Industry: The Movement toward Savings and Loans

Sarah Bower, Clarion University of PA
Jerry Belloit, Clarion University of PA

3:30 pm – 3:40 pm	**Coffee Break**

3:40 pm – 5:00 pm **<u>Session 6</u>**
Session Chair: …………………………….. **Leon Markowicz**

The Shareholder Wealth Implications of Strike Size and Duration
Jonathan Peters, City University of Staten Island
Jonathan K. Kramer, Kutztown University

Climate Change, Science, & Business Social Responsibility
Bruce Rockwood, Bloomsburg University

Winner of APUBEF Best Faculty Paper Award
Empirically-Based Rules and Extensions for Improving Business Process Reengineering Practice
Germaine Saad, Widener University

5:15 pm – 6:00 pm	**Executive Board Meeting**
6:00 pm - 7:00 pm	**APUBEF Social Hour I****
7:00 pm	**Dinner**
8:00 pm - ??	**APUBEF Social Hour II****

APUBEF

Friday, October 6, 2005:

7:30 am – 9:00 am **Registration** **Breakfast**

7:30 am – 8:00 am **APUBEF Annual Fall Business Meeting**
Norman Sigmond, President

8:10 am – 9:30 am **Session 7**
Session Chair: …………………………….. **C. J. Rhodes**

**** Winner of the APUBEF Best Undergraduate Paper Award ****
Aging of the US Population and its Effects on the US Economy
Robert Sadowski, Gettysburg College

The Economics of Emergency Response
Erwin Blackstone, Temple University
Andrew Buck, Temple University
Simon Hakim, Temple University

Dual-Class Capitalizations - For Whom, for What, and for How Much?
Karen L. Randall, Ursinus College
Henry F. Check, Jr., Kutztown University

Characteristics and Strategic Decision Patterns Among Turkish Entrerpreneurs
Hung Chu, West Chester University
Kara Orhan, West Chester University
Cynthia Benzing, West Chester University

9:30 am – 10:30 am **Session 8**
Session Chair: …………………………… **Jonathan Ohn**

Which Influence Network Determines Cell Phone Attitudes?
Marlene Burkhardt, Juniata College

Women Get Lost on Wall Street
Victoria Geyfman, Bloomsburg University
Laura Davis, Bloomsburg University

10:30 am – 10:50 am **Coffee Break and Hotel Checkout**

10:50 am – 12:10 pm **<u>Session 9</u>**

Session Chair: …………………………….. **Dean Frear**

Calculating the Risk of Information Technology Projects

CJ Rhoads, Kutztown University

Preliminary Results On Whistleblowing Policy:
A Content Analysis Of Codes Of Ethics In Global Fortune 500 Firms

Tom Oliver, Clarion University
Barbara Garland, Clarion University
Randon Otte, Clarion University
Brenda Ponsford, Clarion University

On the Process of Wage Adjustment in US and PA: Using the Wage Phillips Curve Model

Jonathan Ohn, City Bloomsburg University

12:10 pm – 1:00 pm **Lunch**

1:00 pm – 2:00 pm **<u>Session</u>**

Session Chair: ………………………………… **Denise Ogden**

Integrating Information Technology in Undergraduate Tax Accounting Curriculum

Blair Staley, Bloomsburg University
Charles Russo, Bloomsburg University

Globalization and Societal Disintegration: Order and Chaos in the Modern World System

Mohammed Sidky, Point Park University
Dimitris Kraniou, Point Park University

The PPD Series: Integrated Advisement and Leadership Development

Anne Batory, Wilkes University
Matthew Sowcik, Wilkes University
Stephen Batory, Bloomsburg University

2:00 pm – 3:20 pm **Session 11**

Session Chair: …………………………….. **Charles Russo**

A Project Based Learning Approach to Integrating Portfolio Analysis Curriculum with Investment Trading Room Technology
Byron Hollowell, Penn State Worthington Scranton

Closed end funds: Is Performance Affected by Changes in the Approach Toward Prospectus Liability
James Ravelle, Moravian College

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James R. Ogden, Kutztown University of PA
Denise T. Ogden, Penn State Berks/Lehigh Valley

Selling an Entrepreneurial Business
Dan Benson, Kutztown University
Daniel Goldberg, Kutztown University

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3:35 pm – 4:55 pm **Session 6**

Session Chair: …………………………….. **Byron Hollowell**

The Attitude - Behavior Gap In Environmental Consumerism
Denise T. Ogden, Penn State Berks/Lehigh Valley
Shruti Gupta, Penn State – Abington

A Brief History of the Capital Asset Pricing Model
Edward Sullivan, Lebanon Valley College

An Exploration of Academic and Demographic Influences on Alumni Job Placement and Earnings in a Four-Year, Undergraduate Business Program
Barbara Garland, Clarion University
John Eichlin, Clarion University
Randon Otte, Clarion University
Charnchai Tangpong, Clarion University
Paul Woodburne, Clarion University

Why Do Mergers Fail: Can Better Organizational Learning Improve the Chances for Success?
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James Haley, Point Park University

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EMPIRICALLY-BASED RULES AND EXTENSIONS FOR IMPROVING BUSINESS PROCESS REENGINEERING PRACTICE

Germaine H. Saad, Widener University

ABSTRACT

This paper introduces a new approach to improve the effectiveness of Business Process Reengineering (BPR) practice. Operations environments in business practice are classified empirically into three main categories. Decision rules and conceptual extensions are developed for reengineering each of these categories, to match appropriately both the actual characteristics and needs of the underlying operations environment , while maximizing the value generated from BPR programs, simultaneously. Implementation Guidelines are provided as well, to assure BPR effectiveness in practice.

Key Words: Business Process Reengineering, Process Redesign, Process Transformation and Drastic Improvement.

INTRODUCTION

Empirical evidence shows that over 60% of Business Process Reengineering (BPR) programs fail in practice, and do not achieve their intended results. Business Process Reengineering aims at realizing drastic improvement in current processes and not only marginal ones. This would be translated into increased competitiveness and positive transformation of business performance. The importance of this study is triggered by the fact that typically, Business Process Reengineering projects involve high investments and intensive efforts over a long period of time.

This paper will introduce a set of decision rules; provide extensions and implementation guidelines that promote success of Business Process Reengineering projects in practice. These include identification of appropriate Business Process Reengineering targets for each type of operations environments, providing general principles and methodology for guiding Business Process Reengineering implementation programs in practice.

The plan of the study comprises <u>four parts</u>: Part I comprises a general background of Business Process Reengineering and empirical characterization of operating environments. In Part II, a set of decision rules and target identification for each operations environment category are developed. The rules proposed make use of geometric logic, and are triggered by both the actual characteristics of the underlying operations environment, and the desired outcome. Illustrative examples are used to verify each rule proposed. Part III discusses conceptual extensions and implementation guidelines that help assure effective results of Business Process Reengineering in practice. We then conclude in Part IV by a summary of the study results, recommendations, and suggested issues for future research.

Several definitions are used in theory and in practice for Business Process Reengineering (e.g. Hammer, et.al. (1993), (1999); Peppard, (1996) among others). In this paper Business Process Reengineering is defined as the "rethinking and radical redesign of business processes to achieve drastic improvement in performance measured in terms of cost, quality, responsiveness, throughput, service, value-added, and/or speed.

An empirically-based categorization of operating environments (denoted as the V.A.T. Classification) is used as a foundation for identifying Business Process Reengineering targets and approaches to achieve the desired outcome.

The contribution thought is <u>two-fold</u>:

<u>First</u>: a set of decision rules are developed to identify the most appropriate Business Process Reengineering targets for each operating environment category as encountered in practice. These proposed rules advance earlier business process reengineering approaches used in the literature.
<u>Second</u>: conceptual extensions and implementation guidelines are provided to advance Business Process Reengineering practical effectiveness.

Empirical practice show that actual operating environments fit one of three categories (Chase, 1995), denoted as V.A.T. The “V” category starts by one input raw-material and branches to many end outputs. In the “A” category, operations follow an opposite path. Operations and/or tasks in this category start by many inputs and end with one end output. In the “T” category, the operations process starts by parallel tasks/components, and branches to multiple end items, as illustrated in Figure 1, in the Appendix.

Decision rules are now proposed to identify objective Business Process Reengineering targets for each of the above three V.A.T categories.

DECISION RULES PROPOSED

We start by the following basic <u>assumptions</u>:

1. Each task has the same cost or relative complexity.
2. Each branch linking any 2 tasks incurs the same cost.
3. Based on the above two assumptions, we now use a geometric logic to reengineer, i.e., drastically improve each of the underlying operations structures.
4. The outcome achieved can be measured in different value dimensions and forms.
5. Further process improvement can be achieved using a modified version of the ESIA framework (Greasley, 2004; Peppard and Rowland, 1995). Tasks comprised in this framework are to eliminate, simplify, integrate, and/or automate.

Using the above assumptions, two main questions are now addressed:

1) Starting from the existing processes, which task if eliminated, simplified, merged with another task, and/or automated will result in the best outcome, i.e., would generate maximum savings, or value-added ?

A ***Bottom-Up*** approach focus is used here to carry on these initial investigative steps.

2) Moving ***Top-Down***, i.e., starting from a desired standard or benchmark; what would be an ideal process design that would help maximize business performance, in terms of: increasing market share, return on investment, service-level, competitive position, and/or stakeholders’ value.

We modify the ESIA approach introduced earlier (Peppard and Rowland, 1995, p.181) to be EISA, since the integration of 2 tasks or more, would typically result in a more drastic improvement than just a simplification of one task.

Now let us use EISA framework to answer the two questions above for each of the VAT operations environments.

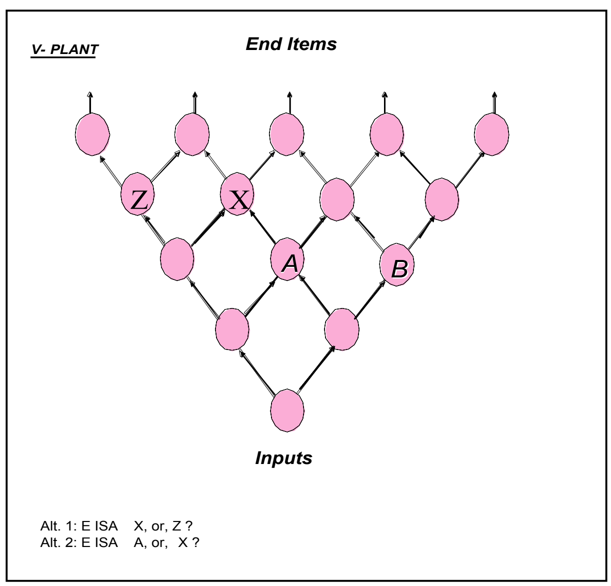
Consider a <u>V-Plant</u> or Facility; Let us compare 2 alternatives:

Alt. 1. Is it better to use EISA for task X or, for task Z?

Cleary task **X** is preferred as this is a core task, and is not on the peripheral as **Z**, notice that **X** is linked with much more tasks, so its improvement will result in a higher value added impact than if **Z** is eliminated.

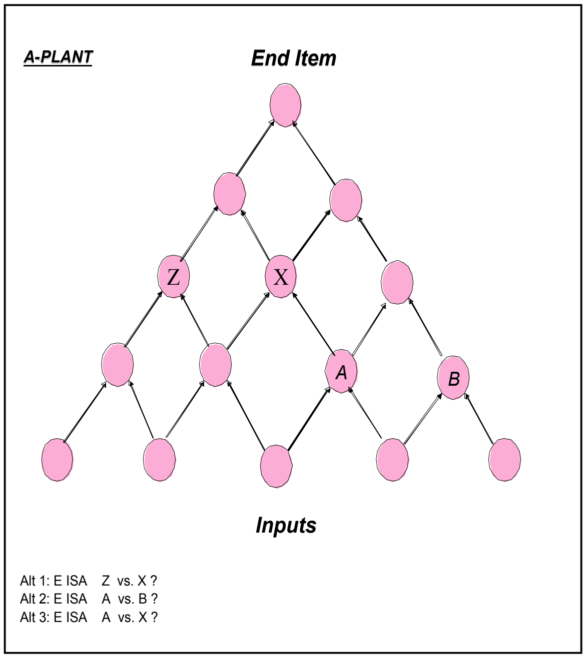
Alt. 2. Is it better to use ESIA for task A or, for task X?

Clearly, it is better to focus on task **A** as it is earlier in order of execution than **X**, i.e., it has a much more drastic impact on the overall **V** structure. This means that, it has a more intensive domino-effect on the whole operating system.



Now consider an ‘**A**’ category facility, as illustrated in the graph that follows.

In this system of Operations, which task here is most appropriate to be eliminated first, improved, or examined for performing on it any of the ESIA possibilities?



Alt. 1: Comparing Z vs. X?

It is better to eliminate task X if possible, as this would have a higher total impact on the operating system. Similar logic can be used for **Alt. 2**, where task **A** is a better move than task **B**. in **Alt. 3,** eliminating task '**A**' is preferred to eliminating task **X** since task **A** is performed earlier than **X**, i.e., has a more intensive "domino-effect" on the overall structure performance, than that of **X**.

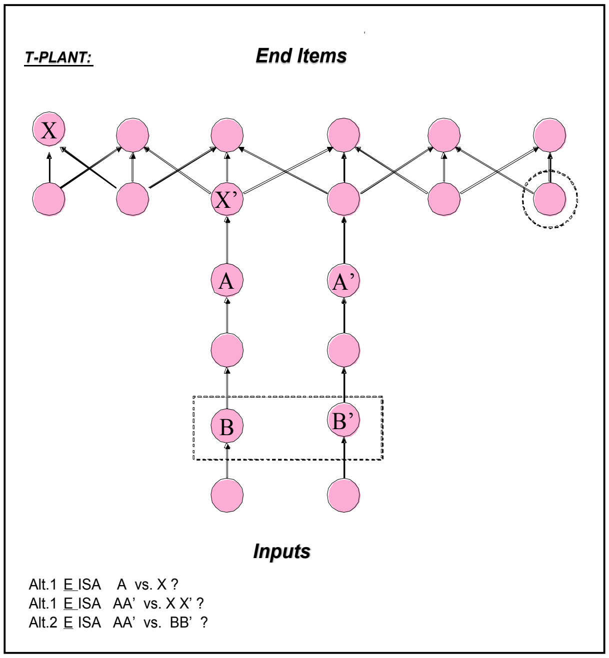
Therefore, based on the above analysis the rule proposed is to: ***Improve first, the internal, and the early, processes and branches as possible.***

Now let us consider a "**T**" shape operating environment as illustrated by the following graph:

For **Alt. 1: Comparing Z vs. X**

It is best to focus on eliminating task **A** as compared with task **X**. Notice that task **A** is earlier in execution than the execution of task **X,** and hence, has a more intensive impact on the performance of the whole system.

For **Alt. 2: Comparing AA' vs. XX'.** It is better to examine ESIA possibilities on **AA'** first. This is because **AA'** are both parallel, and earlier, in order of execution than **XX'**, and **XX'** are not parallel, either.



Similar logic is used for **Alt. 3**: **Comparing AA' vs. BB'**.

It is much better to eliminate **BB'** instead of **AA'** if possible, since they are both earlier than **AA'**, and therefore would have much more impact on the overall system's performance.

We can also examine the impact of the branches to be eliminated or shortened, with similar argument as the branching nodes, or tasks. This means the focus should be on earlier and more core branches than those which are on the peripheral.

Therefore, the main rules to follow using EISA approach on each of the VAT categories are:

(1) Focus on the *early* nodes in the order of execution.
(2) Account for the impact of *Node Dependency,* as possible..
(3) Improve first, the *internal* and the *early* processes and branches, as possible.

Let us relax assumption **1,** i.e., now consider the case where:

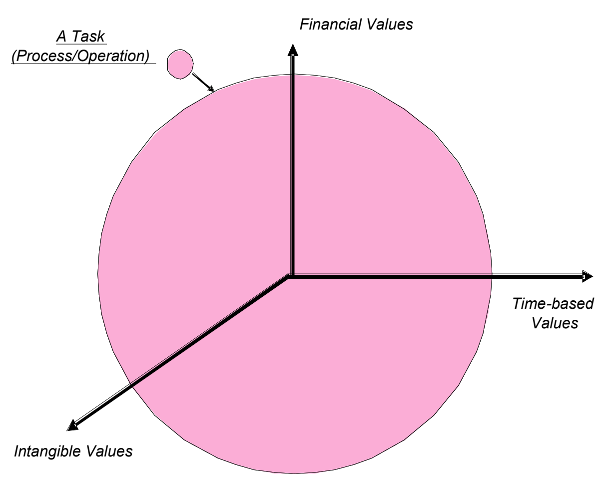
- The different tasks have different costs, revenues and/or different value per dollar spent.

- Additionally, it should be noted that, the relative value achieved can, and should be assessed for each stakeholder, whether producers or customers.

Further, the assessment must include the different dimensions and attributes of the outcome desired, and the implications resulting from this change in assumption?

At least three main dimensions of Business Process Reengineering outcome, or value may be considered. These include: financial values, time-based values, and intangible values. Such values can be assessed for each task, as illustrated in Figure 2.

Figure 2 -Outcome Dimensions



Note that:

- The financial Values generated, can and should be evaluated quantitatively in monetary terms.

- Both the Time-based advantages, and the Intangible values generated are mainly qualitative in nature, i.e., they may not be assessed in dollar value, but may be given a ranked order (e.g. high, med., low), or assessed using a scale (e.g., from 1, 2, …,9).

As to the impact of the change in assumption 1 above:

- In principle, no impact on the conclusions reached earlier. Still, one has to evaluate the total value resulting from each move, and select the appropriate change in tasks and branching links accordingly.

- The only difference is that the simple geometric logic (area saved as a result of any EISA move) may not prevail, and thus, cannot be used as a short-cut evaluation of the outcome achieved in this case.

CONCEPTUAL EXTENSIONS AND IMPLEMENTATION GUIDELINES

To help maximize the value generated form Business Process Reengineering implementation, the following guidelines are proposed:

Conceptually:

1. All the decision rules and concepts proposed in the section II above, should be applied both "*intra-firm*" wise and "*inter-firm*" wise across the supply chain. Such generalization of the application of the rules proposed across all supply chain partners is highly significant. This is due to the fact that the performance of any supply chain is determined by the weakest link in the chain.

2. For task elimination; integration with others; simplification; or, automation, apply the main decision rules and concepts introduced earlier, should be used for each category of the V.A.T structure, as illustrated in section II above.

3. In addition to pursing the decision rules proposed on manufacturing tasks, management should pursue minimization of cycle time from order-to-shipment, for each item and subcomponent produced. This can be effectively carried out through: task splitting, parallel and/or concurrent processing, as feasible.

4. Consider and assess the expected outcome for the different parties and stakeholders at each of the Business Process Reengineering project's at both the planning, and execution phases.

5. Define the process scope and contents efficiently and effectively. This would be realized by serious consideration of.
    a. The project budget, its time frame and how to maximize the value added per dollar of cost spent. This implies that the best reengineering project to undertake will be different for different budget levels, and for different planning horizons.

    b. Use 'Pareto logic' in identifying the project scope. This means to focus only on the few significant projects that result in the highest value added, and neglect the remaining many insignificant, yet feasible ones.

6. As conflicting interests may exist among the different stakeholders, different priority and weighting schemes should be examined, and select the ones generating the most sustainable outcomes for all supply chain partners and stakeholders. This would help yielding a larger pie size, and a larger portion for each supply chain partner, i.e., a win-win outcome for all parties.

7. Use appropriate modeling tools, as deemed relevant and feasible, e.g., Visio, I-Grafx flow charting, Oracle 9i; Developer Suite, Workflow Modeler. These would allow examining different alternative configuration of tasks, and assess accurately the impact of each, on the overall system's performance, and its value-added outcome.

Practically:

8. Account for intangible outcomes by using a relevant scale, or scoring scheme, and do not neglect these type of outcomes, under the excuse of the difficulty associated with measuring them. Considering these with less than accurate evaluation is better than overlooking them completely. While it might be difficult to assess them accurately, being half blind is certainly much better than being fully blind.

    Additionally, the intangible results, may prove very significant in the long run.

9. Avoid the 'silo' organizational practice and mode of operation. This would involve substituting independently-based divisions and organization units by well integrated, organic structure and *self-directed* teams. The classical '*silo*' structure results in isolation, territorial emphasis, redundancies, rigidity and sub-optimization. This must be replaced by:

    a. Integrated Product Team (IPT) organization that features: synergetic team orientation, parallel processing, flexibility and optimization. Such IPTs result in smoothing operations and in drastic reduction in the number of design changes and costs associated with them.

    b. Emphasize schemes of Coordination, Cooperation and Collaboration, "*intra-firm*" wise, i.e., within each firm units and functional areas; and "*inter-firm*" wise, i.e., among all different firms in the supply chain.. For instance, "intra-firm" wise would mean using one team for design, manufacturing, quality, and support or science, and not four units working independently for these functional areas. Several collaborative arrangements among producers and their suppliers can help both achieve much higher performance, and boost significantly the total Supply Chain Surplus. Such increase in total SC surplus cannot be achieved if every firm focuses only on its own profit, i.e., sub-optimize.

10. Assure top management support and involvement during all phases of Business Process Reengineering project's implementation. This is essential for the project's implementation success.

11. Additionally, it is important to align each Business Process Reengineering project and /or effort with both the corporate vision and strategy. (e.g. Greasley (2004); Lapre's Wassenhove (2002); McAdam and Bailie (2002); Majed and Zairi (2000); Peppard and Rowland (1995)). Empirical evidence shows that such an alignment is a main driver of Business Process Reengineering

implementation success in both service and manufacturing decision environments.

SUMMARY AND CONCLUSIONS

This paper has introduced a set of decision rules and conceptual extensions that advance Business Process Reengineering projects, and promote their implementation success. The rules proposed are designed in a way that fits the characteristics of the underlying operating environment, while fulfilling its most desired goals and outcomes, simultaneously.

Appropriate Business Process Reengineering rules and target have been identified for each category of operations environments, and their pertinent logic explained, along with illustrative examples. Conceptual and practical guidelines for implementation have been discussed. These would maximize the chances of success of actual Business Process Reengineering projects, and help solve the currently faced problem of high failure rate of Business Process Reengineering projects in practice.

A logical next step for managers and practitioners in the field is to make use of the rules and guidelines proposed in their Business Process Reengineering projects, in both manufacturing and service organizations. Since the scope of implementation of these rules may vary from one company to another; it is always advisable to start by a pilot project first, gain enough insights and feedback for assuring success before generalizing the scope of implementation to include the whole organization, and/or several of its units. It is also worth noting that the different units in the same organization may refine the implementation mode as dictated by their own decision environment specifics.

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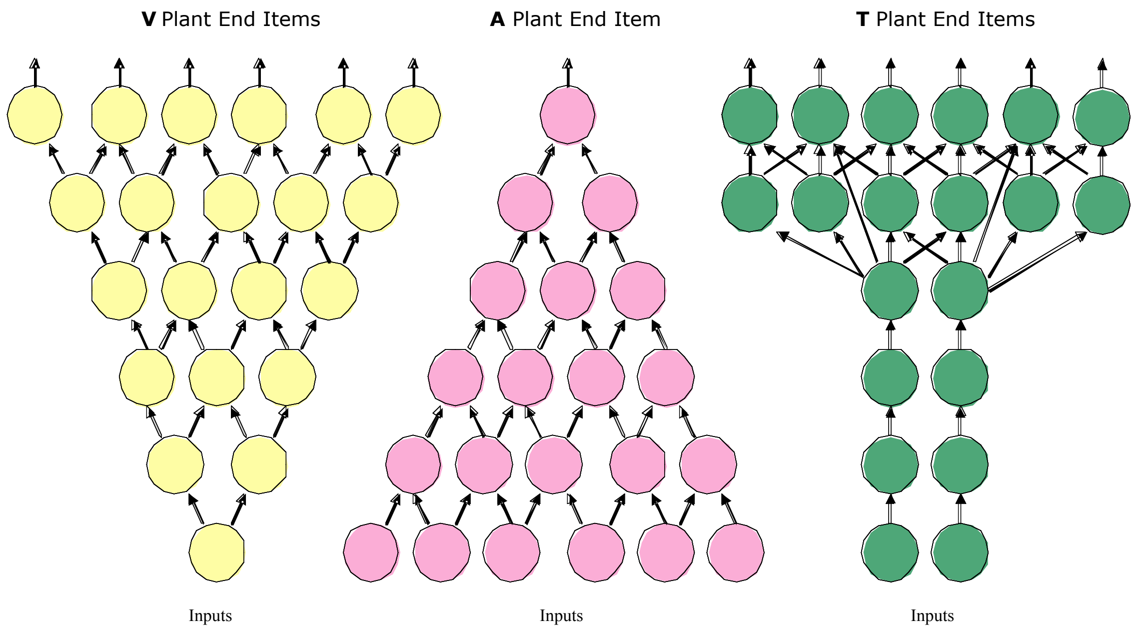
Germaine H. Saad is a professor of management at Widener University. She received her Ph.D. from Wharton School, University of Pennsylvania. Dr. Saad has over 50 articles published. Her publications appeared in *Production and Operation Management (POM), The International Journal of Operation and Production (IJOP), Journal of Operation Research Society (JORS), Journal of Industrial Management and Data System (JIMDS), Journal of Resource Management and Technology, National Productivity Review, The Business Journal,* among others. She is the author / coauthor of 5 books. Her interests include operations and strategic management issues, modeling, supply chain management, and environmental management.

APPENDIX

Figure 1- VAT Classifications of Firms



Examples

PROCESSES	AEROSPACE	CONSUMER PRODUCTS
Textiles	Planes	Appliances
Oil	Jet Engines	Valves
Steel	Automotive	
Chemicals	Capital	

AGING OF THE US POPULATION AND ITS EFFECTS ON THE US ECONOMY

Robert Sadowski, Gettysburg College, Undergraduate Student

ABSTRACT

The increase in the percentage of the US population over the age of 65 will have varying consequences on the US economy. The percentage of Americans over the age of 65 is expected to rise from 12.4% to 20.7% by 2050. A broad scenario is portrayed, using Wicksellian and the Loanable Funds models, showing the impact of the aging of the US population upon future consumption, investment, government spending, and net exports.

INTRODUCTION

Low birth rates, longer life spans, and the aging of the baby boom generation will lead to an increase in the fraction of the elderly population within the total US population. This increase in the fraction of elderly people within the US population will have negative consequences on the US economy. According to the US Census Bureau, in 2000 the percentage of people over the age of 65 out of the total US population was 12.4%. Within that same report the US Census Bureau states that the estimated percentage of people over the age of 65, within the whole US population, will be 20.7%.[i] This 8.3% increase in the elderly population will result in a decline of the US GDP per capita.

It is necessary to make one assumption about retirees over the age of 65, which is that people who are retired devote most, if not all of their income, as well as any savings that they have accumulated to consumption. From 2000 until 2005 the US savings rate averaged about 2%.[ii] Assuming that only people who are under 65 years of age are saving, an increase in the percentage of the US population over 65 would decrease the rate of savings. This can be illustrated by the equation: x*.876 = .02 with the .876 representing the 87.6% of the population that is under 65. Solving for "x" results in a value of .0228310502, which represents the actual savings rate for people under 65. With the assumption that this rate stays as the long term savings rate for the working-age population and that the percentage of people over 65 increases to 20.7%, the savings rate for the whole US population will decrease. If that same equation is applied, with the savings rate being .0228310502 and the percentage of people under the age of 65 being 79.3% (.02283105028*.793 = x), then the new total population savings rate would be .0181050228 (x = .0181050228). An 8.3% increase in the percentage of people over 65 would result in a .18949772% decrease in the overall savings rate (.02 - .0181050228 = .0018949772), assuming that all of the other external variables were held constant.

This change in the domestic savings rate can be applied in the Loanable Funds model. (Figure 1 on page 12) The Loanable Funds model portrays the market for loanable funds, with the Domestic Savings curve, the Total Savings curve and the investment curve. This model can be used to determine what effects changes in the demand for investment, the supply of total savings, and the supply of domestic savings have on each other. This model can also be used to see what changes in net exports will occur due to changes in any of those variables.

The negative change in the US saving rate leads to the Domestic Savings curve shifting left. This also shifts the Total Savings curve leftwards as a result of the Domestic Savings curve being a component of the Total Savings curve. Both curves shift by the same amount, which by the previous calculations is .18949772% (Figure 2, on page 12). The new equilibrium is the point of intersection between the new Total Savings curve and the Investment curve. The movement up the Investment curve due to a lowered supply of loanable funds results in a higher interest rate.

The interest rate also rises due to a rightward shift of the IS curve in the Wicksellian model, which shifts as a result of an increase in consumption. The Wicksellian model demonstrates the relationships between the real interest rate, the federal funds rate, the output gap and the inflation rate, illustrated in Figure 3 on page 13. As a result of a greater proportion of the US population, (notably the 65 and over retired segment that will proportionally increase), not saving, the money instead goes towards consumption leading to a rightward shift of the IS curve. This results in the output gap going above zero, resulting in a boom in the economy. This boom in turn leads to a rise in the rate of inflation, forcing the Federal Reserve to take anti-inflationary action. In order to curb inflation the Federal Reserve must raise the federal funds rate to the point where the increase in the federal funds rate increases the real interest rate at which the output gap goes back to zero, as illustrated in Figure 4 on page 14.

GDP is comprised of four factors: Consumption, Investment, Government Spending and Net Exports. This is given by the equation: Y = C + I + G + NX. As shown through previous arguments with the help of the Loanable Funds model and the Wicksellian Model, the rise in consumption and the fall in savings result in a rise in the real interest rate. This rise in the real interest rate has trade ramifications for the US as a result of its effect on the currency exchange rate. A higher US interest rate results in more foreign capital coming into the United States as a result of foreign individuals' and nations' purchases of US treasuries. With a higher interest rate there are higher returns, and so the demand for US treasuries rises. In order to buy these treasuries, foreigners must obtain US Dollars with which to pay for them, leading to large purchases of US currency. This higher demand for the US dollar causes it to appreciate. In turn, the appreciation of the US Dollar causes US exports to be more expensive abroad and causes imports of foreign goods to be less expensive. This has an effect of reducing US Net Exports, creating a larger trade deficit.

The increase in the percentage of the US population over 65 from 12.4% in 2000 to 20.7% in 2050 will result in an increase in Consumption as well as a decrease in Net Exports, as has been demonstrated with the help of the Wicksellian and the Loanable Funds Models. In order to determine which occurrence would have a greater net effect on the GDP it would be necessary to have the exact figures and projections of multipliers and elasticities; figures that are not easily obtainable. One thing that can be derived from these conclusions is that US consumption will increase and that more of the products being consumed will be imported.

Aside from the increase in the percentage of people over the age of 65 out of the total US population having an effect on the savings rates and ultimately an impact on the Consumption and Net Exports, this effect will have an impact on the US budget. The increase in the percentage of people over the age of 65 will result in higher budget deficits for the US. According to the Congressional Budget Office, by 2050 Medicare and Medicaid spending will be 20% of GDP as opposed to the near 5% that it is currently.[iii] Similarly, the CBO states that the spending on Social Security will increase from the current 4% of GDP to 6% of GDP by 2050.[iv] This increase in spending on both programs will be caused by the 8.3% increase in the percentage of the US population that is over the age of 65. Unless funding for those programs is increased through benefit cutbacks or increased taxes, the US government will have to incur debts to pay for Social Security, Medicare and Medicaid. Assuming that the US government will choose to incur debts rather than raise taxes due to political ramifications, the debts will result in large budget deficits for the US. Budget deficits will be financed by the US incurring more debt that is financed by foreigners rather than crowding out domestic consumption and savings. The increase in spending on Social Security, Medicare, and Medicaid will contribute to the increase in Government Spending within the Y = C + I + G + NX equation and leading to a rightward shift in the IS curve in the Wicksellian Model. The same sequence of events occurs as was previously described with the increase in Consumption, portrayed by Figure 4. Once again, the Federal Reserve would need to increase the Federal Funds Rate to bring the output gap back to zero. As previously described, the interest rate would rise leading to an appreciation of the US Dollar and causing a decrease in Net Exports, with the culmination being a higher US trade deficit. The spending on government programs would increase due to a higher percentage of people over the age of 65. This spending would be funded through debt, leading to budget deficits which in turn lead to a higher interest rate that causes an appreciation of the dollar and ultimately an increase in the trade deficit.

The result of an 8.3% increase in the percentage of people in the US who are over the age of 65 would be an increase in Government Spending and a decrease in Net Exports due to a budget deficit. The same phenomenon would also result in an increase in Consumption and another decrease in Net Exports due to a decrease in savings. It would be necessary to have exact figures on elasticities and multipliers to determine whether the GDP increasing Consumption and Government Spending or the GDP decreasing fall in Net Exports would have a larger net impact on the GDP. Nevertheless, it was also shown that there would be a rise in the real interest rates, leading to a higher cost of borrowing. This higher cost of borrowing would result in a lower rate of Investment. The smaller amount of investment would slow down the future growth of the US GDP.

The growth in the percentage of the US population over 65 years of age from 12.4% to 20.7% would result in a slower future growth of the economy, with budget deficits, trade deficits, an increase in Consumption, an increase in Government Spending, and a decrease in Investment. Various economic policies could be used to help to decrease the negative impacts of the aging of the US population. One policy that could be implemented is the introduction of an effective consumption tax. A consumption tax would theoretically lead to a higher savings rate among the working population. Cuts in Medicare, Medicaid, and Social Security benefits would result in lower budget deficits and less Government Spending. Instead of a consumption tax, the current tax rates could be increased to fund the necessary spending on Social Security, Medicare, and Medicaid. The implementation of either the spending cuts on government programs or the increase in taxes would cause major dissatisfaction among the US population and therefore is unlikely to occur.

There are other possible political policies that would nullify the aforementioned negative consequences resulting from the aging of the US population. The first way, though unethical and therefore impractical, is to decrease the life expectancy of Americans. There could be various ways to accomplish this, for instance by limiting healthcare, but those ways would not occur due to the unethical ramifications of such policies. The other, less cruel way would be to reduce the percentage of the US population over the age of 65 by increasing the number of people under the age of 65. One way this could be done is by increasing US birth rates. This could be accomplished through higher tax rebates for larger families. This is also not practical as it would erode the tax base in the short run. The other, more practical way to increase the US population of those under the age of 65 is through immigration. The US could attempt to save itself from experiencing the economic problems of an aging population by increasing the number of immigrants that come to the country. The US could replace the retiring workers with skilled immigrants that would take the retiring persons' jobs. These new workers would then pay taxes to fund the increases in spending for government programs and would also increase the savings rate, resulting in the US economy maintaining its present growth. The simple policy of allowing more immigrants to enter and settle in the United States would help to solve America's future economic problems from an aging population.

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[i] "U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin."
[ii] "Personal Saving Rate."
[iii] "The Long-Term Outlook for Medicare and Medicaid."
[iv] "The Long-Term Outlook for Social Security."

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APPENDIX

Figure 1:

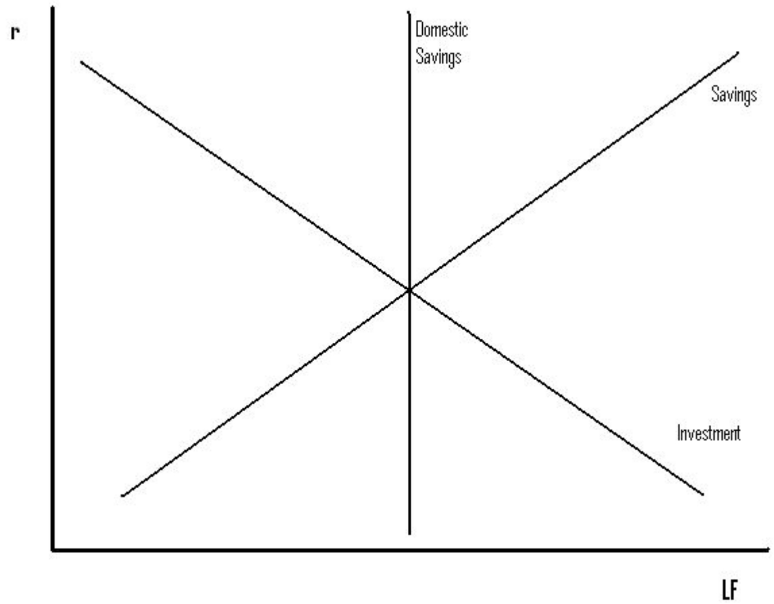


Figure 2:

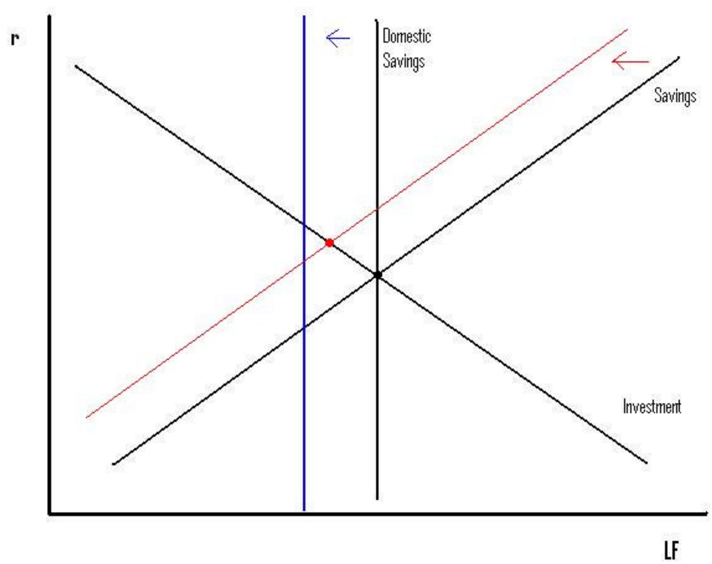


Figure 3:

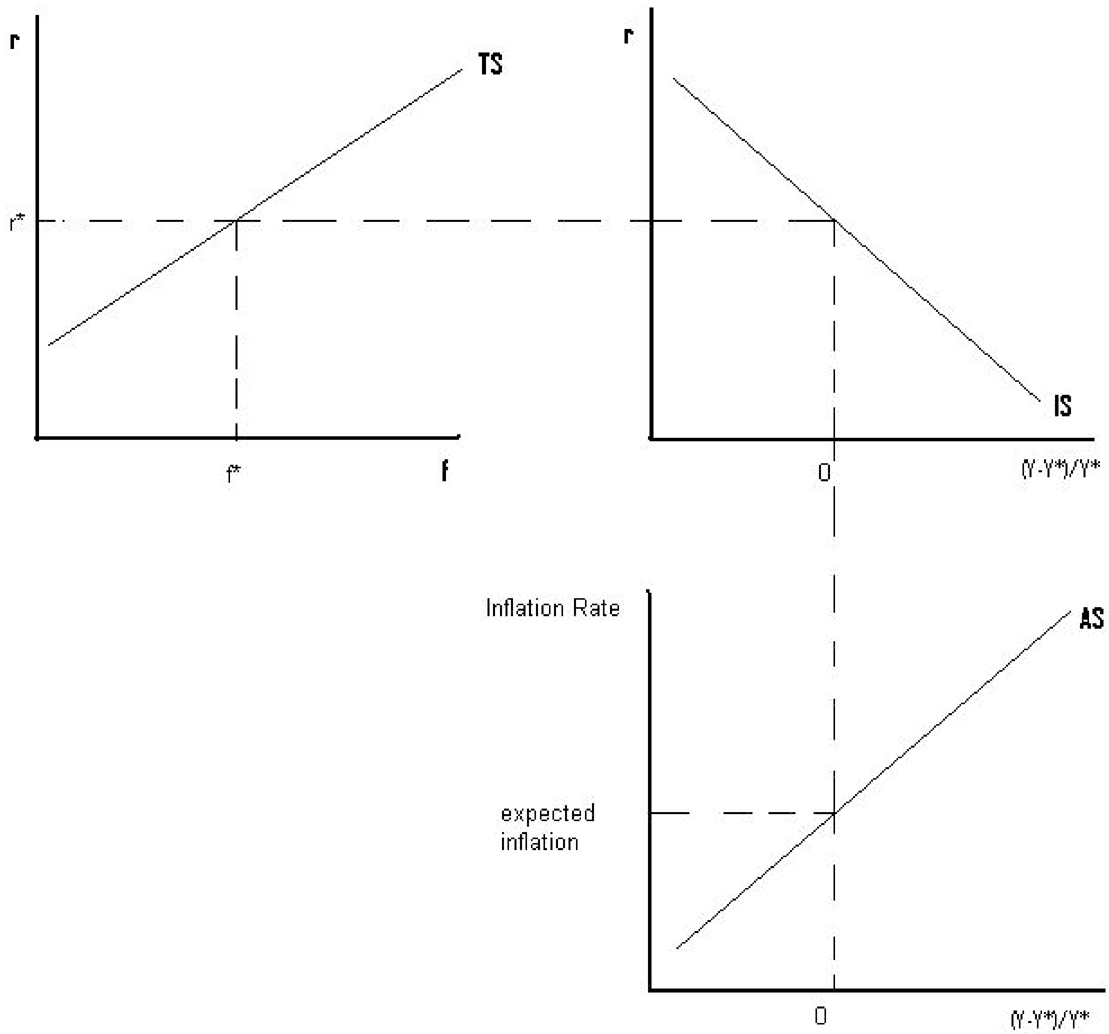
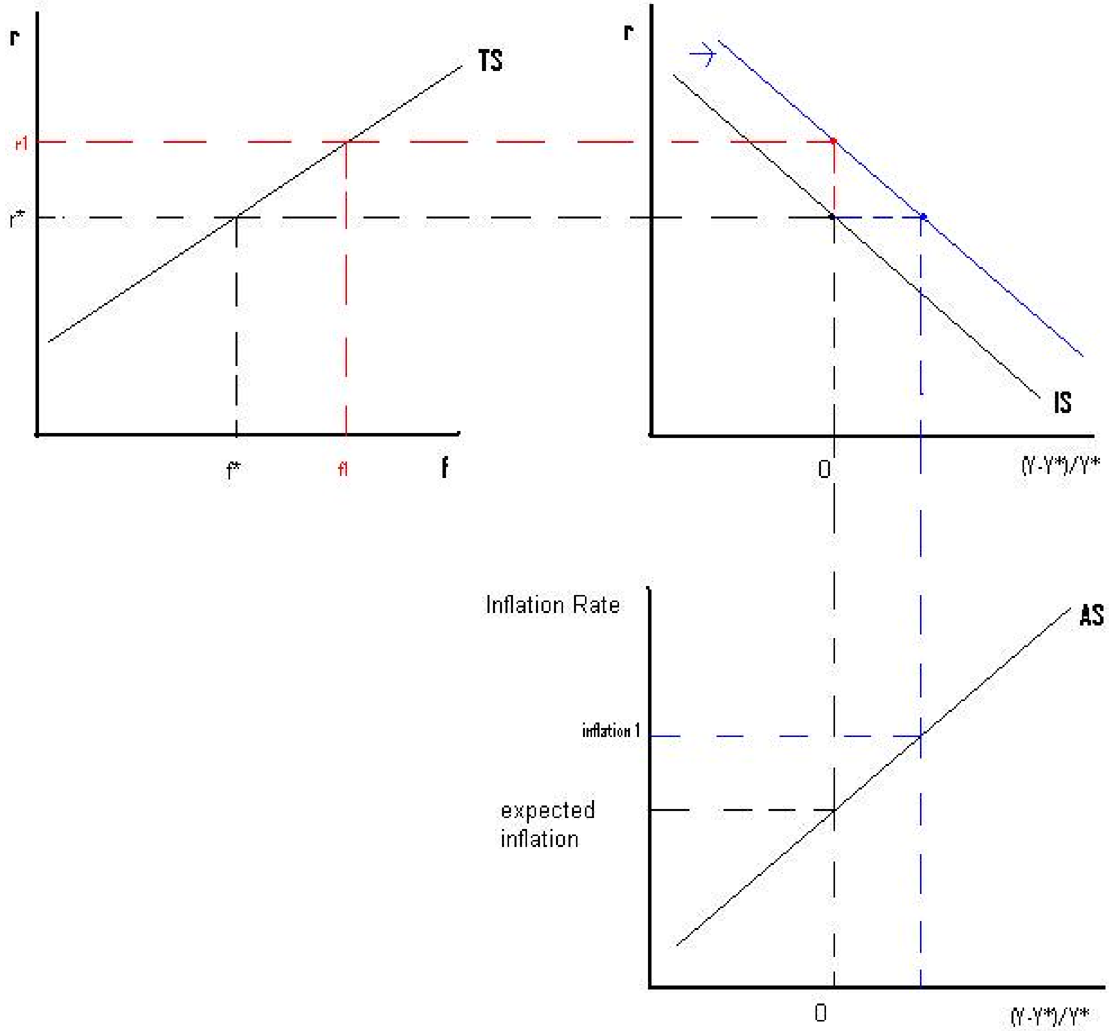
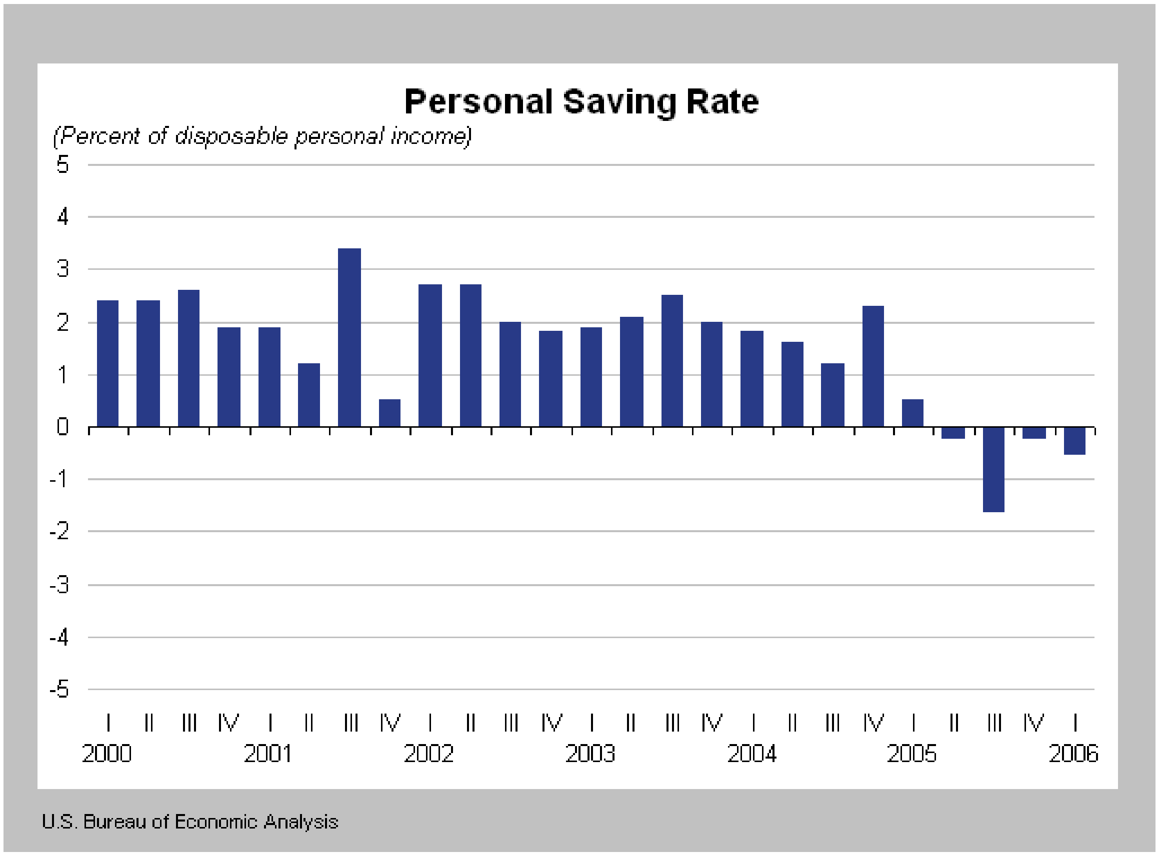


Figure 4:

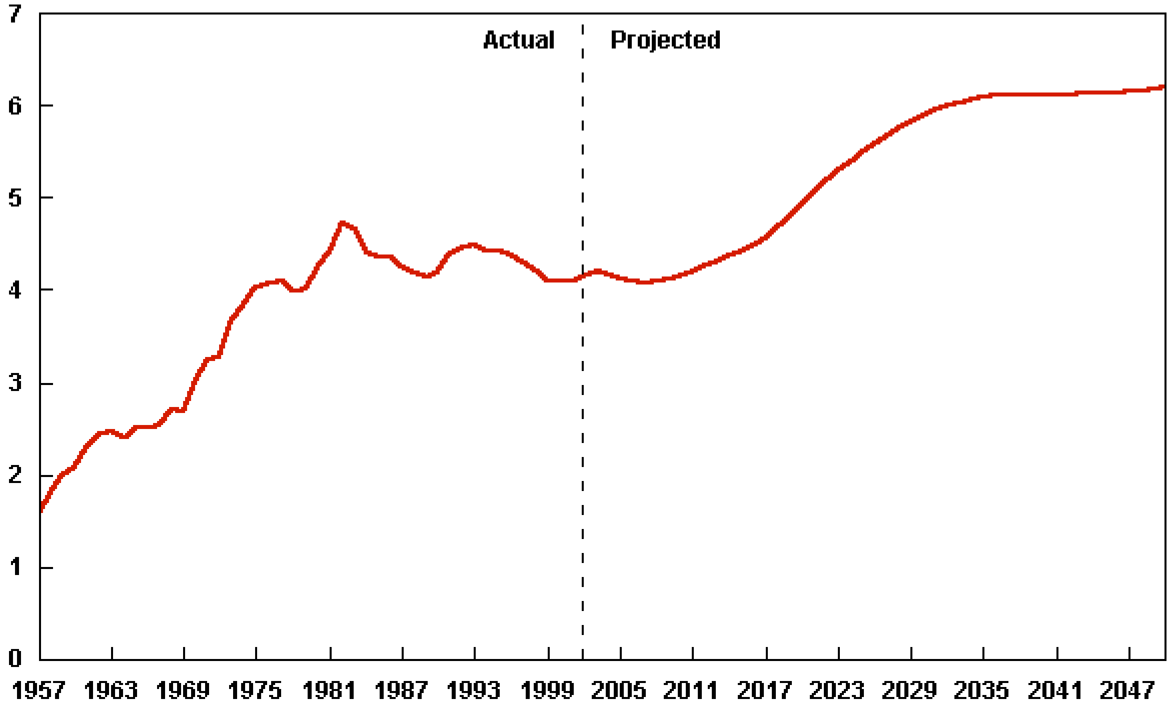

r
TS
r1
r*
f*
f1
f
r
IS
0
(Y-Y*)/Y*
Inflation Rate
AS
inflation 1
expected
inflation
0
(Y-Y*)/Y*

Personal Saving Rate:



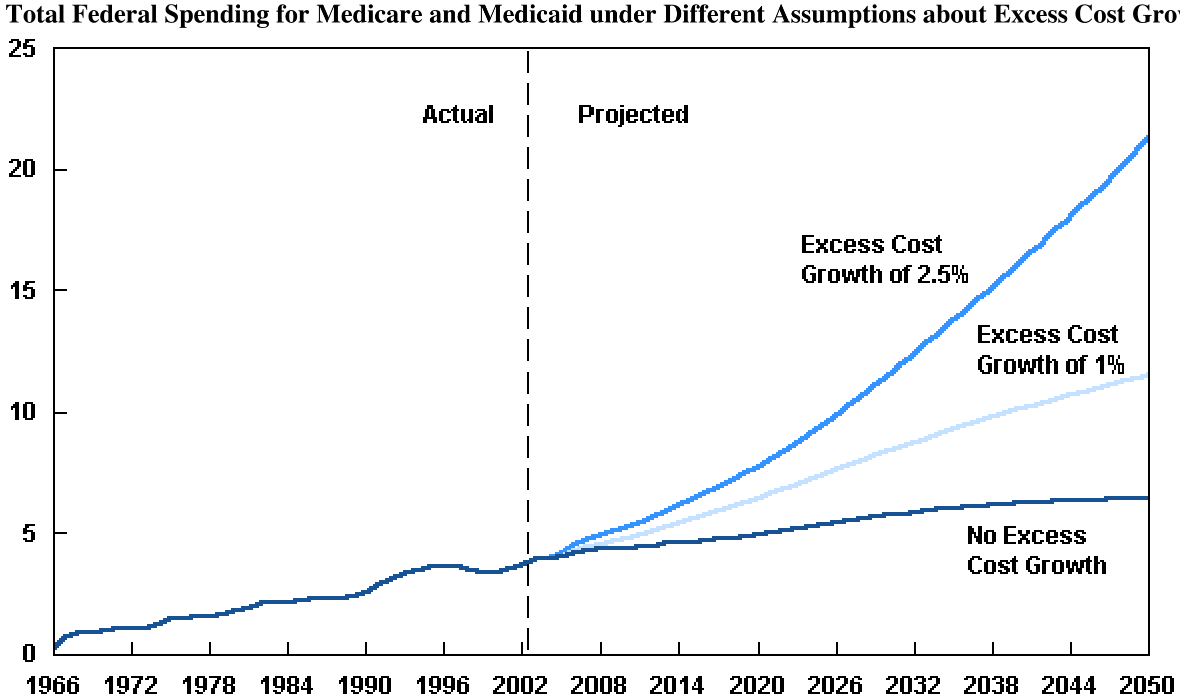
"Personal Saving Rate." http://www.bea.gov/briefrm/saving.htm. 28 April 2006. Bureau of Economic Analysis. 30 April 2006 <http://www.bea.gov/briefrm/saving.htm>.

Spending for Social Security:



http://www.cbo.gov/showdoc.cfm?index=4916&sequence=3

Total Federal Spending for Medicare and Medicaid under Different Assumptions about Excess Cost Growth:



http://www.cbo.gov/showdoc.cfm?index=4916&sequence=4

HEY SENIOR! WHO DECIDES WHAT'S GONNA HAPPEN TO YOU?

Gene R. Remoff, Lycoming College

ABSTRACT

We have traditionally instructed business and management students as to what companies could and should be doing about management and professional development. That is not sufficient and may even be misleading for our students, more of whom should be getting an up-to-date prospective on what they will now encounter in regard to their own development when they graduate and enter the present economy and workplace. Described here is an attempt through readings, instruction and a personalized assignment, to actively engage the undergraduate student in understanding (a.) why personal professional development is now largely up to the employee, and (b.) the implications of this self-development on job retention, employment continuity and advancement as the old paternal psychological contracts of employment security and advancement rapidly diminish and vanish.

INTRODUCTION

Let me start my presentation with a chart from "The New American Workplace" by James O'Toole and Edward Lawler - a book we will return to here from time-to-time .

From the USF Center for Effective Organizations (CEO) Study of Fortune 1000 Companies
O'Toole & Lawler, pg 67

Terms of Company Employment Contracts	*Percent Saying True to Great or Very Great Extent*
Rewards are tied to seniority	5
Loyalty to company is rewarded	16
Outstanding performers have a job for life	27
Continued employment is based on workers' developing their knowledge and skills	29
No one has a secure job	31
Career development is the responsibility of workers	**46**
Rewards are tied to individual performance	*60*
Rewards are tied to group and/or company performance	*68*
Continued employment is based on workers' performance	*77*

How things have changed! When I finished undergraduate school in 1954, and for decades afterward, newly-minted graduates talked about the big major employers seeming to provide (in the slang of the day), "cradle to the grave employment, if you keep your nose clean, get your ticket punched and stand in line waiting for your chance to move up (the hierarchy)."

That belief did not seem to fit what our college presidents, deans, and faculty had been telling students nor what commencement speakers were espousing to the about-to-graduate senior class - that they had only passed through the start of a journey in "lifelong learning".

The above U.S.C. chart and many other sources of studious and anecdotal evidence are now letting us know that if the need for 'lifelong learning" was ever true, it is now certainly so for our present business school student body. Among those joining the voices of O'Toole and Lawler is Tom Friedman who, in his book and his many PBS and C-span appearances, explains why "The World is Flat" by offering descriptions of how and why employment security is constantly threatened and vanishing nowadays, as jobs move around the globe and/or are eclipsed by applications of information technology.

So does another renown economist, Tom Sargent of N.Y.U. Sargent's studies of extending durations of unemployment can be partially attributed to employees, at all levels, many with long service, being told they are laid off because their job has been eliminated by IT, shifting demand or competition, or moved offshore ala Friedman. Then they get the unemployment-extending bad news of discovering "…by the way, you will no longer be able to sell your job-specific know-how and skills to a prospective employer (at your expected pay rate, in this country) because they too no longer need what you have to offer.

The message our students need to absorb is found in the practices employed by modern chess-masters, as espoused by Russell Ackoff and his disciples at the Wharton School such as Aron Katsenelinboigen, in their work on corporate planning in the 1970s and '80s. The chess master attempts to create a good position from which he can act both offensively and defensively, exploiting opportunities as they present themselves, but always prepared to put up a good defense, i.e. to survive.

Not only does the chess-master understand the value of each of his pieces and his opponent's, but what those values are based on where the pieces are on the board and what pieces remain in play. To further the analogy, the once famous IBM chess-playing computer, Big Blue, was fashioned around the same (millions of) calculations of relative positional value. The message for the student, to be gleaned from these and other works on planning and from the readings in this course is not to predict the future, but to develop and maintain versatility and flexibility, armed with a body of general skills and knowledge that always keep one in or striving to be in "a good position ".

Described in this paper is a set of lessons within a strategic management course directing students to consider a personalized approach to career development as a company would a S.W.O.T. analysis of its offering.

ATTENTION TO DATE

The author has not conducted an exhaustive search of the curriculums of various business schools. (Perhaps the attendees and readers of this presentation will offer descriptions of their own programs, efforts and experiences regarding what is proposed here.), however my general impression is:

a.) What company's are now doing and not doing in management development has not made its way into textbooks and journals directed primarily to course preparation and instruction.

b.) "Career" centers at most colleges, when not preoccupied with getting students into graduate schools, focus primarily on helping students get their first post-graduation jobs, hopefully with "good" companies that have built a relationship with the institution. Alumni placement is typically the same, matching experienced graduates (some of whom suddenly find themselves unemployed or in a dead end) with specific job opportunities.

c.) The AACSB's stated standards for "Assurance of Learning" struggle to suggest institutions measure the degree of student exposure to and absorption of the know-how and skills that it is believed by the academic community should be valuable in the workplace, without any qualitative concerns for whether or not or how they "pay off" and can be expanded upon by the graduate in the job setting .

d.) There is a plenitude of self-help books and coaching consultants for those already out in the swim who now decide they must redirect their career development along new paths or accelerate their career success, however defined. Proof is provided when one goes to Amazon and keywords an appropriate title such as "career", or to Google to look for a "coach". There are even books on such advanced subjects on how to get rich quickly, so you can leave the workplace behind!

e.) Not enough attention is paid in coursework, including strategic management and other capstone courses, to <u>executing</u> plans and programs – sad because executives, in speeches and books that I refer to in this course (see Bossidy, Dell & others) place the greatest value on people who show they can effectively lead and help get things done. [None of my students at any school where I taught have heard the workplace term "completed staff work" which is the act of not only bringing your boss a description of a problem or an opportunity, but a choice of at least two alternatives to fix it or leap on it, and even a draft of a memo or plan to get the word out about the choice to be executed – the kind of thing that many effective Chiefs of Staff do as a matter of course.]

f.) The New American Workplace offers a very different proposition than the kinds of "behavioral sciences" constructs we have used through the years. Also out-of-date is the assumption that any sophisticated (read "big") company will have a management development program that responds in part to the development and retention of talented people.

In the 1960s and into the 1980s the ombination of a scarcity of professional and management talent within the borders of the U.S.A. and a still rapid rate of corporate growth (again within the U.S.A.) made the subject of how to develop needed management an active topic in the magazines and conferences that drew management attention.

The scene has changed. This book sets up and looks within three types of major-sized employers in the "new" economic scene in terms of their view of employment security and employee development. These are "LC" – Low Cost companies that pay minimum to a large number of low skill workers in a high labor content, low profit margin world; "GC" – Global Competitors who see employees as they see other asset investments and costs, all moveable: and "HI" High Involvement firms who tend to see employee know –how and skills as their primary and very valuable asset that deserves nurturing and investment. Students deserve to be introduced to these constructs and other new revealing approaches to this matter.

THE CHALLENGE: A DESIGN TO ATTRACT AND HOLD STUDENT INTEREST

We instruct our students on why and how management development" should be undertaken by top management. But we can make the message in this instruction more compelling by having them limb, right then, into the role of the prospective employee who will or will not undergo such development.

The challenge was to make more vivid and hopefully prolong the half-life of what seniors learn about "management development" by directing them to consider where and how they may each best realize ob satisfaction and professional growth after they graduate.

In a strategic management course, when the subject of a S.W.O.T. analysis is introduced, and the question of strategic advantage is explored, the discussion often turns to whether or not the deployment, capabilities and development of human resources of the firm give it a competitive edge. This was an opportunity to turn this subject (of company interest) on its head and pose this question as a matter of interest to the students:

If a realistic, candid S.W.O.T. analysis that compares a firm to its competition surfaces its human resources as an important "strength" or "weakness" why not consider if the same S.W.O.T. approach has any merit, when applied to one's own choice of where to invest yourself as an employee"

So, the S.W.O.T. lesson was "turned on its head" in this instant capstone strategy course, by asking the students, " Now you know the elements of what good management development can look like. When you decide to invest yourself in working in a particular organization, will the development opportunity there be good enough for you, and what might you do about it?"

This question hopefully shoves the student into taking on the role of the managed employee who has some concern about influencing or controlling his or her own developmental experiences and prospects. Of course, some of these about-to-graduate students (often those anticipating that they will continue to be taken care of in life by the locus of control construct of either "luck" or some "significant others") do not enthusiastically respond, at this time, to this challenge. But after the course was over it was surprising to hear from a significant portion of the class, that this was a provocative exercise.

We started the discussion by looking at The New American Workplace's argument that in the present day and into the time after graduation, one's professional or management development is largely up to the self and the choices one makes, not just the employer. This self-determination is not restricted to just moving to another employer environment, although that may sometimes be advisable. There are questions to raise and signs to read that reveal where developmental opportunities arise – in one's present setting or in a particular other environment.

The two sources used in the searching and assessment of the subject were (a.) the management literature and the testimonies of many executives, and (b.) the experiences of the instructor during a 35 year career in "big company" positions as a staff management development professional. In the process of our inquiry we also noted in our instruction that a strong and deep management that creates a "learning organization" enjoys a sustainable competitive advantage in its business sector.

[The bibliography of reading sources given to the students and partially discussed in class is shown in an attachment to this paper. However, those sources identified with an asterisk were not part of the instructional material to which the students were exposed, but form part of the research reviewed by the author of this paper.]

The students were earlier given an assignment, to determine their outlook on career development and as a personal exercise in setting objectives, to "…Identify and describe the mid-term goal you will strive toward in regards to employment as an employee or an owner [None selected ownership] You decide how to state that goal, but it should be clear enough to make a judgment or take a measurement when it was time to consider how close you came to achieving that goal.

"Identify what strategies you will have to execute to move you toward and to that goal (assessment, research, self-development, experience, contacts, education, etc…) Do not describe how you will execute your plan, but do describe what actions you will need to consider and resources you will need to employ to make your plan realistic. Also identify what you will use to determine your progress (your milestones) toward your goal and what you may have to be prepared to do if it becomes apparent you are going to fall short of attainment."

THE EXERCISE

What follows is a replication of the talking points that were addressed in the classroom in concert with and in reference to the readings and the instructor's experiential anecdotes and observations. These talking points were subsequently made the basis for a student paper requiring the following:

My Management Development" Paper Assigned Strategic Mgt. Class Spring, 2006

> These [below] are the questions to ask yourself. Respond to at least ten of the most important (as you see it). When you address any of the following, be sure to explain or justify your reasoning, including citing any of the "expert" sources in articles and books you had been assigned to read for this subject (including" the quotes from Michael Dell, the Bossidy and Senge texts, Pearson's "Muscle Build…", the CCL article, "How H-P identifies potential executive" and others.

Strategic Mgt Spring, '06 - Class discussion outline "*Making My Mgt. Development Happen*"

A. Experiences I should/should not seek

- Which "me" do I want to project to a prospective employer – the one who seeks to make a visible contribution in areas important to the company or "fit in" as a team member?

- How tough should my work assignments be? i.e. what ingredients should they contain (or character they should have) for me to "learn something" from them. What will I learn by failing to totally succeed in a very tough and unusual assignment?

- Should I seek out special project and task force assignments? Is it important I learn to deal with: -ambiguity - risk-taking - people not under my control - difficult people

- Being judged by something more abstract and elusive than a set of numbers or financial targets.

- Should I experience involvement in and the management of "turnarounds"? Business "startups"? When & how?

- Should I build a record of specific accomplishments rather that just a resume of where I worked and my job duties? Should I avoid or dive in to risky assignments in which I may fail to achieve what the firm wants done?

- Which functional discipline do I want to move up through/to. – Accounting, Finance, Human Resources, general management, Marketing, and what kind of company will offer me the best experience to move on that path?

- If I want to be a general manager, am I considering the likelihood that may be easier to have happen in the services sector, or retailing, where the most common discipline is "General Management" (of a store or unit, then district, then region, etc…)?

- Should I try to gain experience in other specific disciplines to prepare myself fully for where I am heading? (For example, do I need marketing experience to be an HR exec in a kind of company with heavy emphasis in that area such as retailing, or consumer packaged goods?)

- Should I look for an employer in a highly competitive, fast-changing business environment? Are there certain industries I am attracted to (or wish to avoid)?

- Should I work for a smaller company at some point (and when) because I believe I will get to do more 'stuff" than in a well staffed bigger department of a larger company? But, then where will I learn how to do it the best way?

- Should I try to experience working in a variety of environments? How about outside the USA ?

- How will I determine it is time to initiate an effort to "move on' to another job?

B. My (prospective) employer's demonstrated interest in management development

- How high should my employer's standards for good performance be?

- Do I notice there are too many mediocre performers in managerial jobs above me (some of whom are residing in a job I would like to have/move through to enhance my development?). Do I want to be with high-performing peers, or stand out among lower-rated performers?

- Does my employer use performance appraisals to facilitate employee development or more as an administrative tool to determine the size of raises, etc…? Do they do 360 degree appraisals for developmental purposes?

- How would I feel about my development as a manager in Dell, which practices what Michael Dell calls "segmentation"?

- What are the criteria for getting promoted in my company – does seniority (how long you have been here) rule? Is there any indication of improper/illegal bias, such as a "glass ceiling"? For example if I am a female, are there any women in the higher ranks of management?

- What kind(s) of boss do I want in terms of facilitating my development as/to be a manager?

- How can I find out if a particular prospective employer values the internal development of promotable managerial talent? How much and what kind of formal training and/or education should I look to my employer to provide?
- How often do transfers of people occur across organizational units (cross-fertilization)? Can the company point to others (like me) who have had various assignments and jobs in their formative years?

- How strong is the company's people management function (human resources) in insuring that management development programs and exposures will occur for promotable people? Do they make a systematic effort to identify such promotable people?

- Is this a company that asks you to leave if you are not promotable and are therefore clogging a developmental slot for someone on the way up (an "up or out" culture)?

- Do managers in my company get rewarded for developing and readying promotable people?

- Do I need a mentor or "rabbi" to help me along by counseling me on my career/job choices? Who might that be? Will that person be replaced along the way?

GRADING THE EXERCISE

Shown in an attachment is the grading form used by the instructor to grade each student's paper and provide remarks (on the form and on the paper). [Incidentally, the author uses such a form for all assignments because they are typically argumentative papers. The form helps provide me with consistent criteria as I move from one paper to the next, and also gives the student some idea of how I arrived at the grade.]

As will be shown in an overhead during the presentation, the students' papers yielded these kinds of comments and criticisms from the instructor:

a.) Some students had difficulty getting into the assigned role. They preferred (and often do) to address an assignment as if in the third person. It is easier for them to then just mouth or digest the readings or their class notes. Doing this produces a vague, dull result and brings a penalty in the grade.

b.) Too many were timid about taking on a responsible job or task, perhaps fearing failure rather than seeing such an assignment as a learning experience.

c.) Students did not grasp the common likelihood that almost every organization has relatively well-trod paths to the top of each function and to senior general management.

d.) The subject of when and why one should or should not work in a smaller company is not clear, given the pros and cons of big versus smaller company work environments, such as relative sophistication of processes, demanding performance standards, intensity of competition for promotions and the breadth of assignments.

e.) Many did not yet understand (or respond positively) to the notion and value of joining a team and experiencing the work and enjoying the success of high stakes teams and projects.

f.) Too many seemed more interesting in standing out as performers (the best of the lot) rather than subjecting themselves to high standards, tough coaching, intense results-oriented environments.

g.) I did not do a good selling job on the importance (to the student) of gauging the organization's commitment to or investment in management development efforts.

h.) Too many emphasized making important contacts, too which I replied in critiquing their papers "Getting and staying ahead is no longer a matter, even partially, of <u>who you know</u>. What matters with contacts is <u>who knows you – the you being your demonstrable talent and proven capabilities.</u> Empty Suits who get too high up in management mostly crash and burn."

CONCLUSION

Was it too soon for students to explore this subject? I do not know, but I do not think so. After all, if not now, when will be the best time and who will offer the graduate, at that later time, the questions to consider when beginning to feel concerned about how it going. They will largely be on their own. Anecdotal evidence of the impression this exercise had on students came from only a few. I did not seek out reactions, nor do I believe in the time honored use of "happy sheets" to support a program or seminar's existence.

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GRADING "My Management Development"

Aspect of Paper	Silent or does not requirements	Meets most require	Fully meets require	Exceeds require

- Organizes her/his arguments with support, proper paragraphs , sentence structure and grammar

Supports claims with named citations/references such as
Dell excerpt, Bossidy chapter, text pieces, c'pack readings
CCL article, Muscle-Build article,

- *Uses first person to address actions to enhance/further own mgt. dev. & explains why each so identified is important*

Experiences to seek early On:

- How tough should my assignments be?
- Special project & task force assignments?
- Take on risky assignments I may fail to achieve?
- What (kind of) company will offer me the best experience to move up in a chosen functional path?
- If I want to be a general mgr.
- Certain industries I attracted to (or wish to avoid)?
- Exposure to other disciplines important to my industry
- Seek employer in a highly competitive, fast-changing business environment?
- Should I work in smaller company at some point (when?)
- Gain experience in a variety of environments? Int'l?
- Need to decide it's time to "move on" from a job?

Experiences to get once become a mid-level manager:

- Should I learn to experience managing "turnarounds"?
- How about business "startups"?
- Build a record of specific accomplishments rather than just a resume of where I worked?

Will my (Prospective) employer attend to mgt dev:

- My employer's standards for good performance?
- Is this an organization with many mediocre mgt. performers?
- Employer uses performance appraisals to facilitate employee development?
- Company practices what Dell calls "segmentation"?
- Criteria for promotion based on best qualified?
- Kind of Boss I want (to facilitate my development)
- Does employer value internal development of mgt. talent?
- How often people transfer (cross-fertilization)?
- Role in Mgt. Dev. of company's human resources dept.
- Are managers here rewarded for developing & readying promotable people?
- Do I need a mentor or "rabbi" to help me along ?

GRADE:_______

FORGING FINANCIAL ACCOUNTING STANDARDS: AN ANALYSIS OF MANAGEMENT'S INPUT

Claudia R. Tyska, Richard Stockton College of New Jersey

ABSTRACT

This study addresses the question what are the qualitative characteristics of accounting standards promoted by business managers. Using content analysis, policy recommendations from managers are abstracted from comment letters. These policy recommendations are analyzed in terms of four qualitative characteristics: flexibility, income effect, transparency, and accounting model. Results are compiled to determine if there are regularities in preferences from this group of respondents towards certain characteristics of information provided by the financial accounting system. The results of the study show a preference for flexible, profit-enhancing standards based on an income statement model. Although managers tend to prefer less revealing rules, this tendency is weaker than the others.

INTRODUCTION

An accounting system's ability to provide financial information that meets the users' needs is dependent on choices made at both the implementation and standard-setting stages. Established in 1973, the Financial Accounting Standards Board (FASB or Board) is the private-sector organization charged with articulating authoritative standards of financial reporting and accounting. Managers are an important constituency of the FASB. As preparers, managers are in a unique position to shape financial communications to external parties through their choices in implementing the standards of accounting and reporting. They can also choose to be involved at the standard-setting stage by participating in the due process procedures adopted by the FASB. This includes submitting comment letters on proposed statements of financial accounting standards (SFASs).

This study takes an in depth look at the comment letters submitted by managers to address the question, what are the qualitative characteristics of accounting standards promoted by business managers. This question is broken down into four parts. Do managers' contributions reflect a preference for standards that provide them more or less discretion over the information reported (flexibility in implementing the standard), maximize or minimize earnings (income effect), emphasize or obscure their activities (transparency)? Are managers' responses to proposed standards strictly opportunistic or is there an implicit view of the function of financial reporting (accounting model) reflected in their submissions?

To address these questions, this study focuses on managers' responses to three exposure drafts (EDs) issued by the Board: <u>Accounting for Income Taxes</u> (FASB, 1986) resulting in SFAS No. 96, <u>Accounting for Investments in Certain Debt and Equity Securities</u> (FASB 1993) resulting in SFAS No. 115 and <u>Employers' Accounting for Pensions</u> (FASB, 1985) resulting in SFAS No. 87. Issues addressed and expressions of policy recommendations from managers are abstracted from comment letters. These policy recommendations are then analyzed in terms of four qualitative characteristics: flexibility, income effect, transparency, and accounting model. Results are compiled for each respondent and summed across respondents for each exposure draft and then across all three exposure drafts to determine if there are regularities in preferences from this group of respondents towards certain characteristics of information provided by the financial accounting system.

RESEARCH DESIGN

This section defines the constructs and describes the components of the study.

Definition of Concepts and Their Related Constructs

Flexibility

Flexibility allows management to choose from accounting alternatives based on its judgment, plans or company circumstances. Policies will be classified as flexible if they permit alternatives and uniform if they do not permit alternatives.

Income Effect

In this study, income effect refers to the presence or absence of a bias towards a particular income result, profit-enhancing or profit-deflating. Income effect encompasses the question should there be stricter recognition criteria and different bases of measurement depending on the element involved. Policies that relax criteria for recognition of assets and revenues and/or circumscribe recognition criteria for liabilities and expenses are profit-enhancing. Policies that relax criteria for recognition of liabilities and expenses and/or circumscribe recognition criteria for assets and revenues are considered profit-deflating.

Transparency

Transparency in financial reporting is the ability to reduce information differentials between issuers of financial reports and the users of financial reports. It relates to the ability of the reported information to provide a fuller reporting of some phenomenon of interest. For this study transparency is related to the issue of more or less disclosure within the body of the financial statements of events or circumstances presumed to impact on the financial condition or results of operations. A policy recommendation that provides a fuller reporting of such an item is considered transparent; a policy recommendation that would not report or reports less about such an item is considered opaque.

Accounting Model

The financial statements produced by the accounting system are an attempt to describe or model aspects of the firm in order to provide useful economic information to decision makers. The balance sheet reports on the financial condition of the firm, i.e., the assets and claims on those assets, and the income statement reports on the current period's profit or loss. Since the financial statements share information, e.g., net income increases owners' claims on the assets; there is a tension between which statement is primary.

Under the income statement model, the purpose of reporting is to permit an evaluation of management's performance and to provide information useful in assessing future earnings trends. Therefore, the primary task of accountants is to measure and report operating income (income derived from major, normal, recurring activities of the firm). To accomplish this, attention should be placed on matching expenses with revenues and reporting them in the appropriate time period. Accounting is an allocation rather than valuation process and the appropriate basis for measuring assets is their value in use rather than their current value. Management's intentions are incorporated into the accounting. Underlying the income statement approach is the assumption that the business is a going concern, i.e., will continue in business long enough to realize the benefits of its assets and satisfy its liabilities.

Under the balance sheet model, the primary task of accounting is to provide information useful in assessing the value of the business and changes in the value of the business. It addresses the concern that reported values for certain assets and liabilities have no external validity and therefore accounting claims to report the financial condition of the firm are not being met. The central problem is obtaining appropriate valuation of assets and liabilities. Management's intentions are not incorporated in the valuation.

The Board has taken a valuation or balance sheet approach, defining revenues and expenses as enhancements or reductions of assets and liabilities, moving away from measuring assets at value in use and towards basing measurements on some current value basis. The Board has introduced the element "comprehensive income," a more inclusive concept than "net income," to accommodate the additional information being reported. Comprehensive income does not have to be displayed on the income statement but accumulated comprehensive income exclusive of net income is reported on the balance sheet.

Selection of Exposure Drafts

Criteria for selection of exposure drafts to be included in the study are (a) topic affects a broad cross-section of industries, (b) proposed standard replaces existing authoritative literature, and (c) proposed policies impact the financial statements.

The purpose of the first specification is that such standards are more likely to elicit responses from a variety of respondents than amendments or standards that deal with an accounting problem in a particular industry. The purpose of the second criteria is to permit a comparison to the resolution of a comparable accounting issue. The third is necessary to allow an evaluation of preferences for flexibility, income effect, transparency and accounting model. The selected exposure drafts are Accounting for Income Taxes, Accounting for Investments in Certain Debt and Equity Securities and Employers' Accounting for Pensions. SFAS No. 96 Accounting for Income Taxes was a comprehensive statement augmented by SFAS No. 109 Accounting for Income Taxes. The earlier standard was selected for inclusion in the study because the discussion preceding it covered a broader range of issues.

Selection of Sample Letters

One hundred letters from corporate sponsors were randomly selected for each exposure draft for a total of 300 comment letters. The choice of 100 letters per exposure draft is arbitrary, but deemed reasonable given the labor involved in analyzing the letters. Some of the letters could not be used because they did not reference any of the issues included in the study. The final count is 97 letters for income taxes, 97 letters for investments and 88 letters for the pensions' exposure draft. In total, 282 letters are included in this study.

Content Analysis

Content analysis is an objective, systematic approach to analyzing communications. It provides for sorting and aggregating written comments to permit a numerical analysis of verbal communications. Lists of policy issues and the Board's policy recommendations are abstracted from each exposure draft and compiled in codebooks. Issues are identified accounting problems, e.g., how should deferred tax assets and liabilities be classified on the balance sheet. A policy recommendation proposes an accounting response to an identified problem, e.g., classify all deferred tax assets and liabilities as noncurrent. These codebooks provide structure and thus facilitate consistent coding and reduce the amount of writing during the transcription process.

Managers' comment letters in response to exposure drafts form the basis for analysis. Issues addressed and expressions of policy recommendations are abstracted from the letters. These comments are assigned to precoded categories or encoded for grouping. This information is transcribed onto code sheets. In order to identify the manager's preferred solution to an accounting problem, the unit of analysis is the entire letter rather than smaller units such as sentences or paragraphs. For example, a manager may indicate in one paragraph what he likes about the position taken by the Board but in the next paragraph explain why he prefers an alternative approach. If paragraphs were coded separately, the results would have shown the writer supporting two contradictory positions rather than identifying the writer's preferred approach.

The coding for this study was done by the author. However, two independent coders were asked to code a subsample of letters for each exposure draft and the results of their analyses were compared to this author's coding as a reliability test. The independent coders were second semester seniors majoring in accounting at Rutgers University, New Brunswick, New Jersey. When considering all the issues addressed by the individual respondents identified by the coders, agreement among the three coders on issue identification was 76% for income taxes, 77% for investments, and 79% for pensions. The author was more likely to identify an accounting issue than the independent coders. Issue identification agreement improves when only the study issues are considered as opposed to attempting to enumerate all the issues addressed by respondents. For the issues ultimately included in the study, agreement among coders was 100% on the policy recommendations when recommendations are evaluated as either/or (binary) rather than more or less (scalar). For a more complete analysis of the design and testing of the content analysis, see author's dissertation.

Select Issues to Include in Study

Two criteria are used to select issues to be included in the study: the issue impacts the financial statements and volume of response. In order to evaluate the income effect, it is necessary that the issue impact the financials. Volume of response is used to identify issues of special concern to respondents. If at least 20% of the respondents to an exposure draft comment on a particular issue, that issue is included in the study. Number of responses to a particular issue is used because it is not feasible to determine the relative importance placed on any particular issue by an individual respondent.

Evaluate Policy Recommendations Along Constructs

Policy recommendations are analyzed in terms of the constructs of flexibility, income effect, transparency and accounting model. This analysis is informed by a review of contemporary literature on the problems addressed by each exposure draft. This review helped to clarify the issues, alternatives and consequences being debated. To evaluate this stage of the study, the author's dissertation committee and several other accounting professors reviewed the analysis and ranking of the policy recommendations. Their comments were helpful in refining the analysis. Space limitations prevent providing the analysis herein, but the detailed analysis is available in the author's dissertation. Table 1 on page 29 provides a key to the rankings of the policy recommendations. Tables 2, and 3 (page 30), and 4 (page 31) list the selected issues, policy recommendations and their rankings on the constructs for each exposure draft.

Classify Respondents According to Expressed Policy Recommendations and Measure Support

Overall support scores are determined for each policy recommendation, providing the basis for identifying managers' preferences along the dimensions of concern. The mean, median and mode are used to evaluate central tendency and interquartile range, standard deviations and standard errors of the average are used as measures of dispersion. (See tables 5 through 12 for ranking of respondents along the constructs and summary statistics (pages 33 - 34).

RESULTS

In this section, the policy recommendation rankings are combined with the level of support for each policy recommendation. The results are used to describe the characteristics of managers' responses for each exposure draft and over all of the exposure drafts.

Accounting for Income Taxes (Tables 5 and 6, page 33)

For the income tax exposure draft, the Board's policies in the aggregate are uniform, profit deflating, transparent and favor the balance sheet model. Respondents tended to promote flexible, profit-enhancing standards. On the issue of transparency, they displayed a weak tendency to promote transparent standards, with a significant minority supporting opaque standards. The respondents tended to range from being indeterminate on model to promoting an income statement model.

All three measures of central tendency, the mode, median and average, support the description that managers display a tendency to support flexible, profit-enhancing standards. The mode and the average support the description that managers displayed a tendency to support transparent standards and the income statement model, but the median did not. The IQR is 2 for transparency indicating there were a significant number of respondents clustered around the other extreme. The IQR is 1 for model, indicating some dispersion between indeterminate and the income statement model.

Accounting for Investments in Certain Debt and Equity Securities (Tables 7 and 8, page 33)

For the investments exposure draft, the Board's policies in the aggregate are uniform, profit enhancing, transparent and favor the balance sheet. Respondents promoted flexible, profit deflating, opaque standards based on an income statement model. A significant minority promoted uniform standards. The split on flexibility is apparent with slightly less than half of the respondents promoting flexible standards. There is a split on income effect between profit deflating and indeterminate, but few supported profit-enhancing policy recommendations. Rankings on transparency and model are strong. In their comments, managers tended to be concerned with income volatility rather than income effect (as defined in this study). None of the respondents in the sample promoted policies representative of the balance sheet model, and only four were ranked indeterminate on this construct.

The differences between the averages, modes and medians on the individual constructs indicate the distributions are skewed or u-shaped for flexibility, income effect and transparency. On model, these values indicate a more normal distribution. All three values, the average, mode and median, support the description that managers promote opaque standards. The IQRs for model and transparency are zero, indicating slight dispersion. Although the median does not support such a characterization, both the mode and the average indicate managers promoted flexible standards. The IQR for the median is 2, indicating a wide split among respondents, with a significant minority promoting uniform standards. All three support the characterization that managers prefer the income statement model.

Employers' Accounting for Pensions (Tables 9 and 10, page 34)

For the pension exposure draft, the Board's policies are, in the aggregate, uniform, profit deflating, transparent and reflect the balance sheet model. Overall, managers displayed a tendency to support flexible, profit-enhancing and opaque standards based on an income statement model. However, they were somewhat split over flexibility, with a significant minority supporting uniform standards. The signs and averages of all of the constructs are consistent with this characterization. Income effect and model were particularly strong. However, the characterization as flexible is only weakly supported. The relationship between the averages, medians and modes on the individual constructs indicate the distributions are skewed or u-shaped rather than normal. The IQR for flexibility is 2, indicating a significant minority promoted uniform standards. The IQR for transparency indicates respondents were moderately dispersed between indeterminate and opaque.

Comparison of Results Over All Three Exposure Drafts (Tables 11 and 12, page 34)

This section combines the data from the three exposure drafts to arrive at "overall" results. Taken in their entirely, the Board's policies are uniform, profit deflating, transparent and favor the balance sheet model. Respondents promoted flexible, profit-enhancing, opaque standards based on the income statement model. Model was particularly strong.

Differences between the averages, medians and modes (Table 17) indicate the distributions are skewed or u-shaped. The IQRs indicate significant dispersion over the constructs flexibility, income effect and transparency and very little dispersion over model.

CONCLUSIONS

This study addresses the question what are the qualitative characteristics of standards managers promote in their correspondence with the Board. In terms of the issues incorporated in this study, the Board's proposals overall reflected the qualities of uniformity, profit-deflation, and transparency and are based on a balance sheet model. Conversely, managers' policy recommendations tend to reflect the qualities of flexibility, profit-enhancement, and opaqueness and are based on an income statement model. Managers showed variations in direction and intensity for these characteristics on the different exposure drafts. However, except for the income tax exposure draft, managers showed a strong tendency to want solutions based on an income statement model (measuring operating performance) rather than a balance sheet model (valuation of assets and claims on those assets).

ENDNOTE

This article is based on my dissertation, "Management's Preferences for Accounting Standards," completed at the Graduate School – Newark, Rutgers – The State University of New Jersey, January 2000. I wish to express my appreciation to my committee members, Drs. Paul J. Miranti, Jr. (Chair), Dan Palmon, Gary Kleinman, and Louis Orzack, for their guidance and assistance.

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Table 1

Key to Rankings on Constructs

Rank	Flexibility	Income Effect	Transparency	Model
-1	Uniform	Profit deflating	Opaque	Balance Sheet
0	Indeterminate	Indeterminate	Indeterminate	Indeterminate
1	Flexible	Profit enhancing	Transparent	Income Statement

Table 2

Rankings of Policy Recommendations for Accounting for Income Taxes

PR	Description	Count	F	E	T	M
1.0 General Approach to Accounting for Taxes						
1.01	*Asset-liability method*	*47*	*-1*	*-1*	*1*	*-1*
1.02	Deferred method	13	1	1	-1	1
1.03	Net-of-tax method	1	1	1	-1	-1
1.04	Flow-through method	1	1	1	-1	0
1.05	Combination of net-of-tax and asset-liability method	1	1	1	-1	-1
1.06	Favors interperiod tax allocation; method is not specified	4	0	0	0	0
2.0 Scope						
2.01	*Comprehensive model*	*1*	*-1*	*-1*	*1*	*-1*
2.02	Mixed comprehensive and flow-through model	77	1	1	-1	1
3.0 Recognition Criteria: Assets						
3.01	*Strict asset recognition criteria*	*5*	*-1*	*-1*	*-1*	*-1*
3.02	Probability of future earnings criteria	44	1	1	1	1
3.03	Recognize prepaid tax assets	1	1	1	1	1
3.04	Differentiate between deferred tax assets and net operating losses	6	1	1	1	1
3.1 Measurement: Tax Rates						
3.11	*Use currently enacted tax rates*	*20*	*-1*	*0*	*1*	*-1*
3.12	Use origination rates	7	-1	0	-1	1
3.13	Use rates expected to be in effect	1	1	0	1	-1
3.14	Use origination rates for prepayments, otherwise currently enacted rates	1	1	0	-1	1
3.15	Use alternative minimum tax rate	1	-1	1	-1	-1
3.17	Use origination rate until item reverses, apply currently enacted rate as item reverses	1	1	0	-1	1
3.18	Preference is indeterminate	1	0	0	0	0
3.4 Measurement: Discounting						
3.41	*Do not discount deferred tax assets and liabilities*	*4*	*-1*	*-1*	*-1*	*-1*
3.42	Allow discounting of deferred tax assets and liabilities	26	1	1	1	-1

The Board's policy proposals are italicized. The first column, "PR," refers to the policy recommendation code number. The second column, "Description," gives a very brief description of the policy recommendation. The "Count" column gives the number of respondents in the sample promoting the recommendation. Columns four through seven contain the constructs' assigned values, 1, 0 or -1 (see Table 1). The columnar headings are Flexibility (F), Income Effect (E), Transparency (T) and Model (M).

Table 3

Rankings of Policy Recommendations for Accounting for Investments in Certain Debt and Equity Securities

PR	Description	Count	F	E	T	M
	1.0 Scope: Liabilities					
1.01	*Exclude liabilities from scope.*	*6*	*-1*	*0*	*-1*	*-1*
1.03	Must include liabilities if assets are marked to market	31	-1	0	1	1
1.04	If matched to asset, allow liability to be marked to market	3	1	0	1	1
	1.2 Scope: Entities					
1.21	*All entities not already using fair values except not-for-profits*	*1*	*-1*	*1*	*1*	*-1*
1.23	Suggests some exclusion	32	1	-1	-1	1
	2.3 Classification: Debt Instruments					
2.31	*Strict criteria for "held-to-maturity"*	*0*	*-1*	*1*	*1*	*-1*
2.32	Relax criteria for "held-to-maturity"	49	1	0	-1	1
2.33	Eliminate criteria for "held-to-maturity"	2	1	0	-1	1
	3.0 Measurement: Assets					
3.01	*Report trading and available-for-sale securities at fair value; held-to-maturity at amortized cost.*	*3*	*1*	*1*	*1*	*1*
3.02	No securities should be reported at fair value	36	-1	-1	-1	1
3.03	All securities should be shown at fair value	2	-1	1	1	-1
3.04	Only trading securities should be shown at fair value.	12	1	0	-1	1

The Board's policy proposals are italicized. The first column, "PR," refers to the policy recommendation code number. The second column, "Description," gives a very brief description of the policy recommendation. The "Count" column gives the number of respondents in the sample promoting the recommendation. Columns four through seven contain the constructs' assigned values, 1, 0 or -1 (see Table 1). The columnar headings are Flexibility (F), Income Effect (E), Transparency (T) and Model (M).

Table 4

Rankings of Policy Recommendations for Employers' Accounting for Pensions

PR	Description	Count	F	E	T	M
	1.0 Measurement: Imputed Interest Rate and Plan Assets					
1.01	*Use settlement rate and fair value of plan assets at balance sheet date.*	*1*	*-1*	*-1*	*1*	*-1*
1.02	Use actuarial or time-adjusted expected earnings rate and actuarial or time-adjusted fair value of plan assets.	54	1	1	1	1
1.03	Fixed income securities should be valued at amortized cost.	1	-1	0	-1	1
1.04	Do not rely solely on settlement rate.	1	1	1	1	1
	1.2 Measurement: Attribution Method					
1.21	*Based on terms of the plan. Usually the projected unit credit method for plans based on future compensation levels and the unit credit method otherwise were appropriate.*	*7*	*-1*	*0*	*1*	*-1*
1.22	Allow some choice in actuarial method and include a cost-based method	44	1	0	-1	1
	1.4 Recognition: Deferred Gains and Losses					

PR	Description	Count	F	E	T	M
1.41	*If at the beginning of the year, the aggregate unrecognized gain or loss exceeds 10% of the larger of the projected benefit obligation or fair value of plan assets, amortization of unrecognized gains or losses should be included in income*	*4*	*-1*	*0*	*-1*	*1*
1.42	Use a larger corridor, e.g., 20%	16	-1	0	-1	1
1.43	Do not use a corridor approach for unrecognized gains and losses.	6	-1	0	1	1
1.7 Measurement: Amortization Method and Period						
1.71	*If amortization is required, the minimum amortization is the excess divided by the average remaining service period of active employees expected to receive benefits under the plan.*	*9*	*-1*	*-1*	*1*	*1*
1.72	Be less restrictive in choice of amortization period.	8	1	1	-1	1
1.73	Use a mortgage- or interest-type method of amortization.	7	-1	1	-1	1
1.74	Use average total service career life of participants who are expected to receive benefits under the plan	5	-1	1	-1	1
1.75	Adjustments for actuarial gains and losses should continue to be part of the overall actuarial computation of the pension cost allocation	2	1	0	-1	1
1.76	Experience gains and losses should be amortized over a shorter period than actuarial gains and losses.	1	1	0	-1	1
2.0 Recognition: Liability						
2.01	*At a minimum, a liability equal to the unfunded balance of the accumulated benefit obligation will be reported on the balance sheet.*	*11*	*-1*	*-1*	*1*	*-1*
2.02	It does not represent a recognizable liability.	40	-1	1	-1	1
2.05	Use vested benefit obligation rather than accumulated benefit obligation (ABO).	3	-1	1	-1	-1
2.06	For multiemployer plans, do not recognize withdrawal liability or proportionate share of accumulated benefit obligation.	11	1	1	-1	1
2.07	Allow offsetting of over- and underfunded plans unless a large liability exists.	6	1	1	-1	-1
2.08	Do not recognize a liability for the portion of the ABO that represents previously unrecognized actuarial losses.	1	1	1	-1	-1
2.09	Exempt regulated companies from recognizing liability.	1	1	1	-1	1
2.1 Recognition: Asset						
2.11	*If fair value of plan assets exceeds the ABO, do not recognize an asset.*	*5*	*-1*	*-1*	*1*	*-1*
2.12	If unfunded ABO must be recognized as a liability, than the overfunding of the ABO should be recognized as an asset.	16	-1	1	-1	-1

The Board's policy proposals are italicized. The first column, "PR," refers to the policy recommendation code number. The second column, "Description," gives a very brief description of the policy recommendation. The "Count" column gives the number of respondents in the sample promoting the recommendation. Columns four through seven contain the constructs' assigned values, 1, 0 or -1 (see Table 1). The columnar headings are Flexibility (F), Income Effect (E), Transparency (T) and Model (M).

Table 5

Income Taxes, Ranking of Respondents on Constructs

	Flexibility		Income Effect		Transparency		Model	
Rank	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
-1	16	16%	9	9%	29	30%	21	22%
0	22	23%	22	23%	21	22%	29	30%
1	59	61%	66	68%	47	48%	47	48%
Totals	97	100%	97	100%	97	100%	97	100%

Table 6

Income Taxes, Summary Statistics

Statistics	Flexibility	Income Effect	Transparency	Model
Average	0.4	0.6	0.2	0.3
Median	1	1	0	0
Mode	1	1	1	1
IQR	1	1	2	1
Variance	0.6	0.4	0.8	0.6
St. Dev.	0.8	0.7	0.9	0.8
St. Error	0.2	0.1	0.2	0.2

Abbreviations: Interquartile range (IQR), Standard Deviation around the Average (St. Dev.) and Standard Error of the Average (St. Error). The standard error is calculated at a 95% confidence level.

Table 7

Investments, Ranking of Respondents on Constructs

	Flexibility		Income Effect		Transparency		Model	
Rank	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
-1	28	29%	60	62%	77	79%	0	0%
0	22	23%	32	33%	15	15%	4	4%
1	47	48%	5	5%	5	5%	93	96%
Totals	97	100%	97	100%	97	99%	97	100%

Table 8

Investments, Summary Statistics

Statistics	Flexibility	Income Effect	Transparency	Model
Average	0.2	-0.6	-0.7	1
Median	0	-1	-1	1
Mode	1	-1	-1	1
IQR	2	1	0	0
Variance	0.7	0.4	0.3	0.0
St. Dev.	0.9	0.6	0.5	0.2
St. Error	0.2	0.1	0.1	0.4

Abbreviations: Interquartile range (IQR), Standard Deviation around the Average (St. Dev.) and Standard Error of the Average (St. Error). The standard error is calculated at a 95% confidence level.

Table 9

Pensions, Ranking of Respondents on Constructs

	Flexibility		Income Effect		Transparency		Model	
Rank	Count	%	Count	%	Count	%	Count	%
-1	32	36%	5	6%	55	63%	9	10%
0	18	21%	7	8%	13	15%	4	5%
1	38	43%	76	86%	20	23%	75	85%
Totals	88	100%	88	100%	88	101%	88	100%

Table 10

Pensions, Summary Statistics

Statistics	Flexibility	Income Effect	Transparency	Model
Average	0.1	0.8	-0.4	0.8
Median	0	1	-1	1
Mode	1	1	-1	1
IQR	2	0	1	0
Variance	0.8	0.3	0.7	0.4
St. Dev.	0.9	0.5	0.8	0.6
St. Error	0.2	0.0	0.2	0.1

Abbreviations: Interquartile range (IQR), Standard Deviation around the Average (St. Dev.) and Standard Error of the Average (St. Error). The standard error is calculated at a 95% confidence level.

Table 11

Overall, Ranking of Respondents on Constructs

	Flexibility		Income Effect		Transparency		Model	
Rank	Count	%	Count	%	Count	%	Count	%
-1	76	27%	74	26%	161	57%	30	11%
0	62	22%	61	22%	49	17%	37	13%
1	144	51%	147	52%	72	26%	215	76%
Totals	282	100%	282	100%	282	100%	282	100%

Table 12

Overall, Summary Statistics

Statistics	Flexibility	Income Effect	Transparency	Model
Average	0.2	0.3	-0.3	0.7
Median	1	1	-1	1
Mode	1	1	-1	1
IQR	2	2	2	0
Variance	0.7	0.7	0.7	0.4
St. Dev.	0.9	0.8	0.9	0.7
St. Error	0.1	0.1	0.1	0.1

Abbreviations: Interquartile range (IQR), Standard Deviation around the Average (St. Dev.) and Standard Error of the Average (St. Error). The standard error is calculated at a 95% confidence level.

CAN A CHANGE IN DIVIDEND POLICY CHANGE BETA? THE CASE OF MICROSOFT

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ABSTRACT

Microsoft Corporation began paying a regular quarterly cash dividend in February 2003. Since that time Microsoft's systematic risk, as measured by its beta, has decreased by a statistically significant amount.

Accepted financial theory posits that a corporation's cost of equity, and therefore its systematic risk, is independent of its dividend decision.

This paper first establishes the change in Microsoft's beta which followed its change in dividend policy. We then examine a sample of actively traded firms which began paying regular dividends in the last five years. Some of these firms exhibited changes in beta similar to Microsoft's; other firms exhibited no accompanying change.

The application of this work is to suggest to corporations dividend policy strategies which would reduce their cost of capital, and to suggest to investors equity-screening strategies which would increase their rate of return.

INTRODUCTION

The story of Microsoft Corporation is familiar to many investors. Founded in 1981 by Bill Gates, Microsoft has grown to dominate the computer operating system and applications software industries, making its founder the richest man in the United States. Shareholders have often been enriched as well, and increases in share price have been followed by a stock split, which has happened seven times since 1991.

As is common in high-growth companies, Microsoft paid no dividends to shareholders. In March of 2003, however, Microsoft made a major shift in policy and began paying regular quarterly dividends. As is shown in Exhibit 1 on page 39, price volatility post dividend initiation changed dramatically. Financial theory concerning dividend irrelevance would argue that the initiation of dividends changes nothing about the underlying value of the firm, or its inherent risk.

Companies decide to pay dividends for various reasons, and have a number of constraints on those payments. Companies are precluded from just retaining earnings forever; if they can't find viable investments and continue to retain earnings, they could face an excess accumulations tax. So even high-growth companies should eventually pay a dividend. The amount of those dividends could be limited, however, perhaps by their banking relationship via a loan covenant that precludes dividends unless debt is serviced or even liquidated. Internally, there can be a struggle between managers who want to retain earnings to fund their pet projects, and shareholders who want to see the money. Many studies have shown that companies avoid cutting a dividend at all costs, as the market reacts poorly to that bad news (Dyl and Weigand, 1998). So companies typically won't initiate a dividend or increase a dividend unless they are confident about their earnings potential and the stability of those earnings. And finally, certain shareholder groups (clienteles) may prefer higher or lower dividend payouts.

Standard textbook discussions of dividend theory examine these issues using three main models. The agency cost / contracting model recognizes the internal constraints that were mentioned before. This model assumes that managers who are not significant shareholders will prefer that the company retain earnings and fund pet projects and provide perks. By requiring the payout of dividends, directors limit the power of those managers, who aren't necessarily maximizing firm value. The clientele model recognizes that different groups of investors prefer or don't prefer dividends. In the past, this has been primarily because of differences in tax rates on dividends and capital gains. Higher tax bracket shareholders preferred low dividend payout rates, and low-bracket shareholders preferred high payout rates. Now that the tax code has been modified to apply the same rate to both dividends and capital gains, this argument has lost strength. There are some groups of investors who prefer steady current income (i.e. widows and orphans, and retirees), and other investors who want to control the timing of their income, so there is still perhaps a weak clientele effect. The most robust reasoning for paying dividends is the signaling model. This model recognizes the information content of a dividend. When a firm initiates a dividend, it conveys management's confidence that the firm is profitable enough to **both** fund investment projects and pay out cash dividends. It is a very strong signal to the market about management's assessment of cash flow in the long-run.

Whatever the reason for dividends, however, shareholder returns should be a result of the earnings and free cash flow of the company, not whether or not a dividend is paid out or retained. Dividend payments shouldn't affect the underlying volatility of the company earnings, and therefore the stock price. But do they? Systematic, or market risk, is measured by regressing the excess returns of a particular stock against the "market's" excess return which is usually measured via a proxy such as the S&P 500 Index return minus a Treasury rate. The resulting statistic is the stock's "beta." Because beta is influenced by volatility of returns, there is no structural reason that the beta of a stock should change because of a dividend initiation.

PRIOR RESEARCH

Asquith and Mullins (1983) were the first to examine the effects of dividend initiation on shareholder wealth. They concluded that dividends convey unique, valuable information to investors, who then elect to purchase the stock or sell it based on clientele effects. Overall, they found positive abnormal returns accompanying the dividend announcement. In 1988, Healy and Palepu showed that the dividend-initiating firms experienced higher earnings growth than industry peers within the first year following initiation, and for two years after, translating into abnormal returns for investors. They explained the result as being due to signaling: the dividends told the market that the firm was strong and growing.

Venkatesh (1989) was the first to look at the volatility of returns after initiation, and found decreases in the post-initiation volatility, as measured by standard deviation. He felt that the decrease was only in the firm-specific volatility as opposed to systematic volatility, which he showed by examining firm betas. He found the betas to be stable while the standard deviations were unstable. His explanation of risk reduction in post-dividend initiation firms was that prior to dividend initiation, investors could only observe earnings announcements, but after dividend initiation, investors could observe dividend declarations as well. Once this happens, investors give less weight to information cues other than dividends and earnings, whereas in the pre-dividend initiation period, they may have reacted to other information more strongly.

Contrary to the earlier results, Michaeley, Thaler and Womack (1995) **did** find changes in firm beta after dividend initiation. The trio also found a 3-day price reaction as well as long-term price drift, which suggests that the initial price movement was insufficient. Dyl and Weigand (1998) also found a decrease in firm beta following dividend initiation due to their "risk information hypothesis," which says that the initiation of dividends is a signal to markets that a firm's earnings and cash flows have become fundamentally less risky, and therefore beta is lower. Firms are expected to have fewer surprises after dividend initiation. If the earnings volatility decreases, then the volatility of returns will decrease as well. The decreased firm risk was what made the managers declare a dividend in the first place. This study did not find increased earnings, but did find decreased betas over three years following dividend initiation.

Decreased betas would hint at a trading rule, whereby price would increase as the market adjusts to new betas. Boehme and Sorescu (2002) tried to find this trading rule, but could not replicate the results of prior studies. In splitting data into subgroups, they found that large firms in particular did not experience abnormal returns post dividend initiation. The authors felt that any abnormal returns or risk reduction were a function of chance.

EMPIRICAL ANALYSIS

We collected data for five firms that initiated dividends between June 2002 and September 2003. Those firms are Microsoft, FedEx, Qualcomm, Manor Care, and CDW. We then calculated betas before and after the dividend initiation, using monthly returns from June of 1996 to September of 2006. The regression assumed the risk-free rate to equal the yield on the 10-year Treasury bond, and the market return to equal the return on the S&P500.

Since our data comes from the Internet sources *Yahoo! Finance* and *Mergent Online*, we were heartened by recent, research, Clayton, Jahera, and Schmidt (2006), showing that such on-line sources are as reliable as data from the traditional source the Center for Research on Security Prices (CRSP).

As shown in Table 1, with the exception of Qualcomm, betas declined after dividend initiation, sometimes quite significantly.

Table 1
Comparison of Betas

Corporation	Dividend Start Date	Beta Before Dividend	Beta After Dividend
Microsoft Corp.	February 10, 2003	1.56	0.36
FedEx Corporation	June 13, 2002	0.85	0.49
Qualcomm, Inc.	March 12, 2003	1.54	1.92
Manor Care, Inc.	August 5, 2005	0.85	0.73
CDW Corp.	September 10, 2003	1.83	1.25

While further study, using a larger data set, is warranted, it is clear that IF beta decreases after dividend initiation, the required return for an investor is lowered, as is the cost of capital for the firm. If the market prices a firm's shares via the old beta, the stock price will be too low. As the new beta is incorporated into the pricing analysis over time, the price will increase. In the meantime, there could potentially be opportunities for abnormal returns to the savvy investor.

Using the Security Market Line equation:

$$E(R_i) = R_{RF} + (R_M - R_{RF})\beta_i$$

we calculated the required returns on the five companies using both "old" (pre-initiation) and "new" (post-initiation) betas. Comparing the required return with the actual holding period return, it is possible to determine abnormal returns to the shareholder (Table 2). Three of the five companies showed positive abnormal returns. While two companies showed negative abnormal returns, their holding period returns were non-negative.

Table 2
Comparison of Returns

Corporation	One-year Holding Period Return	Required Return with Old Beta	Required Return with New Beta	Abnormal Return to Shareholder
Microsoft Corp.	18.19%	15.08%	6.56%	11.63%
FedEx Corporation	115.46%	14.93%	17.63%	97.83%
Qualcomm, Inc.	25.37%	10.02%	7.43%	17.94%
Manor Care, Inc.	4.00%	10.08%	9.26%	- 5.26%
CDW Corp.	4.40%	16.74%	12.80%	- 8.40%

If an investor had invested \$1000 in each issue when initial dividends were declared, and held each issue for one year, they would realize a 33.48% overall return. While efficient markets tells us that exploitable trading rules should not exist, it appears that consistent abnormal returns are available. More exploration needs to be done with a larger data set to confirm our preliminary results.

CONCLUSIONS

While our initial interest was in Microsoft, we extended our examination of dividend initiations to include four additional firms that began paying dividends during the same time period. We found that, contrary to textbook theory, the firm betas were unstable, apparently shifting about the time of dividend initiation. This provided opportunities for investors to realize abnormal returns. Further study will include additional firms and time periods to examine beta stability as well as question the existence of abnormal returns for various periods after dividend initiation.

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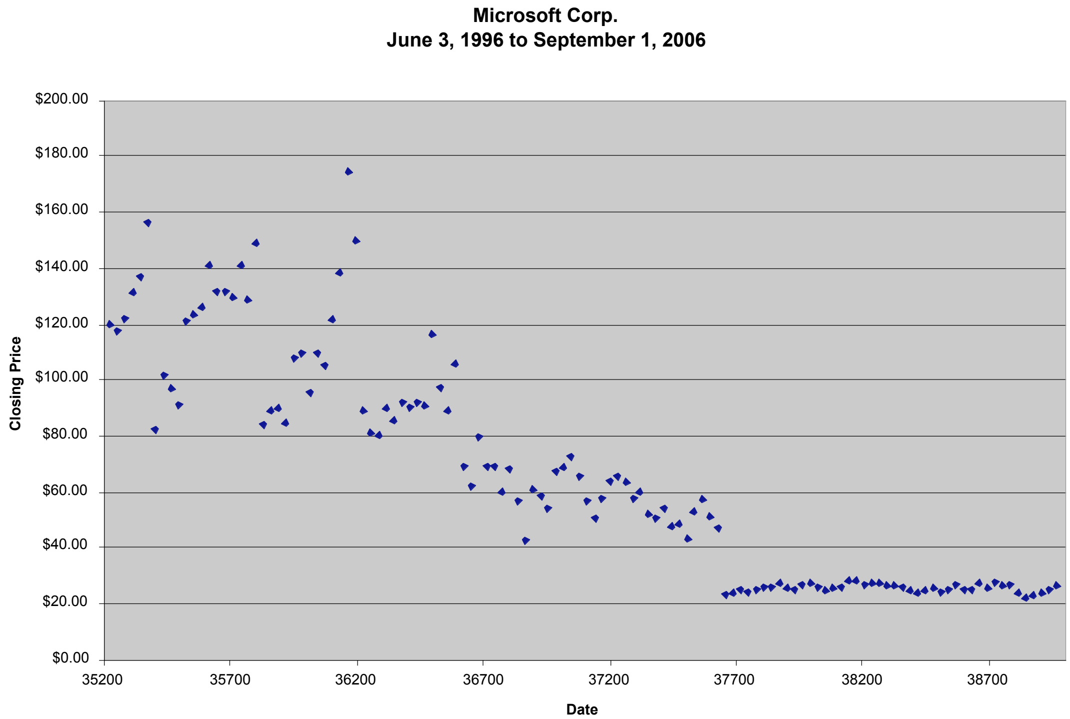
Exhibit 1


Microsoft Corp.
June 3, 1996 to September 1, 2006
Closing Price
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$180.00
$160.00
$140.00
$120.00
$100.00
$80.00
$60.00
$40.00
$20.00
$0.00
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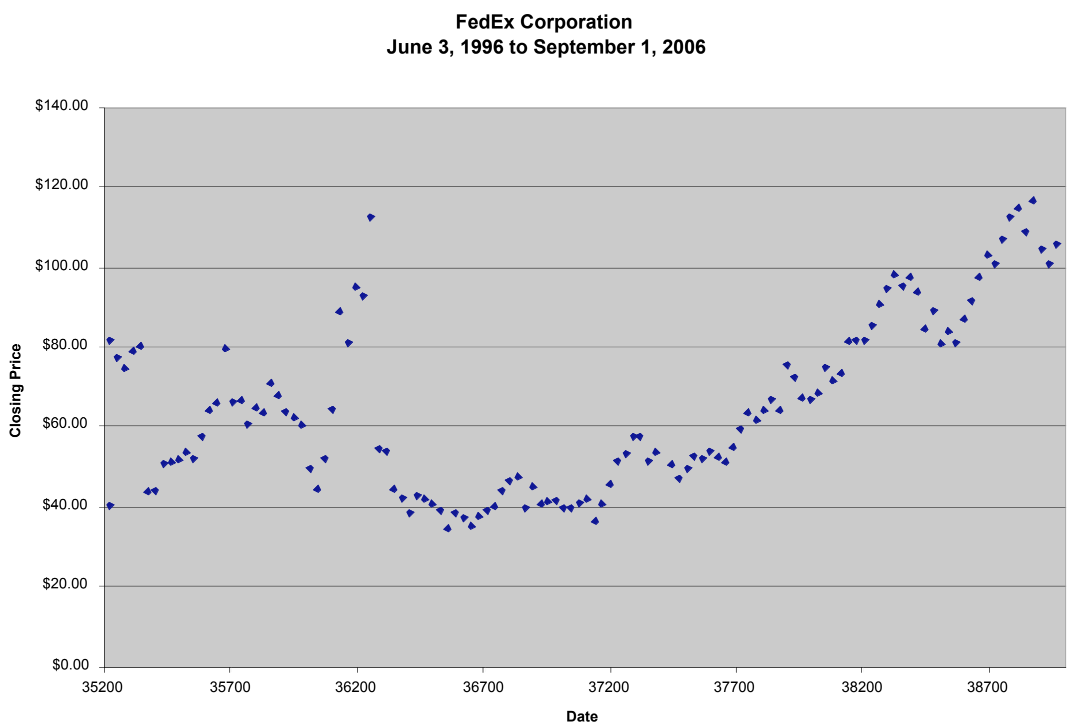
35700
36200
36700
37200
37700
38200
38700
Date


FedEx Corporation
June 3, 1996 to September 1, 2006
Closing Price
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$100.00
$80.00
$60.00
$40.00
$20.00
$0.00
35200
35700
36200
36700
37200
37700
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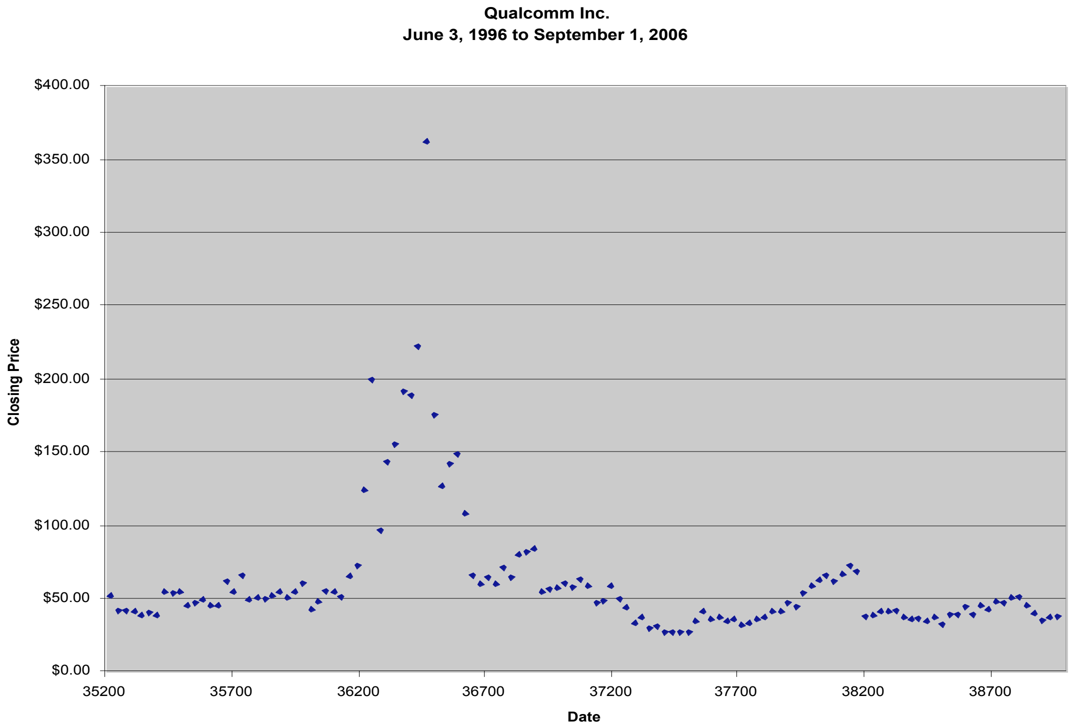
Date


Qualcomm Inc.
June 3, 1996 to September 1, 2006
Closing Price
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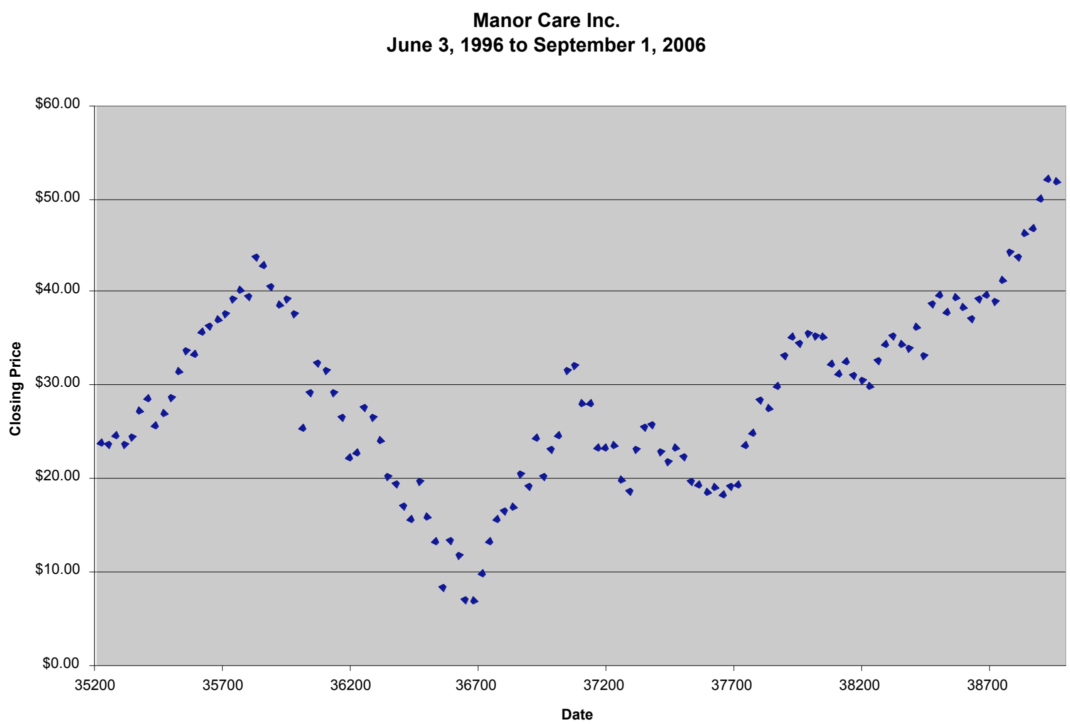
$350.00
$300.00
$250.00
$200.00
$150.00
$100.00
$50.00
$0.00
35200
35700
36200
36700
37200
37700
38200
38700
Date


Manor Care Inc.
June 3, 1996 to September 1, 2006
Closing Price
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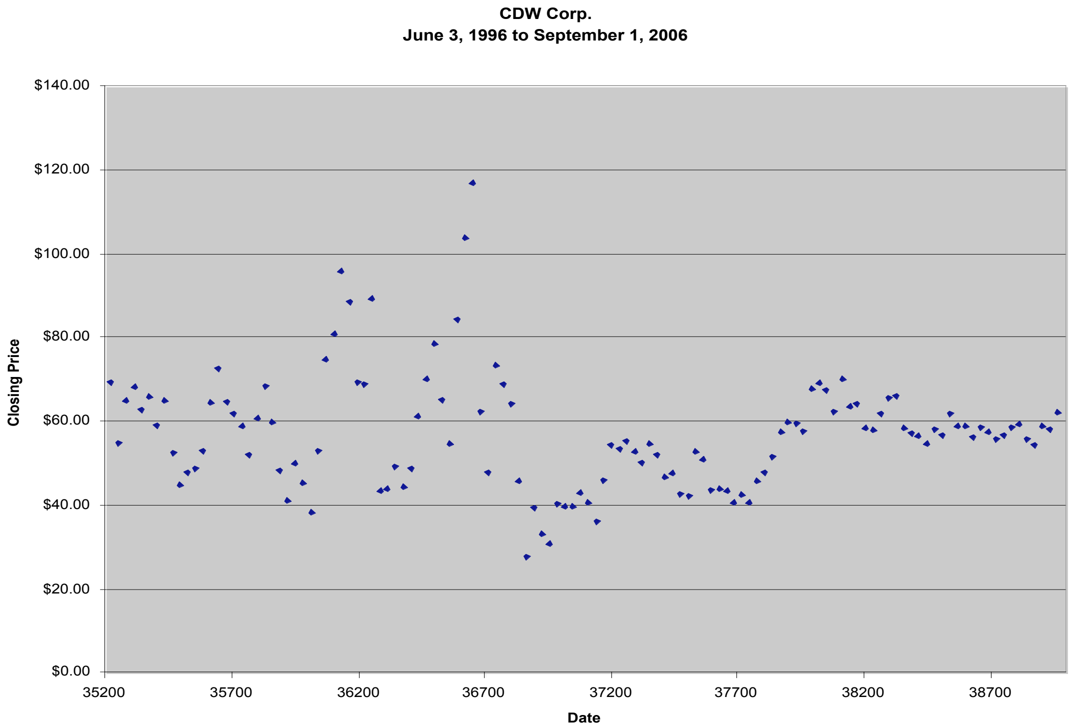
$50.00
$40.00
$30.00
$20.00
$10.00
$0.00
35200
35700
36200
36700
37200
37700
38200
38700
Date


CDW Corp.
June 3, 1996 to September 1, 2006
$140.00
$120.00
$100.00
$80.00
$60.00
$40.00
$20.00
$0.00
Closing Price
35200
35700
36200
36700
37200
37700
38200
38700
Date

QUESTIONING THE IMPACT OF ORGANIZATIONAL MEMORY ON ORGANIZATIONAL PERFORMANCE: A CASE STUDY OF STUDEBAKER CORPORATION

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ABSTRACT

Beginning in the early 1980's, a great deal of space in management literature was dedicated to attempts to link various intangible aspects of an organization, such as organizational culture, to organizational performance. The express or implied rationale was that managers could somehow enhance organizational performance by adhering to what often were prescriptive lists of techniques to "manage" culture. Taking that somewhat problematic concept one step further, Zhang, Tian and Qi (2006) published a study of 164 Chinese manufacturing companies which they asserted demonstrated a correlation between strong "organizational memory" and positive organizational performance. This study examines that conclusion of Zhang, Tian and Qi (2006) in light of the collapse of Studebaker Corporation forty years earlier. It suggests that the broad attempt to link organizational memory and organizational performance should be viewed with caution, and that the utility of organizational memory to enhance organizational performance may be somewhat limited. This study recommends further qualitative case studies to understand the concept of organizational memory and its impact.

INTRODUCTION

A significant emerging issue in business and technology over the past twenty years has been the elusive concept of "organizational memory." A useful definition of organizational memory, for purposes of this paper, is "knowledge, learned from past organizational experience, that can be brought to bear on present decisions" (Stein, 1995; Johnson and Paper, 1998). Ackerman and Halverson (2000) correctly suggest that this concept has become "overworked and confused," with the nature and functions of organizational memory (OM) often becoming marginalized in the effort to prescribe methods for augmenting memory in organizations. In other words, the issues of whether and to what extent organizations utilize memory are often subordinated to the issue of how memory occurs and methods of enhancing memory. Therefore, as observed by Walsh and Ungson (1991), in their seminal article on this subject, "the understanding of this concept is limited, particularly in theories about organizations" (p. 57).

Ackerman and Halverson (2000) lament the lack of empirical studies in this area, and appear to suggest ethnographic case studies as constituting a valid approach for analyzing OM within an organizational setting, in order to provide "a context of everyday use." Yet those empirical studies of OM which do exist seem to be presented from a micro perspective, not focusing on what the concept means to management, what Baptiste (2000) might term the *utility* of the concept. An issue of more significance in examining this concept would be the impact of application of OM upon unique (perhaps non-recurring) senior management level strategic decisions where that application is crucial to approval and implementation of the decisions (Siegel, 2006).

Inevitably it seems, like many other management concepts, the concept of OM would be applied to ascertaining organizational performance (OP).[v] Zhang, Tian and Qi (2006) have recently published an interesting quantitative study ascertaining the impact of OM on OP, based upon survey data of 164 Chinese manufacturing firms. Their conclusion that "organizational memory has a strong positive impact on organizational performance" (p. 232), bears some scrutiny, particularly in light of my earlier research on the effect of OM on Hewlett-Packard Company (H-P) during the tenure of former CEO Carly Fiorina (Siegel, 2006).

METHODOLOGY

This study is a qualitative case study. Qualitative research is defined as "an inquiry process of understanding a social or human problem, based upon building a complex, holistic picture. . . " (Creswell, 1994, pp. 2-3). The qualitative methodology permits eliciting of "thick description," (Patton, 1990, p. 375), useful in an historical analysis such as this one. A case study is defined as exploring a single entity , bounded by time and activity, with data collected from a variety of sources (Creswell, 1994). Patton (1990) instructs that case studies are particularly valuable "where one needs to understand some special people, particular problem, or unique situation, and where one can identify cases rich in information. . ." (54). Merriam (1998) suggests that the case study design is "employed to gain an in-depth understanding of the situation and meaning for those involved" (19).

Specifically, this case study will apply the four "organizational memory constructive factors" presented by Zhang, Tian and Qi (2006), in a study discussed below, that they used in determining the positive correlation between OM and OP in an empirical study of 164 Chinese manufacturing firms, to an American organization, Studebaker Corporation, which, like H-P, was steeped in OM, and which attempted to make effective use of that concept, but which failed in 1964, after over a century in manufacturing first carriages and then automobiles. The purpose of this study is to determine limitations, if any, upon the somewhat broad and unqualified conclusion by Zhang, Tian and Qi (2006) of a positive correlation between OM and OP. Studebaker was selected for this study rather than, for example, H-P, because the record on Studebaker is complete. It is not celebrating a period of ascent nor enduring a period of descent in its life cycle; rather, its life cycle was completed over 40 years ago, and many would argue, for all intent and purposes, over 50 years ago. The purpose of the study is to determine whether there are limitations to the conclusion expressed in the Zhang, Tian and Qi (2006) quantitative study that perhaps are made more apparent in this qualitative case study.

The record on Studebaker is clear in one respect: the company certainly made heavy use of its organizational memory, as, especially in times of turmoil, it was able to trot out reminders of its history again and again. Critchlow (1996) suggests that "The Studebaker tradition, as it emerged in the late nineteenth century, offered a means for subsequent managerial regimes to articulate their own goals and vision for the corporation" (7). Along those lines, a former Studebaker president recalled a 1912 meeting with the last of the Studebaker brothers, who supposedly related to him, "….perhaps you would like to know why I think we have been successful. It's because we always give our customers more than we promise" (quoted in Bonsall, 2000, 91). That refrain would echo through the decades as a Studebaker mantra, and it served as the subtitle of Bonsall's (2000) book on the company. From earliest times through the decline, recollections of the proud history of the company were brought to bear; witness this excerpt by the company's president to employees in 1954 (less than a decade before the closing of the South Bend plant): "If we carry on the tradition of Studebaker, if we work together, cooperate and fight the good fight to achieve our common goal…I sincerely believe that today can mark the beginning of a great new chapter in the history of Studebaker" (Critchlow, 1996, 139). Note also the smugness of these words from the 1952 centennial publication: "The significance of Studebaker's first century is that in the ideas and ideals of those who today plan for Studebaker's tomorrow, we find a point of view not held by men of younger companies" (Bonsall, 2000, 469). Few would dispute that Studebaker, regardless of its other failings, represents a strong organizational memory case study, as will be apparent from the history presented below. The company's OM was largely built prior to World War II. Its application to post-war events is what is especially interesting and meaningful for this study.

Data on Studebaker Corp. has been extracted from numerous secondary sources described in more detail below. The sources tend to triangulate each other (Patton, 1990), and provide the "thick description" (Patton, 1990) required in a qualitative study. The data was examined for each of the four "organizational memory constructive factors" described in the Zhang, Tian and Qi (2006) study. Application was bounded by the time frame of post-World War II to the collapse of Studebaker in the early 1960's. Themes appeared for each factor, based upon an analysis of the data. Those themes are described in this study. As with any qualitative study, generalizability is a limitation; however, although this case study of Studebaker viewed through an organizational memory lens is bounded by the nature of the study, perhaps some modest extrapolation to future circumstances is possible (Patton, 1990).

REVIEW OF THE APPLICABLE ORGANIZATIONAL MEMORY LITERATURE

A. Pre-2006 Literature

First of all, it should be apparent that much of the organizational memory literature that will be reviewed and presented was written long after the collapse of Studebaker. However that does not mean that its application to Studebaker is invalid. To the contrary, Lehner and Maier (2000) state that the existence of organizational memory traces its roots back over one hundred years, although interest in the concept dissipated early in the 20th century. According to Park and Bunn (2003), OM "appears to be a useful concept, yet it remains rather loosely defined and under-developed" (p. 240). The concept of OM predates the fall of Studebaker, although little literature was in existence at that time which discussed the concept within the concept of organizations. For example, although Gareth Morgan's (1997) *Images of organizations*, well-known for its development of organizational metaphors, and published over thirty years after Studebaker's demise, dedicates an entire chapter to "Organization as Brain," nowhere within the text does it discuss organizational memory, which is itself a classic metaphor (Ackerman, 1994). This somewhat surprising omission is indicative of the relative scarcity of literature conceptualizing organizational memory. There were relatively few studies on OM in 1963[vi]; there still are relatively few studies on it today.

Ackerman and Halverson (2000) lament the variations in definitions and, more seriously, the lack of empirical studies in this area, while not recommending that the entire OM subject area be abandoned, suggesting that they find the subject matter "compelling." In fact, an influential study by Argyris and Schon (1978) rejected the concept of OM as nothing but a metaphor! To the contrary, Hymowitz (2001) suggests that OM is especially important in an environment of corporate downsizings, when senior-level and veteran employees are terminated from employment or retire, resulting in severing links to the past. Much of the contemporary OM literature focuses on information-retention systems for organizations, how to retain and access information, rather than the broader issues of whether and how that information is used. Nevertheless, there are a number of important studies in this area that go beyond simply presenting technological solutions with respect to preserving organizational memory. This paper will focus on those studies addressing the *application* of OM rather than its retrieval and storage.

One major study dominates in the area of conceptualizing OM. Walsh and Ungson (1991) begin by providing an often-cited definition of organizational memory as "stored information from an organization's history that can be brought to bear on present decisions" (p. 61). Their study is famous for introducing the five "retention bins" for information storage: individuals; culture; transformations; structures; and ecology. They also suggest the importance of external archives to an understanding of OM. Of importance to our study, though, is their recognition of the positionality and fallibility of those presenting the memory: "The 'why' in a decision . . . will distort and decay as it is passed over time from person to person as a part of an organization's culture. As such, a culture may carry an interpretation of why a decision was made but this received wisdom from the past may or may not be accurate" (p. 68). Their study represents one of only a few which address the "use, misuse and abuse of organizational memory," recognizing that OM fulfills three roles in an organization: informational; control; and political. Their observation that "The principles of organizational memory are most evident when the organization's environment changes profoundly" (Walsh and Ungson, 1991, p. 78) is very relevant to our study of H-P, as is much of their discussion of the uses of OM. Five years later, Orr (1999), in an article designed for HR executives, suggests, similarly to Walsh and Ungson (1991), that "organizational memory isn't always such a good thing" and cautions that "Organizational memory is a power asset that every organization must manage carefully."(p. 9). He notes that managers can often be "blinded" by past practices and thus fail to discern changed circumstances (p. 9).

Stein (1995 provides a useful review of the conceptual foundations of OM, integrated with practice-oriented recommendations to management for its use. He suggests that the importance of this concept is based upon the following: "(i) [it] is a rich metaphor that provides insight into organizational life; (ii) organizational memory is embedded in other management theories; [and] (iii) organizational memory is relevant to management practice" (p. 17). Stein (1995) bifurcates the definition of OM into a *content* versus *process* dichotomy and links the concept to learning theory. Although much of this article is focused on practice orientation, and uses of OM to benefit the organization, Stein (1995) cautions "we should be careful not to assume the availability of organizational memory necessarily leads to organizations that are effective; it can also lead to lower levels of effectiveness and inflexibility" (p. 21).

Even though the Walsh and Ungson (1991) and Stein (1995) studies appear to constitute the dominant theoretical explorations of OM, a number of empirical studies also do address its theoretical basis. Johnson and Paper (1998) attempt to identify the nexus between OM and empowerment. They suggest a useful distinction between *organic memory* (those of individual organization members, the culture, standard operating procedures, etc.) and *constructed memory* (knowledge stored in facilities deliberately designed for that purpose). Johnson and Paper's (1998) qualitative study was based on data collected from interviews at eight organizations, mostly from information systems workers with whom the authors had developed prior relationships. They concluded that, although information technology can and should be used to enhance OM and empowerment efforts, the combination of empowerment and OM was not at the forefront of organizational strategic deliberations.

A significant interest in OM is evident outside the United States. For example, Randall, Hughes, O'Brien, Rouncefield and Tolmie (2001), all from the United Kingdom, reported on the results of a seven-year ethnographic study of a bank, focusing on the use of OM in order to determine the connection between knowledge and action. They were able to distinguish three situations: knowing *how*, knowing *who*, and remembering cases as being *like this*. One conclusion is relevant here: "understanding knowledge requires close and careful empirical investigation of the way in which knowledge is used" (p. 120). The study appeared to cast doubt on the effectiveness of information retrieval systems as a significant component of OM. Again, though, it is not a study of application of OM to strategic organizational activities.

Park and Bunn (2003) published an interesting recent study suggesting the importance of OM to the organizational buying process. Their study presents the distinction between the following attributes of OM: content; accessibility; dispersion; level; and form. Another important distinction presented by the authors is between *physical memory* (information repositories such as manuals, files, etc.) and *cognitive memory* (beliefs and behavioral routines). The authors developed and applied OM to eight different types of buying situations, and suggest that marketing managers consider the distinction between physical and cognitive memory when seeking to influence organizational purchasing decisions.

In addition, the literature is abundant with studies discussing the *how* aspect of OM, particularly how to store and retrieve information. Often cited in this regard is Ackerman's (1994) introduction of the "answer garden" computerized organizational memory system (OMS). A comprehensive review of OMS literature is presented in an article by German researchers Lehner and Maier (2000). They note that the term "organizational memory" actually originated in a study by Hedberg (1981). Of importance to this article is their admonition that "pursuing the concept or construct of organizational memory is not an end in itself. It serves to explain complex developments in organizations and should, among other things, support the active structuring of processes of change" (p. 294). Although they suggest a number of areas for future research, they do not include application of OM among them, but their "examples" come closest to constituting significant organizational events.

Ackerman and Halverson (2000) attempt to ground OM within a field study involving a Silicon Valley telephone helpline group. Their study purports to demonstrate the existence of varying and distributed memories, and is interesting in that it suggests "decontextualization" and "recontextualization" as necessary components of the memory process. Once more, the study subjects are not involved in major organizational activities.

Two interesting studies involving application of OM were published in the same edition of *The Academy of Management Review*. Anand, Manz and Glick (1998) define OM as "a convenient metaphor that can be used to define the information and knowledge known by the organization and the processes by which such information is acquired, stored, and retrieved by organization members" (p. 796). They suggest application of the model of group transactive memory to multiple organizational groups in an effort to assist organizations to address information management challenges. This would be effected by incorporating information and knowledge into "systemic memory" via development of a system of directories and locators. Of interest to this study of Studebaker is their concept of disrupting and re-creating organizational memory, not unrelated to the "decontextualization" and "recontextualization" described in the Ackerman and Halverson (2000) piece. Moorman and Minor (1998) suggest that OM is influenced by yet moderates the impact of what they term "organizational improvisation," defined as "the degree to which composition and execution converge in time" (p. 698). Their distinction between *procedural memory* (memory for how things are done) and *declarative memory* (memory for facts, events or propositions) is useful but the authors never address the use and misuse of OM outside of the improvisation context.

Finally, Feldman's (2002) book entitled *Memory as a moral decision: The role of ethics in organizational culture* deserves to be mentioned in this review. Feldman suggests that "The past carried in a tradition is the perceived past, not the past that historians attempt to discover. The perceived past is recorded in memory and writing and is capable of being retrospectively reformed by those working in the present" (p. 89). He concludes that "memory is a moral decision because it represents a choice to learn or to forget a moral lesson from the past" (p. 163). Postmodernists would argue "whose memory?" and that "memory" can be a tool for manipulation and control by elites. Yet except for a few studies, most notably that by Walsh and Ungson (1991), and, to a much lesser extent, that by Stein (1995), these issues of use and misuse of OM, and the limitations of OM, are rarely raised and discussed in the literature, primarily because none of the studies focus on macro-level organizational events. That would change somewhat in 2006, however, with the publication of two studies which examined the impact of OM from two different continents and research methodologies.

B. Zhang, Tian and Qi's (2006) Empirical Study of the Impact of OM

The empirical study by Zhang, Tian and Qi (2006) is interesting because they focus on what they consider the "knowledge contents of OM." They first distinguish the impact of the internal versus the external environments of an organization on OM and then formulate four "organizational memory constructive factors" which would provide the framework for their study. The four factors can be summarized as follows:

- *Management-oriented Organizational Memory (MG-OM)*: knowledge of maintaining the regular operation, consisting of organizational structure and managerial methods (internal).
- *Technology-oriented Organizational Memory (T-OM)*: special knowledge promoting development and operation, consisting primarily of modularization, product memory and information technology (internal).
- *Culture-oriented Organizational Memory (C-OM):* intellectual capital, such as values and employee behavior (internal).
- *Market-oriented Organizational Memory (MK-OM):* knowledge related to the market, such as competitor, competitor and supplier knowledge (external).

The study itself sought to test hypotheses related to the "strong positive impact on OP" of these factors. Data was extracted from a "Company Knowledge Management and Operation Survey" administered to 164 Chinese manufacturing companies. Unidentified variables representing each factor were rated on a five-point Likert scale, and then analyzed by canonical correlation. The researchers concluded that "organizational memory is a dynamic process, that organizational memory has a strong positive impact on organizational performance, that effective MG-OM, T-OM, and C-OM improve management performance, and that effective MK-OM improves market performance" (p. 232). OP appears to be defined in the study based upon the variables assigned: "for manufacturing companies…product quality and reliability, equipment change over time, volume flexibility, time to market, delivery reliability, manufacturing lead time, environmental performance, recruitment of outstanding employees, customer satisfaction, return on investment, market share, sales growth, and profitability" (p. 229). The "four factors" described in the Zhang, Tian and Qi (2006) study will be applied to Studebaker in the present study, in attempting to understand the impact of OM to Studebaker's OP. The period post-World War II to the collapse of Studebaker in the early 1960's will serve as a bounded time frame for this examination.

C. Siegel's (2006) Case Study of the Effects of OM on H-P

Before doing so, however, it is instructive to examine Siegel's (2006) case study of the effects of OM on H-P. The Hewlett-Packard Company, steeped in the famed "H-P Way," provided an interesting case study for examining application of OM. Most business students are familiar with how two young engineers, "Bill" Hewlett and "Dave" Packard, began their organization in a garage in Palo Alto, California in the late 1930's, with capital of $538.00. They wanted their organization to be managed differently, and, by 1957, after a senior management meeting in Sonoma, California, adopted the rudiments of what came to be known as the "H-P Way." Packard summarized it as "We have a set of values – deeply held beliefs that guide us in meeting our objectives, in working with one another, and in dealing with customers, shareholders and others" (Packard, 1995, p. 82). Collins and Porras (2002) describe it as a form of "corporate existentialism" (p. 56). What we do know is that "Bill" and "Dave" were determined to form an organization that would be different. Over 40 years ago, "Dave" Packard wrote that "Our main task is to design, develop, and manufacture the finest [electronic equipment] for the advancement of science and the welfare of humanity" (cited in Collins and Porras, 2002, p. 207). They intended to structure and manage their organization to meet that lofty goal, what has been described as a "capitalist utopia" (Burrows, 2003, p. 50). "Bill" summarized the philosophy they would follow as the "Four Musts": "The company *must* attain profitable growth; the company *must* make its profit through technological contribution; the company *must* recognize and respect the personal worth of employees and allow them to share in the success of the company; and the company *must* operate as a responsible citizen of the general community" (p. 207).

This mantra would guide the organization through the next forty years, creating a rich OM tradition useful for analysis, particularly in the late 1990's, when Bill and Dave were gone and, with financial performance lagging, the organization turned to "Carly" Fiorina as the first "outsider" CEO. Siegel (2006) describes how Fiorina attempted to utilize the rich OM of H-P to her advantage, with mixed results. But the data became even more interesting when, in 2002, Fiorina announced the impending acquisition of Compaq Computer Company, resulting in a shareholder proxy fight pitting herself against Hewlett scion Walter Hewlett. By the conclusion of the shareholder action, in which H-P and Fiorina were successful, it was clear that both Fiorina and Hewlett had discarded utilization of OM to sway voters to their respective positions. The conclusion suggested by Siegel (2006) was that, although OM can be effective to influence *internal* audiences, i.e., employees, it may be less effective in influencing *external* audiences, such as shareholder and investment bankers. Certainly, by the late 1990's, the positive impact of OM on the performance of H-P was not evident; in fact, the H-P Way appeared to many to have become an albatross which was dragging down H-P and not allowing it to progress (Siegel, 2006). However, as indicated above, because H-P continues as a very viable organization, including performance ascents and descents, it was not selected for this particular case study at this time.

REVIEW OF APPLICABLE STUDEBAKER CORPORATION LITERATURE

Studebaker Corp. has been the subject of a number of books, both while it was still in existence and after it collapsed. The official company history was Longstreet (1952), *A century on wheels*: *The story of Studebaker*. Earlier, former president Erskine, before taking his own life, wrote *The history of the Studebaker Corporation* in 1924. Raymond Loewy, architect of some of the most famous Studebaker designs, authored a book entitled *Industrial Design* in 1979, where he discussed and presented sketches of some of the designs that made Studebaker successful aesthetically, if not always commercially. In addition, an excellent website containing photos of the various models and presenting a critical and often insightful perspective is found at *Studebaker: The First 100 Years*, found at http://studebaker100.com/stu/index.html.

From the historical and business perspectives, there have been three major books (not commissioned by the company[vii]) on Studebaker that any researcher of this company should access. The earliest is Cannon and Fox (1981), *Studebaker: The complete story*. This book is packed with outstanding photos but presents more of a design and mechanical perspective, and less of a business focus. The authors celebrate (or lament) Studebaker from a car-lover's lens. Insights into the rise and fall of the company are more incidental than intended, and the authors appear almost apologetic when presenting business or strategic assessments. Yet, the book was written shortly after the events resulting in Studebaker's decline, and is filled with excellent primary source data. It also presents the environment, internal and external, of this car manufacturer during its tumultuous existence.

The most important, from a business perspective, of the Studebaker books is Critchlow's (1996) *Studebaker: The life and death of an American corporation.* Critchlow, a history professor, views his purpose as representing an anti-Chandler focus on structure and strategy in understanding the life cycle of organizations. Rather, his focus is on understanding "the importance of managerial decisions and corporate culture in shaping a company's fate…The history of Studebaker and the automobile industry in general should be seen in terms of managerial choice and corporate culture" (p. 1). Tedlow (1996), renowned in business research, commended Critchow's book, while cautioning that it tends to draw "big lessons" from history (591), and appears to limit its importance to that of company history. Perhaps that reaction is not surprising, as Critchlow minimizes utilization of quantitative analysis in his study, and appears to marginalize environmental impact.

The most recent of the Studebaker books is Bonsall's (2000) *More than they promised: The Studebaker story.* Bonsall is an automotive historian. His book is less scholarly in tone than is Critchlow's, and tends to rely on company sources and documents. It also focuses more heavily on the automobiles and designs that the company produced, not surprisingly, given the background of the writer. Bonsall (2000) is more willing to attribute environmental effects to the demise of Studebaker, although certainly not absolving management errors and questionable strategies as well. Readers interested in Studebaker within the context of the industry and without a focus on organizational theory would be led to Bonsall's book.

BACKGROUND OF STUDEBAKER CORP.

Before examining the case of Studebaker Corp. viewed through the lens of the Zhang, Tian and Qi (2006) "OM constructive factors," it is useful to understand the extensive and diverse background of this company, which began as a wagon and carriage manufacturer well before the turn of the 20th century. We will briefly review the early history of Studebaker, its "heyday" and decline as an automobile manufacturer, and the circumstances surrounding its sudden departure.

The Early Years (1852-1902)

One cannot understand the history of Studebaker Corp. without understanding the background of its founders, the Studebaker brothers. They were the progeny of German Dunkards who moved to Ephrata, Pennsylvania in the late 1700's. The father of the Studebaker brothers was forced to head west because of constant financial problems, eventually settling in South Bend, Indiana. The four Studebaker sons opened a blacksmith shop in South Bend in 1852, the forerunner of Studebaker Corp. Despite the seeming dissonance of deeply religious, passive Dunkards making money out of wartime, H. & C. Studebaker took off because the brothers made a profit selling wagons to the military during the Civil War. Crtichlow (1996) suggests "The principle of pacifism had been replaced by the principle of profit" (22). It would not be the last time that Studebaker Corp. would financially benefit during wartime.

Studebaker became a wagon industry leader and business flourished, not just as a result of high-quality products but also a careful system of management wherein the brothers were able to divide up duties effectively. Their success emanated from "volume production, technological innovation and national marketing" (Critchlow, 1996, 26). An early advertising slogan during this period came from one of the Studebaker brothers in summarizing the company's success: "Always give more than you promise" (Cannon and Fox, 1981, 44), which was adapted to be a subtitle of Bonsall's (2000) recent history of the organization. The company continued to prosper despite several fires and the Panic of 1893, under the leadership of the remaining Studebaker brothers, who were considered "enlightened managers" for their time, particularly in respect to their generous relations to their employees. No doubt this was a result of their religious background. That generosity to employees would be a theme (some would suggest it sounded the death knell) of Studebaker going forward, but, interestingly, during the early years, the company was perceived, accurately, as hostile to unions. Their piety did not prevent the Studebaker brothers from building large mansions and living the life of the wealthy at South Bend, as the wagon and carriage industry continued to flourish into the 1890's.

From Carriage Maker to Automobile Manufacturer (1902-1945)

As a result of marrying one of the Studebaker daughters, Frederick M. Fish became part of the family. With only one of the original Studebaker brothers alive by 1901, Fish assumed the presidency of the organization and began its transition from a wagon and carriage manufacturer to an automobile manufacturer. For all of his faults, Fish, a New York corporate attorney, did have the vision to recognize that the automobile represented the future of transportation in the United States. Critchlow (1996) suggests that "Fish's reputation as a man with close ties to Wall Street and a Republican concerned with the laboring classes fit the Studebaker brothers' perception of themselves as enlightened capitalists and progressive employers" (43). He was largely responsible for dragging the reluctant remaining Studebaker brothers into examining the possibilities of the automobile in the 1890's. Eventually, in 1902, a Fish-led Board of Directors authorized Studebaker to begin production of automobiles while certainly not abandoning the lucrative wagon and carriage business. Bonsall (2000) notes that, although many of the early automobile companies were outgrowths of the carriage industry, Studebaker, due to the efforts of Fish, "would be the only top-ranked carriage builder to make a direct transition to being a top-ranked automobile producer" (43).

At this point, Studebaker was not a manufacturer of cars, per se, but, like Cadillac, Ford and Oldsmobile, simply an "assembler of components" (49). It had abandoned early forays into electric automobiles but needed a partner as it pursued the gasoline-driven vehicle. Its first important inter-organizational relationship in the automobile era was with Garford Manufacturing Company, which it eventually purchased, to be followed shortly afterward by the purchase of another fledgling manufacturer, Everitt-Metzger-Flanders, in 1907. Some people predicted that the vehicle which emerged, the "EMF," would overtake sales of Ford's Model T, which, obviously, was a less-than-prescient prediction (Critchlow, 1996). A squabble with EMF founders, however, was resolved, ominously, only by the interference of another inter-organizational relationship which would plague Studebaker until the end: commercial and investment bankers. "Banking interests were now to play a key role in shaping Studebaker's destiny" (Critchlow, 1996, p. 62). Also, the above acquisitions arguably did little overall to improve Studebaker, other than providing it a start in manufacturing of components. Initially, production boomed, but a reorganization resulted in the elimination of the Studebaker family from the company in all but name by 1915, when the presidency of the company was assumed by Albert Erskine, then its Treasurer (at the recommendation of Wall Street investment banker Henry Goldman, not surprisingly).

Erskine, during his eighteen years at the helm, would be the architect of Studebaker's greatest successes and, some would argue, failures. Chief among the early successes was elimination of the troublesome EMF line of vehicles (Garford vehicles had previously been terminated) and emergence of Studebaker as an automobile name in its own right. Erskine, not being a member of the Studebaker family by blood or marriage, quickly attempted to introduce himself as honoring the "organizational memory" (Walsh and Ungson, 1991) of the organization, which was still producing wagons in 1913 (and would continue to do so until after the conclusion of World War I) as well as cars:

> Has Studebaker no traditions? The name Studebaker has stood for all that is sound and honest and staunch and durable in vehicular transportation for seventy years. No business in America, no business in the whole world, has better traditions to live up to than we of the Studebaker Corporation have. Studebaker traditions, Studebaker reputation enters into the building of every car we produce (cited in Bonsall, 2000, 95).

Many readers would be surprised to learn that the advent of World War I actually *increased* demand for horse-drawn wagons for Studebaker, with the government ordering 73,000 units in 1917. Overall, though, the world wars and the Korean War, while generating lucrative government contracts, would negatively impact the production of American automobiles, as production was geared to wartime vehicles. Studebaker liquidated its horse-drawn vehicle business in 1920, focusing strictly on manufacturing automobiles at its South Bend, Indiana, plant, which was extensively renovated. The "golden age" of Studebaker in the 1920's was fueled by a focus on six-cylinder, medium priced vehicles. Sales tripled between 1920 and 1923. Studebaker also determined to combat Ford's highly popular Model T with a four-cylinder model named after Erskine that never caught on with the public, evidencing a strategic blunder they would compound in succeeding decades. Another unfortunate inter-organizational relationship was its acquisition of fading luxury car maker Pierce-Arrow in 1928. Pierce-Arrow was "prestigious but not profitable" (Bonsall, 2000, 140), a respected brand which had long since lost the luxury car market to GM's Cadillac brand. In fact, of the 142,696 cars sold by the combined Studebaker and Pierce-Arrow in 1928, only 6,491 of them were Pierce-Arrows! Then the Great Depression struck. Unfortunately for Studebaker, a failed potential acquisition target during this period was Maxwell-Chalmers, which later served as the foundation of Chrysler Motors.

The Great Depression, beginning in 1929, hit Studebaker hard, as it did all of the other automobile producers. The difference is that most of the larger ones (Ford, General Motors and Chrysler) had the capital to better withstand the economic collapse than did Studebaker. Also, Erskine made the disastrous prognosis that the Depression would be short-lived, and therefore Studebaker, with plummeting car sales, continued to pay high dividends out of dwindling capital, exacerbating a chronic capital problem from which arguably they never recovered. In addition, Erskine was determined to force Studebaker into the small car market, despite the earlier failure of his namesake vehicle. The company's next four-cylinder foray, the Rockne, also proved to be disastrous, and it was discontinued after one year!

Bear in mind that Studebaker throughout this period continued to exhibit the paternalism espoused originally by the Studebaker brothers as far as its workforce relationships. Erskine, following the mantra that loyal workers built better cars, even went so far as to set up a "Cooperative Department" within management to handle labor relations, quite a novel idea in the 1920's (Critchlow, 1996). As a result of the "enlightened" employee relations, including with unions, Studebaker would not, other than sundry localized wildcat walkouts, be victimized by a strike until late in its existence. The downside, though, was establishment of what many in the industry felt was a "giveaway" to the unions, and costs per vehicle approaching twice those of the other domestic automakers. The result was that the company was placed in receivership in 1933. Shortly thereafter, a despondent Erskine took his own life.

The Studebaker story might have ended there save for the outstanding leadership of Harold Vance and Paul Hoffman, the court-appointed receivers. They immediately made use of organizational memory again, a venerable tool in the Studebaker toolbox, by proclaiming that "Studebaker carries on" (studebaker100.com). Again depending heavily on external financing by investment bankers, Vance and Hoffman retooled the Studebaker models, re-established cozy relationships with the unions, including adopting the slogan that "Studebaker is America's Friendliest Factory" (Critchlow, 1996, 105) and, amazingly, resurrected the venerable company! Once again, the company decided to venture into the inexpensive car niche, but this time its "Champion" model was quite successful, generating sales of 72,000 units alone in 1939, which vaulted Studebaker to being the largest independent automobile maker in the United States.

The advent of World War II, while resulting in curtailment of automobile production once again, was certainly not unprofitable for Studebaker, which always was seeking government contracts. Studebaker became a leading producer of military trucks, particularly for distribution to the Soviet Union, being hard-pressed by Nazi Germany. In fact, so many Studebaker trucks were shipped to the Soviet Union that many soldiers treated the term "Studebaker" as English for "truck (Bonsall, 2000). By 1945, 200,000 trucks had been produced for the war effort, in addition to 83,000 engines for the Boeing B-17 Flying Fortresses (studebaker100.com).

The Decline and Death of Studebaker (1945-1963)

To its credit, Studebaker seized the moment even before the conclusion of World War II to become the first US automaker to come out with a new postwar model (Critchlow, 1996). Their slogan was "First by far with a postwar car" (studebaker100.com). That strategy, although since criticized for weakening a company always in a tenuous capital position to begin with, seems sound compared with Vance and Hoffman's decision to directly compete with the Big Three "by pursuing enlightened industrial relations with organized labor" (117). Even the union felt Studebaker was too lenient in negotiations. Also, rather than modernize the South Bend plant, the Board determined to continue paying ruinously high dividends to shareholders. However, the public embraced the new 1947 models, with their wraparound rear windows and Studebaker once more became profitable. Applying a vertical integration strategy, Studebaker purchased Empire Steel Corporation that year. Studebaker's automobile designs continued to be at the forefront, courtesy of designer Raymond Loewy, including the famous "bullet-nose" design in 1950, so popular that the automaker reached its all-time production level of 268,229 cars that year (studebaker100com). Yet, ominously, it missed out on a great opportunity by refusing twice refusing the distribution rights to a pesky foreign competitor: the Volkswagon Beetle (Bonsall, 2000).

Studebaker proudly celebrated its centennial in 1952, but the collapse thereafter, while not unforeseen, was sudden and dramatic. Within a year, the effects of poor workmanship, the Korean War, and a price-cutting war between Ford and General Motors left Studebaker reeling. Its stock, which sold for $11.70/share in 1949, had dropped to $1.13 by 1953, as its market share plummeted to a paltry 2.4% (Critchlow, 1996). In 1954, Studebaker was acquired by flailing Packard Motor Company. At that point, Studebaker labor costs were twice the industry norm (Bonsall, 2000). By 1958, its workforce, which had numbered 21,977 in 1924, was down to 8,175! Some have said that the Studebaker-Packard merger was planned as a first step toward a merger with what became American Motors, but the huge success of the AMC Rambler dissuaded them from joining forces with Studebaker-Packard to form a conglomerate of the former independents to combat the Big Three (Bonsall, 2000). Regardless, not even Studebaker's introduction of its compact Lark model, with a brief spike in sales in the late 1950's, a belated attempt at diversification into non-automobile industries, and introduction of the sporty Avanti in 1962, remarkable considering the nonexistent capital and few resources of the corporation, could stave off the inevitable result, and Studebaker's South Bend, Indiana, plant closed in December, 1963, heralding the end of a colorful and important epoch in American business, the demise of an organization that sold over $6 billion of vehicles from 1852-1952 (Studebaker 100.com). The collapse of Studebaker also resulted in about 11,000 workers being affected by termination of its pension plans, expediting enactment of the Employee Retirement Income Security Act of 1974 (ERISA). Since its collapse, as we will see, business historians have argued over the causes. This case study, however, focuses on post-World War II application of the Zhang, Tian and Qi (2006) "OM constructive factors" to Studebaker in an effort to understand their impact on its organizational performance, particularly in the post-World War II era to its collapse in the early 1960's.

APPLICATION OF OM CONSTRUCTIVE FACTORS

Management-oriented Organizational Memory (MG-OM)

The first of the "OM constructive factors" identified in the study by Zhang, Tian and Qi (2006) as having a positive impact on organizational performance (OP) was what they termed "management-oriented organizational memory (MG-OM)." For manufacturing companies, they identified the variables comprising MG-OM as:

- emphasis on system construction and standard management
- experienced managers
- rapid and valid internal communication and feedback
- enhancing empowerment to employees
- performance-based promotions, encouragement and treatment
- standard procedure for new product development
- quality authorization of product
- continuous improvement of product quality (p. 228).

If these variables appear to be geared more toward organizational *knowledge* rather than *memory*, one must recognize that they defined OM utilizing a *content* approach: "OM, consisting of documentary materials, regulations, procedures, conventions and organizational culture, provides necessary knowledge for organization" (p. 227).

Yet, they also borrow the definition from Stein (1995) to the effect that "OM is a method by which previous knowledge is brought to bear on present activities" (p. 227). For purposes of this study, it will be assumed that the intent of Zhang, Tian and Qi (2006) was that the MG-OM variables described above were intended to look retrospectively and then apply that knowledge or memory to the present for the organizations they researched. That same methodology will be used here in examining Studebaker.

There can be little doubt that Studebaker scored highly on the MG-OM scale for most of its history. It became famous for what was termed "enlightened management":

> Thus, while Studebaker looked at the practices of other companies, it developed its own practice of enlightened management. In turn, Studebaker employees actually viewed Studebaker as an exceptional place to work. In short, both the employees and management at Studebaker accepted and acted upon the rhetoric of corporate paternalism (Critchlow, 1996, p. 76).

Product quality? Amberg (1989) suggests that Studebaker had a "tradition of product quality" (p. 193). Experienced managers? Former president Erskine was once quoted as bragging, "Yes, sir, I defy anyone to take a Studebaker man away from us, defy anyone. I simply say it cannot be done" (Critchlow, 1996, p. 76). And how did employees feel about Studebaker for much of its history? Amberg (1989) summarizes it as a "strong sense of company allegiance…intensely loyal to the company itself" (p. 195).

As described above, Studebaker's contribution to the United States during wartime, particularly World War II, was exemplary and remains one reason it is viewed so fondly and positively, even decades after its demise. But, even in the post-World War II period, MG-OM remained strong. For example, Studebaker designer Raymond Loewy and president Harold Vance were featured on the cover of *Time* magazine in 1949 and 1953, respectively (Bonsall, 2000). Even at the end, the management of Studebaker attempted to resurrect the company through introduction of an innovative sports vehicle, the Avanti, but ran out of time and money. In retrospect, Studebaker historians (Critchlow, 1996, Bonsall, 2000, Beatty, Furlong and Pennington, 1984) certainly have pointed out mistakes made through the course of 100 years by Studebaker management. Yet even Loewy, the great designer whose contract with Studebaker was terminated years before its demise, stated, "My decades with the company were exhilarating and unforgettable, and my respect for its engineering department immense. I leave it to others to uncover the reasons why such a great, prestigious firm…finally disappeared at a time when it was admired throughout the world…" (Loewy, 1979, p. 137).

In short, it is evident that a strong MG-OM was very evident at Studebaker through much of its history. It was only in the last ten years or so, after its "acquisition" by Packard, that employees sensed the demise of the old traditions, resulting from restructuring and a tougher stance with the unions

(Critchlow, 1996) and customers noticed a marked decrease in quality of the automobiles produced. It is suggested that these changes, with their negative impact for the organization, had little to do with OM and much to do with Studebaker's financial deterioration. But, even as the company was drawing its last breaths, a veteran manager, Eugene Hardig, with over 40 years of service to the company, attempted to single-handedly save Studebaker by developing the Lark. His heroic efforts were remembered years later, after the company was gone, by a fellow employee: "We'll never forget how Hardig, held back by lack of funds, designed the Lark with a blow torch and scrap metal. He's one of those real believers in the auto industry. He burns with a bright blue flame" (cited in Bonsall, 2000, p. 335).

Few of the companies used by Zhang, Tian and Qi (2006) in their research could have had a stronger MG-OM component than Studebaker, regardless of whether all of the decisions its management made, in retrospect, look well-reasoned and strategically sound to us today. Zhang, Tian and Qi (2006) suggest that "Compared to other OM constructive factors, MG-OM is more subjective and flexible" (p. 229). Let's grant them that, and still give Studebaker an "A" grade for this variable.

Technology-oriented Organizational Memory (T-OM)

The second "OM constructive factor" identified by Zhang, Tian and Qi (2006) is what they term "technology-oriented organizational memory (T-OM)." For manufacturing companies, the variables tested included the following:

- undertaking programs for improvement of equipment productivity
- engaging in process automation programs to enhance productivity
- restructuring manufacturing processes to obtain process focus and streamlining
- needing extensive professional knowledge in production
- introducing new technologies to improve production
- developing new products
- transferring technological knowledge through document and flow
- using information technologies (p. 228).

Certainly, technologically, it is important to view Studebaker within its context, remembering that it closed its South Bend, Indiana, plant back in 1964. Although always constrained by being financially strapped for cash, Studebaker was a leader in design and other automotive technologies for most of its history. The company's 1950 Annual Report to Shareholders, in introducing the "bullet nose" Loewy design, proudly states, "Since the introduction of our first models of postwar design in 1946, we have gained recognition as the industry's style leader" (quoted in Bonsall, 2000, p. 256). Although Studebaker has been criticized for failing to upgrade its South Bend, Indiana plant, Amberg (1989) suggests that "the company had invested in new plant and machinery at a rate equal to the Big Three after the Second World War, providing up-to-date facilities" (p. 193).

Even more significant, Amberg (1989) provides a technological perspective on Studebaker missing from other analyses of this organization. He suggests that Studebaker had in place a flexible manufacturing system (FMS) which might have saved the company had they not decided to instead compete directly with the Big Three behemoths. While modern organizational theory defines FMS in terms of using computers to link manufacturing components to enable expeditious switching from one product to another (Daft, 2004), the rudiments of that process predated computers. Amberg (1989) suggests that Studebaker's major contribution to T-OM, for which it was remembered, was "Rather than driving to standardize products and the production process, Studebaker management emphasized distinctive product design and quality" (p. 192). It did so by implementing an FMS, beginning in the 1920's, described as follows:

> Studebaker had an incipient flexible specialization strategy. Crucial to successful flexible specialization is that the production process and market strategy depend on each other: filling product niches as they develop requires that process technology and labor-management relations adjust flexibly to accommodate new products (Amberg, 1989, p. 192).

The problem for Studebaker was not technological organizational memory. It scores highly in this factor, as it did in MG-OM. The problem was a disastrous management change of strategy in the 1950's to try to match the Big Three at their own mass production techniques, a battle that Studebaker could not win. History often does not treat Studebaker kindly, portraying it as technologically inferior and producing "clunkers" that the public did not want. To the contrary, from a technological and design perspective, Studebaker was almost always ahead of its time. Even toward the end, its last two major products, the Lark and the Avanti, were both ahead of their times. Only when it was so financially strapped that it was unable to produce innovative, quality vehicles, from the late 1950's (after its introduction of the Lark), did its T-OM decline. Studebaker should receive a grade of "A-" for its T-OM, taking into account its overall innovative history.[viii]

Culture-oriented Organizational Memory (C-OM)

The third "OM constructive factor" identified by Zhang, Tian and Qi (2006) is "Culture-oriented Organizational Memory (C-OM)." For manufacturing companies, the variables they measured included:

- organizational goal and promise
- leaders learn from experience
- leaders are enlightened
- leaders care about the organizational culture
- the organization cares about the employees' personal growth and development
- employees' innovative work will be encouraged and rewarded
- employees identify with organizational culture
- employees dare to query and challenge authority
- employees cooperate well
- employees participate in the active discussion of the organization
- employees adapt to and learn from change quickly (p. 228).

As should be evident by now, culture was the essence of Studebaker, dating from its humble beginnings by the Studebaker brothers. Zhang, Tian and Qi (1996) suggest that "C-OM exists almost everywhere in the history of the organization, its shared values, and in suggestions from the employees" (p. 230). To that end, Critchlow (1996) asserts "the general theme that emerges from this history of the Studebaker Corporation is that tradition – as construed by management – played a fundamental role in molding corporate culture, rhetoric and strategy at Studebaker. Historical perspective and corporate tradition were closely interwoven as management sought to construct an outlook that rationalized corporate strategy and employee relations" (p. 7). Organizational culture is often transmitted via stories (Daft, 2004). Note this classic in organizational culture, recounted by Studebaker president Paul Hoffman, in 1933, about a meeting he had with J.M Studebaker, last of the brothers, late in his life, in 1912, while Hoffman was still a young salesman:

> He (Studebaker) said, 'You're just starting out in business, and perhaps you would like to know why I think we have been successful. It's because we always give our customers more than we promise. This way you hold customers and get more customers.' He waited a moment and then added, 'But don't give them too much more, or you'll go broke' (Bonsall, 2000, p. 91).

"More than they promised" became a Studebaker mantra for many years, driving the company, as well as serving as the title of Bonsall's (2000) history of the company, borrowed from an earlier history of the company (that of Smallzreid and Roberts, 1942)

Did the employees of Studebaker identify with the organizational culture? Amberg (1989) assures us that "Although Studebaker workers would prove extremely militant when defending what they considered customary work norms, these same workers were intensely loyal to the company itself. . . Studebaker workers combined a solidaristic tradition of active unionism with a strong sense of company allegiance"
(p. 195).

Also of significance is the manner in which Studebaker sought to propound its tradition and culture. These words from former presidents Hoffman and Vance, contained in Longstreet (1952), Studebaker's centennial history (which it commissioned)[ix], sound the theme for its first 100 years: "the significance of Studebaker's first century is that in the ideas of those who plan today for Studebaker's tomorrow, we find a point of view not held by men of younger companies" (Longstreet, 1952, p. 120-121).[x]

As mentioned earlier, one strong theme throughout the history of Studebaker, rampant within its culture, was its tradition of rising to the occasion during wartime. An excellent example of the organization propounding this aspect of its culture came from its 1941 Annual Report to Shareholders, as reported by Bonsall (2000):

> Studebaker has been called upon on numerous occasions to make its contribution in an emergency involving the United States. Studebaker vehicles saw active service in the Civil War, the Indian Wars, the Spanish-American War, and World War

> I. In the present World War [World War II], as in the first, Studebaker will produce a variety of war materials and will cooperate to the fullest extent in the nation's war effort (p. 229).

True to their mantra, they did so, "more than they promised," and will forever be remembered for their tremendous effort in supporting the Allied war effort.

Obviously, many, many other examples of the strong culture of Studebaker could be set forth in this article, except for space constraints. The point is that few organizations whose data was analyzed by Zhang, Tian and Qi (2006), and linked positively to OP, could have had a much stronger organizational culture than Studebaker. Almost fifty years after it closed its South Bend plant, effectively ending its existence as an automobile producer, it continues to attract a strong following; a Google search of the name "Studebaker" proves fruitful, to say the least.

Market-oriented Organizational Memory (MK-OM)

The fourth "OM constructive factor" identified by Zhang, Tian and Qi (2006) is "Market-oriented Organizational Memory (MK-OM)." For manufacturing companies, the variables they utilized included:

- discussing market tendency and developing direction through cross-departmental meetings
- effective marketing channels and strategies
- obtaining market information quickly and accurately
- predicting market trends
- sharing information customers [note: this is unclear]
- anticipating demand
- special department to communicate and coordinate with customers
- using evaluation of supplier potential
- quality of products/services offered as the criteria of selecting suppliers
- using willingness to disclose cost/other information as the criteria for selecting suppliers
- suppliers participate in the innovative and cooperative design

This is the only externally-related factor. It appears from the study that the researchers did not specifically correlate this factor to OP. Therefore, this article will not address at length this factor as it impacted Studebaker. For one example of its marketing prowess, though, Studebaker's management did anticipate a huge post-World War II demand for vehicles and, according to the 1953 Annual Report to Shareholders:

> *In the spring of 1946, Studebaker introduced completely new postwar models of passenger cars at a time when all other automobile manufacturers were offering to the public only slightly altered versions of prewar cars. The resulting pubic interest in Studebaker products was an important factor in the progress which was made in the succeeding six years (reported in Bonsall, 2000, 268).*

Nowhere do even Studebaker's harshest critics link its OP to failure of marketing organizational memory. To the contrary, many of the organization's marketing decisions were grounded in tradition and appear to have been effective, going back to when it manufactured wagons and carriages.

SUMMARY OF APPLICATION OF "OM CONSTRUCTIVE FACTORS" TO STUDEBAKER

Although Studebaker had essentially disappeared from the American industrial scene some 50 years before the study by Zhang, Tian and Qi (2006) of the impact of OM on OP of manufacturing companies, it is evident from the above presentation that the "OM Constructive Factors" they devised to measure that impact were very evident at Studebaker. Because the Zhang, Tian and Qi (2006) study largely utilized data secured from a prior study in 2003[xi], little information is presented as far as the 164 Chinese manufacturing companies actually surveyed. Thus, although the scope of the quantitative data used in the Zhang, Tian and Qi (2006) research is broad, it lacks the "thick, rich description" (Patton, 1990) so evident in qualitative research.

That qualitative data from Studebaker reflects an organization which faced numerous challenges and which may have been victimized by unfortunate management decisions (Critchfield, 1996) throughout its long history, but which was an organization heavy in MG-OM, T-OM and C-OM, and MK-OM, although that factor was not discussed at length above. Critchfield (1996) goes so far as to assert that "the history of Studebaker suggests that individual managers often made decisions within the context of corporate culture and traditions that were incongruent with 'the logic of the marketplace'" (p.

7). The point which has been emphasized with the discussion of the application of each of Zhang, Tian and Qi's (2006) "OM Constructive Factors" to Studebaker is how strong the company was in each aspect. The writer is confident, not knowing any of the 164 Chinese companies whose data was used in testing these factors, that few of those organizations could have had a stronger OM base than did Studebaker. This article, while applying data from Studebaker to each of those factors, does not in any manner do justice to just how strong was the OM at Studebaker throughout its history. Whether or not the "OM Constructive Factors" had been devised, or whether or not the concept of organizational memory itself (or qualitative methodology, for that matter) had found a large research audience at the time of Studebaker's demise is of little consequence because all of those concepts can be applied retrospectively to organizations in which data is available, which certainly was the case with Studebaker Corporation. In short, it is apparent from this article that the concepts described in 2006 and before, which form the theory base of this paper and the data it cites, existed at Studebaker and can be mined from primary and secondary sources, regardless of whether the specific nomenclature representing those concepts existed 50 or even 100 years ago.

IMPACT OF OM ON OP AT STUDEBAKER

So what does all of the above discussion represent? Of what utility (Baptiste, 2000) is an application of "OM Constructive Factors" presented in a 2006 study to a company which, for all intent and purposes, closed its doors in 1963? The answer to those inquiries lies in the broad conclusion propounded by Zhang, Tian and Qi (2006) as a result of their empirical study: "The results show that organizational memory is a dynamic process, that organizational memory has a strong positive impact on organizational performance, that effective MG-OM, T-OM and C-OM improve management performance, and that effective MK-OM improves market performance" (p. 232).

Three points can be made as a result of application of the "OM Constructive Factors," which served as the variables in the Zhang, Tian and Qi (2006) study, the findings of which form the basis for the conclusion expressed above. The first, and most obvious, is that Studebaker appears to represent a case contrary to their broad conclusion. The strong OM presence which permeated Studebaker for such a long time did not prevent the company from disappearing from the manufacturing scene. Studebaker met and no doubt exceeded the standards represented by these variables, yet its poor financial and sales performance, understood within the dynamic context of the automobile industry throughout its existence (Critchfield, 1996) led to its demise. In the final analysis, neither OM nor anything else had a "strong positive impact" on Studebaker, particularly in the final decade of its existence.[xii] Acquisition by a stronger company (perhaps American Motors) would have had a far stronger impact on Studebaker than its massive OM roots. One must always be cautious of studies that attempt to link largely intangible concepts such as OM to an organization's performance.

The second point is that the Zhang, Tian and Qi (2006) study neglects an important aspect of OM: the ability of management and others to reinterpret it as situations change. Studebaker's history is replete with attempts to reinterpret, to decontextualize and then recontextualize (Ackerman and Halverson, 2000) its organizational memory (particularly where labor relations were concerned) to serve the needs of management at a later time. Although Zhang, Tian and Qi (2006) acknowledge that OM is "dynamic" (p. 232), they do not discuss the essential point made years ago by none other than "Dave" Packard at Hewlett-Packard, another organization strong in OM, when discussing the venerable "H-P Way" which served as the foundation of that organization's OM: "The H-P Way is what I damned well say it is" (Collins and Porras, 1994).

The final point is, to the contrary of the conclusion reached by Zhang, Tian and Qi (2006), correlating strong OM to positive OP, strong OM may actually become a deterrence to positive OP. By that, the writer means the following. Although certainly there is nothing wrong with organizations being proud of their traditions and past, Critchlow (1996) suggests that "Tradition haunted corporate leadership at Studebaker before it closed its doors in 1963" (160). Perhaps management felt some obligation, even as early as the 1930's to maintaining high dividends not justified by earnings, maintaining the higher than average remuneration to workers begun in another era for other reasons, maintaining the outdated plant in South Bend, Indiana. Siegel (2006), in his study of Hewlett-Packard Company, suggests that the strength of application of organizational memory is internal, primarily for employees, and its utility decreases when it is continually applied to external stakeholders, such as stockholders. Perhaps a corollary resulting from an understanding of the demise of Studebaker is that even internal application should be made sparingly.

Orr (1999) cautions that the problem with organizational memory occurs when organizations blind themselves to the present by relying on past circumstances etched into its organizational memory and fail to discern changed circumstances. Studebaker's leaders may have eventually been hamstrung by the very traditions they extolled. The study by Zhang, Tian and Qi (2006) appears not to have taken that consideration into account in extolling the virtues of OM to improving an organization's OP.

CONCLUSION

Other than its historical significance and the nostalgia it generates, are there any lessons to be learned from the decline and death of Studebaker? Recently, behemoth General Motors announced yet another layoff of 25, 000 workers, blaming its pension and health care costs and undervalued Asian currencies (Keller, 2005). The claim by GM's management that "next year's models" will pull the company out of its decline is eerily reminiscent of Studebaker's dependence on the Lark and Avanti to pull it out of its death spiral while its competitors were able to bring compact cars to market less expensively. Studebaker's deserted, crumbling South Bend plant remains today a haunting reminder of the principle of entropy: the natural progression of an organization is to decay and die unless it is able to change to meet circumstances. Organizational memory provides us a framework for understanding and addressing the contexts and culture of organizations. GM, as is the case with Ford Motors and was the case with Studebaker, is an organization which is steeped in OM. It is suggested here that strong OM will no more contribute to reversing the organizational performance of GM and Ford than it did for Studebaker. The conclusion expressed in the study by Zhang, Tian and Qi (2006) must be limited in its scope and, as suggested above, certainly may not be valid for all organizations. Critchfield (1996) produces this recollection by a Studebaker employee given the task of closing the gates to the company's South Bend plant for the final time: "I went up to the second floor and walked along the empty assembly line. . . Everything was still in place and I thought, 'we could start production tomorrow.' I couldn't believe there would never be a tomorrow" (p. 181). The strong OM which permeated Studebaker throughout its existence could not prevent that empty outcome.

It is recommended that further qualitative case studies of organizations be undertaken to examine the impact of organizational memory, although not necessarily upon just organizational performance, nor necessarily making use of the "OM Constructive Factors" applied by Zhang, Tian and Qi (2006). Qualitative research might be useful in this area because it allows the researcher to examine more closely an intangible aspect of organization such as OM. Although organizations steeped in OM which are no longer in existence, such as Studebaker, allow for the case study to be bounded, an organization such as Hewlett-Packard, driven for decades by the "H-P Way," might prove an interesting subject for research, where that organization has an extended history. Others to consider examining for the impact of OM include Disney, IBM, with strong "values of the founder" and even institutions of higher learning, as manufacturing companies are not the only organizations which may have been strongly impacted by OM. The impact of OM may one day prove to be an essential element of any analysis of an organization, not just through an attempt to broadly link its impact to the organization's performance in an attempt to suggest means for "managing" OM and thus selling "how to" books and consultation services, but through a more serious and careful examination of the organization itself.

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[v] For purposes of this paper, "organizational performance" is defined as…

[vi] One exception was a study by Cyert and March (1963) that depicted memory from a management science perspective as contained in procedures.

[vii] Two books on the history of Studebaker were commissioned by the company: Longstreet, S. (1952). *A Century on Wheels: The Story of Studebaker***,** and the earlier Smallzreid and Roberts (1942) *More than you promise.*

[viii] It should be noted that Zhang, Tian & Qi (2006) view T-OM primarily in the sense of contemporary technology: "T-OM affects OP in a steady way and the function lies in the type of technology. Through the development of an organization, the increase in OP depends on reengineering, and the reengineering always begins with new technology, such as application of E-commerce and Internet" (p. 250). No comment is made on the validity of the above statements, but the variables for T-OM stand as they were presented, certainly applicable to Studebaker, even if it existed pre-Internet and E-commerce.

[ix] Studebaker also commissioned an earlier corporate history: Smallzreid and Roberts (1942) *More than you promise.*

[x] Sadly, yet ironically, ten years later the South Bend plant would forever close its doors.

[xi] The empirical data utilized by Zhang, Tian and Qi (2006) actually was derived from a much larger pool of data "from the Company Knowledge Management and Operation Survey (CKMOS), initiated by the School of Management, Harbin Institute of Technology, in 2003" (p. 230). Data on OM constituted only one of five parts of the actual questionnaire used in the CKMOS.

[xii] Bear in mind that Studebaker also went into receivership in the early 1930's as well, but was rescued by the efforts of Vance and Hoffman.

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ALTERNATIVE ENERGY TAX SUBSIDIES: AN EXAMINATION OF THE ALTERNATIVE ENERGY TAX INCENTIVES OF THE 2005 ENERGY ACT

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ABSTRACT

Domestic dependence upon foreign oil imports is a significant economic and foreign policy issue. In 2006, Congress passed a broad energy policy that included several income tax incentives to encourage domestic use of non-petroleum based energy production. This paper will examine the tax incentives available for both individuals and business to reduce petroleum consumption through the adoption of hybrid and alternative energy systems. Specifically the paper will examine the after-tax cost-benefit of several of the tax incentives with particular focus upon the adequacy of those programs to encourage a movement away from fossil fuels.

INTRODUCTION

With the spiking of petroleum product prices in early 2006, US dependence upon foreign oil imports has become a matter of serious economic and foreign policy concern. On August 8, 2005, President George W. Bush signed the Energy Tax Incentives Act of 2005 (the Act). A White House press release[xiii] touted this as the first national energy plan in more than a decade.

SUMMARY OF THE ENERGY TAX INCENTIVES ACT OF 2005

On August 8, 2005, President George W. Bush signed the Energy Tax Incentives Act of 2005[xiv] (the Act). A White House press release[xv] touted this as the first national energy plan in more than a decade. According to the press release, the President's national energy plan will encourage energy efficiency and conservation, promote alternative and renewable energy sources, reduce our dependence on foreign sources of energy, increase domestic production, modernize the electricity grid, and encourage the expansion of nuclear energy.

The Act is intended to impact four major energy-related areas: 1) Conservation, 2) Alternative energy, 3) Energy infrastructure, and 4) Domestic energy production. Conservation is aimed at encouraging the design and improvement of energy efficient homes and "green" vehicles. This is the area that will most affect individuals and small businesses and is a focus of this paper. The alternative energy portion of the law encourages the use of solar, wind, ethanol, biomass, and clean-coal technology. The energy infrastructure portion is designed to ensure more reliable power grids, and grew from the August 2003 blackout of the East coast. The domestic energy production provision provides incentives to the oil, gas, and coal (fossil fuel) industry. This portion of the Act will affect small businesses so it is also addressed in this paper. Following is a synopsis of the conservation and domestic energy production portions of the Act, which are most likely to affect individuals and small businesses.

- Alternative Motor Vehicle Credits

The Act provides tax credits for the purchase of hybrid, fuel cell, advanced lean burn technology and other alternative power vehicles. The size of the credit varies depending on the weight class of the vehicle and the rated fuel economy. These credits are available for vehicles placed in service after 2005.

The maximum credit for hybrid passenger automobiles and light truck vehicles[xvi] is $3,400. This replaces the current deduction of up to $2,000 allowed for the purchase of those hybrid vehicles[xvii]. The credit will be phased out for each manufacturer once that manufacturer has sold 60,000 eligible vehicles on or after January 1, 2006. The IRS will monitor and announce when the 60,000th vehicle is sold for each manufacturer. In the calendar quarter following the quarter in which the 60,000th vehicle is sold, the credit will be reduced to 50 percent of the full amount. This reduced credit will be available for six months (two quarters), and then in the following two quarters the credit will be reduced to 25 percent of the full amount. The credit will end after that. Regardless of when or if the phase-outs are achieved, there will be no credit available after December 31, 2010.

For qualifying hybrid heavy trucks weighing more than 8,500 pounds but not more than 14,000 pounds, the maximum allowable credit is $3,000. For qualifying hybrid heavy trucks weighing more than 14,000 pounds but not more than 26,000 pounds, the maximum allowable credit is $6,000. For qualifying hybrid heavy trucks weighing more than 26,000, the maximum allowable credit is $12,000.

Tax credits are also available for purchasing certain other vehicles. Fuel cell vehicles[xviii] are eligible for a maximum allowable credit of $12,000 for passenger automobiles or light trucks. Greater credits are available for heavier fuel cell vehicles. Alternative fuel vehicles[xix] are eligible for a maximum allowable credit of $4,000 for vehicles weighing 8,500 pounds or less. The alternative motor vehicle credits are claimed on IRS Form 8910 – Alternative Motor Vehicle Credit[xx].

- Residential Energy Credits

The purchase of energy efficient items that improve the energy efficiency of existing homes may qualify for a credit if certain energy efficiency requirements are met. The credit is available for purchases in 2006 and 2007. The Act provides a 10 percent credit for the purchase of qualified energy efficiency improvements. To qualify, a component must meet or exceed the criteria established by the 2000 International Energy Conservation Code[xxi] (including supplements) and must be installed in the taxpayer's main home in the United States.

The following items are eligible:

- Insulation systems that reduce heat loss/gain
- Exterior windows (including skylights)
- Exterior doors
- Metal roofs (meeting applicable Energy Star requirements).

In addition to credits for the above items, the law provides a credit for costs relating to residential energy property expenses. To qualify as residential energy property, the property must meet certification requirements and must be installed in the taxpayer's main home in the United States. The following items are eligible:

- $50 for each advanced main air circulating fan
- $150 for each qualified natural gas, propane, or oil furnace or hot water boiler
- $300 for each item of qualified energy efficient property.

The maximum credit for all taxable years is $500, and no more than $200 of the credit can be attributable to expenses for windows.

The Act also makes a credit available to those who add qualified solar panels, solar water heating equipment, or a fuel cell power plant to their homes in the United States. In general, a qualified fuel cell power plant converts a fuel into electricity using electrochemical means, has an electricity–only generation efficiency of more than 30 percent and generates at least 0.5 kilowatts of electricity. Taxpayers are allowed one credit equal to 30 percent of the qualified investment in a solar panel up to a maximum credit of $2,000, and another equivalent credit for investing in a solar water heating system. The credit may not exceed $500 for each .5 kilowatt of capacity. No part of either system can be used to heat a pool or hot tub. Costs allocable to a swimming pool, hot tub, or any other energy storage medium that has a function other than the function of energy storage do not qualify for the residential energy efficiency credit. These items must be placed in service after December 31, 2005 and before January 1, 2008.

The Act provides a business tax credit for the construction of new energy efficient homes. A maximum $1,000 credit applies to manufactured homes meeting a 30% energy reduction standard and a maximum $2,000 credit for other homes meeting a 50% standard. These credits apply to homes sold after 2005 and before 2008. The home energy credits are claimed on Form 8909 - Energy Efficient Home Credit[xxii].

In addition to the purchase and construction of energy efficient home products and houses, the Act provides a deduction for qualified energy-saving improvements to commercial buildings that meet a 50% energy reduction standard. The maximum deduction is $1.80 per square foot of the building, and applies to improvements made after 2005 and before 2008. There is also a provision for a manufacturers' tax credit for energy efficient dishwashers, clothes washers, and refrigerators manufactured in 2006 and 2007.

- Credits for Oil and Gas Production and Distribution

The Act attempts to aid the fossil fuel industry by reducing the depreciation period for natural gas distribution lines from 20 years to 15 years for lines placed in service through December 31, 2010. The Act also allows two-year amortization of geological and geophysical costs incurred in connection with oil and gas exploration in the United States. Finally, the Act clarifies uncertainty under present law by providing that natural gas gathering lines are subject to seven-year depreciation (consistent with recent court cases).

ANALYSIS OF COSTS AND BENEFITS

Hybrid vehicles. As mentioned previously, the tax credit for the purchase of a hybrid vehicle varies depending upon the energy efficiency of the vehicle. For purposes of this analysis, it is assumed that the 60,000 vehicle threshold has not been reached ant that the taxpayer is entitled to the full credit.[xxiii] This paper will exam cost benefit fo the Toyota Prius, Ford Escape, and the Honda Civic.

The Toyota Prius has the largest of any of the automotive hybrid-electric passenger cars. The tax credit is $3150. Unfortunately it is not possible to directly analyze the cost-benefit of this credit because the Toyota Prius is only manufactured as a hybrid vehicle. However, the Toyota Solara was chosen for comparison purposes because it is approximately the same size as the Prius.

The procedure to analyze the cost-benefit of purchasing a hybrid vehicle was analyzed using the following initial assumptions. First, the stated EPA mileage for the hybrid and the non-hybrid were assumed to be accurate. Several articles have criticized the EPA estimates as being too optimistic and over-estimates. Also assumed for purposes of this analysis is that the error of estimation of the mileage for the hybrid and the non-hybrid version would be the same. Consequently, the difference in mileage between the hybrid and non-hybrid versions is assumed to be constant. The accuracy of the EPA estimate would not, therefore, material. Gasoline was assumed to be the price of $2.25 per gallon on October 1, 2006. The average mileage driven was assumed to be 15,000 miles annually. The average life of the vehicle was assumed to be seven years. The maintenance costs were assumed to be equivalent between the hybrid and non-hybrid models. Finally, the taxpayer's cost of capital is assumed to be 10% to reflect the average return on stock market investments. A net present value was calculated using the above assumptions with the cost difference used as the initial cash outflow. Below is a table of the results:

Model	Net Present Value
Toyota Prius	$2,183.66
Ford Escape	-$1,175.95
Honda Civic	$301.82

Changing the assumptions on the average mileage driven to 10,000 miles yields the following results:

Model	Net Present Value
Toyota Prias	$1,372.03
Ford Escape	-$1,744.99
Honda Civic	-$124.96

Changing the assumption on the price of gasoline to reflect the price of $3.00 during the summer of 2006, yields the following results:

Model	Net Present Value
Toyota Prius	$2,995.30
Ford Escape	-$606.91
Honda Civic	$728.60

Finally, changing the taxpayers cost of capital to 5% reflecting a certificate of deposit rate yields the following results:

Model	Net Present Value
Toyota Prius	$2,898.49
Ford Escape	-$787.55
Honda Civic	$676.29

FUEL CELL TECHNOLOGY

It is interesting that Congress included significant tax credits for fuel cell power generation. It seems that the credit might have been to encourage research rather than to actually replace traditional fossil fuel generation. Commercially available residential systems are not yet available. A telephone conversation with Charles Pimentel, Northern Regional Sales Manager for PlugPower confirmed that all residential systems of a size necessary to provide power to an average home are only of a prototype variety. The prototypes cost in excess of $75,000 each and the taxpayer would still need to pay for the fuel and maintenance. At the time of this writing, there are not sufficient cost and operation statistics available for analysis.

SOLAR PANEL SYSTEMS

Unlike fuel cell technologies, solar panel systems are readily available. For purposes of this analysis, the present value of an average household electric bill was calculated with the following assumptions. The average life of a solar panel display is assumed to be twenty-five years. Again the tax-payer's cost of capital is assumed to be 10%. Next, the taxpayer's electrical bill savings is assumed to be $200 per month. Finally, the system is assumed to be a grid-tied system in a net metering environment.[xxiv] Consequently, the present value of the electrical bill savings is $22,009. The cost of a typical Solar array system providing the necessary power for an average household is currently about $42,000. Even with the full $2000 tax credit, the system is not yet cost effective. Off grid systems may be cost competitive if the cost of running the electric utility to the site exceeds $20,000.

CONCLUSION

The Energy Act of 2005 may well do some structural things to reduce our dependence upon foreign oil. In addition, there are some successes with the encouragement of hybrid fuel-saving automobiles—the most notable being the Toyota Prius—the only car to exceed its 60,000 vehicle target. The act may also provide modest encouragement to improve the energy efficiency of a home through the 10% credit. When it comes to the encouragement of the use of alternative energy, however, the Act was a dismal failure.

The Energy Act totally ignores any tax credit support of wind turbine power generation. It is the closest in many areas of the country to being economically feasible to implement. Instead, the Act gives tax credits for solar systems that will not even break even in Florida. More shockingly, it gives tax credits for fuel cells for home use—a technology that is not even commercially available in the near term future.

Congress should add some meaningful alternative energy legislation to provide enough financial incentives to make switching to alternative energy sources economically efficient. Until then, we would appear to be locked into fossil fuels.

[xiii] http://www.whitehouse.gov/news/releases/2005/08/20050808-4.html

[xiv] Public Law 109-58

[xv] http://www.whitehouse.gov/news/releases/2005/08/20050808-4.html

[xvi] For a list of applicable Ford, General Motors, Honda, and Toyota vehicles see http://www.fueleconomy.gov/feg/tax_hybrid_new.shtml

[xvii] For a list of vehicles eligible for the $2,000 deduction see http://www.fueleconomy.gov/feg/tax_hybrid_old.shtml

[xviii] Fuel cell vehicles are propelled by power derived from one or more cells that convert chemical energy directly into electricity by combining oxygen with hydrogen fuel.

[xix] Alternative fuel vehicles include those fueled by compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, and any liquid that is at least 85 percent methanol.

[xx] Form 8910 is available on the IRS website at http://www.irs.gov/pub/irs-pdf/f8910.pdf

[xxi] For information on the International Energy Conservation Codes see the following Department of Energy website: http://www.eere.energy.gov/

[xxii] Form 8909 is available on the IRS website at http://www.irs.gov/pub/irs-pdf/f8908.pdf

[xxiii] Actually, as of October 1, 2007, the tax credit on the Prias has been reduced by 50%.

[xxiv] A net metering environment is one where the utility company charges only for the net amount of energy consumed in the household. When the solar array is producing surplus energy, the meter is, in effect, run backwards. Not all states require net metering from their utility companies. Some states allow the utility companies to pay only the wholesale price for the surplus power. (This is only about one-third of the retail price.)

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COLOR AND THE INTERNATIONAL MARKETPLACE

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ABSTRACT

Marketers and certainly advertisers today understand the importance of color. For over 60 years, researchers have studied the effects of color on the consumer and most agree that color (packaging, branding, stimulation affects, etc.) helps facilitate the exchange process. Colors certainly exercise powerful affects and induce reaction based on human instincts, associations, and perceptions. Recent research has demonstrated that besides age, gender and ethnicity, other areas that "influence" the effectiveness of color are geographical heritage, culture, sunlight exposure and even economic development. In this presentation, the authors will examine the above and focus on the psychological and socio-cultural associations of the meaning and importance of color in the global marketplace.

WHAT IS COLOR AND HOW DO WE SEE IT?

The fact is, the physical world has no color – there are only light waves of different wave lengths. It is left to the retina cover of our eye to distinguish among the band of light that makes the world a rainbow for us.

The eye again is your complex receptor. Simply, the rods and cones in your retina respond to light whereby an electro- chemical process sends signals by way of the optic neurons to the visual center of the brain where seeing "really occurs". The cones in your retina are of three types – those sensitive only to blue, to green and to red: but as you can assume, they work in complex combination to provide the many color variations we see. In fact, the human eye can see at least 7 million colors. You are born with most of your ability to take in color.

Interestingly, not all signals reach the brain's visual center; about 20% stop at the pituitary gland. This gland is the gland that sends out chemicals that signal other glands in the body. They are our response to color. Our brain also sometimes gets confused with color.

HOW INFLUENCES AFFECT COLOR

Our response to color is learned. Much of our learning is influenced by a number of variables. We know that demographic variables like age, gender, and ethnicity "influence" the effectiveness of color. In fact, several studies have demonstrated differences in color perception among people of differing geographical heritage, sunlight exposure and even economic development. These factors might provide a better explanation for color preferences than the usual environmental influencers marketers first consider: that of a country's culture.

For example, it has been proposed that in areas where sunlight is extremely bright, colors and contrasts decline in intensity. Consequently, people living closer to the equator have a more highly developed vision (a larger number of efficient rods in the retina). It has been documented that people living near the equator possess greater amounts of yellow intraocular pigmentation in the eye that causes a depression in color discrimination for example, a reduction in the perception of blueness. People from northern latitudes, where light is reflected less directly, have developed a more refined color vision.

This indicates that some fundamental physiological differences might help explain the need for differing chromatic stimulation to facilitate the perception of color when dealing with signage and advertising as well as corporate branding.

COLOR AND MARKETING

Marketers and certainly advertisers today understand the importance of color. For over 60 years, researchers have studied the effects of color and we know that they are multifaceted in facilitating the exchange process.

We know that color can stimulate emotional response, affect persuasiveness, reflect prestige, and color can certainly affect a consumer's overall perception of a product. In advertising, color has been shown to reinforce copy claims, improve learning and increase readership.

Colors exercise powerful affects and induce reactions based on both instincts and associations. Colors alter the meaning of the objects or situations with which they are associated, and color preferences can predict consumer behavior.

Thus, color is an integral element of corporate and marketing communications. It induces moods and emotions, influences perception and helps companies position or differentiate from the competition.

COLOR AND BRANDING

The use of color in branding has taken on new importance as more companies go global. Global brands such as BP (British Petroleum) (green), Cadburys Chocolate (purple), Hershey's Chocolate (brown), and Kodak (yellow) use color to differentiate, but also to stand out.

Brands are fortified in memory by way of an "associative memory network." Marketers use color to strengthen associations. For example, we all have evoked sets. This is the set of brands that come into our head when we have a need for something (e.g., rent-a-car companies). What company do you associate with the colors red, yellow, blue, etc.? If consumers lack the motivation or ability to evaluate a product they may use signals or "extrinsic values" such as appearance or color to make a decision. In today's world of product parity and competition (with lots of options and brands), branding and perhaps color will be more important.

Color will have more importance in countries where illiteracy prevails or the use of symbolism is widespread. International brand and product names also are often plagued by problems of language, pronunciation, meaning, cultural considerations and legalities and as a result, non-verbal cues have become increasingly important in positioning international brands quickly and effectively.

COLORS AND WORLD CULTURE

So, if color is an integral part of a brand, logo, product, or package, let's look at some cross-cultural patterns of both similarity and dissimilarity in color preference and color meaning association. A number of studies have assessed the preferences of colors across cultural borders. The results have demonstrated that people of different cultures have various preferences for color. Cultural differences in color meanings and associations have also been identified.

In the Journal of International Marketing, Vol. 8, No. 4 2000, article entitled "Managing Images in Different Cultures: A Cross-National Study of Color, Meaning and Preferences" talks about semantic differential scale anchors, means for liking ratings, and principle coordinate analysis for color association by country. In the first chart the colors have been arranged from the most liked to least liked for each country. Overall blue was the most liked color with a mean of 6 on a 7-point scale. Blue was rated as the most liked color in 5 of the 8 countries and second most liked in the remaining three countries. As an aside – blue is the most frequently used color in corporate America – logos, brands and packaging. In the second chart; diagrams the various elements of color perception including physical and especially cultural. The bottom diagram depicts the basic interactions of color in marketing that supports earlier claims. Another chart entitled "The Cross-Culture Spectrum of Meaning and Associations of Color in Marketing" comes from a recent article which takes issue with some long held beliefs regarding color and contains some new findings. The article is entitled, "Are You Selling the Right Colors? A Cross-Cultural Review of Colors as a Marketing Cue", Journal of Marketing Communication, Vol. 12, No. 1, March 2006.

CROSS-CULTURAL MEANINGS AND ASSOCIATIONS OF INDIVIDUAL COLORS

We live in a world of global products and while there are many efficiencies that can be realized through standardization of some or all aspects of a product, some of the subtleties of cultural difference may be lost in the quest for cost-efficiency. Marketers should be knowledgeable and flexible enough to understand that colors do not have universal meanings and associations.

WHITE: Symbolizes mourning or death in East Asia, but happiness and purity in Australia, New Zealand and USA.

BLUE: The most popular and most common corporate color in the U.S. is perceived as cold and evil in East Asia but stands for warmth in the Netherlands; interestingly coldness in Sweden; death in Iran and purity in India. Blue denotes femininity in Belgium and the Netherlands, but masculinity in Sweden and the USA.

GREEN: Represents danger or disease in Malaysia, envy in Belgium, love and happiness in Japan and sincerity, trustworthiness and dependability in China.

RED: Means unlucky in Nigeria and Germany, but lucky in China, Denmark and Argentina. It reflects ambition and desire in India and love in China, Korea and Japan.

YELLOW: Represents warmth in the USA, but infidelity in France. It is associated with jealousy in Russia, but pleasant, happy, good taste, royalty in China. In Brazil purple and yellow are perceived as symbolic of sorrow and despair.

PURPLE: Purple is the color of love in China and South Korea. Anger and envy in Mexico, sin and fear in Japan. Purple is considered expensive in China also. Many studies have attempted to evaluate the interaction between color and product, or packaging and product (woe to the grocery store that instead of clear cellophane would use a green shade to package their red meats). Having already reinforced the need for culturally accepted colors to go with particular products, one also has to realize that different hues (a light yellow to a sun burst yellow, for example) also have to be considered.

One study, rated colors on their "saturation" potency scale – that is the more saturated the color, the more potent the object becomes. More in-depth research is needed in a number of areas:
- Are color perceptions and associations stable over time?
- How do colors reflect a national personality and do color preferences change over time?
- Is color identification influenced by the coloring of existing products (coke red, for example, or the color of a country flag – red is strongly identified with China)?
- Are there gender, age or other demographic differences that might cause a specific target market to react differently from the general population?

CONCLUSION

For marketers, color has many uses. Many times it is the very first thing we notice. Color shapes the way we think in an immediate and visceral way. Color can be a primary tool in the hands of a marketer. In a society faced with information and stimulation overload, color communicates with refreshing simplicity and impact. Color has strong associative meaning, it can communicate quickly, and it can elicit a powerful subconscious response. In the last couple of decades, globalization has become a general tendency of the overall market. Companies need to be aware of cultural color differences that exist among most nations worldwide. Color perception, meanings and preferences vary by culture and ethnicity. It is definitely a significant factor in global marketing.

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DEMOGRAPHIC CHARACTERISTICS OF RURAL FEMALE ENTREPRENEURS

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ABSTRACT

Female business ownership is an important segment of business. Rural female entrepreneurs are an integral part of this sector. Research is lacking regarding the demographic characteristics of rural female entrepreneurs. Typical issues analyzed in the literature include gender, personal characteristics such as education, experience, age, marital status, children, motivation, founding strategies, initial capital, investment process, networks, inhibiting reasons, international, and public policy issues. This research developed a demographic profile revealing characteristics of the rural female entrepreneur.

INTRODUCTION

Female business ownership is an important segment of business. Reports indicate a progressive increase in the proportion of businesses owned by women. The National Foundation for Women Business Owners reported that by the end of 2002 female-owned businesses in Pennsylvania accounted for 26 percent of "all privately held firms" or 217, 822 businesses. This is an increase from 1997 to 2002 of 7 percent (as cited in Women Owned, 2001). The Center for Women's Business Research reported that 46 percent of all privately held firms are either majority owned or 50 percent owned by females (Women Owned, 2001). A study financed by the Ewing Marion Kauffman Foundation suggests that business startups increased by only a small percentage in 2003 and that about 36 percent of those businesses were started by women (Batheja, 2004). Even though female business development is rising significantly, the research lags. Few research studies have examined rural female entrepreneurship. Little research in entrepreneurship has explored only the female population of entrepreneurs (Brush & Edelman, 2000). Though global research of female entrepreneurship has taken place for the last 25 years and knowledge has expanded, "there are still many questions unanswered" (Greene et al, 2003 p. 26).

Typical issues analyzed in the literature include gender, personal characteristics such as (education, experience, age, marital status, children), motivation (ambitions and goals) founding strategies, initial capital, investment process, networks, inhibiting reasons, international, and public policy issues (Greene, et al. 2003).

Background

This study examines the demographic characteristics of rural female entrepreneurs in rural Northeast Pennsylvania The results describe the characteristics both individually and in the form of a profile. Research conducted by the Rural Entrepreneurship Initiative suggests that rural entrepreneurs are more likely to be women and minorities (Entrepreneurs, 2001). This is important because many of the businesses started by women are service businesses and do not produce the large amount of cash or growth created by manufacturing or male-owned businesses. Many of the firms employ only the female business owner. According to the Economic Census, there were 5.4 million women-owned businesses in the U.S. in 1997 representing 26.5 percent of all non-farm industry and employed 7.1 million people (Survey of Women-Owned, 2001). The average female owned business has 1.3 employees, including the owner and was a service business or retail trade business (Survey of Women-Owned, 2001). Most of the largest female owned businesses are in metropolitan areas and account for a large part of female owned business income. A study by the Small Business Administration, Survey of Small Business Finance shows the firm size is smaller for female-owned businesses than for male-owned businesses by assets and income. It also revealed the average age was younger for female-owned firms (2003).

Research by Hisrich and Brush led to a model of the female entrepreneur. This differs from this research in that the purpose of the Hisrich and Brush survey was to "develop a profile of the female entrepreneur, to assess the management skills women bring to their business enterprises, and to determine the problems they encounter" (1984). The results were that the female entrepreneur was "between the ages of 35 and 45, married, with children, and well educated....in service businesses …believe that they lacked management skills in the areas of finance, marketing, and planning" (Hisrich & Brush, 1984). Other characteristics determined by the study included being the first born child, having a self-employed father, being college educated, and starts her own business after the age of forty (Hisrich & Brush, 1984).

A 1998 study of 92 female entrepreneurs in the Pittsburgh, PA area recorded demographic variables. The results indicated that 95.6 percent of the female entrepreneurs were 31 years of age or older. Sixty-nine percent reported being married and 69.6 percent of the 92 entrepreneurs had two or more children. The report stated that 68.9 percent had a bachelor’s degree (42.2 percent) and Master’s degree (26.7 percent) (Raya, 1999).

A 2002 Canadian study of entrepreneurs revealed that the average age of female entrepreneurs is 43. Other characteristics for female entrepreneurs included the number of years in operation that averaged nine (Small Business Research, 2003).

The literature indicates that rural entrepreneurs are likely to be women and minorities. Lack of training for females in the workplace may inhibit development of leadership skills. Researchers believe that more research is necessary to give a complete and accurate description of the female entrepreneur. Current research describing a profile of the characteristics of the demographics of rural female entrepreneurs is rare and needs added development, which supports the necessity for this study.

Research Design

A demographic questionnaire was developed and included open-ended questions such as Name; Age; Highest Educational Level Completed; Marital Status; Number of Children still living at home; Ethnicity (Optional); Date when business was opened; Type of Business: Retail, Service, or Manufacturing; Number of Employees; Age when you opened your first business; and Primary reason (s) for opening business.

A mailing list was used to reach rural female entrepreneurs in the surrounding five county area. This was compiled and sent by the Wilkes University Small Business Development Center with the approval of the Pennsylvania State Association of SBDCs. Approximately 150 questionnaires were mailed and the response resulted in 50 usable questionnaires. This is a 33.3 percent response rate. Using a 95 percent confidence level, 50 responses yield an error factor of 13. The researcher feels that because the list was not randomly generated the sample was a nonprobability convenience sample.

FINDINGS

Demographic Questionnaire Results

The following are the demographic research results. They are explained first in terms of individual category results. Each of the category's outcomes is explained and where possible a mean is calculated. A profile is then developed by combining the results.

Current Age

The participants' ages range from 21 to 75. Forty-eight of the fifty participants responded to this answer. Seven of the participants are between Ages 21 to 30 comprising 14 percent. Ages 31 to 40 comprise 20 percent. Ages 41 to 50 comprise 30 percent. Ages 51 or older comprise 32 percent. There was no answer by four percent of the participants. The mean age of the participants who responded is 44.5.

Educational Level

Thirty-eight of the fifty participants surveyed indicated having had either some college or graduated from college. Of those graduating from college one participant holds a 2 year degree; nineteen hold four year degrees including two with Masters Degrees and one DO. Other degrees include two from technical schools. There was no answer by four percent of the participants.

Marital Status

Thirty-three of the participants or 66 percent are married. Eight of the participants or 16 percent are single, eight of the participants or 16 percent are divorced and one of the participants or two percent is unmarried.

Number of Children at Home

Twenty-four females or 48 percent of the participants have no children living at home; eleven or 22 percent have one child living at home; twelve or 24 percent have two children living at home, and 3 participants or six percent have three children living at home. The total number of children living at home is forty-four. The mean number of children at home is 0.88.

Ethnicity

Ethnicity was optional on the questionnaire. Eighteen participants or 36 percent did not give an answer; thirty participants or 60 percent are Caucasian; one participant or 2 percent is Native American, and one participant or two percent is Hispanic.

Years in Business

Fifteen of the participants or 30 percent have been in business for two years or less; eight or 15 percent have been in business from 3-5 years and nine or 18 percent have been in business from 6-8 years. Seven of the participants or 14 percent have been in business from 9-11 years; seven or 14 percent have been in business from 12-19 years, and four participants or eight percent have been in business for 20 years or more. Of those participants in business for 20 years or more, one has been in business for twenty years, one has been in business for 24 years and two have been in business for 27 years. The mean number of years in business is 7.92.

Business Type

Participants were instructed to circle as many types of businesses as applied from the following three types of businesses Retail, Service, or Manufacturing. Twenty-two participants or 44 percent indicated owning a retail business, 13 participants or 26 percent indicated owning a service business, and two participants or four percent indicated owning a manufacturing business. Ten participants or 20 percent indicated owning a retail-service business, two participants or four percent indicated owning a retail manufacturing business, and one participant or two percent indicated owning a retail, service, manufacturing business.

Number of Employees

Seventeen of the participants or 34 percent reported having one employee, twelve of the participants or 24 percent reported having two or three employees and eight of the participants or 16 percent reported having four to six employees. Four of the participants or eight percent reported having seven to nine employees, four of the participants or eight percent reported having ten to twelve employees, and three participants or six percent reported having thirteen to fifteen employees. Two of the participants or four percent reported having twenty or more employees.

Age When First Business was Started

Two participants or four percent started the first business between the ages of 18 and 20. Eighteen participants or 36 percent started the first business between the ages of 21 and 29 and fourteen participants or 28 percent started the first business between the ages of 30 and 39. Twelve participants or 24 percent started the first business between the ages of 40 and 49, one participant or two percent started the first business between the ages of 50 and 59, and one participant or two percent started the first business at age 60 or older. Two participants or four percent did not answer the question.

Reason for Starting Business

Nineteen participants or 38 percent stated the desire to be in business for self as the reason for starting the business. Seven participants or 14 percent recognized a need in the community for the business. Six participants or 12 percent stated starting a business created an opportunity to do something they liked. Four participants or eight percent used industry knowledge, three participants or six percent wanted to create a new work environment, and two participants or four percent stated a desire to have the business as a primary job. Two participants or four percent stated a desire to have extra income for the family, two participants or four percent stated having held a similar previous job working for someone else, one participant or two percent decided to come out of retirement, and four participants or eight percent gave no answer.

Profile

As indicated by the results the general demographic characteristics of the rural female vary. Some of these characteristics vary widely. The researcher has attempted to show the demographic characteristics of the average female entrepreneur in Table 1.

Table 1
Demographic Profile of Rural Female Entrepreneurs

Characteristic	Result
Current Age	44.5
Educational Level	40 percent College
Marital Status	Married
Number of Children at Home	One
Ethnicity	Caucasian
Years in Business	7.92
Business Type	Service or retail related
Number of Employees	Less than 10
Age When First Business was Started	33
Reason for Starting Business	Need for independence

(Frear, 2005)

The current rural female entrepreneur is Caucasian, married and has 1 child at home is 44.5 years of age and started her first business at age 33. Almost 40 percent are college educated. The business is service or retail related. The number of years in business is 7.92 years, with fewer than ten employees. The reason for starting the business was based on a need for independence.

CONCLUSION

The article started by proposing the lack of research regarding a demographic profile of the rural female entrepreneur. The research sought to provide such information and a profile was developed. It was found that the current demographic characteristics of rural female entrepreneurs are similar to the findings of previous researchers. The age, marriage, education, business type, and family characteristics resemble the findings of the Hisrich and Brush (1984). Although no correlations can be made, even though there is a twenty-one year span, as well as a difference in the size of the populations surveyed, the closeness of the results corroborate previous research.

FURTHER RESEARCH

Many different areas of research can be focused on the rural female entrepreneur. Areas of research include all of those traditional areas of management and organizational behavior that are currently under-researched. The rural female entrepreneur is an important part of the business sector. Sector expansion should lead to the development of greater amounts of research. One of the questions this research asked was the reason for going into business, but this was not an in-depth look at this question. The cause of the similarities for which women choose to become entrepreneurs may be a consequence of life experiences or other motivational factors. It would be interesting to discover the cause of the similarities. While it is not within the scope of this paper to deduce the reasons for the similarities, the findings point to a need for further research on the motivation(s) as to why women decide to become entrepreneurs, and how if at this correlates to the demographic findings.

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GETTING TO THE HEART OF THE HUMAN RESOURCE PROFESSIONAL

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Susan Kelley-Stamerra, Slippery Rock University of Pennsylvania

ABSTRACT

We are in the age of talent. Management of this talent exerts a powerful influence on the success of an organization. Human Resource practitioners are charged with selecting, developing, and training the workforce through talent management. One differentiator, "emotional intelligence (EI), has been shown to enhance a person's cognitive intelligence and contribute up to 390% incremental profit to a company's bottom line" (Goleman, Boyatzis & McKee, 2002, p. 251).

Plato said, "All learning has an emotional base." Not conversely, "Emotional intelligence is the ability to validly reason with emotions and to use emotions to enhance thought", (Mayer, Caruso, & Salovey, 1999). The capacity to perceive emotions, through human competencies like self-awareness, self-discipline, persistence and empathy (Goleman, Boyatzis & McKee, 2002) is a differentiating factor in educational and employment success.

This paper will review the high-stakes arena of emotional intelligence and the relevance to Human Resource practitioners. The primary objective is to identify the attributes and history of emotional intelligence. Secondarily, the benefits of emotional intelligence will be discusses as they pertain to implementation into many human resource practices. Thirdly, concepts that can be applied to enhance recruitment and retention of talent will be reviewed. Last, the relevance of emotional intelligence in organizations will be presented for use by organizations vying for the "best and the brightest" talent.

INTRODUCTION

Much of Human Resource Management concerns the pursuit of great talent, hiring and retaining great talent, says Tom Peters in Re-imagine (2003). His thoughts are; "Give great talent wide-open spaces in which to roam! Promote great talent! Pay great talent!" (p.81). Talent management has become a veritable human resource imperative as the national and international demographics of industrialized countries are aging and globalization has resulted in fierce competition for intellectual capital. Although many organizations say that their employees are key assets, few companies transform themselves into "talent magnets." Emotional intelligence may be the best indicator of goal attainment and success that can be the key asset in candidates and employees.

Although emotional intelligence is a relatively new term, it is a very important concept in relationships. Emotional and intellectual or cognitive intelligence are different kinds of intelligence based in different areas of the brain. Although, they are complementary in nature, IQ originates from the neocortex and the emotional center of the brain is located in the subcortex. When interacting with people, both their heart and their brain are engaged and the ability to read people through verbal and nonverbal communication is valuable. Possessing EI competencies, specifically in the Human Resource arena can assist in all facets of the field.

ATTRIBUTES AND IMPLICATIONS OF EMOTIONAL INTELLIGENCE

Consider this scenario: Two employees with similar intellect and skill follow very different paths within the organization. One seems to advance far beyond the other. Is this based on soft skills versus technical proficiency? What accounts for this differential and success rate? Daniel Goleman (1998) believes that emotional intelligence is a better predictor of a person's path in life than pure intelligence. Many people with higher IQs end up working for others who have lower IQ's, but higher emotional intelligence.

More organizations are offering emotional intelligence training for employees. As talent is at a premium, the most exciting part is that these concepts can be learned. Many researchers believe that the primary facets of intellect are innate, but that the attributes of emotional intelligence are teachable by example, experience, and oversight. Much research has been conducted on this subject and the following characteristics have been identified in Primal Leadership, (Goleman, Boyatzis and McKee, 2002, Appendix B):

Attributes	Implications for Employees
Self-Awareness	**can be developed**
Emotional	attuned to their inner signals
Self-Assessment	know their limitations
Self-Confidence	have a sense of presence
Self-Mgt	**can boost productivity and accomplishment**
Self-control	can manage their emotions and channel them
Transparency	live their values and beliefs
Adaptability	can multi-task and exhibit flexibility
Achievement	high personal standards to set attainable goals
Initiative	individuals control their own destiny
Optimism	helps people anticipate changes and opportunities
Social Awareness	**involves empathic listening; comprehension**
Empathy	ability to gauge emotional signals from others
Organizational	politically astute
Service	customer relationships are valued
Rls Mgt	**includes teamwork & conflict resolution**
Inspiration	create resonance through a shared vision
Influence	proficient in persuasion
Developing others	coaching and mentoring constructively
Change catalyst	recognize the need for change and barriers
Conflict mgt	ability to negotiate and redirect energy
Teamwork	ability to collaborate collegially and respectfully

The 133 item Bar-On Emotional Quotient Inventory was the first EI instrument ever developed to test these competencies. This skills inventory created by Reuven Bar-On, a clinical psychologist from Israel, also measures similar characteristics in 5 scales. These scales are: Intrapersonal, Interpersonal, Adaptability, Stress Management and General Mood, including happiness and optimism. Extensive empirical research has supported the theoretical scales and these inventories have been shown to be psychometrically sound. Emotional intelligence is a reflection of the way a person interacts or applies knowledge to an immediate situation and addresses the emotional, personal, social, and survival dimensions of intelligence. (Bar-On, 1997).

THE HISTORY

Harvard psychologist and educator Howard Gardner was one of the earliest theorists to propose a distinction between emotional and intellectual competencies in his 1983 model of "multiple intelligences". Gardner (1983) argued against the one-dimensional view of intelligence based mostly on linguistic and logical mathematical intelligence and developed a conceptual framework including intrapersonal and interpersonal intelligence- two more of the seven intelligences. Testing based purely on IQ attributes was too limited according to Gardner and attention should be given to other intelligences that would better portray the range of human potential as exemplified by artists, architects, entrepreneurs, etc. This theory has since been adopted by educators to liven the classroom by using different delivery techniques that capture the attention of students' unique minds and address their various learning styles.

The actual term, emotional intelligence, was created by Salovey and Mayer in 1990. They described this concept as "a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions to discriminate among them and to use this information to guide one's thinking and action". Daniel Goleman who was a science writer for the New York Times and a Harvard trained psychologist, was intrigued by this concept and was interested in the elements of success beyond traditional cognitive tests (Cherniss, 2000).

Hunter and Hunter's research on IQ suggests that tests for intelligence account for only 25% of the variance as a predictor of job performance. Other research believes that number is closer to 10%. There is also evidence that emotional and social skills help cognitive functions and they are interrelated.

In the Greek philosophy of influence, Aristotle defined the 3 main forms of rhetoric: ethos, pathos and logos. Stephen Covey in "The 8th Habit (2004, p.130) describes the following:

1. Ethos: your ethical nature; your personal credibility
2. Pathos: empathy; your feeling inside; your emotional quotient
3. Logos: logic; power & persuasion; your own thinking; your IQ

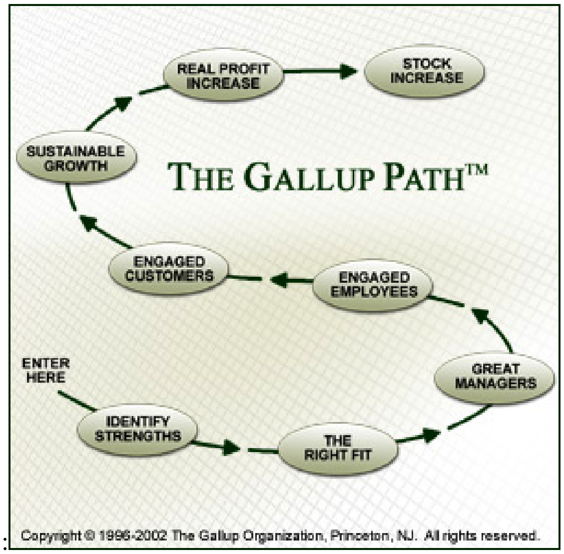
Although these are not philosophical elements, but rather rhetorical ones, it is important to note the tendency toward emotion. The first two appeals; ethos (credibility or character) and pathos (emotional) are methods of persuasion using emotion and intellect. This sequence is essential and both EQ and IQ play a vital role.

THE BENEFITS

Most organizations recognize that key employees are one of the last competitive differentiators in industrialized countries. For Human Resource Managers to capitalize on the strengths of their people, they must create emotional engagement in order to retain these "A" players.

A movement toward an emotion-driven economy is rooted in extensive research by the Gallup organization. Gallup engaged 10 million customers, 3 million employees, and 200,000 managers in a global study across industry and job type. This research was based on the emotional center of the brain – the amygdale - that is the key to the way human beings process information and control behavior.

The world's greatest companies are becoming aware that they are competing in an emotion-driven economy, based on this tiny part of the brain that influences emotional responses and relationships (Gopal, 2004). Gallup believes that the following pathway is imperative for companies to survive and flourish:



The first benefit, according to this research, is that emotional engagement and emotional intelligence are keys to engaged employees, engaged customers, and sustainable growth.

The second benefit of emotional intelligence is that it contributes to improved performance and productivity based on an employee's ability to perceive, identify and manage his/her emotions, which is increasingly more important in our age of change. People who are relationship-oriented benefit both internal and external customers. Studies conducted in the U.S. Navy revealed that the most effective leaders were warmer, more sociable, outgoing, and emotionally expressive; all of which are EI competencies (Cherniss, 2000).

Employees are also now considered free agents who are more informed and free to manage their own careers. Emotional intelligence makes these people more marketable. The third benefit to Human Resource professionals is that EI capabilities and professional development training programs that enhance EI in employees can be a retention tool. Reducing the parade of talented employees out of an organization can be huge economic advantage. HR departments that are truly employee-centered and value servicing their employees will also be communication centers to help people develop and to provide feedback. Human nature indicates that employees perform better when they feel good about themselves and when the organizations with which they are affiliated are vested in their personal and professional development. It follows logically that a culture formed with intellectual and emotional proficiency should be a rewarding, gratifying place to work.

Other benefits include:

- A more harmonious culture and work relationships
- A linkage to laughter and humor in the workplace
- Greater productivity
- Enhanced listening skills
- Better adaptation to diverse cultures and languages(Guss, 2005)

In contrast, ignoring emotional intelligence or the intelligent voice of the heart, can have a detrimental impact on the body, according to Doc Childre and Bruce Cryer, (1999. p.23). Frustration and anxiety can lead to stress and these emotional states can impact the rhythm of the heart and diminish brain function, causing reasonably smart people to do relatively “dumb” things.

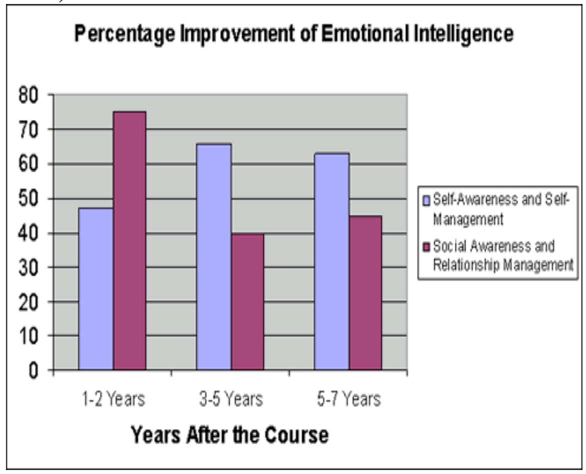
In a series of studies that spanned 20 years, Leitner & Robichaud, (1997), focused on the cases of “burnout” in thousands of employees. The six primary ways that organizations *de*-motivated their employees were as follows:

1. work overload
2. lack of autonomy
3. skimpy rewards
4. loss of connection
5. unfairness
6. value conflicts

The old philosophy of coercion and control is ineffective today. No longer is simple authority an effective management tool. No longer can managers expect high returns from their workers simply because they demand those returns in exchange for a paycheck. This chronic, uninspired workplace will cease to exist in the long run. The advantages for a company that acknowledges a person’s IQ and EQ and creates a supportive culture for their employees are clear.

LEARNED CONCEPTS

The best news about emotional intelligence is that it is learnable, and it is an important factor in long-term effectiveness. As we age, EI skills often improve. Although the impact of genetics on behavior is recognized, there is evidence that EI competencies can be both measured and improved. In a study conducted at Case Western Reserve University, students participated in competency-building activities to assess emotional and cognitive intelligence. Although this was just one study, the following chart shows significant progress also sustained over time (Boyatzis, Cowan, & Kolb, 1995).



Human Resource Managers can help develop employees through the use of 360 degree instruments that measure emotional intelligence. Most people have difficulty being totally objective and tend to rate themselves higher on positive behavioral attributes, so this can be a good self-test and comparison with colleagues and management. In addition, HR can help people recognize that EI can be learned and increased throughout life stages. Training can focus on the identification of tendencies or shortcomings so employees can focus on improving areas of their personal/professional lives, such as acknowledging certain habits, reluctance to change, or other tendencies that could interfere with proper judgment or decision-making behaviors.

Goleman purports that emotional intelligence is twice as important to people’s success as raw intellect or technical knowledge. He believes when employees are promoted on the basis of technical ability and then fail in their new positions, it is because they were promoted for the wrong reasons (Fisher, 1998). Promotion now needs to incorporate emotional competencies as they become crucial for success in the progression up the career ladder.

THE RELEVANCE TO HUMAN RESOURCE MANAGEMENT

Human capital is today’s bread and butter. According to Goleman, (1998), “the premium on emotional intelligence will only rise as organizations become increasingly dependent on the talent and creativity of the workers. Even now, 77% of American knowledge workers say they decide what to do on the job, rather than being told by someone else" (p.314). The proliferation of telecommuting, virtual teams, contingency workers, etc. will continue adding to the free agent mentality. Employees are working more autonomously, less for companies and more for themselves. EI competencies such as trustworthiness, self-awareness and self-control will emerge as essential characteristics in 21st century employees. Emotional intelligence such as humor in the workplace can lighten an otherwise dark or pressurized situation.

Educators, Human Resource practitioners, and parents should take an active interest in preparing students for the contemporary workforce. This will include;

- Recognizing and understanding the value of emotional intelligence
- Cultivating and teaching emotional competencies
- Revamping curriculum and training to encompass EI
- Creating cultures and classrooms that nurture EI characteristics to increase joy in the environment

Too often, unexpressed or marginalized feelings have been ignored to the detriment of a culture and at great cost to organizations. Problems swept under the rug never disappear; they simply manifest themselves in poor morale, diminished creativity, reduced motivation, or unproductive behavior. People, by definition, are relational beings who have a need to express themselves. Human Resource departments must be the frontrunners who lead the charge for their employees by providing a forum for the expression of feelings. The best and most effective teams have an esprit de corps where individuals feel trusted and respected. Helping people mange their emotions and develop EI competencies creates a greater place to work.

An emotionally intelligent organization such as Egon Zehnder International, a global executive search firm, has the following 4 dimensions:

1. IQ – problem solving, logical reasoning, analytic ability
2. EQ - building working relationships; team player; empathic listener
3. EQ – getting things done; drive; energy; independent; imaginative
4. EQ – personal fit; honesty; sense of humor; friend; outside interests

Goleman, 1998)

We can all create environments, focusing on human nature, to prove that people do matter and they deserve to be treated with respect. Human Resource professionals have an obligation to develop people-centered cultures and if you don't someone else will!

FUTURE RESEARCH

Some organizations, like Western Union, in Calgary, Canada are already using established emotional intelligence tests like BarOn's Emotional Quotient Inventory, (EQ-i), to test potential candidates, and to measure job applicant skills (Martinez, 1997). This type of testing seems to be on the rise, due to the stiff competition for qualified employees.

Maybe recruiters and managers have been screening some of the wrong attributes in the past. Selecting the right people is an acquired skill, and EI tests may shed a new light, leading to better hiring decisions and improved retention rates. In his book, Good to Great (2001), Jim Collins discusses the need to get the right people on the bus to build superior teams and then determine what needs to be accomplished.

Future research will be conducted to determine the competencies of Human Resource Managers and practitioners to see if they are truly competent in these areas. Superior teams must begin in Human Resources, since they have a part in every hiring decision. Measuring these qualities in a company's decision makers will surely prove enlightening. From that point, staffers could attend training to learn additional skills if they were found to be lacking. Also, it would be interesting to compare and contrast EI skills in HR Managers versus managers in other functional departments.

My next research project will be concentrated in these areas, because a gap exists in the measurement and application of EI competencies, particularly in Human Resources, whose primary function is to attract, develop and retain the best talent possible.

CONCLUSION

The greatest danger for most of us
is not that our aim is too high and we miss it,
but that it is too low and we reach it.
Michelangelo

People matter now more than ever. The human element can no longer be ignored. Human Resource departments can't afford to set the bar too low anymore, especially with the impending skills shortage. Departments need to become proficient talent scouts with well-defined strategic plans for attracting, developing and retaining top employees. In order for Human Resources to gain a seat at the table and be involved in strategic decision-making, they must become the master architects in the war for talent (Peters, 2003).

Emotional intelligence, however, may still be a tough sell within some organizations. There is no simple solution to guarantee bottom line results, but people must be treated as key assets. Most people have an innate desire for a sense of significance and to feel that their work contributions matter. Consider the opening vignette about two individuals with similar intellect but very real differences in success rates. If emotional intelligence is linked to productivity and improved relationships; why as a Human Resource Manager, wouldn't you screen and hire utilizing testing that includes EI skills, then train and develop employees based on these competencies?

Companies need a competitive edge and most agree that the edge will be achieved through the organization's human capital. Every business is vying for the limited talent that will help transform them into global players and profitable entities. Talent management may be the last frontier for true differentiation and will only grow as a corporate imperative. Marcus Buckingham captured this concept in his book, The One Thing You Need To Know, "Discover what is unique about each person and capitalize on it" (2005, p. 83). EQ and IQ together help uncover people's unique talents that can be parlayed into productivity. In the war for talent, organizations can't afford to lose any battles, particularly by overlooking proven success factors emotionally and intellectually. Tom Peters (2003) said, "people are obsessed with attracting talent. Pursue the best" (p.255)!

The equation is simple; IQ (brain) + EQ (heart) = the best organizational success.

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ANY QUESTIONS?
EXPERIMENTS IN GETTING STUDENTS TO ASK QUESTIONS

Leon Markowicz, Lebanon Valley College

ABSTRACT

Students do not or will not ask questions for a number of reasons from past educational experience to peer pressure. Research on students asking questions focuses on comprehension and critical thinking, but the Business and Economics Department at Lebanon Valley College has added two important dimensions: a feedback loop from communications models and the pragmatic goal of preparing students for interviews, both for internships and their first job. The department has developed several strategies which set expectations; explain the reasons for the expectations; give students feedback, including grades; sustain the expectations through the course; and create a continuum of expectations from the students' first course through their last.

INTRODUCTION

Some professors scratch their heads and wonder why students don't ask questions.

Part of the answer, in my view, is that students have been "conditioned" to keep quiet in the classroom; they don't want to show how much they know or how much they don't know; they also don't want to stand out from the crowd; they don't want to appear different than their peers. Students can also be influenced by embarrassment and fear of ridicule (Schell, 1998).

Another part of the answer is that some professors don't want questions. The class size may be too large or questions might take up too much time. If a professor asks if there are any questions in the last minute or two as the students are packing up to leave, the lack of response is no surprise.

Research shows that one of the primary aims of having students ask questions is comprehension (Schell, 1998). In the Business and Economics Department at Lebanon Valley College, we have several additional purposes, which focus on improving our teaching and the students' learning and on preparing students for internships and jobs.

Relating comprehension to communication models, which include a feedback loop (Locker, 2006), we can discover what students are comprehending, not comprehending, and finding fuzzy. Some professors are surprised that students do not follow instructions. Some students do not do the assignment or do not do it the way the professor asked. The only way to find out how students are decoding what professors are encoding is to ask, to do a feedback loop.

When students go to job interviews, it is essential that they ask questions. Several years ago, one of our students interviewed with a large accounting firm but did not receive an offer. Afterward, the alum who had recommended the firm interview that student called and said the student had asked no questions. This is not an isolated example.

To prepare our students for interviews, not only for jobs, but also for internships, we have designed strategies to get students to ask questions from their first course through their last.

BUS 185: BUSINESS MANAGEMENT (FORMERLY BUS 130: PRINCIPLES OF BUSINESS)

In this first course, from the second class and for the rest of the semester, business administration and accounting students put a question they have written out on the professor's desk at the beginning of every class. This activity establishes the expectation early and reinforces it through the entire semester (See Appendix A, BUS 130 and BUS 185). Records are kept of questions submitted since asking questions is part of the grade: Participation (BUS 130 – 5%) or Group Performance (BUS 185 – 10%).

The professor scans the questions and reads a few, without identifying the author. The questions may be chosen because several students asked them, they are most central to the material, or they are the most creative or amusing. Not identifying the "questioner" allows the student to remain anonymous and not be embarrassed.

After several classes, the professor asks the class to the answer to that question. The students begin answering their own questions, and class discussion starts with the students' concerns. This technique allows the professor to find out what is on the students' minds and lets the students know that the professor wants to know what is uncertain or unclear to the students. The climate in the classroom becomes one of an exchange or dialogue rather than one of an authority handing down the "truth."

If a guest speaker comes to the class, students are expected to write down and to ask questions. The professor records who asks questions since asking questions is part of the Group Participation (BUS 130) or Group Performance (BUS 185) portion of the grade.

At the end of the semester, as the final step of a group project where students have started a company, each "company" gives an oral presentation. All the students in the audience are expected to ask questions of the presenting group (See Appendix A). The student "questioners" are significantly more invested because they see the presenting group as competitors and they want answers to questions their own group may have faced.

On September 26, 2006, 19 students in BUS 185 toured Seltzer's Smokehouse Meats in Palmyra, PA. After only four class sessions of writing out questions and after the professor had alerted the students that they needed to ask questions which related the textbook concepts and theories to the business, everyone student asked a question of the tour guides. Everyone asked at least two questions and some as many as 11 and 12. The professor was impressed that students, especially freshmen, responded so positively and enthusiastically and told the students they were the best group he had ever seen asking questions.

BUS 285: ORGANIZATIONAL COMMUNICATIONS

In Organizational Communications, students get to ask the professor a question before class begins. Every class morning, the students show their annotated text to the professor in his office, so the professor knows the students are reading the material. This activity constitutes 10% of the grade.

During the meeting, the professor asks each student for the "question of the morning." In this one-on-one, interpersonal feedback loop, the professor learns what is unclear about the syllabus; what instructions need to be repeated, perhaps over and over; what is on the students' minds. The professor also asks the students questions about the material, about their writing, about the students' understanding of the professor's method.

The students also generate their own feedback loop by asking for more information or clarification about the syllabus or about the text, by asking for advice, and by asking about their own writing. The question and answer about their own writing could be considered a mini-conference.

At first, some students do not have a question, but once they know they need one each morning, they ask one. Sometimes a student says s/he had one but forgot; in most cases the student creates another one on the spot. The questions begin on the operational level (See Appendix A, BUS 285), but progress to ones of substance.

When class begins, the professor asks, "What are your questions?" or "Questions?" This language sets up the expectation that there are questions. The language "Are there any questions?" leaves the door open to a reply that there are none.

In Organizational Communications, students give five, taped oral presentations, with three, four, and five including a question and answer session. Presentation three has questions after the presentation. Presentations four and five have questions during the presentation.

As a side note, all presentations, until recently, had the question and answer after the presentation. But an alumnus returned and told us that was not the "real world." He told us that the president of a company had asked him a question after his first sentence. So we changed our approach to prepare our students for life after college.

During presentations three, four, and five, students write out questions. The professor records which student asks questions and how many. At first, each student must ask a question before anyone may ask a second question. At the end of class, the professor collects the questions and marks them with a plus, a check, or a minus, which become part of the Group Performance grade. The professor also makes comments on the questions which include positive feedback on the number written down and the quality of the question. When students have written down questions but have not asked any, or many, the comment reads, "Ask more questions." Most times, the student responds by asking more questions. The students get the professor's marks and feedback before the next presentation.

For the fifth presentation, the students are not required to write out questions, but the professor continues to record who asks and how many they ask. Overall, students ask more questions than the third presentation, but a few slip back to old habits when the "requirement" of writing the questions down disappears.

One semester, prompted by another professor who had given a quiz on the syllabus to students on the second day of class, the professor asked students to write out five questions for each of three documents handed out in the first class: the syllabus, the Day Of Observation Guidelines, and the Writing Guidelines (See Appendix A).

This assignment forced the students to read the three documents, to understand the documents, and to provide feedback to the professor, who, in turn, learned what the students needed to be clarified. At the start of the rest of the classes, the professor answered the questions the students had written out.

BUS 485: STRATEGIC MANAGEMENT

In this senior, capstone course, students, formed into groups, do three case studies from a text book, a computer simulation, and a "final competition" at the end of the semester. For the final competition, each of two sections forms a group made up of the entire section. The two sections analyze the same case, select five students to represent their section, and compete against each other on the campus theater stage. The final competition is open to the entire campus and the public.

For the three case studies, each student hands in a written question before class starts and is required to ask a question of the presenting group during the presentation (See Appendix A, BUS 485). Students asking the questions stand, identify themselves, and ask their question. A record is kept as part of the Participation grade, which is worth 35%.

After the first case study, the students begin working on a computer simulation, the Business Strategy Game in different groups. So the group work on textbook cases and the simulation overlaps.

At the end of the simulation, each group presents to the entire class, and the students in the audience ask questions during the presentation. Again, the "questioners" stand, identify themselves, and ask their question. The groups have been competing with all other groups in both sections of the course on the computer, but not face to face. The presentations to the other groups in their section generate penetrating and very difficult questions.

For the "final competition," each section sits on one side of the theater. Students may only ask questions of the other section, so they can not feed easy questions to their own section. Since the final competition occurs at the end of the semester of their last college course, the students ask substantive and penetrating questions. The element of competition fuels the intensity.

DISCUSSION

In the beginning, freshmen students are somewhat surprised by the expectation, and even the requirement, that asking questions is central to classes in the department. But once they know asking questions, both in writing and orally, is a constant, they respond; some respond more effectively than others.

The faculty can see shy, reserved students grow more comfortable and more assertive in the classroom, in group projects and in the whole class setting.

Student will ask questions if they know that the professor is serious; if they know why the professor is requiring that activity; if they know asking questions is a constant throughout the course; if they know they will receive feedback; if they know the activity is part of the grade; and if they know asking questions is essential to their future success.

As I see it, the feedback loop back to the professor is more than worth the time and energy of these strategies. The constant back and forth between professor and students gives the professor a reality check on what the students understand and what they need more clarity on. And once the students know the professor wants and accepts their feedback, the students become instrumental in improving the dialogue of teaching and learning.

CONCLUSION

With these strategies to get students to ask questions, the Business and Economics Department is attempting to get students to take a more active role in their learning, to get more comfortable and more confident in a public setting, and to prepare for life after college.

By having our students start to ask questions in their first course, by reinforcing that activity in other courses, and by ending with that activity in their last course, the department presents our students with the opportunity to learn and to develop personally and professionally.

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APPENDIX A: REPRESENTATIVE SAMPLE QUESTIONS

Note: The percentage represents the percent of all questions for each of the three classes listed below: BUS 130/185; BUS 285; BUS 485.

BUS 130: Principles of Business and BUS 185: Business Management
(Bus 185 data for five class meetings only.)

CURRENT EVENTS – 25% - **BUS 130: Principles of Business**
Do you think that low consumer spending now will continue into Christmas or do you think the holiday will boast the economy?

With domestic automotive companies offering a 0% interest rate, will foreign competitors begin to make special offers to gain a share of the market?

Do you think Bush is going to make the right decisions, regarding the Terrorist Attacks? Is this going to lead to another World War?

How much will the incident affect the world market? The US market?

Where do you think the stock market will be when we come out of the recession, how will the interest rates be affected by the change in the market?

5% - **BUS 185: Business Management –**
Do you think lowering gas prices has to do with the upcoming election?

Why don't the developers of the Chinese building complex just demolish the woman's apartment that is delaying their building plans?

OPERATIONS OF CLASS – 25% **BUS 130: Principles of Business**
When writing our business proposal how much info. Should we put in our location of business? (Do we need to include size of building, maximum capacity and things like that?)

Are we ever going to find out how to use power point or are we going to have to learn it ourselves?

Which days paper should we use for the article that we bring on Mon?

What are the key sections to focus on in the Wall Street Journal?

What types of questions do you put on tests?

When is the actual written part of the group project due? Mon or Wed (the first day of presentations)

Have you ever done group projects, like the ones we are doing now, every year?

Does our business plan need to indicated that financing has already been secured?

5% - **BUS 185: Business Management**
What kind of dress are we supposed to wear for the tour?

Me being a music business major, is there anything in this class that will apply directly to music business?

CONTENT – 17% **BUS 130: Principles of Business**
Where can I find a good example of a code of ethics?

What is a manager's most important duty?

Do you think that this will have a positive or negative effect on the airline industry as a business whole?

Within the Wal-Mart on 422, there is a Cingular (communications co.) booth. Does this type of company interaction classify as B2B? Or, does this have another title?

How long is Alan Greenspans term?

Say I started a company how would I go about putting it on the stock market?

What is the relationship called that Ford and Firestone have? Is it like a contract?

87% - **BUS 185: Business Management**
Can outsourcing cause confidentiality problems if competitors in a certain industry use the same supplier or manufacturer? Is there contracts that can legally make the supplier keep information such as specific materials confidential?

Can anorexic down sizing affect a company enough to make it bankrupt?
Are there times when a firm decides to transform from decentralized authority to centralized authority?

LVC – 10% **BUS 130: Principles of Business**
What business courses will I need to continue taking next semester?

What gpa does a student have to earn in order to be allowed to do an internship?

Do I have to schedule a meeting w/ my advisor to pick up my midterm grades or do I just go to his office?

When will all the construction around the campus be finished?

How many people are employed by LVC?

Who is the Human Resource person on our campus?

0% - **BUS 185: Business Management**
No applicable questions

GRADES – 7% **BUS 130: Principles of Business**
When do we get our grades for the group project?

What percent of our grade is the group project?

What exactly needs to be done on the outline to get an A? (Explain what you want more clearly.)

0% – **BUS 185: Business Management**
No applicable questions

PERSONAL – 5% **BUS 130: Principles of Business**
Did you have to take computer training courses to learn how to use new technology?

What is your favorite movie and why?

Professor Kline, what made you decide teaching was the road you wanted to take? Why not a business man, etc.?

How was your thanksgiving?

0% - **BUS 185: Business Management**
No applicable questions

OUTSIDE WORLD – 5% **BUS 130: Principles of Business**
If someone had a choice, would you recommend that they join a union?

How many speeding tickets did the anvil police issue last year?

How many different jobs can you get with a business degree?

How difficult is it to get a loan and start your own business?

3% - **BUS 185: Business Management**
Why are salaries generally higher in the North than in the south?

Why has college been the socially expected thing to do and is it possible to be successful without it?

FINAL EXAM – 5% **BUS 130: Principles of Business**
What is the actual day and time of our final exam? (The syllabus says Thursday, Dec 14 – but the 14 is a Friday.)

Will the final be focused more on the last few chapters or will it be equally distributed through all the chapters?

Will we have a review session for the final exam?

0% - **BUS 185: Business Management**
No applicable questions

SELF EVALUATING – less than 1% **BUS 130: Principles of Business**
What do you feel is the most important thing we should get out of this course?

What was your overall opinion of the group presentations?

0% - **BUS 185: Business Management**
No applicable questions

Questions from Presentations: BUS 130: Principles of Business

MARKETING – 10%
Besides location, how do you expect to draw business to your distribution center?

Do you plan on making smoothies for large events such as rock concerts to get your name out?

PROFITS/FINANCES – 10%
How much money to do you plan on making your first year?

Is your $9,000 NI after salarys have been taken out?

OPERATIONS – 20%
How many part-time employees do you plan to hire?

How often will your business be open? What are your hours?

Will you be giving straight razor shaves?

How often will you get new inventory in?

Are you offering any other products besides sno-cones?

ORGANIZATIONAL STRUCTURE/ BUSINESS STRATEGIES – 60%
Why did you decide to start a landscaping business?

What do you plan to do in the off-season since its not warm all year long in Ocean City?

Do you plan to open up more locations in the future?

What kind of ethics training will you provide?

BUS 285: Organizational Communications

Questions Asked Before Class

What does TBA mean in the syllabus?

My potential shadowee has not called back. Should I move on?

Which accounting firm would be better?

The person said to call back early next week. How long should I wait?

Does the ending in Figure 7.6 shift the focus of the letter?

How can I improve my writing?

Written Questions

DAY OF OBSERVATION – 7%
Would it be possible to discuss the order of material hand in with the report?

On the day of the DOO Report is due, will we be doing anything else in class, other than handing in our report

Can we set up an appointment for DOO questions next week?

Is it better to use what the shadowee said on the PowerPoint or to use what we saw on the day of observation?

PRESENTATIONS – 10%
How long is presentation 4 going to be?

For our presentation, are we going to stand behind the computer or to the side of the projection screen?

Are visual props permitted for this presentation?

When will we find out the order for presentation five?

OPERATIONS – 30%
Can we use news items as our communication events for our daily writings?

I'm having some difficulty figuring out how to include my Wall Street Journal grades onto my excel worksheets. Could you explain this?

What will we be doing next week? Do we need to bring anything special?

Do we meet with you to review grades before or during finals week?

PERSONAL – less than 1%
Where did you go to school?

What specific grammatical errors are your pet peeves?

ETIQUETTE – 20%
What would be more professional? A follow up e-mail or follow up call after we initiate contact with our shadowee?

The reading talked about how many cultures act differently when it comes to the international business world of communication. Do many cultures do things differently when it comes to content and organization of a report or memo?

More than once in the Professional Image text, it mentions that if you are not sure what to wear to a certain occasion, event, or even work you should ask someone. Who would be the most appropriate person to ask to ensure you will wear the proper attire?

How do you talk to a difficult employee when you are forced to work with everyday? Should you work things out and at what point should you seek help?

WRITING/FORMAT – 15%
How long should our recommendations part be?

When listing quoted items, do you still put the punctuation inside of the quotations?

What has been the most efficient and useful use of time when planning, writing, and revising of a paper for you?

CONCEPTS – 10%
In Locker, page 481, the author states that, “gestures usually work best when they are big and confident.” Won’t this distract the audience?

When “Getting to the Problem”, is there an easier way than using Active Listening without offending or making the communicator mad?

Of the 6 Questions for Analysis (found on page 24) Which is most important, in your opinion?

SELF IMPROVEMENT – less than 1%
How would you evaluate our class as a whole?

If there was one things you would want us to take away from this class what would it be and why?

Written Questions of the Syllabus, the Day Of Observation Guidelines, and the Writing Guidelines.

Syllabus:
What is “Cooper” in the Responsibility section? I answered my own question!

After a presentation is presented, does everyone have to ask a question?

When will the Review of Grades take place?

What is meant by Improvement in the Grading section?

Does missing a class for our DOO lower our grade in any way?

Day of Observation Guidelines:
Can the shadowee be a friend of the family?

Are we expected to wear full professional clothing for the DOO?

If possible, are we allowed to observe more than one day to see what different days are like for the shadowee?

Did you ever shadow someone while you were in college? Is that how you came up with the idea?

How do we obtain a shadowee, do you have a list or do we find one on our own?

Writing Guidelines:
Do we need a thesis for our Daily Writings?

What is the difference between then and than?

What is the most common error?

What does M=R mean?

Will you tell us if our paper has enough content?

BUS 485: Strategic Management

OPERATIONS – 17%
What steps in the employee recruitment process do you recommend Quorum pay particular attention to, to not only maintain quality, but also the safety of the patients?

Isn’t Harrah’s Entertainment sending contradictory messages by saying they are concerned about problem gamblers; but offering Total Gold Playing cards, which reward people for spending a lot of money at their establishments?

Do you feel that Harrah’s strong effort to recruit minorities and women has been successful in gaining quality employees? Should this effort be continued?

Azalea’s had to recall $100,00 worth of gumbo in 2000 due to a stamp problem. What can Azalea’s do in the future to prevent such a problem?

Do you think the salaries for the employees of Portman Ritz-Carlton Shanghei should be raised?

Do you feel that the waste given off by the company is too much for the environment?

MARKETING – 17%
What do you think is the market niche for Quorum? Do you think its [sic] helps or hurts them?

What kind of target do you see most important for Quorum Health Group to go after?

Are there any plans to change the demographics of the company to try and reach a new and different customer?

The financial statements show Azalea has not spent any money on advertising since 2001. Do you think more advertising would help the company grow?

Company growth is an important issue. Since most of your sales come from repeat customers, do you have a marketing plan in order to attract new customers and increase sales?

Do you think BFW should advertise their biodynamic/environmental uses on their label to further increase their sales and recognition?

PROFITS/FINANCES – 11%
How are you planning on making enough profit so that it will justify your operating expenses

Since net income decreased significantly while operating revenues increased, what measures will be implemented to reduce operating expenses

What do you feel about the financial situation of Harrah? Practically, about the Increase in debt over the pass [sic] few years? Almost a 1 milling dollar increase a year. (most of which is long term debt)

Would it be possible to estimate the total cost of implementing BFW's Ems and compare it to the total gain? If the company will not make a profit after developing the EMS, should they still follow through with it?

Is the company financially stable for all the changes, monitoring, and other steps needed to help this company?

Cash flow appears to be a problem in recent years (199-2003), as the balance sheet presents negative cash. What are your suggestions to improve cash flow?

ORGANIZATIONAL STRUCTURE/ BUSINESS STRATEGY – 55%
Do you feel that HARRAh's Entertainment, Inc.'s management style is effective?

Because gaming on the Internet has not been banned, do you plan to compete on the Internet?

Quorum has had difficulty acquiring in the past, what procedures would they need to change to acquire more effectively?

Do you think EA's powerful vision of obtaining millions of users for playing EA games online is realistic?

Do you feel that the pyramid they created was wrong…meaning guest satisfaction should have been before employee?

Do you think DeCocinis should have spent more money on his employees (i. e. salary increase than spending it on himself (i.e. fancy motorcycle)? If he had, do you think he would still be facing the same problem now in terms of competitors "stealing" his employees?

How has the Asian currency crisis effected[sic] your company over the past several years?

As an aging employee with three children, what is the likelihood that I will lose my job if the company expands since younger employees tent to be more productive and are cheaper to employ?

How can Azelea prevent future bad customer relations, such as what happened in 2000 with the mislabeling of dates on their products?

VALUES OF TURKISH UNIVERSITY STUDENTS

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ABSTRACT

Turkey's candidacy for membership in the European Union has stirred controversy, both within the EU and within Turkey. Part of this controversy stems from concerns about the compatibility of the values of EU members vs. Turks. In the current study, the values of 38 college students in three freshman English classes of a Turkish university are surveyed. The students list, in rank order, and describe, their 10 most important values. Results can provide a basis for comparison with values of members of EU countries, to see the likelihood of Turkey's successful economic, psychological, and social integration into the EU.

INTRODUCTION

Turkey's possible accession to the European Union has generated controversy within both EU countries and Turkey. A report by the Centre for Economics and Foreign Policy Studies (2005) examined public opinion toward Turkish accession to the EU among six EU countries: France, Germany, Italy, Poland, Spain and the United Kingdom. The total in favor ranged from a high of 49% in Spain to a low of 33% in Germany, with an overall value of 40%. The total against ranged from a high of 61% in Germany to a low of 32% in Spain, with an overall value of 46%.

The report also shows that, while there is widespread public support for EU accession within Turkey (64% in favor and 30% opposed) this support has diminished over time, and Turkish public opinion has tended to swing between "Eurosupportiveness" and "Euroscepticism." Support stems from hopes for economic benefits, decreased corruption, and more advanced democracy. Opposition stems from fears of cultural degeneration and sharing of sovereignty, and the view by some that the EU is a "Christian club."

The mixed feelings that both members of EU countries and Turks have toward Turkey's EU membership may be partly attributable to concerns about value incompatibility. The most frequently cited value difference, and cause of concern, is religious: whether a Muslim country can be successfully integrated into a primarily Christian union. This issue stirs emotions on both sides, often based more on longstanding prejudices than on logic.

A more objective approach is to examine the totality of Turkish values, to see what the Turks value in life. Examining these values might shed some light on the likelihood of a successful Turkish accession to the EU.

Hofstede (1991) has done the most extensive research on national values, covering 116,000 people in 50 countries, including Turkey and most of the EU. His four value dimensions—power distance, uncertainty avoidance, individualism and masculinity—have become well known. On Hofstede's scales, Turkey ranks relatively high on power distance and uncertainty avoidance and relatively low on individualism and masculinity. This is the opposite pattern to that of the United Kingdom (and the United States), but similar to certain EU countries such as Spain.

However, Hofstede's dimensions actually represent a mix of values, attitudes and behavioral tendencies, and may reveal little about what an individual personally values. For example, power distance tells us a great deal about whether an individual in a country will accept an unequal distribution of power, but little about whether he/she places a high value on his/her personal acquisition of power.

Other researchers, such as Murray (1938) and McClelland (1968), have assessed the needs for such variables as power, but have not determined the relative value that persons place on these variables across cultures. Their findings have thus been criticized as being culture-bound.

Rokeach (1968) differentiates between "instrumental" and "terminal" values. Instrumental values (e.g., cheerfulness, honesty, obedience) are concerned with modes of conduct, while terminal values (e.g., freedom, happiness, inner harmony) are concerned with end states of existence. The Rokeach Values Survey asks the subject to rank 18 instrumental and 18 terminal values in order of importance.

Probably the most thorough investigation of differences in core value orientations across cultures has been done by Schwartz (1992, 1994). He defines values as goal states of being that serve as guiding principles for life. Schwartz and his colleagues have identified 10 value types. Two of these values, power and achievement, are similar to needs first identified by Murray, and later investigated by McClelland. Some of his other values are similar to those identified by Rokeach (1968). For example, Schwartz's "hedonism" and "stimulation" parallel Rokeach's "pleasure" and "an exciting life," respectively. The full list of Schwartz's values are as follows: power (social status and dominance), achievement (personal success), hedonism (pleasure), stimulation (excitement and novelty), self direction (independence in thought and action), universalism (understanding and tolerance of all people), benevolence (concern for human welfare), tradition (commitment to religious and cultural customs), conformity (not violating social expectations), and security (stability of society, relationships, and self).

Cileli (2000) used the Rokeach Value Survey (RVS) to study the values of Turks specifically. The RVS was administered to Turkish youth in 1989, 1992, and 1995. He found the most important terminal values in 1989 were self respect, freedom, inner harmony and equality (reflecting a general concern for psychological stability and independence). The most important values in 1992 were wisdom, mature love, inner harmony, happiness, and family security (reflecting a trend toward more relational concerns). Finally, the most important values in 1995 were happiness, inner harmony, an exciting life, and mature love (reflecting a more hedonistic orientation). The shifts in value orientations were attributed to changes in Turkey during this period, including problems in economic transformation, urbanization, population growth, and political unrest. Also, events in nearby regions (e.g., the collapse of the Soviet Union and the 1991 Gulf War) had a psychological impact on Turkish society.

HYPOTHESIS

The primary purpose of this study is to obtain data on values that will be compared to data to be collected on British students. Hypotheses for this research will be formulated for a later paper, in which the Turkish vs. British comparisons will be made.

For the current paper, the hypothesis is that the value rankings of Turkish university students will correlate with the Rokeach terminal value rankings in Cileli's 1995 data (Cileli, 2000). Specifically, Cileli found that "happiness" and "inner harmony," each hedonistic values, ranked first and second among the 18 terminal values. "True friendship" and "social recognition," each relationship values, ranked 17th and 18th among terminal values. Thus it is hypothesized that hedonistic values will be ranked higher than relationship values in the current research.

SUBJECTS

Subjects were 38 freshmen (21 males and 17 females) in three English classes at a major university in Istanbul, Turkey.

METHOD

The students were asked to rank and describe their 10 most important values. The question was open-ended, as follows: "Please rank from 1 to 10 your ten most important values. That is, these are the ten things in life that are most important to you. The value ranked "1" is the one that is most important, the one ranked "2" is the second most important, and so forth. For each value, please also write a short description to explain why this value is important in your life."

By keeping the question general and open ended, the researchers hoped to avoid possible limitations and cultural biases of previous (mostly U.S.-designed) value instruments. In addition, by describing each value, the students could use their own words to provide a deeper insight into their value orientation. The researchers were interested in determining not only the relative importance of previously studied values in Turkey, but also whether other values were deemed important, and how all these values were perceived.

The values were content analyzed to see if they fit in one of 10 categories: power, achievement, hedonism, stimulation, independence, universalism, traditional morality, security, relationships, and wisdom/intelligence. These values were derived from Rokeach and Schwartz models, as indicated in Table 1 on page 97. The resulting list is intended to incorporate values from both of these theories, and thus to include a wider range than either model alone.

Three values that many students expressed were health, sports, and travel. Rather than create new categories for these values, it was assumed that pursuit of health and playing sports were hedonistic, while traveling and valuing sports as a spectator were stimulating. When students mentioned a hobby as a value, the nature of the hobby, and the student's description of it, determined the value category. For example, "hiking" could be categorized as either achievement, hedonism, or stimulation, depending on the student's goal in taking a hike (getting somewhere, pure enjoyment, or excitement).

RESULTS

The results are shown in Table 2 on page 97 and will first be discussed by value category. Then the hypothesis will be considered.

Power

Power was mentioned only once, by a student who ranked it eighth among his values. This student wrote: "Also one in your life should be clever and useful because you improve yourself with high level people." This recognition of the importance of political maneuvering might be expected in a high "power distance" culture such as Turkey. Its rarity among the students' values shows that one should not assume that persons in a culture with high power distance necessarily place a high value on the personal acquisition of power.

Achievement

Achievement was mentioned 32 times, often in the context of the student's career. When mentioned, however, it was generally not among the student's highest values, with a mean ranking of 7.69.

Hedonism

Hedonistic values were mentioned 97 times, second to only relationships. It was frequently cited in the context of an object, such as a home or car, that was highly valued. When mentioned, it tended to be only moderately important, with a mean ranking of 6.26.

Stimulation

Stimulation, often in the context of spectator sports and travel, was cited 21 times. Its mean ranking was 5.38.

Independence

Though only cited 11 times, independence was deemed relatively important when mentioned, with a mean ranking of 4.73.

Universalism

Concern for universalistic values such as peace and equality, came up 21 times, with a mean ranking of 5.86.

Traditional morality

Turkey is a relatively secular society, especially for a Muslim country. When God (or Allah) was mentioned, however, the ranking was generally high. The Turkish nation, and traditional morals such as loyalty and obedience, were generally rated somewhat lower. Traditional morality was cited 52 times, with a mean ranking of 4.98.

Security

This value came up the second least (5 times) and was tied for lowest ranking at 8.00.

Relationships

Relationships were both cited most often (114 times) and ranked the highest (mean of 3.99). Family, friends, and loving relationships were very highly valued among the students.

Wisdom

Knowledge, education, and wisdom, were valued by many students, and this value was cited 24 times. It did not tend to be highly ranked, though, with an average ranking of only 6.58.

In general, then, relationships and hedonism were the two most frequently cited values in this sample. Relationships were mentioned 114 times, with a mean ranking of 3.99, while hedonistic values were mentioned 97 times, with a mean ranking of 6.26. Since relationship values were mentioned more often, and ranked higher, than hedonistic values, the hypothesis for this study was not supported.

CONCLUSIONS

The results of this study suggest that Turkish college freshmen, as might be expected of persons of this age group, are highly concerned with relationships. It should be remembered, however, that other values may be more important to Turkish adults. Previous research (Karakitapoglu and Imamoglu, 2002) suggests, for example, that compared with university students, Turkish adults place more value on tradition-religiosity. This, of course, is of concern to EU countries that may fear that Turks will have religious values that are not compatible with those of Christian nations.

The Turkish students' descriptions of their values, however, might help to mitigate some of these fears. Those giving religion as their highest value tended to express this in much the same way as a devout Christian might, with an emphasis on love, thankfulness, and family. For example, one student wrote: "I think there are two kinds of love one is loving a human and the other loving the Creator." Another student wrote: "Everything I have now including my family is mine for the reason what God wants me to have. I am very thankful that I have everything I need, are mine with me now." Religion for them is a personal and familial thing, not an activist orientation.

Further research is needed to compare these values to those of a comparable sample in an EU country. The authors plan on doing this in Great Britain in the fall of 2007. Specific comparisons of these values, at a deeper level than has been done in the past, can shed light on the likelihood of Turkey's successful economic, social, and psychological integration into the European Union.

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Table 1
Value Categories

Value Categories	*Rokeach Instrumental*	*Rokeach Terminal*	*Schwartz*
POWER			Power
ACHIEVEMENT	Ambitious	Accomplishment	Achievement
HEDONISM		Happiness, inner harmony, pleasure, comfortable life	Hedonism
STIMULATION	Imaginative, courageous	Exciting life	Stimulation
INDEPENDENCE	Independent, self-controlled	Freedom, self respect	Self-direction
UNIVERSALISM		World at peace, world of beauty, equality	Universalism, benevolence
TRADITIONAL MORALITY	Clean, obedient, polite, responsible	Salvation	Tradition, conformity
SECURITY		Family security, national security	Security
RELATIONSHIPS	Cheerful, forgiving, helpful, honest, loving	Mature love, true friendship, social recognition	
WISDOM	Broad-minded, capable, intellectual, logical	Wisdom	

Table 2
Value Rankings

Number of Students Ranking the Value from 1 (Highest) to 10 (Lowest)

Value Categories	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*Total*	*Mean*
POWER								1			1	8.00
ACHIEVEMENT			1	1	2	4	6	5	7	6	32	7.69
HEDONISM	11	7	5	6	8	9	9	11	12	19	97	6.26
STIMULATION		2	6	1	2	3	2	2	1	2	21	5.38
INDEPENDENCE		2	2	1	3	1		1	1		11	4.73
UNIVERSALISM	2	1	3	1	1	2	5	2	2	2	21	5.86
TRADITIONAL MORALITY	8	3	4	7	7	9	3	5	5	1	52	4.98
SECURITY					1		1		2	1	5	8.00
RELATIONSHIPS	19	22	15	17	11	6	10	9	4	1	114	3.99
WISDOM			2	4	3	3	3	3	2	4	24	6.58

CRITICAL THINKING IN MIS AND DSS: USING BLOOM TO REVISE COURSE MATERIALS

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ABSTRACT

This paper explores the application of critical thinking techniques to revising course content. Specifically, Bloom's Taxonomy is described and literature is reviewed from MIS articles. Since DSS is particularly appropriate for a discussion of critical thinking, this paper focuses on revising DSS materials in the MIS course. Finally, course materials, including course objectives and discussion questions, are revised using Bloom.

AN INTRODUCTION TO CRITICAL THINKING

What is critical thinking? We, as teachers, have a definition of critical thinking in mind, but few of us have really externalized that definition so that it can serve as a basis for stating and measuring outcomes (Halx & Reybold, 2005; and Paul Summer 2005). Indeed, critical thinking is recognized as a general goal of higher educational institutions in schools or departments of business. Also, business associations of certification champion teaching critical thinking as a means to reach desirable student outcomes. For instance, the Association of Advance Collegiate Schools of Business (AACSB 2006, p18) says that …

> "in designing a course syllabus a mission statement might remind a faculty member that the school aims to emphasize critical thinking skills."

The Association of Collegiate Business Schools and Programs (ACBSP 2006) also lauds the teaching of critical thinking in their standards. However, ACBSP only mentions the term once in their statement of standards, while AACSB mentions the term twice. While this paper will not specifically explore the significant discussion of critical thinking, particularly in schools of education, there are many approaches to defining and applying critical thinking approaches to teaching and outcomes assessment (Bers Summer 2005; Halx and Reybold 2005).

For instance, Kurfiss (1988) proposes that three processes function in critical thinking: declarative knowledge, which informs the student of the basic facts and concepts in some discipline; procedural knowledge, which directs the student in reasoning, inquiring, and presenting knowledge; and metacognition, which guides the student in setting goals, and evaluating the usefulness of information or the effectiveness of an investigative technique in some knowledge area. On the other hand, Taylor (2004) pragmatically defines critical thinking as an exercise in face validity; where critical thinking is defined as the thinking that professionals in some discipline exhibit when they practice their trade

Bloom (1956) approaches the discussion of thinking processes from a cognitive perspective focusing on the study of mental processes such as, comprehension, making inferences, decision-making, problem-solving, planning, and learning. He proposed that higher level mental processes are layered. The lower layers are hierarchically related and support the higher layers, which are the critical thinking processes. Figure 2 on page 106 illustrates Bloom's concept of cognitive layers. The lower layers, knowledge, comprehension, and application are prerequisite conditions to the student reaching the higher layers, analysis, synthesis, and evaluation.

A student who exhibits the ability to recall the basic facts, principles, or techniques in a given discipline has achieved academic ability to operate at the knowledge level of Bloom's Taxonomy. A student who can organize facts, compare principles, or translate ideas from one context to another is at the comprehension level. A student who can apply knowledge or use the tools of a discipline to solve problems common to some profession is at the application level. The first three levels are said to be hierarchical because they are necessary or fundamental to achieving the higher levels. However, many researchers, and Bloom himself, felt that many teachers over-emphasized the lower level of mental processing at the expense of the higher levels in their instruction and choice of educational materials (Bissell and Lemmons 2006, Hampton and Krentler 1993).

The higher level mental processes are not hierarchical in the sense that one level requires the skills of the other for the student to successfully proceed. The higher level critical thinking skills are networked and can operate in parallel. For instance, a student who has achieved the analysis level can create a model or specification of some problem in some narrowly defined area of interest. On the other hand, a student who has achieved the synthesis level can solve that problem by assembling various parts into a whole solution. Finally, a student who can assess the efficacy of a solution to a problem, or make a judgment about the applicability of a solution is operating at the evaluation level (Oliver et al 2004).

So, what is critical thinking? Critical thinking is the application of higher level cognitive skills to solve difficult problems or learn new material. The discipline of the professional will often guide the student as to the specific sequence of tasks; however, the high level cognitive skills of application, analysis, synthesis and evaluation will be present in those tasks. For instance, accountants use critical thinking when performing a financial audit, human resources personnel use critical thinking in the selection and evaluation of potential candidates to a position, and computer support analysts use critical thinking when trouble-shooting computer systems. Of course, the granddaddy of all critical thinking techniques used by management scientists is hypothesis testing and the scientific method.

The purpose of this paper is to explore the application of Bloom's Taxonomy to teaching techniques in a course taught in many schools or departments of business known as Management Information Systems (MIS). This paper will focus on the course taught at York College of Pennsylvania known as IFS305-Management Information Systems. More specifically, the paper explores the application of Bloom's Taxonomy to an area or topic covered in many MIS courses known as Decision Support Systems (DSS). While the definition of DSS is not universally agreed upon, it has come to mean the application of computer-based systems to higher level organizational activities such as problem-solving and decision making (Turban 1995, and Finlay 1994). Some researchers feel that DSS are particularly useful when they serve as decision aids that structure a problem so that individuals can couple their intellectual resources with the resources of the computer resulting in insight and better decision making (Keen and Scott Morton 1978). Thus, a discussion of DSS and critical thinking in MIS is particularly relevant.

DISCUSSION OF BLOOM IN MIS

The discussion section has five topics. First is a review of a literature on critical thinking in MIS. Second, DSS tools in Excel are introduced. Third, two specific DSS tools, the Scenario Manager and Solver, are examined more closely. Fourth, the educational objectives in an MIS course are revised in order to apply Bloom's Taxonomy. Finally, the discussion closes with possible test questions that an instructor might use to gage the outcome of instruction based upon the Bloom levels.

Critical Thinking in MIS

Critical thinking is an important skill for professionals in MIS. Managers who would be involved in the use or development of DSS must have critical thinking skills as well. The problem-solving and decision making skills that are based upon critical thinking and Bloom's Taxonomy can be thought of as a two dimensional framework with primary concepts or principles of MIS along one axis and the levels of critical thought along the other (Vitolo and Coulston 2002). The Vitolo and Coulson framework identifies the primary concepts in MIS as hardware, software, data, procedure, and people. For instance, a DSS is a software system that supports problem-solving and decision making in organizations.

Educators often discuss the levels of Bloom's Taxonomy from the perspective of the questions, cues or behaviors that a student should be able to perform if operating at a specific Bloom level. The first row in Table 1 on page 105 presents the tasks that might be required at each Bloom level along the software dimension of the Vitolo and Coulston (2002) framework. The reader should note that the questions become more complicated as the Bloom level increases.

The cues or action verbs in Table 1 are taken from a review of occupational descriptions of MIS positions in the United States, Taiwan, and Australia (Ven and Chuang September 2005). Ven and Chuang performed a job-related content evaluation of positions in MIS including positions such as systems manager, software designer, systems programmer, programmer, and analyst. The cues in Table 1 are a sample of action verbs in the job descriptions that they examined. These cues illustrate how Bloom's Taxonomy can be applied to the statement of competencies of professionals desiring positions in MIS. It should be noted that over 60% of the cues or action verbs found by Ven and Chuang (September

2005) appear in the synthesis and evaluation category indicating that software related positions have a significant critical thinking requirement.

Finally, the behaviors in Table 1 are taken from Bers (Summer 2005). The Bers paper demonstrates that it is possible to assess measurable behavior based upon Bloom's levels of critical thinking by means of standardized tests, and other methodologies developed by educational institutions. In summary, Table 1 provides a set of tasks, cues, and behaviors along the Bloom levels and is typical of the style of research done around Bloom.

As seen in the discussion above, Bloom's Taxonomy can be used to make conclusions regarding the cognitive level of job applicants in MIS; however it has been applied to many other assessment situations. For instance, Bissell and Lemons (2006) propose a technique for developing and assessing the validity of college discussion questions. Their technique is particularly interesting because it allows for the inclusion of level of cognitive performance and specific content related to some professional discipline. Other areas where Bloom can be applied include statements of abilities on resumes, job position advertisements, teaching objectives, learning outcomes, and career goals (Ven and Chuang September 2005; and Bers Summer 2005).

DSS Tools in Excel

While Excel is probably the most popular spreadsheet in education, many students do not fully appreciate its potential as a DSS tool. For instance, an examination of Excel's Tools menu shows several DSS tools: Goal Seek, Scenarios, and Solver. Also, Formula Auditing might be considered a DSS tool to an accountant or auditor. That by the way is one of the salient features of DSS making DSS a difficult topic to define. The beauty of the tool is in the eye of the beholder. Another characteristic of DSS tools is that their usefulness can be dependent upon to the decision making style of the user, the structure of a problem, or the nature of the organization. See Figure 1 for Excel's Tools menu.

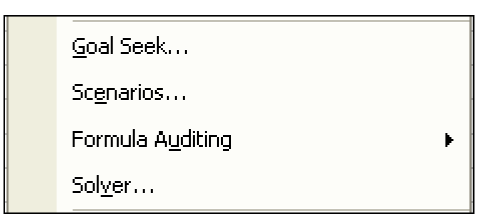

Figure 1 - Excel's Tools Menu

Other DSS tools can be found in the Data menu such as Table, and PivotTable and PivotTable Report. Finally, the Data Analysis tool pack provides an amazing array of statistical tools. The statistical tools include Anova, Correlation, Descriptive Statistics, F-Test, Regression, t-Test, and z-Test to name a few of the most important.

The hard part in using Excel's DSS tools is being conversant in the underlying knowledge that the tool is based upon. For instance, the hardest part in using a statistical tool is knowing statistics. Next, we will briefly examine two of Excel's DSS tools: Scenarios and Solver. These tools are illustrated because the case book used in IFS305-Management Information Systems has sections on these two tools and they are extensively discussed in the course (Brady and Monk, 2007).

Excel's Scenario Manager and Solver

While this paper is not a tutorial per se, we will briefly examine Excel's Scenario Manger and Solver. The Scenario Manager can be seen in Figure 3 on page 107. The steps to use the Scenario Manager require that the decision maker to enter and name scenarios to be evaluated, indicate the cells that the tool can change, provide values that Excel will enter into the worksheet, and generate a summary report. When generating the summary report, the Scenario Manager gives the user the opportunity to specify result cells. The result cells should have a formula such as a net income calculation or a function such as Net Present Value (NPV) or Internal Rate of Return (IRR).

The Scenario Manager is appropriate when one desires to perform a what-if analysis and have the Scenario Manager change multiple cells in an automated fashion. This tool allows one to set up numerous scenarios that can be evaluated by the decision maker in order to find the optimum scenario. For example, one might wish to perform a what-if analysis on retirement options. One could enter a set of revenue and spending calculations in the format of a net income statement related to retirement expectations. The Scenario Manager keeps each retirement option stored in memory giving the user the ability to quickly change between the options. It also provides a summary report that is well formatted allowing easy identification of the optimal scenario.

Excel's Solver is illustrated in Figure 4 on page 107. The steps to use the Solver require that the user specify a target cell with a function or a formula which will be monitored by the Solver, identify changing cells to be manipulated by the Solver, enter rules that might constrain the answer in the target cell, and solve the problem.

The Solver is a utility that is based upon a family of optimization problems which use linear programming. It can calculate a maximum or minimum value of a target cell by changing other cells that are related to the target cell by rules or formulae using the linear programming technique. While the Solver requires some thought to set up, it is particularly useful when constraints or limits are involved in the problem. For instance, one might want to find the optimum number of items to manufacture. The decision maker could create an income statement with formulae based on the number of items to be manufactured. Solver can manipulate the items to be manufactured arriving at an answer very quickly.

Using Bloom to Describe MIS Outcomes

A statement of course outcomes should describe a set of competencies or abilities that a student can perform upon completion of that course. When the competencies are observable, measurable, and validated, then one can argue that the course is effective based upon an evaluation of samples of student tests or surveys, for instance. In order to make the linkage between the statement of the course outcome and the assessment of effectiveness, one should state those outcomes depending upon several factors such as the instructional level of the course and nature or preparedness of the students. That is, freshmen level courses probably should not be as rigorous as junior courses. In other words, one would expect that the outcomes of a freshman level course should use more action verbs in Bloom's Knowledge, Comprehension, and Application cognitive levels. Also, the nature of the student should be considered. If most of the students are non-majors in the content area, then the statement of course outcomes should include few if any Evaluation level cognitive abilities.

IFS305-Management Information Systems is a junior level course taught by the Information Systems (IFS) faculty at YCP. The prerequisites for entry into the course include basic computer literacy and knowledge of management concepts. The computer literacy prerequisite is enforced by means of a formal computer-based assessment tool known as SAM (Skills Assessment Manager published by Thompson Course Technologies). The SAM test covers Word, Excel, PowerPoint and Windows. The management concepts prerequisite is enforced by the requirement that students have passed MGT250-Principles of Management. Finally, the majority of the students are not IFS majors; instead the majority is business majors in management, accounting, or finance. Table 2 on page 1061 lists the current objectives of IFS305. These objectives have evolved over several years as topics have been added by different faculty at YCP. Also, the course has been modified to include more computer hands on experience, specifically in DSS tools. Thus, it is time to reevaluate the course objectives.

A review of Table 2 shows that the course objectives are very general and do not permit one to ascertain the level of cognitive ability each is attempting to achieve. All of the objectives are prefaced by two verbs "understand" and "discuss." In addition, DSS is to be presented only as a tool to be used with no mention of the development of DSS. See item # 5. This course objective hardly conveys the notion of DSS as a higher level organizational activity involving problem-solving and decision making requiring the active involvement of decision makers for optimal use (Turban 1995, and Finlay 1994). As an aside, item # 2 above is the list of MIS topics in the Vitolo and Coulson (2002) framework and is found in many recommended lists of objectives for MIS courses.

To revise the objectives in MIS, this paper will use an approach suggested by Ven and Chuang (September 2005). They advocate a task-based approach that uses << verb + object + condition >> to identify competencies. The "verb" is a task, cue, or behavior. The "object" is the entity or thing that is acted upon. The "condition" is a phrase that qualifiers the verb or the object indicating a refinement of the action verb, a goal to be met, a tool to be used, or some time period that limits the action.

Table 3 on page 106 gives the revised objectives of IFS305. Since the critical thinking skills are Bloom's analysis, synthesis, and evaluation levels, then it is appropriate that a majority of the objectives (5 out of 9) in a junior level MIS course should be at the higher levels of Bloom's Taxonomy. Items # 1, 2, 3 and 6 in Table 3 are at Bloom's analysis level. Since students coming into IFS305 have basic computer literacy skills and have a fundamental grasp of management concepts, it also is reasonable for IFS305 that the objectives go a step further than the basic introductory course in information systems. Finally, item # 5 has the student achieve the synthesis level. The wording of item # 5 highlights the characteristic feature of DSS as a decision aid for structuring semi-structured problems which might lead to individual insight and better decision making (Keen and Morton 1978).

Using Bloom to Devise MIS Test Questions

An impetus for Bloom to develop his taxonomy was his belief that most assessment of student abilities occurred at the lower levels of cognitive processing. Another impetus for Bloom was his theory that higher level processing is an indicator of superior student achievement; and that the higher level processing was more beneficial to learning than memorization and recall alone.

Table 4 on page 107 summarizes potential DSS tasks and student responses based upon Bloom. For instance, fundamentally a student who has had instruction in DSS should be able to define the components of a DSS and summarize the role of DSS. The student's answer should state that the components are the dialog which is also known as the interface, the data is the database or some other data store, and the model is the math component such an NPV or IRR function. The student response concerning the role of DSS is to state that DSS assist in decision making, problem solving, and problem structuring. It is the role of problem structuring that is particularly useful to achieving insight when the problem is semi-structured and, in some cases, ill-structured. Another fundamental skill that a student should have achieved in taking an MIS course with a heavy emphasis on DSS is knowing how to apply Excel's DSS tools. For instance, students who pass IFS305 will be able to use the Scenario Manager or the Solver as discussed above.

The critical thinking skills are those at the analysis, synthesis, and evaluation levels of Bloom. If students are operating at the analysis level, they should be able to respond to a question to analyze the requirements of a DSS by giving examples of pseudocode, data flow diagrams (DFD), and entity relations ship diagrams (ERD). Of course the requirements modeling techniques may vary according to faculty desires. For instance, some faculty may prefer object-oriented techniques, but the same goal will be achieved, to determine whether the student has achieved the analysis level for the requirements question.

At the synthesis level of Bloom's levels, one might ask the student a discussion question regarding development of a DSS. Again, the answers will vary; however students might address key characteristics of DSS development such as the phases of DSS development (requirements analysis, design and implementation). The student might address the fact that DSS are normally developed in organizational teams using an iterative approach. The student also might state that many DSS would be impossible without the use of modern day computing.

Finally, the evaluation question could determine whether the student can assess the quality of a DSS solution. An appropriate answer would state that it depends upon management's requirements related for instance to NPV or IRR. A particularly insightful answer by a student might give situations where management might adjust their requirements of a solution. For example, if a student were to respond with a well reasoned example of a solution that could be judged adequate were management willing to revise the rate component of the NPV; that student would be considered shrewd and certainly operates at the evaluation level of Bloom.

SUMMARY – NEXT STEPS

This paper addressed the revision of an MIS course objectives using Bloom's Taxonomy for the purpose of publicizing the cognitive level at which each of the topics is discussed. We also examined potential examination or discussion questions related to the DSS content in an MIS course, thereby, giving the instructor some capability to assess the cognitive level of mental functioning achieved by a student. Next steps could involve assessing other courses in the IFS curriculum using Bloom's Taxonomy as a guide. Then, other courses in the Business Administration Department might be assessed by appropriate faculty. Of course, a committee might be called for to coordinate activities.

Beyond assessing course objectives, other activities could be interesting. This paper did not address the linkage between course objectives, and test questions. An interesting methodology is proposed by Bissel and Lemons (2006). Their methodology has the following steps:

1. Write discussion test questions to address specific content.
2. Document content and critical thinking skills required by the question.
3. Create a scoring rubric for the question.
4. Validate the question and rubric, possibly, by experts.
5. Administer the question.
6. Score the answer.
7. Revise the question and/or rubric.

Furthermore, the test questions, rubric and validation could be done online. Faculty could submit questions and rubrics using a browser. Other faculty who are expert in the content area could assess the validity of the questions or rubrics. Then, interested faculty could download the questions and rubrics for administration. Once the interested faculty have scored the question, they could submit results of the scoring with additional information such as the grade students made for the question and the course. Other information might be submitted as well: demographic information on the students, and information about the program of study, or the college.

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APPENDIX

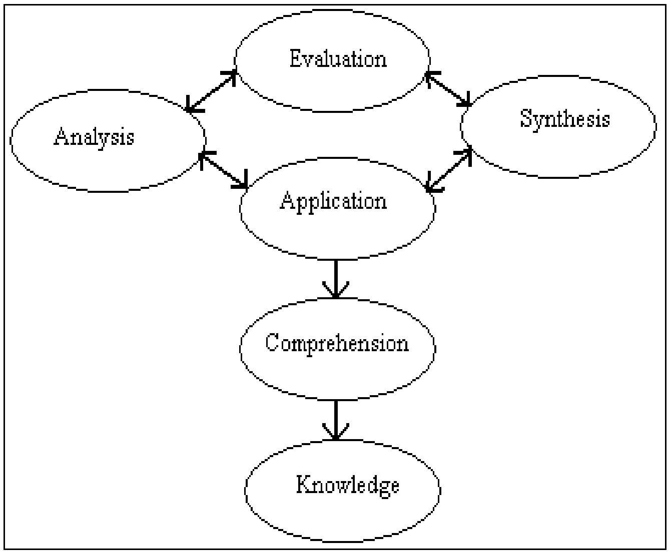


Figure 2 - Bloom's Cognitive Taxonomy

Table 1 – Tasks, Cues, Behaviors and Bloom's Taxonomy

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Task	What are the components of software?	What is the role of software in an organization?	When does software fit a situation?	How does a specific piece of software work?	How does one build a specific piece of software?	When is high quality software produced?
Cues	acquire, attend, check, cite, count, delineate, duplicate, eliminate	account, alter, articulate, characterize, clarify, comprehend	access, action, adopt, answer, apply, assign, assist	abstract, analyze, apart, ascertain, associate, audit, blueprint	adapt, adjust, advise, animate, arrange, assemble, blend, budget, categorize	appraise, approve, argue, assess, attach, choose, compare, conclude, confirm, contrast, criticize
Behaviors	N/A	N/A	N/A	Examine, classify, categorize, research, contrast, compare, disassemble, differentiate, separate, investigate, subdivide	Combine, hypothesize, construct, originate, create, design, formulate, role-play, develop	Compare, recom-mend, assess, value, apprise, solve, criticize, weigh, consider, debate

Table 2 – Current Objectives of IFS305-Management Information Systems	
#	Course Objectives: The student will understand and be able to discuss the:
1	Importance of considering Management of Information Systems as the management of an integrated collection of subsystems.
2	Components of Information Systems and how they interact.
3	Conceptual foundations, structure and technology of Information Systems.
4	Planning and development involved in the implementation of an information system.
5	Use of information-based decision support systems within the overall MIS concept.
6	Role of Information Systems in support of management, users and functional area.
7	Implications and requirements of applying global information resources.
8	How e-commerce and emerging telecommunication technologies are utilized in various organizations and global enterprises.
9	Impact of security and ethical issues on MIS development and operations.

Table 3 – Revised Objectives of IFS305-Management Information Systems		
#	Bloom Level	Course Objectives: The student will be able to:
1	Analysis	Analyze Management Information Systems within a context of an integrated collection of subsystems.
2	Analysis	Categorize the components of information systems and differentiate how they interact.
3	Analysis	Classify the conceptual foundations, structure and technology of information systems.
4	Application	Apply planning and development techniques involved in the implementation of an information system, specifically a DSS.
5	Synthesis	Create an information-based DSS within an MIS supporting improved decision making and problem solving by means of improved individual insight.
6	Analysis	Research the role of Information Systems in support of management, users and functional areas.
7	Comprehension	Articulate the implications and requirements of applying global information resources.
8	Comprehension	Characterize how e-commerce and emerging telecommunication technologies are utilized in various organizations and global enterprises.
9	Comprehension	Articulate the impact of security and ethical issues on MIS development, operations and our daily lives.

Table 4 – DSS Tasks, Responses and Bloom's Taxonomy

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
DSS Task	Define the components of DSS.	Summarize the role of DSS.	Apply a DSS tool to a specific problem.	Analyze and model the requirements of a DSS.	How does one develop a DSS?	How does one assess the quality of a DSS solution?
Response	Dialog, data and model.	Support for decision-making, and problem solving and structuring.	Hands on use of the Scenario Manager or the Solver.	Uses pseudo-code, DFD, and ERD.	In phases, in a team, iteratively, conducted with a computer.	Reviewing NPV or IRR.

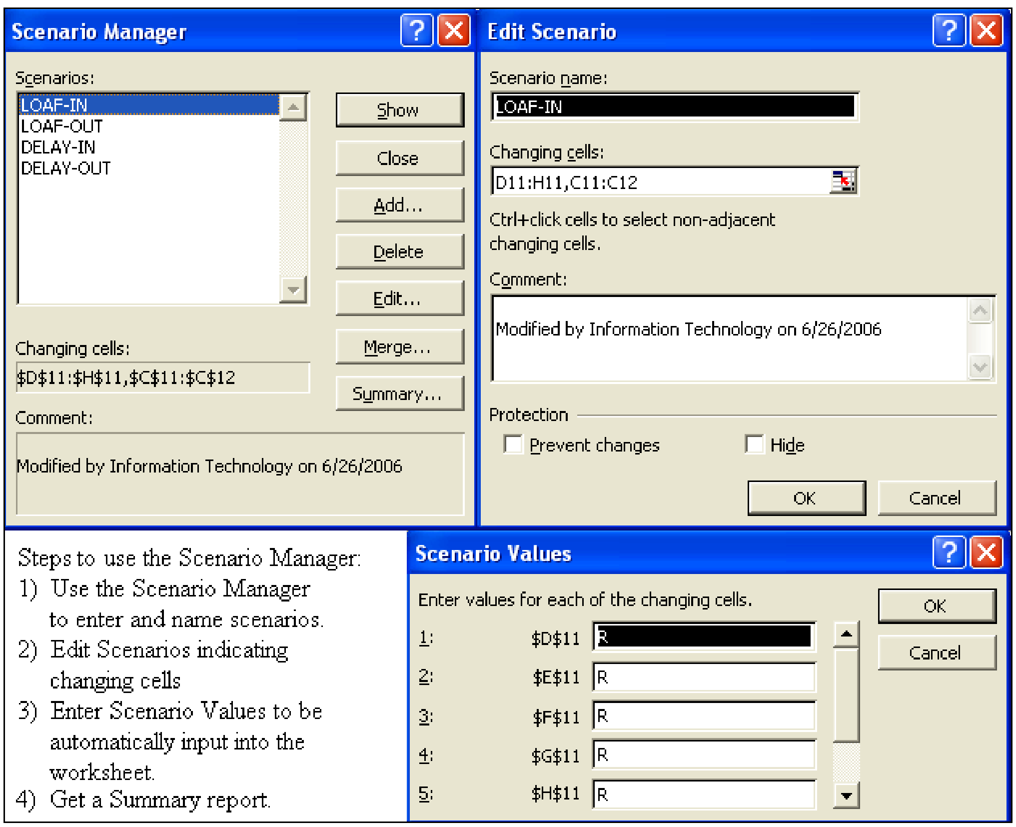
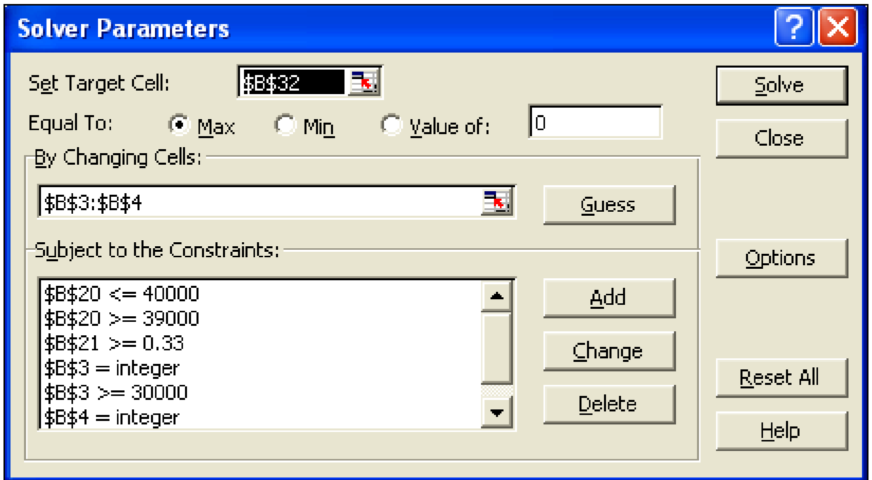


Figure 3 - Using the Scenario Manager



Steps to use the Solver:

1) Set a Target Cell to Maximize, Minimize or set to a Value.
2) Identify Changing Cells which the Solver will manipulate.
3) Enter Constraints or rules that the Solver obeys when manipulating the Changing Cells.
4) Solve the problem.

Figure 4 - Using the Solver

INTRA NATIONAL TRADE AND POLLUTION: EVIDENCE FROM THE UNITED STATES

Martina Vidovic, Bloomsburg University of Pennsylvania

ABSTRACT

The environmental Kuznets curve hypothesis postulates that pollution follows an inverted-U path with economic growth. This pattern has been explained in terms of structural change in the composition of output, less pollution intensive production techniques and increased regulation at higher levels of income. Using data for 48 US states over the period 1997-2002 this study examines the relationship between income and releases of a broader set of pollutants as well as exposure to pollution by weighing chemicals by their respective toxicity. While the composition effect and regulation of pollution producing output are important determinants of production related releases per capita, the flow of goods among states significantly determines pollution. There is evidence that states can reduce releases by importing goods form other states.

INTRODUCTION

The Environmental Kuznets Curve (EKC) hypothesis predicts an inverted-U shaped relationship between a country's level of income and pollution. At low levels of income, pollution rises with increases in income until a certain income threshold is reached beyond which pollution declines. There are two broad explanations for such relationship (see Grossman and Krueger, 1995, Seldon and Song, 1994, Suri and Chapman, 1998, Barrett and Graddy, 2000). On the supply side, an increase in economic activity (scale effect) in the early stages of economic development produces an increase in pollution, while at the later stages of economic development, a change in the structure of economic activity from pollution intensive manufacturing sector to less polluting service sector (composition effect) accompanied by technological innovation in form of less pollution intensive production techniques (technique effect) leads to a decrease in pollution. On the demand side, consumers demand better environmental quality as their income increases. This is revealed through an increase in consumption of less polluting goods, relocation away from environmentally degrading areas and by demanding stricter regulation of pollution producing output by their governments.

Most of the evidence of the EKC is based on cross-country data and is limited to a small number of pollutants. Recently, attention has been given to a single country analysis (Carson et al., 1997, List and Gallet, 1999, Gawande et al., 2000, Rupasingha et al., 2004). This study examines the relationship between a broader set of pollutants as reported in the Toxic Release Inventory (TRI) and income, using data on US states over the period 1997-2002. It further examines the impact of the flow of goods and services between states, composition of output and the level of environmental regulation on per capita releases. The results indicate that states with more capital intensive production, states with greater outflow of shipments and states with less environmental regulation and lower percentage of educated population have higher air releases per capita. There is indication that air releases decrease at an increasing rate with an increase in real personal income per capita. However, the results are not robust for total (all media) releases per capita or toxicity weighted air or total releases per capita.

EMPIRICAL LITERATURE ON THE EKC

The early papers by Shafik and Bandopadyay (1992), Selden and Song (1994) and Grossman and Krueger (1995) examined a panel of countries and found an inverted-U pattern between pollution and a country's level of GDP for ambient levels of sulphur dioxide, nitrogen oxide and suspended particulate matter. The upward slope of the EKC is due to an increased level of economic activity at lower levels of income, while the downward slope of the EKC has been interpreted in light of composition and technique effects and/or consumer demand for environmental quality at higher levels of income. However, the models used in these studies are largely of a reduced form and they mainly included GDP and variables that are unlikely to be correlated with income allowing the GDP term to capture both direct and indirect effects of income on pollution. Since changes in GDP reflect changes in economic structure as well as changes in income, such models could not differentiate between the effects of structural change, technology and consumer demand for environmental quality on the income pollution relationship.

In an attempt to explain how pollution shapes with economic development, some studies controlled for the influence of other variables besides income. Panayotou (1997) controlled for the industrial structure of a country to separate the effect of production on pollution generation from the effect of income on pollution control, while Torras and Boyce (1998) and Barrett and Grady (2000) included measures of civil and political rights, literacy and economic inequality. Some studies also examined the effect of openness to trade and further the effect of shifting pollution and resource intensive production across international borders on the growth-environment relationship. The effect of openness to trade was tested by Shafik and Bandopadyay (1992) who found weak evidence that pollution is lower in more open economies. Lucas et al. (1992) found evidence that industries with higher toxic intensity tend to move to poorer countries. Low and Yeates (1992) confirmed that the export share of pollution intensive goods has risen for developing countries but declined for developed countries. On the other hand Suri and Chapman (1998) directly incorporated the shares of manufacturing goods in a country's imports and exports while Kaufman (1998) included exports of iron and steel per unit of GDP to measure the effect of spatial intensity of economic activity. Both studies found that trade significantly affected the link between income and environmental quality, although neither found a support for the EKC.

The cross-country empirical studies have been criticized on the basis of compatibility and quality of data. Stern et al. (1996) note that pollution data used in environmental Kuznets' curve studies are "notoriously patchy in coverage and/or poor in quality" (p. 1156). This is especially a problem for studies that include data from both developed and developing countries. To overcome this problem, Vincent (1997) suggested that the EKC should be studied in a context of a single country. Using data on Malaysian states, he did not find evidence of the EKC for selected air and water pollutants.

Several researchers examined the EKC using only data for the US (Carson et al., 1997, List and Gallet, 1999, Gawande et al., 2000, Rupasingha et al., 2004). Carson et al. (1997) used state level data on seven pollutants and found that all seven pollutants decreased with increasing per capita income over the period 1988-1994. Wang et al. (1998) used a cross sectional US county data and found evidence of an EKC for a measure of the assessed risk to hazardous waste exposure. List and Gallet (1999) used a panel of state level sulphur dioxide and nitrogen oxide emissions over the period 1929-1994 and found an inverted-U pattern between income and per capita emissions. Similar to Wang et al. (1998), Gawande et al. (2000) found an EKC between the number of hazardous waste sites and per capita income.

Building on the studies discussed above, this study examines whether the EKC relationship exists between income and a broad set of pollutants for US states after controlling for production differences, structure of the economy, stringency of regulation, flow of good between states and socio-economic characteristics of a state. The advantage of using US states is that they can be considered economies that are at the advanced stages of economic development and can provide better evidence whether emissions fall as income increases.

ECONOMETRIC MODEL AND HYPOTHESES TESTED

The standard reduced functional form model representing the relationship between economic growth and pollution in a country *i* is given by

$$E_{it} = a_i + \gamma_t + \beta_1 X_{it} + \beta_2 X_{it}^2 + \beta_k Z_{kit} + e_{it}$$

where *i* ranging 1,…N, represents countries; *t* ranging 1,…T, represents time; E_i represents the environmental stress variable; X_{it} is the income per capita; Z_{kit} are other variables that affect environmental quality; $\_{i}$ is the country specific effect; $\_{t}$ is the time specific effect and e_i is an error term. The relationship between income and pollution can be easily tested by examining the signs and the significance of $\_{1}$ and $\_{2}$ coefficients. If $\_{1} > 0$ and $\_{2} = 0$, pollution increases monotonically with an increase in per capita income. $\_{1} < 0$ and $\_{2} = 0$ indicates a monotonically decreasing linear relationship between income and pollution. To obtain the inverted-U shaped relationship between economic growth and pollution, $\_{1}$ must be positive and $\_{2}$ must be negative.

Most econometric studies include real GDP per capita and its square where GDP represents the scale of economic activity and the square term accounts for the structural change in the composition of the GDP, increased environmental regulation and consumer demand for environmental quality as income increases. This study directly controls for some of these effects.

To account for differences in production (composition effect) included is capital to labor ratio (KL). Antweiler et al. (2001) noted that capital-intensive industries tend to be more polluting than labor intensive industries. Therefore states with higher capital to labor ratios are expected to have greater proportion of pollution intensive industries and greater emissions of toxic chemicals.

Suri and Chapman (1998) argued that it is also important to account for the fact that pollution in one area depends on the volume of goods that embody pollution that are imported or exported from that area. To account for the flow of goods between states, the value of inbound shipments (IMPORTS) represents imports by a state while the value of and outbound shipments (EXPORTS) represents exports by a state. If states are able to export pollution, it is expected that states with greater exports will have higher levels of pollution.

The pollution haven hypothesis argues that an increase in demand for environmental quality will cause pollution and resource intensive production to move from rich countries which are expected to have higher environmental standards to poor countries with less stringent environmental regulation. A number of US studies found evidence for domestic pollution havens (Hendersen, 1996; Kahn, 1997; Becker and Hendersen, 2000). Since environmental regulation is not equally enforced across areas in the US, regulated firms are likely to move to less regulated areas. Two measures of stringency of environmental regulation are included. First is the total all media pollution abatement costs and expenditures per value added by manufacture (PACE). The second is the League of Conservative Voters score (LCV) representing the state average of senate and house votes on environmental issues and programs collected annually and published in the National Environmental Scorecard (1997-2002). LCV scores represent the sentiment of a state's population on environmental issues. It is hypothesized that states with greater pollution abatement expenditures as well as states with higher LCV scores will have lower emissions per capita.

Additional control variables include population density (POPDEN) and percentage population with bachelor degree or higher (PCTBD). It is hypothesized that pollution will be lower in more densely populated states since they tend to be more concerned with pollution. Several EKC studies found that areas with greater educational level experience less pollution due to better awareness and access to information by their citizens which allows for better political organization and lobbying power (Torras and Boyce, 1998, Wang et al., 1998, Gawande et al., 2000).

DATA AND SOURCES

The model estimated in this study represents a short panel covering the 48 contiguous states over the period 1997-2002. The dependent variables are toxic releases to air and total toxic releases to the air, water, land and underground injection wells as reported to the Toxic Release Inventory (TRI). The TRI data are maintained by the Environmental Protection Agency and include the on-site releases and the off-site transfers of some 650 chemicals reported by manufacturing facilities from industries with SIC codes 20-39. Using pounds of releases to examine potential environmental impacts assumes that all chemicals are equally toxic and that all people are equally exposed to the releases. Since exposure depends not only on the quantity discharged but also on toxicity, persistence and synergies among different substances, one way to address exposure is to create a toxicity weighted measure of releases as a sum of the pounds of releases of each chemical multiplied by its toxicity inhalation score. The toxicity score is from the EPA's Chronic Human Health Indicators used in the EPA's Risk Screening Environmental Indicators database and are based on chronic rather than acute effects. The scores exist for over 425 chemicals and increase as the potential to cause chronic harm to human health increases.

The measure of exports and imports of goods by states is from the 1997 and 2002 Commodity Flow Survey. The data are collected every five years by the Census Bureau and the Department of Transportation. The value of shipments is the market value of goods shipped from mining, manufacturing, wholesale and mail order retail establishments, as well as warehouses and managing offices of multiunit establishments. Exports represent outbound shipments in millions of dollars from the state of origin to all other states, while imports represent inbound shipments in millions of dollars from all other states to the state of destination. To create a panel data of shipments, the values for imports and exports between years 1997 and 2002 were created using linear interpolation.

The total all media pollution abatement costs and expenditures in millions of dollars are from the 1993 and 1999 Current Industrial Reports. Regional Economic Accounts published by the Bureau of Economic Analysis provided data on the real per capita income in each state measured in 2000 dollars for the years 1997-2002.

Capital to labor ratio is not available by state and a proxy variable was created. Labor is measured as the number of employees (in millions) by all manufacturing establishments, while total capital expenditure in millions of dollars serves as a proxy for the capital stock. Both variables are from the Annual Survey of Manufacture.

Educational attainment is measured as the percentage of population who are 25 years and older with a bachelor degree, while population density captures number of persons per square mile. The values for both variables are from the 1990 and 2000 Census of population. Table 1 page 114 summarizes the data definitions and sources.

Summary statistics for all variables are provided in Table 2 on page 115. Real per capita income shows great variation across states with Mississippi reporting the lowest real per capita income in 1997 ($19500) and Connecticut reporting the highest per capita income in 2000 ($42038). Vermont reported lowest air releases and total releases per capita in 2002, as well as lowest weighted air and weighted total releases per capita in 2001. Nevada reported highest total releases and weighted total releases per capita in 1998. West Virginia reported highest air release per capita in 1999 while Utah reported highest weighted air releases per capita in 1997.

RESULTS

The model relating income to pollution is estimated using feasible generalized least squares (FGLS) correcting for heteroskedasticity. This is a random effects model. This estimator was chosen over the fixed effects estimator because of variation in errors across firms and pollutants and to allow for groupwise heteroskedasticity across states, which is best handled by the FGLS estimator. The estimation results are presented in Tables 3, 4 and 5 on pages 115-119. Tables 3 and 4 show results for the full estimation. In models 1 and 2 in Table 3, dependent variables are un-weighted pounds of air emissions per capita and releases per capita, respectively. In models 3 and 4 in Table 4, dependent variables are toxicity weighted air emissions per capita and toxicity weighted releases per capita, respectively.

Models 1 and 2 in Table 3 show that air emissions and total releases are greater for states with greater capital to labor ratios which supports the results found by international studies that used this variable as a proxy for the composition effect (Antweiler et al., 2001; Cole and Elliott, 2003). However, the coefficient on the percent earnings from manufacturing sector is positive and significant in model 1 but negative and significant in model 2. This indicates that air releases per capita are higher in states with a greater concentration of a traditionally dirtier manufacturing sector which is not true for the total releases per capita. The measures of environmental regulation have a statistically significant effect on both air releases and total releases per capita. Both models show that environmental degradation is lower in states with greater LCV scores. The coefficient on pollution abatement expenditures per value added by manufacture is statistically significant only in model 1 and has a positive sign indicating that states with greater pollution abatement expenditures have higher air releases. Färe et al. (2001) propose several explanations for the relationship between emissions and pollution abatement costs. One possible explanation is that a change in the composition of the manufacturing sector of a state results in both lower emissions and lower pollution abatement costs. Since these are all media pollution abatement costs and expenditures, it is possible that they differ across media. Another explanation is that technical progress may make it possible to reduce emissions at a lower cost which would explain the positive sign on the pollution abatement cost coefficient in model 1.

Both intra-national trade variables are statistically significant in models 1 and 2. The coefficient on imports is negative while the coefficient on exports is positive indicating that states with a greater value of outbound shipments have higher air and total releases per capita, while states with greater dollar value of shipments flowing into the state from other states have lower emissions per capita. This suggests that states could reduce production related pollution by importing pollution intensive goods from other states.

The two control variables, percent adult population with a bachelor degree and population density are negative, although only the former one is statistically significant indicating that states with greater percentage of educated population have lower releases.

The coefficients on real personal income per capita and the square term are statistically significant only in model 1 where the dependent variable is air releases per capita. The coefficient on the real per capita income is negative while the coefficient on the real per capita income square is positive. This indicates that for all states air emissions per capita are declining with an increase in income at an increasing rate.

The estimated model does not have explanatory power when toxicity weighted air release or toxicity weighted total releases are considered as presented in models 3 and 4 in Table 4. Most variables, although they preserve the original signs are not statistically significant at conventional 5% or even 10% levels. Since income variables are not individually nor jointly statistically significant, models 2 through 4 in Tables 3 and 4 are re-estimated excluding the square value of real per capita income. The results are shown in Table 5.

In all models in Table 5, the coefficient on income is not statistically significant. Comparing model 1 in Table 5 with model 2 in Table 3 where the dependent variable is total releases per capita, most coefficients have the same sign and statistical significance except for the coefficient on pollution abatement costs which is no longer significant and the coefficient on the percent of earnings from manufacturing which is now negative and significant. In model 2 in Table 5 where the dependent variable is toxicity weighted air releases per capita, only the coefficient on the LVC score and the coefficient on the education variable are negative and statistically significant indicating that exposure to toxic air pollution is lower in states with a higher concern for environment by the citizens. In model 3 in Table 5, where the dependent variable is weighted total releases per capita, both trade variables are now statistically significant and indicate that states with greater imports experience lower exposure to toxic releases while states with greater exports experience higher exposure to toxic releases.

CONCLUSION

This study analyzed the relationship between environmental degradation and per capita income using data on air releases and total releases to all media as reported to the Toxic Release Inventory for the period 1997-2002. To account for the differences in exposure, the releases were also adjusted for the varying toxicity of chemicals. The focus was on the US states. Variables relating to the composition, technique and consumer demand for better environmental quality are directly incorporated in model. The results show that pollution at best declines as income increases for a broader set of air releases per capita. This is contrary to the studies that examined the relationship between income and emissions of a subset of pollutants such as ozone, nitrogen oxide, carbon dioxide and suspended particulates. There is evidence that states with greater composition of dirtier industries as measured by the capital to labor ratio have higher production related releases. Pollution is lower in states with greater percentage of educated labor force and states that pay greater attention to environmental issues as represented by the LCV score. Intra national trade in goods is important for determining pollution. There is some evidence that states with a greater dollar value of inbound shipments experience lower pollution while states with a greater dollar value of outbound shipments experience higher pollution. The results are not robust when toxicity weighted releases are considered.

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Table 1
Data definitions and sources

Variable and source	Definition
Toxic Release Inventory (TRI)	
Releases	Pounds of releases to air, water, underground injection, land and publicly owned treatment works
Annual Survey of Manufactures	
Labor	Average number of employees in all industries, 1997-2002
Capital	Total capital expenditures ($millions), 1997-2002
Value added by manufacture	($millions), 1993, 1999
BEA Regional Economic Accounts	
Real PIPC	Real personal per capita personal income in 2000 $, 1997-2002
% manufacturing earnings	Percent of all non-farm earnings from manufacturing sector, 1997-2002
Current Industrial Reports	
PACE	Total (all media) pollution abatement costs and expenditures ($millions), 1993 and 1999
League of Conservation Voters	
LCV score	State average score of senate and house votes on environmental issues and programs, 1997-2002
Commodity Flow Survey	
Imports	Inbound shipments from all other states ($millions), 1997 and 2002
Exports	Outbound shipments to all other states ($millions), 1997 and 2002
1990 & 2000 Census	
% bachelor degree	Population 25 years and older with a bachelor degree
Population density	Persons per square mile

Table 2
Summary statistics

Variable	Mean St. Deviation	Minimum Maximum
AIRREL	7.3769 (6.9166)	0.1295 42.8242
TOTREL	29.8512 (73.4852)	0.3244 711.756
TOX AIRREL	5974.706 (25472.5)	15.58952 253327.7
TOX TOTREL	372379.2 (1566626)	19.35387 1.56e+07
RPIPC	27458.93 (4246.164)	19500.86 42038.71
MFEARN	15.2222 (5.4183)	5 29
KL	17.1411 (55.8715)	4.6584 513.0457
PACE	0.0054 (.0.0087)	.00033 .06727
LCV	43.6771 (27.5579)	0 97.5
IMPT	92937 (78990.07)	6276 353640
EXPT	93386.49 (81458.68)	5414 366103
PCTBD	14.0979 (2.7832)	7.5 21.6
POPDEN	177.4781 (244.5423)	4.7 1134.4

Table 3
Regression results with un-weighted releases

	Model 1	Model 2
Variables	**AIRREL**	**TOTREL**
RPIPC	-0.0025 [a] (0.0004)	-0.0004 (0.0033)
RPIPC^2	3.62 E-08 [a] (5.93E-09)	7.44E-09 (4.83E-08)
KL	0.0184 [a] (0.0024)	0.1002 [c] (0.0567)
PACE	65.2731 [b] (25.8444)	-130.0122 (251.5314)
LCV	-0.0345 [a] (0.00783)	-0.2198 [a] (0.0659)
IMP	-1.14E-05 [c] (5.99E-06)	-0.0002 [b] (8.28E-05)
EXP	2.31E-05 [a] (5.87E-06)	0.0001 [c] (7.13E-05)
MFEARN	0.1716 [a] (0.0394)	-1.2879 [b] (0.5356)
PCTBD	-0.3655 [a] (0.0879)	-1.8713 [c] (1.0468)
POPDEN	-0.0005 [a] (0.0007)	-0.0053 (0.0093)

Standard deviation in parentheses. Results are obtained using the FGLS estimator and correcting for heteroskedasticity.
[a] indicates statistically significant at the 1% level;
[b] indicates statistically significant at the 5% level;
[c] indicates statistically significant at the 10% level

Table 4
Regression results with weighted releases

	Model 3	Model 4
Variables	**TOX AIRREL**	**TOX TOTREL**
RPIPC	-0.09438 (1.1243)	-17.789 (85.5853)
RPIPC^2	3.22E-06 (1.76E-05)	0.0002 (0.0013)
KL	-4.5472 (5.3866)	1049.338 (986.7755)
PACE	-2878.675 (41619.96)	-5498399 (5623351)
LCV	-22.2369 (17.3585)	-968.1399 (1426.674)
IMP	-0.009 (0.0127)	-2.7987 (1.8074)
EXP	0.0078 (0.0113)	2.4203 (1.5440)
MFEARN	-21.4622 (91.1117)	-24946.68 [b] (10477.16)
PCTBD	-441.9864 [c] (249.9187)	-12699.48 (24877.32)
POPDEN	-0.6826 (1.9887)	-177.0778 (243.2314)

Standard deviation in parentheses. Results are obtained using the FGLS estimator and correcting for heteroskedasticity.
[a] indicates statistically significant at the 1% level;
[b] indicates statistically significant at the 5% level;
[c] indicates statistically significant at the 10% level

Table 5
Regression results without income square

Variables	Model 1 TOTREL	Model 2 TOX AIRREL	Model 3 TOX TOTREL
RPIPC	-0.0003 (0.0008)	0.1377 (0.2096)	-12.7356 (19.9709)
KL	0.0963 [c] (0.0561)	-3.9643 (4.8551)	932.1162 (943.7614)
PACE	-129.2591 (230.6044)	-7027.32 (35791.73)	-5689006 (4973820)
LCV	-0.2034 [a] (0.0651)	-27.3886 [c] (16.1171)	-698.8888 (1408.722)
IMP	-0.0002 [b] (8.0E-05)	-0.0086 (0.0119	-2.8898 [c] (1.6554)
EXP	0.0001 [c] (6.9E-05)	0.005 (0.0107)	2.5195 [c] (1.4439)
MFEAR N	-1.3552 [b] (0.5384)	-0.9202 (88.7237)	-26233.55 [a] (9928.895)
PCTBD	-1.7477 [c] (1.0508)	-466.3683 [c] (242.5207	-10908.79 (24135.63)
POPDEN	-0.003 (0.0098)	-0.2877 (1.8424)	-124.0614 (243.126)

Standard deviation in parentheses. Results are obtained using the FGLS estimator and correcting for heteroskedasticity.
[a] indicates statistically significant at the 1% level;
[b] indicates statistically significant at the 5% level;
[c] indicates statistically significant at the 10% level

THE TRANSFORMATION OF THE COMMERCIAL BANKING INDUSTRY
THE MOVEMENT TOWARD SAVINGS AND LOANS

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ABSTRACT

Since deregulation of the commercial banking industry in the 1980s and 1990s, commercial banks have radically changed the asset side of their balance sheets. This paper will examine the evidence of the movement of the commercial banking industry asset structure toward that of the Savings and Loan Industry. It will also examine how the commercial banking and the savings and loan industries are managing interest rate risk, and potential dangers in their not doing so.

INTRODUCTION

Deregulation of the financial services industries has had a profound impact upon commercial banks, savings and loans, and mutual savings banks. During the late 1970s and early 1980s, interest rates were at historic highs and financial institutions were struggling with disintermediation and pressure on profits. All financial institutions began to lobby for less restrictive regulations and more freedom to pursue additional profit opportunities. As the legislature began to respond to those lobbying efforts by deregulating the industries, many thought that the thrift industry, made up of savings and loans and savings banks, would move toward the asset structure more similar to commercial banks and that commercial banking industry would move toward the assets structure of thrifts. In other words, the expectation was that the industries would move to some middle ground between the two segments. This paper compares and contrasts the asset structure of the thrift industry and the commercial banking industries in Pennsylvania.

LEGISLATIVE HISTORY

Savings and loan institutions (S&Ls) were organized originally as financial institutions designed to promote thrift and home ownership. The original principle was simple—encourage people to place their surplus capital into savings accounts that paid some interest and then pool those savings and lend them to those wishing to buy a home at a little higher interest. S&Ls were distinct and separate from commercial banking, as S&Ls were required by law to lend almost exclusively in mortgage markets. Commercial banks had broader, more diversified lending authority.

Following WWII, the S&L industry enjoyed a prolonged period of financial stability and prosperity. Regulatory restrictions (Regulation Q) limited the maximum interest that could be paid on savings accounts, and there were legal limits on interest rates that could be charged on home loans.

After the economic recovery from the Great Depression and until the 1970s, commercial banks and S&Ls had little concern with interest rate risk. These financial institutions had well delineated roles in the financial markets and fixed interest rate margins between their assets and liabilities. In other words, there was little risk in their portfolios. Strict government laws and regulations helped hold this almost certain world in tack.

However, changes in the economy caused by changes in government spending and Federal Reserve monetary policy during the 1970s, as well as oil price shocks, led to inflationary pressures and corresponding stresses on interest rates. Volatility in interest rates, or interest rate risk, became the new threat to financial institutions. They had to learn new methods of operations to avoid financial distress. Over the next 15 or so years, thousands of financial institutions, primarily S&Ls, failed or were taken over by other financial institutions that were able to adapt faster. The federal government had to set a course of deregulating interest rates, and changing the well-delineated roles of these institutions. As a consequence, events have forced continual change in financial markets since that time.

In the early 1970s, inflationary pressures pushed market rates on investments above the maximum rates that could be paid by the commercial banks or S&Ls on savings accounts. Smaller investors needed, and found, newly created mutual funds, which were investment vehicles that were basically unregulated and allowed market rates of return. Deposits were withdrawn from financial institutions to be redeposited in mutual funds.

S&Ls suffered the most in this environment.[xxv] They were restricted by law to originating and holding almost 100 percent of their portfolio in long-term mortgages. Most were at fixed rates. At the time variable-rate loans were not well accepted by the public. Almost all S&L funding came by way of small deposits that also had fixed interest rates. As interest rates rose and became more erratic, S&Ls scrambled to adjust their portfolios.

One way the government sought to mitigate the decrease in loanable funds was by increasing S&Ls' access to a secondary mortgage market, increasing the roles of the Federal National Mortgage Association and by creating the Federal Home Loan Mortgage Corporation. This provided vehicles for additional funds through the sale of mortgage assets. This step was not enough to counter the serious outflow of funds from the institutions, as portfolio re-adjustment is a longer-term endeavor. Significant disintermediation continued, and political pressure to remove the interest rate cap on savings accounts succeeded in 1980. The 1980 Depository Institutions Deregulation and Monetary Control Act (DIDMCA) initiated the phase-out of Regulation Q.

While the DIDMCA reduced the pressure from disintermediation for all financial institutions, it created a new problem by exposing them to significantly more interest rate risk. This interest rate risk was two-fold for the institutions. First, the removal of the interest cap on the interest rate paid on savings and the threat of disintermediation if the institution did not adjust its rates to market, eliminated an inexpensive source of loanable funds, thus squeezing the profit margin on loans. This placed the institutions in the difficult position of having their assets (loans) earning less than the liabilities (savings accounts), thus creating a negative profit margin. This problem peaked during the early 1980s when mortgage interest rates on new loans topped 18 percent. Loan rates did decline from their peak in 1981, so the problem began to subside. Likewise, new mortgages funded after the peak in 1981 have not posed a problem with negative profit margins over the last 24 years, since interest rates have continually fallen. Still there was significant fallout from the unbalanced legislative approach to deregulation, as cost of funds was deregulated two years before returns on loans.

The second problem the institutions faced was the problem of unmatched maturities between the long-term assets and the short-term liabilities. While this problem was not new, prior to this period, it was of little concern because the interest cost of the liabilities was held artificially low because of the interest rate cap, even when short-term rates rose. After the caps were removed, this problem of unmatched maturities became problematic during the decade of the 1970s. Interest paid on savings rose from two percent to three percent early in the decade to more than twelve percent by the end of the decade. During that period, mortgage interest rates rose from six percent to 18 percent, but fewer loans were originated at those high rates.[xxvi] The problem was that loans originated with 20 to 30 years to maturity in earlier years were still outstanding with interest rates lower than the cost of short-term funding.

During the decade of the 1970s and moving into the 1980s, three other significant transitions in the industry occurred. First, in an effort to reduce interest rate exposure on new loans, institutions began to take advantage of selling their loans into the secondary market. The secondary market had both opportunities and challenges. On the positive side, the use of the secondary market reduced the problem of unmatched maturities, since the institution had the loans in portfolio only for a short period of time. It also allowed the institutions access to more capital for funding loans, since the institution was no longer limited to lending from its own deposit base. On the negative side, loan sales were expensive, as institutions gave up between 1percent to 2 percent of its origination fee as transactions costs. Also, the institutions no longer had long-term assets earning profits.

A second transition that occurred during the period of the 1970s and 1980s was the massive conversion of the institutions from mutual ownership to stock ownership. Fundamentally this led to a difference in the management philosophy of the institutions. Stock ownership of the institutions fueled an increased concern with strategies that promoted an increase in shareholder wealth rather than promoting the security and interest return for the depositors.

A third transition that occurred during the 1980s was a fundamental change in competition among all types of financial institutions. Due to the problems S&Ls faced under strict regulations in a dramatically changing economic environment, Congress passed legislation to help increase portfolio flexibility in S&Ls through the before-mentioned

DIDMCA of 1980, the 1982 Garn-St. Germain Depository Institutions Act, and subsequent acts. Business barriers between financial institutions were phased out. This allowed S&Ls to enter into the consumer credit business, insurance, and other business lines even beyond those formally exclusive to the realm of commercial banks.

Over time, federal and state governments relaxed laws and regulations to allow assets to be from a broader base than mortgages only. However, even to this day, savings institutions and other mortgage banks must hold 65 percent of their assets in mortgages or mortgage-backed securities. Changes were too late to help many institutions survive. Over time, in response to increased investment capabilities and increased awareness of continued volatility in financial markets, regulators issued strict guidelines concerning management of interest rate risk.[xxvii]

METHODOLOGY

One of the difficulties in this analysis is the availability of data from the 1970s and 1980s for individual commercial banks, savings banks, and savings and loans. Because of the Financial Institutions, Reform and Recovery Act of 1990 and provisions that effectively consolidated the regulatory authority of the FSLIC into the FDIC, data before 1998 is not readily available. Consequently, this study examines the balance sheets from the commercial banks' Call Reports and the thrift industries' Thrift Financial Reports available from the FDIC.[xxviii]

Four groupings of Pennsylvania financial institutions were examined: Large Commercial Banks, Small Commercial Banks, Large Thrifts, and Small Thrifts. Large Commercial Banks are defined as those that had assets in excess of $183 million in 1998. Small Commercial Banks are defined as financial institutions with under $112 million. Intermediate size institutions were not included. Large and small thrifts are defined by the same limits. The division into these groupings was made first, to discover if there were differences in the management of assets between thrift institutions and commercial banks and second, if there were differences due to the size of institutions. There are sixteen large commercial banks and fifteen small banks and twelve large and twelve small thrifts. One of the difficulties with the analysis was finding financial institutions that existed in 1998 and were still in existent in 2006. Mergers and closures significantly limited the sample sizes. In fact, there were only 270 active financial institutions during this period in Pennsylvania that reported to the FDIC.[xxix] To illustrate the problem of closures and mergers, from 1970 through June of 2006, 699 institutions ceased to be active out of the 969 institutions existing in 1970 . [xxx]

Data were collected for each of the financial institutions, including total assets, mortgage securities, real estate mortgage loans, deposits exceeding $100,000, total and net derivative values. A percentage of the institution's total assets was computed for each of these dollar amounts in an effort to standardize the measures for analysis.

For most of the analyses, the null hypothesis tested was that the underlying populations of commercial banks and thrifts were the same. The confidence level was set at 95%. For significant differences, an asterisk (*) is used. For most of the analysis, a two-tailed two-sample t-test assuming unequal variances was used. For the analysis of changes in the institutions from 1998 to 2006, a paired t-test was used.

RESULTS

Percentage of Total Assets

The first factor analyzed was the percentage of total assets held in real estate loans. The thrift industry was originally organized to encourage home ownership by lending to persons wishing to purchase a home. As previously mentioned, commercial banks generally did not lend money for home purchases. Before deregulation, the largest portion of a thrift institution's asset portfolio was held in real estate loans. Today, commercial bank's are much more heavily involved with real estate lending. The difference between thrift institution lending and commercial bank lending is still significant, although the difference is closing as is indicated by the following table:

% Mortgage	**1998**	**2006**
Banks **Thrifts**	44.76% 62.49%	41.11% 57.40%
Banks vs. Thrifts **t-statistic**	 .0001*	 .001*
	Δ% '98-'06	**Paired t**
All Banks	-8.15%	.308
All Thrifts	-8.15%	.309
Large Banks	-9.41%	.231
Small Banks	-4.06%	.460
Large Thrifts	-19.29%	.012*
Small Thrifts	3.53%	.645

An analysis of the micro data indicates two interesting occurrences. Mellon Bank and Park View Savings Bank radically cut the amount of real estate loans held in portfolio. Mellon Bank cut their loans from almost $7 billion in real estate loans in 1998 to just over $250,000 in 2006. Likewise Parkview Savings Bank reduced their real estate loan portfolio from 54.52 percent in 1998 to 12.72 percent in 2006.

Purchases of Mortgage Backed Securities

Some of the decrease in the amount of real estate loan holdings is the result of a shift from direct lending to indirect lending through the purchase of mortgage backed securities. Thrifts increased the percentage of their assets held in mortgage backed securities from 9.29 percent in 1998 to 11.3 percent in 2006, while commercial banks increased their percentage of assets held in mortgage backed securities from 8.63 percent in 1998 to 11.63 percent in 2006. The only significant change in the percentage of mortgage backed securities held was by the large commercial banks, as seen below:

% Mtg. Backed Sec.	1998	2006
Banks **Thrifts**	8.63% 9.29%	11.66% 11.30%
Banks vs. Thrifts **t-statistic**	.846	.912
	Δ% '98-'06	**Paired t**
All Banks	35.13%	.314
All Thrifts	21.67%	.501
Large Banks	62.04%	.019*
Small Banks	3.24%	.888
Large Thrifts	33.36%	.229
Small Thrifts	-6.36%	.776

A recent trend in financial institutions insured by the FDIC, and evident in Pennsylvania, has been an increasing amount of uninsured deposits. Only the large banks have not seen significant increases of uninsured deposits, as seen below:

% uninsured deposits	1998	2006
Banks **Thrifts**	6.75% 6.19%	9.76% 9.52%
Banks vs. Thrifts **t-statistic**	.478	.847
	Δ% '98-'06	**Paired t**
All Banks	44.59%	.008*
All Thrifts	53.86%	.013*
Large Banks	15.08%	.353
Small Banks	71.39%	.0003*
Large Thrifts	62.74%	.003*
Small Thrifts	24.24%	.091

None of the small commercial banks and thrifts took positions with derivatives or swaps to hedge their interest rate positions. Only one thrift, Firstrust Savings Bank, took any derivative position. Of the seventeen large commercial banks, eight did not use derivatives in 1998 but did in 2006.

Profitability

Profitability of the institutions, as computed as a return on their total assets, was examined in 1988 and again in 2006. The average quarterly return on total assets in 1998 was .365%, while the average quarterly return on assets in 2006 was .627%. A paired t-test was conducted and determined that the difference was statistically significant, with a t-value of .002. It is possible that the increased profitability was due to other factors than improved risk management, possibly better overall management.

CONCLUSION

It is clear that since deregulation, commercial banks have dramatically increased their real estate lending portfolios, but this trend seems to be leveling off. In our sample of commercial banking institutions, the percentage of assets held as either real estate loans or mortgage backed securities from 1998 to 2006 held constant at about 53 percent. Thrifts have averaged about 70 percent.

There is evidence from our sample of large commercial banks that the banks are improving their capital risk management through the use of derivatives. All of the financial institutions except for the small thrifts increased their position in mortgage backed securities. In some cases, it seems that the institutions were substituting increases in mortgage-backed securities for real estate portfolio loans.

It is somewhat troubling that small thrifts have increased their holdings in mortgage loans without any apparent hedging with financial derivatives or swaps. (As commercial banks have increased their holdings in mortgage loans, there may be significantly less advantage for them to offer swaps.) It is also troubling that all of the smaller financial institutions and most of the larger thrifts do not appear to be contracting with larger institutions to hedge their interest rate risk or engaging in hedging activities themselves. With the recent increases in long-term interest rates and the softening of some real estate markets, there will be increasing pressure on profits.

ENDNOTES

[xxv] Commercial banks were allowed by law to hold more diversified portfolios, and thus did not experience as much of the effects of changes in interest rates, or interest rate risk.

[xxvi] Interest rates steadily climbed during this period for several reasons. Most prominent was the upward pressure due to the general inflation of the economy. Also increasing upward pressure on interest rates was the demand for mortgages due to the rise in the rate of home ownership in the country of almost 4% between 1981 and 1995. See http://www.freddiemac.com/news/finance/commentary/070703_homeown_rate.htm.

[xxvii] See Thrift Bulletin, TB 13a. First adopted in the early 1980s, TB 13, later revised to TB 13a, describes the definitions, sources, and limits of interest rate risk, stress testing, board of director obligations, and S&L examiner judgments and potential actions.

[xxviii] A searchable data base of Call Reports and Thrift Financial Reports from March 1998 through the present is available at: http://www2.fdic.gov/call_tfr_rpts/.

[xxix] Of the 270 active institutions, 69 were savings banks and 41 were savings and loan associations. The balance was commercial banks.

[xxx] A chart of the number of institutions that went inactive each year during that period is included at the end of the paper below.

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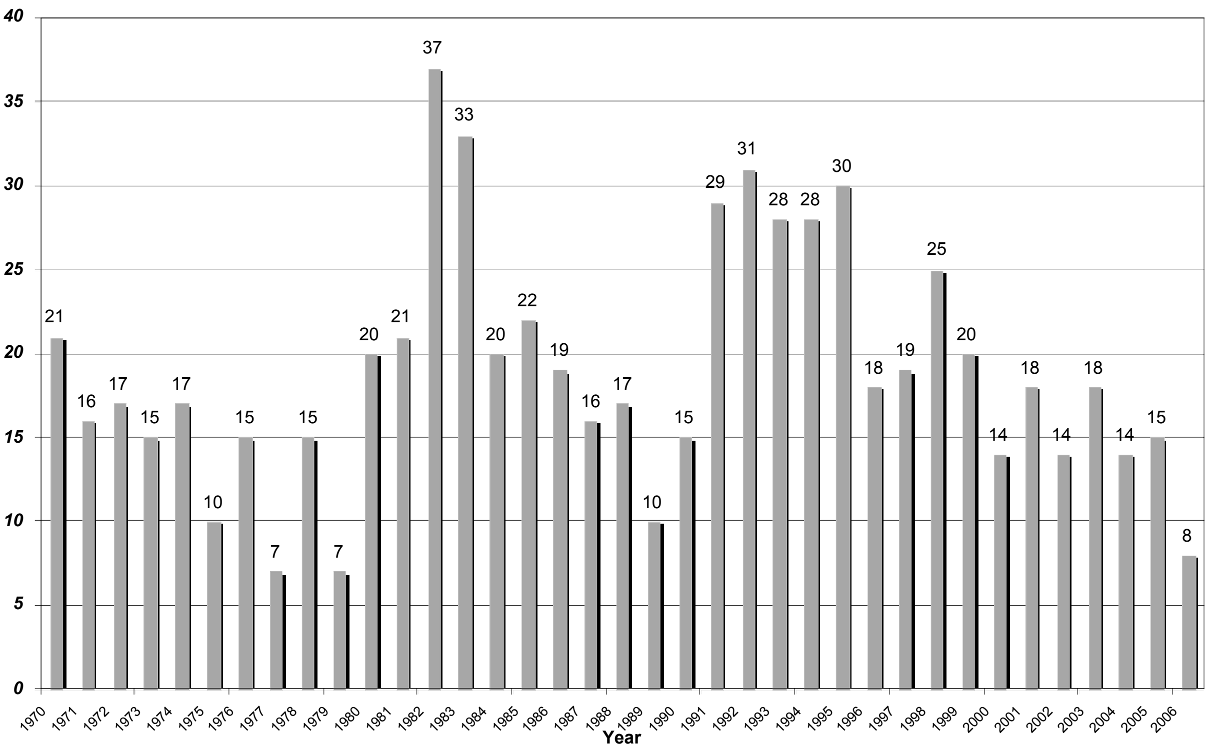
Pennsylvania Financial Institutions Ceasing Operations



CLIMATE CHANGE, SCIENCE AND BUSINESS SOCIAL RESPONSIBILITY

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ABSTRACT

Climate change caused by global warming, which has significant anthropogenic features due primarily to the reliance on coal, oil and other fossil fuels since the Industrial Revolution of the 18th century, is real. It has already significantly impacted the coasts and climate of the United States, and evidence of its impact elsewhere on the planet proliferate. The reluctance to recognize the consensus of the scientific community on this point by the public, business, and national government in the United States, is compounded of several factors: uncertainty in the public about the relative risks of climate change as opposed to other concerns (such as terrorism); expenditure of funds by corporate interests to increase this uncertainty through advertising and lobbying, due to their reluctance to assume the costs of reducing the externalities their activities impose on society; and institutional resistance in the political sphere to expending political and fiscal capital on mitigating perceived long-term risks, however serious, at the price of short term tax increases that might cost them votes and campaign contributions. Increasingly, however, the risks of unmitigated climate change are being recognized as imposing significant short term costs, particularly in terms of reconstruction from damage caused by severe weather and rising waters, and the associated impact on the insurance industry world-wide. Several authorities believe we may already have passed the point of no return beyond which major changes in our way of life are unavoidable, but the degree to which this will be the case depends upon the seriousness with which we take the challenge. From the standpoint of corporate America, and the interests of the global business community, business has an ethical obligation to respond appropriately, by ceasing to fund climate change deniers, and putting significant corporate investments into reducing greenhouse gas emissions, developing and exploiting alternate energy sources, and investing in and promoting green manufacturing, products and services. Given the costs to business of inaction in this sphere, which will impact shareholders and stakeholders alike, and the social contract business has with society that permits it to act in the corporate form in order to serve the interests of the community which issues its charter, business must take a leadership role in mitigating climate change now.

INTRODUCTION

Climate change caused by global warming, which has significant anthropogenic features due primarily to the reliance on coal, oil and other fossil fuels since the Industrial Revolution of the 18th century, is real. (Ponting, 1993; McNeill, 2001; Houghton, 2004; Gelbspan, 2004; Flannery, 2005; Kolbert, 2006) Despite repeated attempts by a few scientists reliant on oil and coal corporate funding to discredit their findings (Lindzen, 1992; Gelbspan, 1995; Gelbspan, 1998; Gelbspan, 2001; Lindzen, 2006a & b; Singer, 2006; Oreskes, 2006), the vast majority of peer-reviewed scientific literature supports the real consensus that climate change is here, and that without significant steps now to address it, the consequences for life on earth—including human life—will be dire. (Gore, 2006a; Lovelock, 2006; Stix, 2006) As Jim Hansen, Director of the NASA Goddard Institute for Space Studies, notes: "Flannery concludes, as I have, that we have only a short time to address global warming before it runs out of control." (Hansen, 2006) The United Kingdom has gone so far as to appoint an envoy for climate change, John Ashton, who has asserted: "We need to treat climate change not as a long term threat to our environment but as an immediate threat to our security and prosperity." (Ashton, 2006)

The Hockey Stick Debate and the Politics of Science

In June 2005, Congressman Joe Barton (R-Texas), chair of the House Committee on Energy and Commerce, demanded "detailed documentation" from three scientists of their hundreds of studies of greenhouse gases and climate change, citing in his letter a connection between the work of Michael E. Mann, Raymond S. Bradley, and Malcolm K.Hughes and his concern "about the federally funded work upon which climate studies rely and the quality and transparency of analyses used to support the IPCC assessment process." Thomas Crowley at Duke University called the demand "a technical form of harassment by people in Congress who are opposed to global warming and basically want to discredit the science so that they don't have to worry about the policy alternatives." (Monastersky 2005) Everyone is opposed to global warming — the question is, if it is real, what should we do about it.

After much debate, the Congress requested in 2005 that the National Academies conduct a study of the methodology and conclusions of Michael E. Mann and his colleagues concerning the apparently "unprecedented" warming of the northern hemisphere in the late 20th century. Mann had concluded in the late 1990s that this warming was "unprecedented in the past thousand years," and produced among other things what became known as the "hockey stick" diagram which we have seen used in many reports and debates, from the U.N.'s Intergovernmental Panel on Climate Change report in 2001, (Monastersky, 2006b) to the *Wall Street Journal's* editorial pages (to debunk it) (Hockey Stick Hokum, 2006; Sachs, 2006b) and Al Gore's film "An Inconvenient Truth" and the book of the same title. (Gore, 2006a) On June 22, 2006, the National Academies released a 155 page study which while faulting some of the statistical methods used in the original study, concluded that general thrust of the Mann report was correct. The 12-member panel concluded that there was "high confidence" that the planet is now at its warmest in 400 years. (Committee on Surface Temperature, 2006; Kearney, 2006; Revkin, 2006a) Despite this essential reaffirmation of Mann's research, House Republicans Joe Barton of Texas and Edward Whitfield of Kentucky held hearings in July 2006 that sought to continue to discredit his findings by presenting the findings of their own "more-secret assessment by three academic statisticians" including Edward J. Wegman of George Mason University. Rep. Henry A. Waxman (D-California) accused the majority on the subcommittee of merely attempting to "sow doubt" rather than get at "the truth," and Mann, in Vermont at the time of the hearings, was quoted as saying that the Wegman report "is simply a regurgitation of various specious claims and criticisms that have been put forward." (Monastersky, 2006a)

This injection of politics into not just the *policy* debate over global warming, but also into seeking to question the underlying peer-reviewed *science*, is not new, not exclusive to the science of global warming (think of the challenges to the teaching of the theory of evolution, and the stem cell research debate) (Mirsky, 2006; Smith, 2005), and it reflects a long-standing alliance between the fossil fuel industry (coal and oil) and primarily, but not exclusively, Republican political leaders who seek to discredit valid science because of the financial implications of being forced to act on it for both government and their corporate contributors. For example, Chris Mooney reported that:

> By 2002, ExxonMobil was donating over a million dollars annually to policy groups and think tanks involved in battling against the scientific mainstream on global warming, including the George C. Marshall Institute, the Competitive Enterprise Institute, Frontiers of Freedom, the Heartland Institute, the website TechCentralStation.com, and many others. . . . [C]onsider the late 2004 release of the Arctic Climate Impact Assessment, which showed that human-fueled global warming has already had alarming impacts on the Arctic region, such as the melting of glaciers and sea ice. The Marshall Institute promptly challenged the report's science; and then [Senator] Inhofe, in issuing his own challenge, cited the Marshall Institute. (Mooney, 2005)

More recently, NASA has revised its mission statement to exclude concern about scientific research about the Earth and its climate from its research mandate, in part because of the current Bush Administration's emphasis on long-term Mars exploration, but perhaps also because previous NASA research on Earth's climate tended to support the case for anthropogenic global warming. (Revkin, 2006b) Similarly, the journal *Nature* is reported to have learned that the U.S. Commerce Department recently blocked the release of a document describing possible links between global warming and hurricanes, just before the anniversary of Katrina and the commencement of the new hurricane season. (Revkin, 2006d)

In Texas, Republican Governor Rick Perry continues the old political connection with the fossil fuel industry, issuing an executive order that "would fast-track the permit approval process for 11 or more new coal plants, without requiring them to adopt the newer clean coal technology now readily available. (Burnam, 2006; Buskey, 2006; TXU Plan Threatens Progress on Climate, 2006; Komp, 2006)

We have yet to see the day when there are explicitly "Republican" and "Democratic" editions of peer-reviewed scientific journals, but since for all practical purposes that day has long since arrived in the "research" of industry-funded think tanks and newly founded institutes of "public policy" that seek to define the national interest (Rich, 2005; Brock, 2005; Domhoff, 2002; Weisberg, 1998; Rogers & Harwood, 1995) one should not be surprised if this too shall come one day for science. (Kaplan, 2004) The purging of mainstream and well-respected scientists from FDA, EPA and other government advisory boards is a sign of movement in that direction, and political attacks on the research independence of the universities may not be far behind: accountability is the new buzz-word, and the Supreme Court has already ruled many times that if there is any federal funding connected with an activity, whether it be family planning or "Postcards from Buster" on PBS, "he who pays the piper calls the tune" even if federal funds are only a small component of the organization's funding, and without any serious First Amendment limitations on Congress's power of the purse. *Rust v. Sullivan* ,500 U.S. 173 (1991)

Mounting Evidence for Climate Change and Its Implications

Before and since the release of the Gore film and Academies report, however, evidence of the real impact of global warming has continued to proliferate, demonstrating that man-made climate change has already significantly impacted the forests, coasts and climate of the United States, and elsewhere on the planet. Small island nations in the Pacific are already in danger of being inundated. (Whitty, 2003) There is evidence that the Atlantic heat-transport mechanism that includes the Gulf Stream is slowing down as a result of global warming, and this may lead to significant climate change in Europe. (Monastersky, 2005b) The Scripps Institution in California reported in July of 2006 "that warmer temperatures, causing earlier snow runoff and consequently drier summer conditions, were the key factor in an explosion of big wildfires in the U.S. West over three decades," with similar conclusions reached concerning fires in Canada and Siberia. (Warming, World's Wildfires Related, 2006) The glaciers are melting in Peru's Andean mountains, reducing water available for irrigation and, as temperatures rise higher up the mountains, introducing new pests into the ecosystem. (Friedman, 2006) The National Center for Atmospheric Research in Boulder, Colorado reported this past summer that "Global warming helped fuel 2005's destructive hurricane season," concluding that "About half of [2005's] extra (ocean) warmth was due to global warming." (Vergano, 2006)

Further support for a link between tropical ocean warming and greenhouse gases, possibly linked to increased storms, comes from a study by Benjamin D. Santer of Lawrence Livermore National Laboratory in the Energy Department. Santer's study suggests further warming may make hurricanes stronger in coming decades, in a report available on line at the Proceedings of the National Academy of Sciences. (Revkin, 2006c)

A research team led by NASA's James Hansen reported in the Proceedings of the National Academy of Sciences recently that "Earth's temperature has climbed to levels not seen in thousands of years, and that has begun to affect plants and animals." (Extraordinary Rise, 2006; Naik, 2006)

Some of the evidence for global warming indicates that it has a few positive local benefits: reindeer herding and potato farming are expanding in Greenland as temperatures rise and the glaciers melt, while a decline in the cold-water loving shrimp industry is off-set by gains in cod fisheries, as the cod prefer the warmer weather. The melting of the glaciers that is describer in Kolbert (2006) and elsewhere may have severe impacts on sea levels world-wide, but at least farmers in Greenland may be better off for a time. (Etter, 2006) In contrast, homeowners in America are facing higher insurance premiums, as insurance companies address the costs of increasingly frequent and severe hurricane damage. Risk Management Solutions, "a company that forecasts the risk of natural disasters for the insurance industry has revamped the computer model it uses to simulate future weather trends," and predicts "that average annual insurance losses will increase 25 to 30 per cent in the coastal Northeast because of increased hurricane activity." (Daley, 2006) Flannery notes:

> Since the 1970s insurance losses have risen at an annual rate of around 10 percent, reaching $100 billion by 1999. Losses at this scale threaten the very fabric of our economic system, for an annual increase in the damages bill of 10 percent means that the total bill doubles every seven or eight years. . . . Illustrative of the rising cost of insurance is the situation of homeowners in Florida. With extreme weather events on the increase, they now pay a "deductible" . . . on weather-related insurance claims of around $100,000. . . . In 2001 Munich Re, the world's largest reinsurance

> company . . . estimated that by 2050 the global damage bill from climate change could top $500 billion. . . . Christopher Walker, managing director for a unit of Swiss Re, told the Wall Street Journal, "Emissions reductions are going to be required." (Flannery, 2006, 235-236)

Jeffrey D. Sachs, director of the Earth Institute at Columbia University and of the U.N. Millennium Project has pointed out that ecological upheavals linked to global warming can contribute to social and economic instability, citing connections between "a temporary decline in rainfall . . . associated" with "a marked rise in the likelihood of violent conflict in the following months" in sub-Saharan Africa. El Niño cycles have impacted rainfall leading to "catastrophic consequences" in Ecuador and Indonesia in 1998, destabilizing the governments in both countries. (Sachs, 2006a) Additional support for Sachs' point, and evidence of increased climate change linked to global warming, is addressed pervasively in Flannery (2005), Kolbert (2006) and many other sources too numerous to mention.

The Response to the Risk of Global Warming of the Public, Business and Government

Despite the strong evidence of anthropogenic global warming, and the immediate risks it poses to society, until recently most of the general public has seemed willing to tolerate a "business as usual" approach to the problem, satisfied to have their children study recycling in school, and to recycle themselves as their busy schedules permit, but reluctant to pay top dollar for a hybrid vehicle, and hoping instead that (as has occurred recently) oil prices will drop even as they have previously risen, ignoring the underlying risk of continued reliance on oil as fuel at any price. Likewise government in the United States may give lip service to tax credits for hybrid vehicles, or solar power and windmills, but put nowhere near as much funding into direct subsidies for alternative energy or co-generation and conservation as it does into more remote and currently unavailable hydrogen fuel-cells (Belloit & Grenci, 2006) whose risks are significant (Flannery, 2006, 260-264, 293). And the idea of a carbon tax to encourage more investment in alternative transportation and reduce greenhouse gas emissions is feared by the public, politicians and the fossil fuel industry alike, who still all see their short term economic self-interest as trumping the seemingly more remote risks of global warming. The energy industry lobbyists still seek to reinforce this bias through disinformation challenging the evidence behind Al Gore's film, even though their television ads and scare stories in *National Review* are demonstrably false. (Krugman, 2006) Katrina caused a bump in these attitudes, but the basic bias towards the status quo in all three sectors remains. But that is now starting to change.

One factor causing this is a reassessment of relative risks facing the American public. Cass Sunstein argues that while climate change and terrorism are "two of the most important sources of catastrophic risk" today, the reason that Americans have supported aggressive action against terrorism rather than climate change is "bounded rationality"—"Americans believe that aggressive steps to reduce the risk of terrorism promise to deliver significant benefits in the near future at acceptable cost. By contrast, they believe that aggressive steps to reduce the risk of climate change will not greatly benefit American citizens in the near future — and they are not willing to pay a great deal to reduce that risk." (Sunstein, 2006) Given the debate over the leaked National Intelligence Estimate that suggests the war in Iraq, at least, has made us less rather than more safe, and that the war on terror is not working out as intended (Sanger, 2006), the odds are that this implicit cost-benefit analysis may shift over time. If climate change makes conditions worse in developing countries with large Islamic populations, an aggressive investment in climate mitigation that improves living conditions might do more to reduce terrorism than the current investment in military hardware and lives.

Some politicians are also taking a strong position in favor of recognizing and responding to the threat of greenhouse gases increasing global warming. Mayor Michael R. Bloomberg of New York City recently gave a speech in which he "urged an end to the political manipulation of science, which he said had been used to discredit the threat of global warming and undermine medical advancements in areas like stem-cell research." Bloomberg was quoted as saying "Despite near-unanimity in the science community, there's now a movement, driven by ideology and short-term economics, to ignore the evidence and discredit the reality of climate change." (Cardwell, 2006)

In Portland, Oregon the city adopted a plan in 1993 to curb greenhouse gases, and has now reduced local emissions to 1990 levels, "while nationally they are up 16 percent," and yet the local economy is booming. Beginning July 1, 2007, "all diesel sold for vehicles in the city will have to be at least a 5 percent biodiesel blend. (Kristoff, 2006) Burlington, Vermont began a campaign in 2002 called the "10 percent challenge" to "Put the chill on global warming" by reducing municipal greenhouse gas emissions by 10%, with its Mayor Peter Clavelle noting that there is "no silver bullet. There's no one thing we can do. There's no ten things we can do. There's hundreds and hundreds of things that we need to do." (Kolbert, 2006, 172-176).

And in California, Governor Arnold Schwarzenegger entered into an agreement with British Prime Minister Tony Blair to create a market-based mechanism for reducing greenhouse gases, while cooperating on clean energy and climate change research. "California will not wait for our federal government to take strong action on global warming," Schwarzenegger stated. (Carlton, 2006) California has since adopted and Governor Schwarzenegger has signed a law imposing a mandatory global warming program that requires a 25% cut in carbon dioxide emissions by 2020, a project the Wall Street Journal scorns for all the usual reasons: The Global Warming Solutions Act of 2006.. (California Dreamin', 2006; Unkovic, 2006) California's actions may not be sufficient by itself, and risk "industrial interests and free-market advocates" attacking the entire plan, sihhestomg tjat state by state" efforts to mitigate greenhouse gas emissions will prove insufficient. (Sweet, 2006) But it's a necessary step if a broad national consensus in favor of concerted action is to be achieved.

Another factor in changing this equation to favor more immediate and significant action has to be a change in the attitude of the one sector of this triumvirate that is most amenable to rational decision making: the business community. Previously, and as we have seen above continues to be true in Texas, the dominant attitude in the business community has been driven by those with an economic interest in preserving the profits they generate through externalities — costs they impose on society and the planet that they don't pay for themselves. (Gore & Blood, 2006) But that is changing, as the example of the insurance industry previously discussed illustrates. All over the world, and in the United States as well, corporations and insurance companies are waking up to the evidence, and recognizing the costs of doing nothing are rapidly becoming exponentially greater than the costs of taking preventive action. (Guterman, 2006) This is particularly true when you factor in that voluntary action taken on their own terms is likely to be more effective, and less expensive, than government coerced action built upon regulations in the face of a national emergency twenty years down the road, when conditions are likely to be far worse if no action is taken now. (Fialka, 2006) To give one example of this trend, Weyerhaeuser ran a full page advertisement in the *Wall Street Journal* (June 22, 2006, A11) in which it pledged that by 2020 it "will reduce its greenhouse gas emissions to 40% less than they were in 2000."

Other examples of business engaging with their former opponents to find collaborative solutions, or seeking market-based solutions to problems raised by greenhouse gases abound. (Deutsch, 2006; Baja, 2006) For example, Richard Branson of Virgin Airlines has pledged $3 billion in profits over ten years to combat global warming, in response to overtures from Bill Clinton and Al Gore. (Revkin, Timmons, 2006; Green Virgin; Clinton Global Initiative, 2006)

In Europe and elsewhere, this recognition is incorporated into implementing the *Kyoto Protocol on Global Warming*, which entered into force on February 16, 2005 despite American opposition. (Porter, 2006) As a result, European business is at an advantage in participating in the new Clean Development Mechanism (CDM) and American business is locked out of participating in development of this new system for carbon reduction. Perhaps this is another reason why despite Bush Administration opposition to "mandatory approaches for regulation of greenhouse gas (GHG) emissions," so many state and local regulations are proceeding rapidly to take action. And why many businesses are "under increasing pressure from shareholders and others to adopt climate change-related strategies and commitments." (Danish, 2006)

The 11th Meeting of the Conference of the Parties to the *United Nations Framework Convention on Climate Change (UNFCCC)* and the 1st Meeting of the Parties to the *Kyoto Protocol* was held in Montreal from November 28 to December 9, 2005, and was successful in shaping the "Montreal Plan of Action" for "both developed and developing country parties to the *Protocol* as well as for non-parties." Much remains to be done, but at least the institutional framework for further negotiations is in place, and the meeting achieved a "general consensus . . . about the problem of climate change and the need for coordinated action beyond the first commitment period." (Gray, 2006) The international community is working to address the global warming problem, the evidence is mounting that it is a serious problem that must be addressed, and the business community in the United States is starting to respond.

CONCLUSIONS

Several authorities believe we may already have passed the point of no return beyond which major changes in our way of life are unavoidable as a result of global warming (Lovelock, 2006), but the degree to which this will be the case depends upon the seriousness with which we take the challenge. As Al Gore noted recently at NYU, “The serious debate over the climate crisis has now moved on to the question of how we can craft emergency solutions in order to avoid this catastrophic damage.” (Gore, 2006b) There are many who believe there is still time to take significant action, whether through creating opportunities for “green” investment strategies like alternative-energy indexes (Keehner, 2006) or by promoting investment in cleaner coal, smarter nuclear power, bioengineered ethanol, or other alternatives. (Talbot, 2006; Special Issue: Energy’s Future Beyond Carbon, 2006)

Marty Hoffert remarks: “The coming battle for a sustainable energy infrastructure will require every bit as much a team effort from government, researchers, and industry” as the Manhattan Project or the Apollo Project did. (Hoffert, 2006) From the standpoint of corporate America, and the interests of the global business community, business has an ethical obligation to respond to this challenge appropriately, by ceasing to fund climate change deniers, and by putting significant corporate investments into reducing greenhouse gas emissions, developing and exploiting alternate energy sources, and investing in and promoting green manufacturing, products and services.

Given the costs to business of inaction in this sphere, which will impact all of their shareholders and stakeholders alike, and the social contract business has with society that permits it to act in the corporate form in order to serve the interests of the community which issues its charter, business must take a leadership role in mitigating climate change now. It is a significant investment opportunity, linking business investment and planning decisions with the latest advances in science and technology — as the World Science Forum being held in November, 2006 in New York City under the theme “The New Universe for Business” and sponsored by Scientific American, the MIT SloanManagement Review, United Technologies and the Wall Street Journal, suggests. And, for once, it is also the right thing to do. (Diana, 2006)

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DUAL-CLASS CAPITALIZATIONS - FOR WHOM, FOR WHAT, AND FOR HOW MUCH?

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ABSTRACT

Approximately one-hundred-and-fifty actively traded corporations have dual-classes or multiple classes of common stock in their capital structure. Despite prolonged and active academic inquiry, no clear rationale has emerged to justify this practice.

This paper follows on our previous work in attempting to quantity the differences in the rates of return between the superior class and the restricted class(es) of common stock, and to identify and quantify the sources of those differences.

Three sub-samples of dual-class corporations are identified in which the characteristics of the classes share common attributes. For each, a model is presented which quantifies the contribution of each characteristic to the differences in the rates of return.

The application of this work is to suggest to corporations capital structure strategies which would reduce their cost of capital, and to suggest to investors equity-screening strategies which would increase their rate of return, decrease their portfolio risk, or both.

INTRODUCTION

The observation that approximately three percent of all publicly traded corporations have multiple classes of common stock suggests the need to provide a motivation for this practice. This paper follows on our previous work, Randall and Check (2005), in which we identified the subject firms, and examined differences in stock prices, rates of return, systematic risk, and abnormal returns between the two classes of common stock of dual-class corporations. That paper included a rudimentary model which attempted to quantify the contributions of the various distinct attributes of the classes to differences in the rates of return of the classes.

We have refined that modeling attempt. With the aid of a somewhat larger data set, we have formed three sub-samples of corporations in which the share attributes are more similar than in the general sample. We have formulated a model from each sub-sample which attempts quantify the contribution of each attribute to the difference in rates of return.

Econometrically the models are disappointing as the coefficients are rarely statistically significant. However, the models do generate coefficient signs that are consistent with pricing theory and coefficient magnitudes that are reasonable. Slightly larger sample sizes would provide sufficiently numerous degrees of freedom to create an omnibus model using quantitative (dummy) variables for the various share attributes.

For Whom, For What, For How Much?

The question of “For Whom” has, of course, three candidate answers; the corporation’s managers, the corporation’s shareholders, or both. We hope to model the differences in return as a way of determining which group benefits most.

Prior work has focused almost exclusively on the “For What” issue. All of the explanations (raising additional capital without diluting control, protecting incumbent management during the incubation period of profitable but slow-developing projects, providing editorial freedom, etc.) fail to address why dual-classes of common are preferable to using preferred stock in its traditional role. A glance at the variety of firms in our sample, Table 1 on page 144, is convincing evidence that a single motivation is unlikely. The difficulty that we have had in modeling the differences in returns is likely a symptom of the lack of a single motivation and evidence for a unique motivation in nearly every instance. If there are numerous reasons to adopt dual-class capitalizations perhaps more firms should do it.

We have been able to answer the "For How Much" question and the answer turns out to be a surprisingly large one.

Some Terminology

A review of some of the terminology used in this paper and comparable literature may be useful.

Dual-Class (Multiple-Class) Capital Structure - a firm may have more than one type of common stock in their capital structure; classes may differ in voting rights, dividend rates, rights in liquidation, conversion privileges, or other characteristics.

Superior Class - the class of stock which has the greater influence on the control of the firm; the superior class need not have the higher price or the higher rate of return.

Restricted Class(es) - the class or classes of stock which have less influence on the control of the firm; the restricted class need not have the lower price or the lower rate of return.

PRIOR RESEARCH

Since we believed this area of research to be interesting, relevant, and fertile, we continue to be surprised to find relatively little prior research. We have twice conducted lengthy, extensive, and thorough literature reviews.

Prior research in this field has concentrated on examining whether differences exist between dual-class shares in price, return and control. Academic interest in dual-class shares began in the 1980s. Using Israeli data, Levy (1983) found a significant price premium for superior voting rights (SVRs), which increased as the percentage of ownership was concentrated in the SVR shares. A study that same year by Lease, McConnell and Mikkelson had similar findings using U.S. data. The authors suspected that the premium was tied to takeover avoidance.

This suspicion, combined with a flurry of takeover activity in the early 1980s, prompted a number of studies that attempted to tie price premium to control issues. DeAngelo and DeAngelo (1985) showed that not only were there price differences between classes of stock, there were significant liquidity differences as well. The authors argued that classes of stock might be exhibiting a clientele-like effect. In their study of 45 firms, they found that the majority of voting rights (56.9%) were held by officers and family members. Rather than seeing any drawback to this, they felt that allowing the concentration of voting power provided benefits to both classes of stock. The SVR shareholders would not have to worry about fending off potential buyers, but instead could concentrate on investing in capital projects that would benefit the long-term financial health of the company, thereby providing maximum benefits to the shareholders with the regular or lesser voting rights (RVRs). The lower price demanded for the RVR shares would be offset by increased liquidity and future appreciation.

Partch (1987), Jarrell and Poulsen (1988), and Cornett and Vetsuypens (1989) extended the idea of both sets of shareholders benefiting from the dual-class organization by conducting event studies around the announcement of a second class of common stock. Partch, using the same data set as DeAngelo and DeAngelo, found mixed results. While the overall price response was positive and significant, the median response was negative, and the proportion of positive responses was only about fifty percent. Overall, she felt that shareholder wealth was unaffected by the creation of reduced-voting shares. The Jarrell and Poulsen study of 89 firms found significant *negative* returns at announcement, but again the results varied widely. Cornett and Vetsuypens had similar inconclusive results when looking at price movements around announcement date. That study also examined companies where the different classes of stock enjoyed different cash flows, i.e. preferences in dividends, and calculated the returns to each class. When the returns proved to be statistically the same for both classes, the authors posited a clientele effect; the shareholder gets what they want, superior votes or cash flows, but the returns will be the same.

The mid-to-late 1980s saw increased recapitalization activity, as prior poison pill defenses were ruled illegal, and the NYSE allowed for the listing of dual-class firms. Research in the 1990s tried to prove once and for all that the clientele effect was real, or that the price premium on SVR shares was simply tied to the avoidance of a takeover. Megginson (1990) examined 152 firms from the U.K., and while finding a price premium, could not explain that premium in terms of any likelihood of takeover. Amoako-Adu, Smith and Schnabel (1990) tried to explain the premium as possibly a difference in the risk of the different classes, however their research showed stable betas between stock classes, and returns that were statistically the same between classes of stock. Fisher and Porter (1993) and Shum

(1995) also examined returns to the classes of stock, and could find no statistical significance.

Event studies in the late 1990s, such as Maynes (1996) and Bacon, Cornett and Davidson (1997) looked at changes in legislation and characteristics of the board of directors to try and nail down the causes of the price premium. The Bacon, Cornett and Davidson article concluded that there is not one reason for a second class of stock, but three, all of which could explain a price premium. The clientele/optimal recontracting argument recognizes that sometimes different shareholders want different characteristics in their holdings, i.e. control or liquidity. Sometimes the concentration of voting power in SVR shares is critical in avoiding a takeover. And finally, sometimes companies create another class of common to raise equity without dilution of votes. A firm chooses the dual-class option based on their particular situation.

Since our data comes from the Internet sources *Yahoo! Finance* and *Mergent Online*, we were heartened by recent research, Clayton, Jahera, and Schmidt (2006), showing that such on-line sources are as reliable as data from the traditional source the Center for Research on Security Prices (CRSP).

Twenty years of research into the prices, the returns and the risk of dual-class common stock have yielded interesting stories, but few conclusions. As this form of capitalization continues to be utilized, we are curious as to why. Is there really a significant benefit to the firm? Is there really any importance to the investor?

THE EMPIRICAL PROCESS

We again began gathering data by searching through the daily closing-price stock listings in the *Wall Street Journal*. We identified forty-two (42) NYSE-traded corporations, four (4) AMEX-traded corporations, and eighteen (18) NASDAQ-traded corporations with dual-classes of common equity. Thirty-one (31) corporations were later eliminated because one class traded infrequently or did not trade at all. We obtained monthly price and volume data on-line from *Yahoo! Finance* for thirty-three (33) of the above corporations beginning with June 1996 and ending with May 2006; one hundred and twenty (120) months of data.

We obtained company-specific information from *Mergent Online* for the thirty-three corporations. These manuals provide extensive information for 30,000 public companies worldwide including history, chronology, acquisitions, mergers, spin offs, properties, joint ventures, subsidiaries, officers and directors, consolidated income statements and balance sheets for three and two years, respectively, long term debt, options, and etc. The availability of this information on-line and in a searchable format greatly reduced the effort required as compared to the searching of the hardcopy manuals we had done last year.

The thirty-three (33) corporations and their industry / business appear in Table 1 as an appendix.

MODELING RETURN DIFFERENCES

To further understand the motivations for adopting dual-class capitalizations, we are attempting to model the differences in the rates of return and assign sources to those differences.

We have selected four attributes which distinguish the classes and appear frequently enough in corporations to be empirically viable. The attributes and their definitions are; *Votes*, the ratio of restricted votes per share to superior votes per share; *Dividend*, the ratio of the superior class dividend to the restricted class dividend, *Liquidity*, the ratio of restricted shares outstanding to superior shares outstanding; and *Board of Directors*, the ratio of the proportion of the board of directors elected by the superior class to the proportion elected by the restricted class.

The definitions of these variables may at first glace seem spurious and inconsistent. However, they are defined as they are to maximize the number of corporations available for inclusion in the process. For instance, a particular restricted class may have no voting privilege. If restricted shares were in the denominator of *Votes* that corporation would need to be excluded from our sub-sample to avoid division by zero. Similarly with *Dividend* where, in our sample, the superior class is more likely to not pay a dividend. Using the ratio of shares outstanding as a proxy for liquidity is consistent with practice in the literature

The definitions we have used do provide one extremely helpful benefit in the regressions; each coefficient is the contribution of that attribute to a one-unit change in the attribute. In the scale of our data, those coefficients are easily interpreted as basis point changes.

A hypothetical example may be helpful;

Table 2
A Hypothetical Example

Attribute	Superior Class	Restricted Class	Enters the Data Set as
Votes	ten votes per share	one vote per share	0.10
Dividend	120 % of restricted class dividend		1.20
Liquidity	10,000,000 shares outstanding	100,000,000 shares outstanding	10.00
Board of Directors	elects 75% of directors	elects 25% of directors	3.00

"Super Voting" Model

Twenty-eight (28) of our corporations exhibited differences in voting privileges between the superior class and the restricted class. Our "Super Voting" valuation model used *Votes*, *Dividend*, and *Liquidity* as explanatory variables and produced the following results.

Table 3
"Super Voting" Model

$R_S - R_R$	Intercept	Votes	Dividend	Liquidity
Coefficient	- 0.37%	- 0.06%	+ 0.30%	- 0.19%
Standard Error	0.227%	0.023%	0.193%	0.119%
t Statistic	- 1.63	- 2.58	1.55	- 1.60
p value	0.12	0.02	0.13	0.12

where;

Votes = the ratio of restricted votes per share to superior votes per share

Dividend = the ratio of the superior class dividend to the restricted class dividend.

Liquidity = the ratio of restricted shares outstanding to superior shares outstanding

The signs of the coefficients are as would be expected; increasing the voting power of the restricted shares or increasing the number of restricted shares outstanding would decrease the difference between the rates of return, increasing the superior dividend without changing the restricted dividend would increase the difference in the rates of return.

The magnitudes of the coefficients are sensible as well and indicate the magnitude of the changes in relative rates of return that might occur. For example, changing the relative voting power from say 10 to 1 (superior to restrictive) to say 5 to 1 would be expected to reduce the difference in rates of return by 6 basis points (0.06%).

The *p*-values are disappointing indicating that we should not put much faith in the predictive power of the variables aside from *Votes*.

"Dividend Preference" Model

Eleven (11) of our corporations exhibited differences in dividend privileges between the superior class and the restricted class. Our "Dividend Preference" valuation model used *Dividend*, *Board of Directors*, and *Liquidity* as explanatory variables and produced the following results.

Table 4
"Dividend Preference" Model

$R_S - R_R$	Intercept	Dividend	Board of Directors	Liquidity
Coefficient	- 0.22%	+ 0.11%	+ 0.01%	- 0.03%
Standard Error	0.192%	0.055%	0.009%	0.173%
t Statistic	- 1.15	2.00	1.11	- 0.17
p value	0.29	0.09	0.30	0.87

where;

Dividend = the ratio of the superior class dividend to the restricted class dividend.

Board of Directors = the ratio of the proportion of the board of directors elected by the superior class to the proportion elected by the restricted class

Liquidity = the ratio of restricted shares outstanding to superior shares outstanding

The signs of the coefficients are as would be expected; increasing the relative dividend of the superior shares or increasing the proportion of the board of directors elected by the superior shares would increase the difference between the rates of return, increasing the number of restricted shares outstanding without changing the superior shares outstanding would decrease the difference between the rates of return.

The magnitudes of the coefficients are sensible as well and indicate the magnitude of the changes in relative rates of return that might occur. For example, changing the relative dividend from say 1.5 to 1 (superior to restrictive) to say 2.5 to 1 would be expected to increase the difference in rates of return by 11 basis points (0.11%).

The *p*-values are disappointing indicating that we should not put much faith in the predictive power of the variables aside from *Dividend*.

"Liquidity Preference" Model

Twenty-four (24) of our corporations exhibited differences in the liquidity proxy, ratio of shares outstanding. Our "Liquidity Preference" valuation model used *Votes*, *Dividend*, and *Liquidity* as explanatory variables and produced the following results.

Table 5
"Liquidity Preference" Model

$R_S - R_R$	Intercept	Votes	Dividend	Liquidity
Coefficient	+ 0.13%	- 0.11%	+ 0.35%	- 0.14%
Standard Error	0.113%	0.047%	0.187%	0.096%
t Statistic	1.15	- 2.34	1.87	- 1.45
p value	0.26	0.03	0.08	0.16

where;

Votes = the ratio of restricted votes per share to superior votes per share

Dividend = the ratio of the superior class dividend to the restricted class dividend.

Liquidity = the ratio of restricted shares outstanding to superior shares outstanding

The signs of the coefficients are as would be expected; increasing the relative voting power of the restricted shares or increasing the number of restricted shares outstanding without changing the superior shares outstanding would decrease the difference between the rates of return, increasing the superior dividend without changing the restricted dividend would increase the difference in the rates of return.

The magnitudes of the coefficients are sensible as well and indicate the magnitude of the changes in relative rates of return that might occur. For example, changing the relative number of shares outstanding from say 2 to 1 (restrictive to superior) to say 3 to 1 would be expected to decrease the difference in rates of return by 14 basis points (0.14%).

The *p*-values are disappointing indicating that we should not put much faith in the predictive power of the variables aside from *Votes*.

For Whom, For What, For How Much?

Our work thus far provides an answer to only one-third of the question; the difference in monthly returns between the superior shares and the restricted shares in our sample was a very health 0.68 percent per month. That's about 8.5 percent per year over a ten-year period! So there is money on the table, but the question remains as to whether this "superior class premium" is justified by differences in risk between the two class.

CONCLUSIONS

This paper takes us a step closer to the goal of quantifying the contributions of the various attributes of different stock classes to their differences in rates of return. Perhaps the most important result is the discovery of fifteen (15) additional firms beyond the eighteen (18) in our prior paper. This sample size offers the prospect of a possible single model using qualitative (dummy) variables to capture the differences in the attributes' contributions. That modeling technique has been unavailable to us previously due to the small number of degrees of freedom available.

The format of the variables was chosen to maximize the number of corporations available for each of our three sub-samples. A qualitative variables model would remove the need for these arbitrary definitions but we are very tight on degrees of freedom.

For now, we have three models which are applicable to corporations with the particular class attributes captured by the model. Ultimately, with a single model, we hope to be able to make recommendations to corporations to adopt dual-class capitalizations and the attributes they should include, and to make recommendations to stockholders about which class of stock they should include in their portfolios.

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Table 1
Our Data Set

Company	Industry / Business
Aaron Rents, Inc.	Rental and Leasing Services
Advanta Corp.	Financial Services
Bandag, Incorporated	Rubber and Plastics
Brown-Forman Corporation	Alcoholic Beverages and Consumer Durables
Berkshire Hathaway	Property and Casualty Insurance
Comcast Corp.	Cable Television
Constellation Brands, Inc.	Beverages - Wineries and Distillers
Crawford & Company	Insurance Services
Curtiss-Wright Corporation	Aerospace / Defense Products and Services
Embotelladora Andina	Beverages - Soft Drinks
Forest City Enterprises, Inc.	Real Estate
Freescale Semiconductor Inc.	Wireless Communications
GameStop Corp.	Video Game Retailing
Gray Television, Inc.	Broadcasting - TV
Greif Inc.	Packaging and Containers
Haverty Furniture Companies, Inc.	Home Furnishing Stores
HEICO Corporation	Aerospace / Defense Products and Services
Hubbell Incorporated	Electrical and Power Systems
Kelly Services, Inc.	Staffing and Outsourcing Services
KV Pharmaceutical Co.	Drug Delivery
Lennar Corporation	Residential Construction
Liberty Global Inc.	Entertainment and Informational Programming
Liberty Media Corp.	Diversified Communication Services
McData Corp.	Communication Equipment
Moog Inc.	Aerospace / Defense Products and Services
Neiman Marcus Group	Retailing - Women's and Men's Clothing
Playboy Enterprises, Inc.	Entertainment
Rush Enterprises Inc.	Auto Dealerships
Sequa Corporation	Aerospace / Defense - Major Diversified
Tecumseh Products Co.	Power Equipment Manufacturing
Urstadt Biddle Properties Inc.	REIT - Residential
Triarc Companies, Inc.	Arby's Restaurant System
Wiley and Sons, Inc.	Book Publishing

WHICH NETWORK DETERMINES CELL PHONE ATTITUDES?

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ABSTRACT

A cell phone attitudes survey was conducted on sports teams within a small liberal arts college to assess cell phone usage patterns and attitudes toward the use of cell phones. Social network data was collected from team members listing which team members are in one's cell phone directory and which team members they text message. The network data was analyzed with the survey data to shed some light on how cell phone attitudes and usage patterns diffuse. As hypothesized, findings indicate that the cell phone directory network is related to similarity in the belief that cell phones are helpful in one's daily life, easy to use and that they are worth the money. Hypotheses regarding cell phone attitudes and a text messaging network were not supported but rather evidence was found to the contrary. The text messaging network was negatively related to similarity in the belief that cell phones increase your social life and the belief that cell phones are easy to use.

INTRODUCTION

Without a doubt, technology has changed the way we communicate with one another. A fast paced world has replaced much of our face to face interaction with digital exchanges. Mobile technology enables meaningful exchanges almost regardless of one's location. Inherent in this new exchange is the possibility of new networks of social influence.

Informal structure, the pattern of who interacts with whom, delineates relationships among individuals and consequently can identify how they are influenced (Burkhardt, 1990). Learning may take place through observing and then modeling the behavior, emotions, and/or attitudes of others. Evidence for this can be found in a wealth of social network research (Coleman, et. al, 1966; Erickson, 1982; Contractor and Eisenberg, 1990) and in neurological research on mirror neurons (Ramachandran, 2000). Mirror neurons were found to delineate a modeling process that is central to human learning (Sylwester, 2002) Ramachandran (2000). This finding addresses the importance of the behavior and emotions of others in individual learning. But, how will learning take place in the digital world? What types of networks will provide information about whose attitudes and behaviors will be modeled? In order to answer these questions, this research investigates the diffusion patterns of behaviors and attitudes in a mobile environment.

For over a half of a century, many theorists (beginning with the work of Homans, 1950; Festinger, 1954; Lieberman, 1956) have addressed the role that social context plays in developing attitudes and behaviors. Burt (1987), Erickson (1988) and Contractor and Eisenberg (1990) proposed that people are influenced by and will in turn influence those with whom they have direct contact. Salancik and Pfeffer (1978) in their social information processing theory proposed that the most direct way of providing social information is through overt statements about an object or event. Most of the research that followed tested this theory using face-to-face interactions. However, Burt (1987) proposed that individuals may be influenced by others who have similar interaction patterns as themselves even if they do not interact directly with one another. Regardless, the likelihood of being influenced by others is a function of an individual's personal characteristics such as self monitoring style and is often increased during times of uncertainty (Burkhardt, 1994).

The introduction or use of a new technology often increases uncertainty for those involved. In particular, Barley (1986) postulated and provided evidence that technologies provide occasions that trigger social dynamics. Burkhardt (1994) demonstrated that individuals' attitudes and behaviors toward a technological change are affected by their social context. As such, new technologies provide excellent opportunities for studying social influence processes. While much research has already been accomplished on this topic, data was typically collected on face-to-face interactions. One exception is the work by Igarashi, Takai, and Yoshida (2005) who found that intimacy of friends was higher when they communicated via face to face and mobile text messaging and that females tended to expand their mobile text messaging network more than males. Because of differences in communication mediums, namely computer and cellular methods of interaction, more research is needed to determine the role of social influence beyond face-to-face interaction. In particular, this study examined mobile technology networks of cell phone directory membership and text messaging partners to identify new networks of social influence.

When individuals are given the opportunity to collect phone numbers in their cell phone they may in essence be developing a social influence network. In all likelihood this may be equivalent to one's friendship network (although work partners may also be represented here. Thus, individuals decide who is going to be a source of frequent communication. Often we find that such a relationship is decided for us by work groups or extracurricular activities. However, cell phone directories allow one to be selective regarding who will be a frequent interaction partner. As a result, the likelihood of being influenced by these individuals appears to be high. In addition, those with whom one sends text messages are also a likely source of social influence. Thus, it is hypothesized that

- H1: Individuals who list one another in their cell phone directory (H1a) as well as those who text message one another (H1b) will similarly believe that cell phones are ***helpful in their daily life***.
- H2: Individuals who list one another in their cell phone directory (H2a) as well as those who text message one another (H2b) will similarly believe that cell phones are ***easy to use***.
- H3: Individuals who list one another in their cell phone directory (H3a) as well as those who text message one another (H3b) will similarly believe that cell phones are ***worth the money***.

H4: Individuals who list one another in their cell phone directory (H4a) as well as those who text message one (H4b) another will similarly believe that cell phones ***increase their social life***.

METHODS

Research Setting

The research was conducted at a small liberal arts college in rural Pennsylvania, which was responsible for the collection, analysis, and dissemination of information about cell phone diffusion. Twelve students mentored by one professor carried out these tasks. The cell phone survey was structured into seven parts including cell phone attitude, self-efficacy, demographic, disposable income, self-monitoring, stress and features. The survey was constructed using an open source web based survey development tool. Each student was responsible for constructing different parts of the survey. These students were also asked to collect the network data from various college sports teams.

Procedure

Participants in this study were asked to fill out a survey and a form. Respondents were asked to include their names on the instruments so we could match both pieces of data together.

All members of several sports teams were asked to participate in survey requiring they complete a questionnaire. Survey participants were invited to fill out the survey through a link attached to an email. Participants were sent two reminder emails to fill out the survey.

Sports teams were also asked to fill out a form which revealed who on their team was listed in their cell phone contacts directory. The questionnaire was developed using different sports team's rosters to measure social interaction and communication. Participants were also asked to indicate what teammates they contacted via text message and instant message.

MEASURES

Network measures

Respondents were provided with a list of all agency employees and asked to circle the names of people with whom they communicated with on their sports teams. This data was used to construct an adjacency matrix.

Cell phone attitudes

The extent to which a worker had positive or negative feelings about cell phones was measured. Athletes were asked to respond to the question "Do you believe cell phones: increase your productivity, increase you social life, are easy to use, are worth the money, and are helpful to your daily life."

Efficacy

This variable reflected the degree to which individuals felt they could competently use cell phones in there everyday lives. A five point scale (1=disagree strongly, 5=strongly agree) was used to rate the variable. A sample question is, "I am fairly good at using most of the features on my cell phone."

Self-monitoring

This variable measured the extent to which individuals altered their actions on the basis of contextual cues. The revised Self-Monitoring Scale, a 13-item scale developed by Lennox and Wolfe (1984) and composed of six-point Likert-type items, was used to assess this variable.

Disposable Income

Questions were framed to measure the amount of disposable income the respondents have to spend on new cell phone technologies. A sample question is, "On average, about how much money do you spend on leisure activities in a given week?"

Stress

This measurement revealed how participants felt their general stress level is in their everyday lives. Three questions asked the respondent to indicate the degree to which they agreed or disagreed with each statement. One statement asked, "I consider my days to be hectic."

Features/Actions

Participants were asked to select features from a list that they currently use on their cell phones. They were also asked to identify from a list, options they would use if they were available on their cell phones.

Demographics

The demographic characteristics used in the survey included: graduating class, age, gender, place of residence (rural, urban, or suburban). Respondents were also asked if they currently own a cell phone.

ANALYSES

To test the hypotheses, we correlated matrices representing the independent and dependent variables with one another. Independent variables assessed include interaction patterns reflecting who communicates with whom via cell phone, text messaging, and instant messaging. A network reflecting who is in your cell phone directory was generated by placing a 1 in the matrix cell for every i and j on the sport's team being analyzed. The dependent variables are represented by dissimilarity matrices. Specifically, we determined the degree of dissimilarity in the cell phone attitudes of two people for each dyad in the network. A vector of individual attitude ratings was transformed into a square matrix composed of similarity scores (1 if similar, 0 if dissimilar). To evaluate whether or not this matrix was related to the matrix that represented cell phone directory and text messaging networks the quadratic assignment procedure (QAP) in the UCINET (Borgatti, Everett, and Freeman, 2002) package was used. QAP (Hubert, 1983) is a nonparametric test of whether two matrices are significantly and nonspuriously related. This test involves randomly permuting the rows and columns of one matrix while holding the other matrix constant and calculating the correlation between the two after each permutation. A distribution is produced from each of these correlations to determine its significance.

FINDINGS

Pearson correlation coefficients for the dependent variables under study are presented in Table 1. The table shows that each of the dependent variables is highly correlated with one another.

Table 1
Correlations for Dependent Variables

Variable	Mean	SD	1	2	3
1. Helpful	1.67	.99			
2. Easy-to-Use	1.58	.79	.85**		
3. Worth-It	1.67	.99	.85**	.85**	
4. Incr. Social	1.50	.67	.27	.26	.27

*p < .05; **p < .01; ***p < .001

Correlations between the dissimilarity matrices for each dependent variable are presented in Table 2.

Table 2
Quadratic Assignment Matrix Correlations for Dependent Variables

	1.	2.	3.
1. Helpful			
2. Easy to Use	.76**		
3. Worth It	1.00***	.76**	
4. Incr. Social	.70**	.10	.70**

The findings are significant for the majority of these relationships as indicated by a significant Hubert's gamma coefficient. In order to test the hypotheses, Hubert's gamma coefficients were generated for each of the dependent variable dissimilarity matrices and for both the cell phone directory matrix and the text messaging matrix. Results are displayed in Table 3.

Table 3
Quadratic Assignment Results for Dependent Variables and Network Data

	Helpful	Easy-to-Use	Worth-It	Incr. Social
Cell Directory	1.00*	1.00*	1.00*	.02
Text Messaging	-.40	-.44*	-.41	-.69*

Note: Values are Z-scores for Hubert's quadratic assignment gamma measures of association.
*p < .1, one-tail.
**p < .05, one-tail.
***p < .01, one-tail.

These results indicate that the similarity matrices for each of the dependent variables is positively related to the cell phone directory matrix. The QAP results were negative for the text messaging network and two of the dependent variables, easy to use and increases social life.

DISCUSSION

Hypotheses H1a, H2a, and H3a, and H4a were supported. In fact, evidence exists to the contrary. The cell phone network was significantly related to the easy to use, worth the money, and helpful similarity matrices. It may be that the cell phone directory matrix identifies a close network perhaps equivalent to a friendship or combination of friendship and work network. Although in this sample, students were not employed full time. Regardless, this network may be a valuable way to accurately assess membership in a social network.

Hypotheses H1b, H2b, and H3b, and H4b were not supported. In fact, some evidence exists to the contrary. The dependent variables "easy to use" (H2b) and "increases your social life" (H4b) similarity matrices were negatively and significantly related to the text messaging network. This demonstrates that similarity in attitudes may be a function of friendship networks. In this particular instance, close friends (those who we have in our cell phone directory) influence our attitudes toward cell phones but those we text message do not. Those with whom we share certain technologies are not necessarily similar to us in regard to our attitudes toward these technologies or our likelihood to use additional related technologies. These results are consistent with the notion that attitudes are similar among friends in a close knit group. We can now generalize this finding to networks established by cell phone directories with dependent matrices involving cell phone attitudes. People who text message one another may not be as close as those in one's cell phone directory but rather one text messages to others simply because they too use this communication medium. Perhaps we can continue to examine friendship networks to determine specific influence processes. In other words, our networks of influence regarding traditional technologies and products may in fact be similar to our networks of influence for the adoption of new technologies and new technology features. We are; however, able to establish new methods of measuring friendship networks through the use of new technologies.

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WORKING TITLE: WOMEN GET LOST ON WALL STREET

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ABSTRACT

The Equal Employment Opportunity Commission (EEOC) has recently issued a special report on the status of women and minorities in the field of finance. While being an important aspect of the economy, the report finds that the industry has a much lower ratio of officials and managers to professionals and sales workers for women and minorities. Other studies report that chances of advancement are also unfavorable to these groups. The EEOC report along with a number of successful sex discrimination suits filed against members of the industry brings into question the treatment of women on Wall Street and in the field of finance as a whole. This paper examines the question of why women get lost on Wall Street by discussing the empirical studies done on the status of women in the finance industry, looking at the history of women in the finance industry, reporting on cases brought against the industry alleging sex discrimination, and concludes with some thoughts about why the problems of sex discrimination persist.

INTRODUCTION

The financial services industry is an important aspect of the US economy, which constitutes one of the largest groups of companies in the world in terms of market capitalization and earnings. Companies such as Citigroup, JP Morgan Chase, and Bank of America are included in this category. The industry employs a large number of people and offers many well-paying jobs. According to the projections of the Bureau of Labor Statistics (BLS), employment in the financial services industry is expected to increase faster than average for the economy over the next decade (BLS, 2006). It is therefore not surprising that the industry attracts a highly qualified, talented workforce.

However, the finance industry has a poor history when it comes to attracting, managing, and retaining women. Harassment lawsuits of the 1990s described in the infamous "boom-boom room" (Antilla, 2003) and more recent cases brought against Morgan Stanley and Merrill Lynch revealed flagrant patterns of discrimination and unfair compensation practices. The failure to advance and promote talented women has negative consequences for workplace diversity, creativity, competitiveness, and overall profitability of firms.

This paper addresses the issue of recruitment, retention, and promotion of women in the field of finance by reviewing recent empirical evidence from demographic reports, looking at the history of women in the finance industry, and reporting on cases brought against the industry alleging sex discrimination. The paper concludes by examining factors that may contribute to gender-based employment practices that hinder career advancement of women in the industry.

EMPIRICAL STUDIES

There have been several demographic studies that address the issue of women and minorities in the financial services industry. We present the main findings of these studies below.

Periodically the Equal Employment Opportunity Commission (EEOC) issues special reports on various industries based on data from surveys, complaints they have received, and other sources. Recently, the EEOC issued a special report on the finance industry (EEOC, 2006). The finance industry is composed of credit, securities, insurance, and funds sub-sectors. The report acknowledges that the industry plays an important role in the economy by employing a large number of people at high levels of compensation. However, the evidence found in the report suggests that throughout the finance industry there was a much lower ratio of officials and managers to professionals and sales workers for women and minorities. In other words, women and minorities are under-represented at the top tier of their organizations.

The EEOC study performed an analysis for five occupational groups: officials and managers, professionals, technicians, sales, and clerical job categories. The report particularly focused on the professionals category from which the officials and managers category was drawn. First, the report found that women representation in the officials and managers category varied among sub-sectors, with the highest percent of women in the credit sub-sector (48.6 percent) and the lowest percent of women in the securities sub-sector (33.8 percent). A mixed pattern emerged for various race/ethnic groups.

One of the most important findings of the study was that women are under-represented among officials and managers compared to their white male counterparts. The report calculated the odds or probability of women being in the officials and managers job category compared to such odds for white males. The report showed that the probability of being a management employee out of the total pool of professionals and sales workers is 48.4 percent for female employees compared to 64.7 percent for male employees. Except for the securities sector, the odds of women being managers were less than the odds of men being managers.

In a similar study of the investment banking sector, EEOC focused on demographic changes within the industry during 1995-2000 (EEOC, 2003). The study found that although women representation has increased over the sample period, they were still under-represented among officials and managers.

These results can be placed in the context of other studies that focus on access, opportunities, and career advancement for women. In its 2005 report, the Securities Industry Association found that women representation increased from 37 percent in 2003 to 44 percent in 2005 (SIA, 2005). Among 48 of group's member companies, women held 29 percent of senior-level positions, 57 percent of mid-level positions, and 88 percent of assistant positions. The SIA also found that women have been steadily gaining managerial ground. In 2001, 14 percent of women were managing directors and by 2003 that number was 19 percent. However, these numbers still show lack of significant progress in the field still largely dominated by men.

A recent Harvard Business Review article summarized the findings of a special task force on the status of women in the private sector. Sponsored by Goldman Sachs and Lehman Brothers, the task force surveyed 2,443 "highly qualified" women with high-honors undergraduate, graduate or professional degrees. The survey found that despite significant progress on the access front, still far too many highly qualified women are failing to progress to senior management positions in the private sector and university tenured faculty jobs (Center for Work-Life Policy, 2005). Particularly for women with children, the study reported that 43 percent of women surveyed left work voluntarily at some point in their careers. Of those, 93 percent wanted to return and only 74 percent actually managed to do so and only 40 percent among these women came back to work full time. This study sheds light on a workplace environment that is very demanding and competitive.

Competition for jobs in the industry is quite high, so job seekers must be flexible, mobile, able to adapt to changes, and prepared to develop their work skills. Among the most valued work skills are team working, problem solving, communication, organization and management. The 2001 study by Catalyst, a nonprofit research and advisory organization that serves to advance women in business, reported on similarities and differences between men and women with respect to job satisfaction, perceptions, attitudes, and experiences in the financial services industry. The study surveyed more than 2,200 women and men employed at leading securities firms and reported that in general more than three-quarters of men and women were satisfied with their jobs in the finance industry (Catalyst, 2001). However, more women reported the existence of discriminatory practices in their workforce. Particularly, more than half of women surveyed believed that they are paid less than men for doing similar work. 65 percent of women reported that they have to work harder than men to get the same rewards. More than ten percent of women reported some components of sexual harassment at their workplace.

THE HISTORY OF WOMEN ON WALL STREET

Wall Street, a metonymy for the American financial industry, has long been a male enclave. Beginning in 1792 under a buttonwood tree at 64 Wall Street, 24 male brokers signed an agreement that required the signers to trade securities only among themselves, to set trading fees, and not to participate in other auctions of securities. These 24 men had founded what was to become the New York Stock Exchange (NYSE) (Ketchum, 2005).

It was not until 1943 that women were allowed to work on the trading floor, and not until 1967 that Muriel Siebert became the first woman - one among 1,365 men - to own a seat on the NYSE (Fisher, 1989). Her seat on the exchange hardly started a revolution; in the late seventies, the vast majority of women working in investment firms were still secretaries. It was only in 1987 that Goldman

Sachs hired its first woman partner – one among 106 men. Even after women began to be hired, often they were kept out of important meetings, lunches and social gatherings with clients, because the meetings took place in male only clubs. Twenty years after Muriel Siebert purchased her seat, she still could not dine with business associates or entertain clients at many preferred clubs. The practices were ended in 1987, not by any efforts on the part of Wall Street, but due to pressure from New York City officials who reminded the industry that city ordinances prohibited sex discrimination by clubs, if the premises were used for business purposes. Thereafter, as alleged in a suit filed against Morgan Stanley, the practice shifted to entertaining clients in venues where women were allowed, but uncomfortable or unwilling to attend, such as "topless bars" and golf outings at male only member clubs (EEOC v. Morgan Stanley).

OVERVIEW OF THE LAW PROHIBITING SEX DISCRIMINATION IN THE WORKPLACE

In an attempt to prohibit discrimination in the workplace, in 1964 Congress passed Title VII of the Civil Rights Act and created the Equal Employment Opportunity Commission (EEOC) to implement its provisions (Civil Rights Act of 1964). Title VII protects individuals against employment discrimination on the basis of sex as well as race, color, national origin, and religion. It applies to employers with 15 or more employees, including state and local governments. Title VII also applies to employment agencies and to labor organizations, as well as to the federal government.

Title VII makes it unlawful to discriminate against any employee or applicant for employment because of his/her sex in regard to hiring, termination, promotion, compensation, job training, or any other term, condition, or privilege of employment. Title VII also prohibits employment decisions based on stereotypes and assumptions about abilities, traits, or the performance of individuals on the basis of sex. Title VII prohibits both intentional discrimination and neutral job policies that disproportionately exclude individuals on the basis of sex and that are not job related.

It was not until 1986 that the United States Supreme Court ruled that Title VII's bar on discrimination "because of sex" prohibited an employer from subjecting an employee to a sexually hostile work environment. To state a claim for sexual harassment under Title VII, the offensive conduct must be sufficiently pervasive so as to alter the conditions of employment and create an abusive working environment. Although a claimant's own perception of the severity of the challenged treatment must be considered, it is not dispositive of the question. To create a hostile environment, the harasser's conduct must be such that a "reasonable person" would find it abusive, and one that the victim in fact did perceive to be so (Lewis, Jr. and Norman, 2001).

When the plaintiff seeks to hold the employer liable for the sexual harassment created by the plaintiff's supervisor or coworker, she must show that the employer knew or should have known of the harassment in question and failed to take prompt remedial action. The employee can demonstrate that the employer knew of the harassment by showing that she complained about it to higher management, or by showing the pervasiveness of the harassment, which gives rise to the inference of knowledge or constructive knowledge – circumstances which existed in the Smith Barney, Merrill Lynch and Morgan Stanley cases discussed infra.

WOMEN VS. WALL STREET[1.]

In the last decade a number of significant (in terms of numbers of claimants and settlement dollars) have been filed against members of the finance industry. In addition to the cases discussed in this article, since 1993, class action lawsuits have been filed against American Express, Lew Lieberman, US Bancorp and other firms. The concern about the treatment of women in the industry had become so great that in April 2004, the National Council of Women's Organizations (NCWO), a bipartisan network of national women's organizations, launched the Women on Wall Street Project to investigate claims of gender discrimination in the financial sector (NCWO, 2006). Some of the most notable cases against the industry are described below.

Smith Barney

The most notorious sex discrimination case filed against the finance industry was Martens v. Smith, Barney, Inc. The case was filed in 1996 as a class action in which Pamela Martens and other named plaintiffs sued Smith Barney for gender discrimination, harassment, and retaliation in violation of Title VII. Plaintiffs also challenged the compulsory arbitration policies of Smith Barney, the NYSE, and the National Association of Securities

Dealers. Ms. Martens was a fifty-year-old woman who had worked at the firm for ten years and who managed $ 187 million for the company. She was fired after she complained about discriminatory behavior in her suburban New York office and retained an attorney to pursue her complaints.

The case alleged that Smith Barney had systematically discriminated against women in hiring, assignments, pay and promotions, as well as through pervasive sexual harassment in some of the firm's branch offices. The plaintiffs alleged that they were denied lucrative broker jobs and instead channeled into low-paying positions as sales assistants. Those women who became brokers were denied the most lucrative accounts, received little to no mentoring, and were subjected to blatant and repeated harassment (Selmi, 2005). The harassment was recounted in the popular book ***Tales from the*** *Boom-Boom Room: Women vs. Wall Street* (Antilla, 2002). The "boom-boom room" was located in the basement of the Smith, Barney Garden City, New York office. Male brokers would "open" the room the end of the day and mix drinks in large garbage cans located below a toilet hanging from the ceiling.. At that same office, women were ordered to wear short skirts, and strippers were a frequent accompaniment for the male brokers and some of their clients (Antilla, 2002).

Importantly, the case also challenged the mandatory arbitration proceedings that had been instituted by the brokerage houses for all of their employees. Ultimately, in 1998, the case was settled in a way that allowed the plaintiffs class to avoid the company's private arbitration proceedings in favor of a more neutral arbitration forum. Most of the claims were successfully settled for amounts that were not disclosed. In addition to the individual relief, the settlement required Smith Barney to spend $ 15 million toward various diversity initiatives, including training (Selmi, 2005).

Smith Barney's problems did not end with the settlement. In March 2005, another case seeking class action status was filed challenging compensation practices on behalf of female brokers against the company, now a division of Citigroup Inc. In Amochaev v. CitiGroup Global Markets d/b/a Smith Barney, the plaintiffs contend that they were discriminated against in account distribution, business referrals and partnership opportunities. They also claim they received less sales support than male colleagues, less desirable offices, less training, and that male colleagues retaliated against them after they complained (Pacelle, 2005). The case is pending in the U.S. District Court in the Northern District of California.

Merrill Lynch

One year after the Smith Barney case was filed, a similar class action claim was initiated against Merrill Lynch, which at the time of the lawsuit, was the nation's largest brokerage firm. This was not the first time Merrill Lynch had been sued for sex discrimination. In 1974 the EEOC sued the firm, and settled the case with commitment by Merrill Lynch to hire more women over the next five-year period. The company never met their targets (Selmi, 2005). By the time the suit was filed some twenty years later in 1996, only 15.8 percent of Merrill Lynch's brokers were women, about the same percentage that had existed in 1990, and not significantly more than had existed in the 1970s.

In the 1996 case, the plaintiff class consisted of 22,000 past and present employees. Except for the allegations of pervasive lewd behavior, the substance of the claims of discrimination was similar to the claims in Smith Barney. The plaintiffs claimed that they were systematically discriminated against in pay and promotions, largely by the subjective way in which business was channeled to male brokers. Like Smith Barney, and other cases alleging discrimination in the securities industry, the women also contended that they had been excluded from social outings with clients. At a firm meeting attended by more than 100 female brokers, it was discovered that none of the women present had been chosen to participate in a new program aimed at generating new investor accounts. The plaintiffs also challenged mandatory arbitration for discrimination claims at Merrill Lynch. One year after the case was filed, the parties settled on terms that were much like those adopted in the Smith Barney case, with the important exception that Merrill Lynch did not commit any funds to diversity efforts. The settlement eliminated the practice of mandatory arbitration and instead permitted the women to pursue their claims before neutral mediators and arbitrators. Each woman could accept a settlement amount, go to arbitration or have a hearing. The vast majority settled, with Merrill paying out more than $100 million in claims (Anderson, 2005).

Morgan Stanley

In 2001, the EEOC filed suit against Morgan Stanley alleging that the company discriminated against women in its Institutional Equity Division

(IED) with respect to promotion, compensation and the terms, conditions and privileges of employment. Alison Shieffelin, who initiated the complaint to the EEOC, had been a successful convertible bond salesperson with an annual salary that exceeded $ 1 million but who was fired shortly after she complained about not being promoted to a managing partner position. Morgan Stanley settled the case in 2004, literally moments before the trial was set to begin and a lawyer for the EEOC was to have switched on a projector and presented the statistical evidence to a jury regarding the pay and promotion of women as compared to men at the international securities house. Ms. Shieffelin was scheduled to testify as part of the case and planned to tell the jury how she arranged a group dinner with an important client at a New York restaurant, only to be escorted to a cab afterward while her male co-workers took the client to a strip club. Morgan Stanley agreed to provide $54 million to the plaintiffs including $ 12 million for Ms. Shieffelin; to appoint an internal ombudsperson and an outside monitor; implement management training on the federal anti-discrimination laws; perform promotion and compensation analyses; maintain a complaint data base; and implement programs to address the promotion and retention of women (EEOC, 2004).

Like Smith Barney, Morgan Stanley's problems did not end with the settlement. In June 2006, two class action suits were filed against the firm in accordance with NCWO's Women on Wall Street Project. The plaintiff classes are comprised of all female financial advisors who were employed at the firm from August 2003 to the present. The suit alleges that Morgan Stanley executives assigned the most lucrative accounts to male brokers, and failed to promote and give partnership assignments to its female employees. (The Buzz: Morgan Stanley is hit with suit, 2006)

FACTORS THAT MAY CONTRIBUTE TO THE PERSISITENCE OF SEX DISCRIMINATION ON WALL STREET

There appears to be a consensus, both in and outside of academia, that workplace discrimination against women has decreased dramatically since the passage of Title VII. Many believe that the workplace barriers women now face are more often the result of the choices women make between their professional and family obligations, rather than discrimination. Any remaining vestiges of the "good old boy network" is generally seen as subtle, often unconscious in nature, and relatively free of the intent to discriminate (Selmi, 2005).

However, the empirical studies, the seriousness of the allegations made in the cases brought against the industry, and the large number of women class members suggest more than an ebbing problem. These factors suggest that finance industry remains resistant to change and hostile to women.

1. The culture

Scholars have recently promoted a view that sex discrimination is less about objectifying women as primarily sex objects, but more about men's desire to perpetuate male workplace norms (Abrams, 1998) and (Shultz, 1998). Discriminatory behavior preserves male control and entrenches masculine norms - a position that may be more comfortable than charting the new territory and new opportunities that would result from including female colleagues. Sadly, preserving male norms may be rational for men. Studies demonstrate that female dominated industries suffer lower wages and less prestige. Therefore, breaking down the male norms in the workplace would both threaten men's own sense of self, and their wage status.

2. A code of silence

For decades mandatory arbitration of employment disputes existed in the finance industry. Until 1999 any broker or other employee of a Wall Street firm, as a condition of his license, had to agree to resolve a dispute in a closed-door negotiation session run by a stock exchange. However, after the Boom-Boom Room case and the Merrill Lynch lawsuit, the Securities and Exchange Commission changed the rules and said Wall Street employees with civil rights claims could not be forced to arbitrate. Before the change had taken effect, though, firms had discovered a new tactic: having employees sign private contracts that bound them to arbitrate anyway.

The author of the Boom-Boom Room believes that the settlement of cases, rather than a public airing of the facts in a courtroom, perpetuates the problem (Antilla, 2004). While the cases against Merrill Lynch, Smith Barney and Morgan Stanley settled for huge amounts, perhaps it was the firms that came out winners. The businesses were able to keep confidential the actual documents regarding their hiring, promotion and treatment of women employees. Ingrained cultural misconduct changes only when customers, colleagues and the public get wind of the nasty facts and companies are embarrassed. Those who can afford to keep their problems quiet may never have to change. Perhaps Wall Street will make changes only when its culture, and compensation and promotion practices are exposed in open court.

3. Women's choice

Some recent articles have suggested that the lack of advancement of women in the industry is due to their own choice. The desire for a better balance between professional and family life, the interruption of their career path to raise children or care for aging parents, rather than overt discrimination, has been theorized to be the cause of the glass ceiling (Nyberg, 2006). However, while it is likely that all employees, men and women alike, would want more time at home, this explanation belies the facts of the suits brought against the industry. The discrimination complained of in the Smith Barney, Merrill Lynch, or the Morgan Stanley cases was not tied to child or family care issues, but issues related to compensation, promotions and flagrant sexual harassment.

CONCLUSION

The evidence found in demographic and perception studies, as well as cases alleging sex discrimination in the finance industry show that women continue to suffer a disparity in wages, promotion and working conditions compared to their male colleagues. It is likely that there are many factors that combine to cause the disparity, including a long history of male dominance, secret settlement agreements, and choices that the female employees make in terms of career advancement and work-life balance. However, as we try to identify the factors that lead to sex discrimination on Wall Street, we must be honest about the role that intentional discrimination may play in the problem.

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[1.] Women vs. Wall Street is the subtitle of Susan Antilla's book, "The Boom Boom Room."

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CALCULATING RISK OF FAILURE OF STRATEGIC IT PROJECTS WHAT IS PROJECT SUCCESS AND FAILURE?

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ABSTRACT

Information technology (IT) has shown itself to be both essential to business and a potential bankrupter of business. While research originally showed no relationship between IT spending and business profitability or productivity, subsequent research clearly shows a positive relationship since the advent of the Internet. However, the statistics regarding IT project success are still abysmal, with less than 20% of IT projects achieving their objectives within the original budget and timeline. Several studies have tried to quantify the return on IT projects, but so far all proposals have major problems that prevent them from being used in a practical setting. I propose a more experiential mathematical model, applicable in a practical setting, to assess the success or failure risk of any IT project prior to major expenditure.

INTRODUCTION

The success or failure of a business can be caused by many things. Those who study leadership identify leadership as the essential ingredient. Those who study planning identify strategy and tactics as the key issues. Those who study financial management feel that proper financial management is critical, and those who study sales and marketing would say that these are the fundamental issues. Those who manage information technology will cite its imperative. Risk management experts will say that risks of failure in any of these domains can be quantified. Project managers will state that high quality project management is the vital ingredient. Decision science authorities will cite the decision process as the crucial concern.

To the authors of this document, the real imperative is not any one aspect of these issues, but rather the necessary integration of all of these issues. We feel that an interdisciplinary approach is imperative in finding the truly critical factors in the success or failure of a business project, and by its extension, the business itself. Furthermore, while ground-breaking work in recent years has done a tremendous job of uncovering the seeds that distinguish businesses that have been "built to last" and transformed themselves from "good to great"(J. Collins, 2001; J. C. Collins & Porras, 1994) there is still a paucity of research for those one level down from the senior leader level on exactly how to ensure successful strategic projects within a company. Furthermore, almost all strategic projects involve some kind of information technology - a relatively new discipline necessary in business today, often the cause of complicating complexity.

No one can propose that all this convolution can be represented and simply solved within a mathematical equation. Nonetheless, the introduction of a calculated index that can increase the chances that any particular business endeavor will be successful rather than a failure - that would be a valuable addition to the overarching domain of knowledge.

Mathematical Representation of Other Fuzzy Domains

There have been many different domains of "fuzzy" knowledge, (called fuzzy because of the integrated human element), that have been usefully represented within mathematical formulas. In many cases, the domain is very specific and limited. A formula to calculate the chances of success that dangerous goods will be successfully transported on a railroad has been developed (Gheorghe, Birchmeier, Vamanu, Papazoglou, & Kröger, 2005). A heuristic has been developed that will identify how to allocate graduate assistantships or how to make sure kids get a fair chance to play baseball (Vasko, 2001; Vasko, 2003).

But mathematics can also deal with life and death. In 1759, Jonathan Dickinson and Gilbert Tennent established the Corporation for Relief of Poor and Distressed Widows and Children of Presbyterian Ministers, the first life insurance company. Life insurance must accommodate dozens of difficult contingencies such as employment, health, marriage, retirement, lifestyle (Keyfitz & Rogers, 1982). Yet, an entire industry and field has arisen out of the continued attempt to mathematically quantify human life events such as disability and death (Jones, 1948).

In 1958, engineer Bill Fair and mathematician Earl Isaac invested $400 (each) in a new company, Fair Isaac, which would mathematically calculate the likelihood that any individual person would pay back a loan(Wozniacka & Sen, 2005). Today, the FICO credit rating score is calculated and published on billions of people and used by millions of companies every day.

The credit score is designed to measure default risk over long investment horizons(Altman & Rijken, 2005). Research on the credit score and how it is used in business continues today (Cantor, 2004).
Probably the domain that is closest to the problem of success or failure of a business project is the FICO credit scoring. Some researchers claim that credit risk is actually dependent upon the economy (Elizalde, 2005). Some claim that personality is the dominant dimension in credit and financial planning behavior (Camp, 2006). Individual scores combine into portfolios that are then - also - managed mathematically (Rösch & Scheule, 2005). Furthermore, credit scoring can be altered to adjust to a changing environment (Tsaih, Liu, Liu, & Lien, 2004). Their predictive abilities can be improved by including non-financial factors as well as financial factors (Grunert, Norden, & Weber, 2005). Various software tools have been developed to calculate them to support the credit officers making credit decisions and managing credit portfolios (Ranson, 2005). And when the Federal Trade Commission proposed that credit score calculation methods be made public, it caused an uproar in the industry - especially by the credit bureaus that felt the calculation methods should be private and proprietary (Fickenscher, 1994).

While the detailed mathematical calculation for your credit rating is a proprietary secret of the Fair Isaac company, a simplification of the equation is described in Figure 5.

35Payment History +15Length of Credit History + 10New Credit + 10Types of Credit Used + 30Amounts Owed = Credit Risk Index

Figure 5. FICO Score formula - paraphrased

Like the FICO score, the risk of any particular technology project can be calculated by identifying the primary factors that influence project success. There are two underlying questions that must be answered to accomplish this. What is project success? What are the factors that determine that success? Once those questions are answered, the next task would be to identify a way to validate the model. This paper is designed to address the first question.

What Is Project Success?

While this question may sound simple, delving into the research on information technology projects and their success or failure in the context of business is like dipping a toe into a maelstrom of differing opinions and assumptions.
We've organized the research on the definition of project success and project failure first by splitting externally derived measurements from internally derived measurements.

1. Internal Measures of Success/Failure
   a. Project Manager Assessment
   b. Working Product/Service
   c. On-Time/On-Budget
   d. Meeting Project Objectives
2. External Measures of Success/Failure
   a. Senior Leader Assessment
   b. ROI (Return On Investment)
   c. EVA (Economic Value Added)
   d. Users use product/service, Customers buy product/service

Considering the different measurements of success/failure to define our dependent variable, project success, allows us to look at each of these in detail. Based upon our goal of determining the future success of a project from all perspectives, we determined that the measurement should be external rather than internal. Furthermore, if at all possible, based on this perspective, we should also focus on objective rather than subjective measurements.

Of the externally measures, Senior Leader Assessment is highly subjective, which leaves us with ROI, EVA, and Users use of the project or service.

One of the goals is to identify a measurement that is unambiguously calculated.

Many finance professionals will indicate that ROI is not ambiguous. Further research shows numerous problems with ROI when applied to any project involving information technology. Furthermore, EVA is not easily accessible, and cannot be calculated at the project level.

The final candidate for project success measurement, then, is **Users use product/service**.

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PRELIMINARY RESULTS ON WHISTLE BLOWING POLICY: A CONTENT ANALYSIS OF CODES OF ETHICS IN GLOBAL FORTUNE 500 FIRMS

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ABSTRACT

Since the passage of the Sarbanes-Oxley Act (SOX), there has been a heightened awareness of the need for protection of employees who report wrong-doing, not only among the business and legal/regulatory communities but also among stockholders and the general public. One way in which businesses can convey the importance they give to protecting whistle blowers is to stipulate policies regarding confidentiality, retaliation, and due process in their codes. The more prominent the company is the more important is the public relations need to take a clear and obvious stand on such policies.

The present study examined the on-line codes of ethics for the top half of the 2004 listing of Global Fortune 500 companies for the presence or absence of statements in their codes relating to whistle blowing policy. It represents preliminary results of a content analysis of the full set of Fortune 500 firms' on-line codes of ethics—a work still in progress. Three measures of whistle blowing policy will be classified as part of a scale of level of protection and due process, and then analyzed by demographic characteristics of the firms.

INTRODUCTION

The study of business ethics and, specifically, codes of ethics as one of the methods to enhance the ethical performance of businesses, has been an important concern since the defense industry scandals of the 1980s and the first of the codes date back to the 1940s with the Credo of Johnson & Johnson (International Labour Organization, http://www. Itcilo .it/ english/ actrav/ telearn/ global/ ilo/code/main.htm, accessed 5/23/2006). However, recent late 20th –early 21st century events have renewed and intensified the degree of interest in such codes. One only needs to review the corporate accounting scandals of the last few years to appreciate the need for renewed interest in the need and enforcement of business ethics. Bristol-Myers Squibb was accused of "channel stuffing", or forcing wholesalers to accept more inventory than they could sell in order to get the inventory off the manufacturer's books; Tyco was investigated to determine if the company was aware of tax evasion on the part of its ex-CEO, the inappropriate use of company funds and questionable related-party transactions as well as improper accounting merger practices. Of course, the Enron debacle has ethics violations issues in its accused practices of having boosted profits and hiding debts through the improper use of special purpose entities and off-the-books partnerships, bribing foreign governments to win lucrative contracts abroad and manipulating local energy markets.

LITERATURE REVIEW

The International Labour Organization (ILO), in their study of corporate codes of conduct, reviewed the history of codes of conduct, the highlights of the 1996 U S Department of Labor survey and International Centre for Human Rights and Democratic Development (ICHRDD) survey of 1996 and proprietary studies (Conference Board surveys of 1987 and 1991 and KPMG survey of 1996) of codes and conducted its own survey , collecting over 200 codes from multinational enterprises (MNEs) (ILO, 2002; ILO, www.itcilo.it/english/actrav/telearn/global/ilo/code/ main.htm, accessed 5/23/2006). Since only the report on the apparel industry and codes of conduct is still available (U.S. Department of Labor, 1996), this on-line summary by the ILO (www.itcilo. it/english/ actrav/ telearn/ global/ilo/code/main.htm, accessed 5/23/2006) of the other surveys is critical. Although there has been considerable variation in format for such codes including a statement of management philosophy, a credo, a set of values, statements of policies, compliance statements, or a letter from the President, CEO or Chairman of the Board of Directors (www.itcilo.it/english/ actrav/ telearn/ global/ ilo/ code/ main. htm, accessed 5/23/2006), two formats have begun to dominate, the "aspirational" code (broad principles) and the "compliance" code (specific commitments); compliance with these codes is not mandated by government, but it a form of self-regulation (Florini, 2003). In addition to company codes, there are also industry codes; professional codes; non-governmental organizations' codes; country, economic regional association, and international organization's codes, compacts, and agreements. Variables that have been hypothesized to influence the content of codes of ethics have included: national character (Langlois and Schlegelmilch, 1990); the industry (Diller, 1999); industry and multinationality (van Tulder and Kolk, 2001); and membership in a supply chain (Hughes, 2005; Sobczak, 2006). Certainly, in recent years, corporate codes of conduct have been influenced by the Sarbanes-Oxley Act (SOX) of 2002.

Whistle blowing protections found in the surveys of codes of conduct studied by the ILO varied, but, in general, in the majority of cases, there were no formal policies protecting employees who report wrong-doing or violations. (www.itcilo.it/ english/ ctrav/ telearn/ global/ ilo/ code/main.htm, accessed 5/23/2006). When it was created, SOX created special protections for whistle blowers in specific circumstances. Under SOX, public companies are barred from dismissing, demoting or otherwise discriminating or retaliating against an employee who provides information on wrong-doing that constitutes violation of federal law. SOX also provides for procedures to address retaliation and for remedies thereto.

Numerous authors have addressed the issue of whistle blowing from a descriptive point of view or a normative perspective. Some authors have attempted to prescribe successful approaches to facilitate whistle blowing (Callahan, Dworkin, Fort and Schipani, 2002; Lewis, 2006) or specific procedures, such as due process for the accused (Neuser, 2005), and others (Gundlach, Douglas and Martinko , 2003) have discussed the decision to report suspected wrongdoing from a social perspective. Still others have discussed the appropriate legal and ethical response of companies in light of the post Enron, SOX environment (Bryson, Bramnik, and Lutner, 2003; Rosenberg, 2004; Kinaga, 2006.)

Scholars have begun to address the impact of SOX on corporate codes and policies. Protections for whistle blowers are present under SOX, but Baynes (2002) has indicated that these may not provide sufficient protection in many instances. In addition, SOX does not address many common situations where a decision to blow the whistle must be made, as only circumstances that constitute violation of federal law are covered. Some reports have indicated, even in the presence of a SOX environment, a reluctance to report unethical or illegal activity (Verschoor, 2005.) In particular, a survey by Spherion Corporation (www.spherion.com/press/releases/2006/Blow_the_Whistle_Snapshot.jsp, accessed 9/15/06) indicated that approximately one third of workers (34%) surveyed had witnessed unethical behavior, but that less than half (47%) would report it. Fears of reprisals, including job loss were often cited as the reason.

Researchers have also started to consider other issues: whether or not variables such as country or source strategy influence the contents of codes (van Tulder and Kolk, 2001); whether or not workers' informal social learning about how the company actually responds to code violators can temper their responses (Kronzon, 2002); whether the best strategy to develop a code of conduct should be through principles or norms as opposed to rules or laws, and if that is culturally dependent or independent (Sama, 2006); and whether common codes of conduct developed by global supply chains are 100% voluntary or have some portion that is legal or quasi-legal (Sobczak, 2006).

This study looks at the extent to which codes of conduct for the largest and most prominent businesses have now been modified to include various forms of protection for informants and policies on due process.

METHODS

The methods for this study include several clusters of decisions, each of which will be discussed in turn: (1) selection of sampling frame, time frame, and segmentation variables; (2) selection of content analysis as the technique including related decisions such as selection of the employee code of ethics as the document; selection of the variables and measures to study protection for whistle blowers; selection of the approaches to use to increase reliability, objectivity, and systematization; and (3) selection of the hypotheses, data analytic techniques and significance tests for the hypotheses, and handling of sparse cells and/or other violations of assumptions.

The present study used the July 2004 listing of global fortune 500 firms (www.fortune.com, July, 2004) as the sampling frame to identify the set of 500 firms for analysis of their online employee codes of ethics and for their size and performance, country, and industry characteristics as potential segmentation variables. The time table was critically important to the methodology. Since there was about a six-month time lag between the publication of the listing of firms (based on 2003 performance) and the data collection of online employee codes of ethics beginning in 2004 and since the process of data collection for 500 firms is naturally lengthy, some sampling frame and some local history errors are unavoidable. Companies may be added and dropped for each year's list; companies may merge; the legal environment for the countries and economic regional associations, in which companies are based, may add, drop, and modify relevant legislation and regulation; and industries and other associations may also modify their codes.

Efforts were made to reduce these types of errors by anticipating the listing of firms from previous listings and by beginning data collection in spring 2004. Data collection lasted until late fall 2004. Preliminary data processing for content analysis has taken almost another year to select and print the documents, make up document books for the coders, create the measures from SOX and create coding forms, train the coders, monitor the coders, enter and verify data, and to identify all coding disputes and reconcile them. The expected completion date for the full data processing of the first time period is November 2006. If resources permit, the study may be replicated for the new July listing to enable a two period comparison at a later date (probably 2-3 years in the future).

The variables proposed for segmentation of the results on protection were those normally included in Fortune's annual listing of that year's 500 firms (with a one-year time lag)—number of employees; ranking; revenue, profits, assets, and equity in millions; country; and industry. Each of these was handled as a median split.

Content analysis is a technique originally better known in the social sciences and humanities than in business (Berelson, 1952; Krippendorf, 1980; Weber, 1990). Although marketing academics explored the technique as early as the 1970s and have evolved a fairly clear standard for using the technique on documents (Kassarjian, 1977; Krippendorf, 1980; Holbrook, 1977; Hughes and Garrett, 1990; and Kolbe and Burnett, 1991), it has not had the widespread acceptance as a method of business research that the survey has had. However, in certain circumstances, it is the very best choice, such as when the unit of study is the document (an artifact produced by the firm), rather than the firm, the firm's business activity, or the buyer or seller of the firm's goods. Content analysis is then used to identify, classify, and/or count the presence or absence of specific characteristics within the document—the researcher's specific themes. There are generally multiple documents (sometimes hundreds) and multiple coders (single coders sometimes in the basic, exploratory studies, but generally at least a pair in most studies so that reliability may be assessed and objectivity be enhanced) rather than only one or just a few stimuli (different firms, different brands, etc) and multiple respondents (usually hundreds) in a typical survey who are sharing their perceptions of the stimuli. Consequently, the data is often categorical or ordinal; the data analytic techniques are often non-parametric like t-tests or cross-tabulations; and the reliability analysis is often the percentage of agreement between all possible pairs of coders across all decisions.

Where does a document begin and end? In content analysis, the passage that is the part of the whole document for study must be clearly specified to enhance accuracy of interpretation—only apples, not apples plus oranges. On a web site that includes content for many different stakeholder groups on many pages, the latter can be a problem because it affects the time and resources needed to perform the analysis and it affects the response quality of the analysis. Too broad or too narrow a definition of a passage could lead to overlooking and undercounting or to inflating and overcounting a theme. Coders must have a common perception of the passage—a rule that they can use to set the boundaries on the text for analysis. According to the International Labour Organization (ILO), in the case of the code of ethics or guidelines for business conduct, this is often a type of document called a compliance code (ILO, 2002) that is only one approach to conveying to employees and other stakeholders the ethical and behavioral environment for the firm. It is also possible to have a statement of management philosophy, a credo, a set of values, statements of policies, compliance statements, or a letter from the President, CEO or Chairman of the Board of Directors. In their study of corporate codes of conduct, the ILO cites the Conference Board's definition of a compliance code as "…directive statements giving guidance and prohibiting certain kinds of conduct." This will be the format examined in this study. In addition, since some firms have generated a set of codes for different subsets of employees, the employee code of ethics will be the document for the broad audience, not the specialized audience—for example, only for senior financial officers or only for boards of directors. If there is any effect from this operational definition, it will likely understate, rather than overstate the level of concern with protections of informants and due process within these codes. However, it will be unambiguously the same phenomenon and it will be the most transparent because all these subgroups are still employees or other representatives of the firm and need to be made aware of whistle blower protections. It will be likely to be the first document that the public will examine in this category of documents. An additional advantage is that the search strategy that begins with the investor relations page(s) generally has the compliance code(s) on it.

Advance notice of protection for whistle blowers is critical in encouraging the reporting of wrong doing. Some protection is legally embedded in SOX for whistle blowing on violations of federal law, but the presence of explicit and /or stronger safeguards conveys a firm's strength of commitment to its code. So, too, does the presence or absence of explicit language regarding the applicability of the code to every situation and to every employee. Confidentiality and protection from retaliation allow informants a level of comfort that should encourage forthright disclosure of ethical lapses. Finally, the presence of an explicit due process also communicates a commitment to fairness that should foster a greater willingness on the part of whistle blowers to step forward.

Three measures (yes/no/not stated) were identified to assess the strength of a firm's commitment to the protection of informants and due process, as follows:

> Is the identity of the informant kept confidential?
>
> Is there a policy of no retaliation against informants?
>
> Is there a process in place to protect the rights of an accused employee prior to judgment?

Each of these was to be classified in one of three ways: (1) "yes" or definitely true; (2) "no" or definitely false; or (3) no statement one way or another. Choice #3 would reflect either an evasion of an issue or ignorance of an issue. In this preliminary study, because it uses only half the firms and there could be a lot of sparse cells when combined with the country, industry and firm variables, these responses were condensed to a definite "yes" or not. Then all "yes" responses were summed to create a scale measuring the intensity of the firm's commitment to protection within its code. The theoretical range of the scale is from zero to three. Four ranges were planned: zero "yeses" or no protection; one "yes" or weak protection; two "yeses" or moderate protection; and three "yeses" or strong protection.

In order to enhance reliability and objectivity, several pairs of independent student coders were used. Because of severe resource constraints, the same pair could not be used for the entire study. The co-authors pooled their limited hours of student help to make the project work. One diligent student with the highest available work hours completed the coding for all 500 firms by the end of the spring term. She was paired with four other students for blocks of firms (1-150, 151-250 for the first half; and 251-350, 351-500 for the second half that is now proceeding). The percentage of agreement, therefore, must be computed in four ranges and averaged.

Each coder was trained by the same co-author (a.k.a. administrator) and given a short (10 firm) pilot within his/her assigned block of firms that was then checked, corrected, and corrections explained to the student by the administrator. At any point, a coder could pose a question to the administrator (not each other) and then all coders receive a clarification. After the student's pilot, s/he was monitored every 50 firms for any problems that needed attention in the instructions or procedures. Once the team of coders had completed the first 250 firms, the administrator identified all coding disputes for 1 – 250, and independently made judgments on the appropriate response. The original and reconciled data sets were separately maintained to enable the computation of the percentage of agreement in blocks. The overall percentage of agreement was 80.69%. The percentage on the block from 1 to 150 was 81.95% and the percentage on the block from 151 to 250 was 78.8%.

This study proposed these two hypotheses, both in null form:

> There is no difference in the country or country grouping, industry or industry grouping, or firm characteristics of firms with online employee codes of ethics and of firms without online employee codes of ethics;
>
> There is no difference in the country or country grouping, industry or industry grouping, or firm characteristics of firms with online employee codes of ethics by the strength of their commitment to protection of whistle blowers and due process.

The method of data analysis chosen was cross-tabulations with a chi-square test at a level of .05 or better for significance. Whenever a test could not be conducted due to sparse cells, if a country, industry or firm characteristic could be reduced in level to enable the conduct of the test without violating the assumption of the five-in-a-cell rule, it was done. We hope this will be necessary only in the preliminary analysis; with the full 500 observations, the sparse cell problem should be greatly reduced. In terms of country and country groupings, the expectation was that the US based firms, the firms from the NAFTA and EU economic regional associations which have so many industrialized countries in them would have a greater level of protection. In terms of industry and industry groupings, the expectation was that financial services firms, industries that dominate the composition of the global 500 (the top five industries) collectively and individually, and retailing firms that may be more conscious of the buying public's attitudes would have a greater level of protection. Similarly, in terms of firm's characteristics, the expectation was that more visible, successful firms (by any measure of size or performance) would have a greater level of protection.

RESULTS

Table 1 on page 170 presents the profiles of the top 250 firms subdivided into the 75 firms without online employee codes of ethics and the 175 firms with online employee codes of ethics. There is no significant difference by industry or country for these two types of firms; there is, however, a significant difference between these two types of firms by economic regional association grouping. A much higher percentage of NAFTA-based firms have online codes; similarly, much smaller percentages of online code firms are based in the EU and all other countries. The top five industries represented by the 250 firms are banking, motor vehicles and parts, petroleum refining, telecommunications, and food and drug stores. When more narrowly defined industries are combined, there is a substantial presence of firms in the financial services industry and a smaller but still important presence of firms in retailing. The top five countries represented by the 250 firms are USA, Japan, France, Germany, and Britain—all industrialized countries. Table 2 on page 171 presents the size and performance characteristics of the 250 firms in the sample with the median split for number of employees, assets, profits and revenues indicated. All are large, successful firms, although they vary somewhat in how large and how successful.

Table 3 on page 171 presents the individual results on the three measures for whistle blower protection and due process. Of companies with an online employee code of ethics, the typical firm has an explicitly stated policy of no retaliation against the informant (58.3%) and an explicit confidentiality policy (56.6%). Not many companies have an explicit policy of due process for the accused (4.6%). When these individual measures are combined into a scale of strength of concern with protection, table 4 on page 171 shows that there are only 5 firms (2.9%) with all three protections in place Roughly one third of companies (34.9%) have no stated protection at all for whistle blowers, while nearly two thirds have a weak or moderate level of protection stated.

Table 5 on page 1722 shows that the second null hypothesis could only be partly rejected. There is no difference in level of protection in the median splits on rank by revenue, number of employees, profit, or equity. However, there is a difference in level of protection in the median split using assets as a size measure. Unexpectedly, the bottom half firms have a higher percentage of at least moderate protection than the top half firms, and the top half has a higher percentage without explicitly stated protection.

Country results show more US-based firms with stronger protection than non-US-based firms; there are more firms based in the top 5 countries with stronger protection as well. Additionally, in NAFTA-based firms, there are more companies with at least moderate protection of whistle blowers, and fewer with no stated protection than in the EU or other economic regions. Finally, there are no significant differences by industry in each of the top five industries collectively, nor in the financial or retailing industries individually.

DISCUSSION

This content analysis of the top 250 firms has shown that there is an expressed concern with providing safeguards for whistle blowers in the online codes of ethics, although the strength of that concern is variable. This study has found that, counterintuitively, the large and more recognized firms who are very large and well recognized but who are not the very largest and best recognized tend to be more concerned than those who are. The codes of ethics in these firms may have a stronger public relations function in communicating the firms' intentions and aspirations to their stakeholders.

Alternatively, the cost of monitoring the compliance with the codes (when they are fuller and more detailed with more points to monitor) may have a negative impact on productivity. The technique of content analysis cannot probe the reasons behind the content in the codes; future research, probably survey, should explore the reasons for the choices made in the codes.

There is also more of an interest in protecting whistle blowers among US based firms—suggesting either a cultural or a political/legal orientation in the content of these codes that differs from MNEs with other country-bases. Further research should explore, again probably by survey, why the executives charged with developing the codes have chosen to specify protections.

The study has both clear limitations and clear benefits. As a content analysis, it takes much longer than a survey and is consequently less current. As a content analysis, it cannot probe the reasons behind the phenomena as an interview could. Even with procedures to enhance reliability and objectivity, there is still misclassification and miscommunication. The preliminary study only covers half of the full sample and has too many sparse cells to test some interesting relationships. However, it does provide an update on the earlier surveys of the content of codes of ethics. It shows a relatively high level of adoption of online codes in this prominent group of firms and a moderately high level of concern with protection of informants.

CONCLUSION

Parts of both null hypotheses could be rejected. Firms with online employee codes of ethics did differ from firms without such codes by country grouping but not by industry. Firms with at least moderate concern with whistle blower protection were more likely to be in the lower median group than the upper median group for asset size. Firms with at least moderate to concern with whistle blower protection were more likely than not to be US-based or NAFTA members.

Both confidentiality and a policy of no retaliation were commonly stated by firms having protections within their online employee codes of ethics.

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Table 1: Profile of the Sample, N=250, Top Half of 2003 Global Fortune 500 Firms (July, 2004)

Industry and Country Characteristics	Firms with Online Codes for Employees Base = 175		Firms without Online Codes for Employees Base = 75		All 250 Firms Base = 250	
	Number	Percent	Number	Percent	Number	Percent
Top Five Industries	69	39.4	31	41.3	100	40.0
Banking	20	11.4	9	12.0	29	11.6
Motor Vehicles and Parts	12	6.9	8	10.7	20	8.0
Petroleum Refining	13	7.4	6	8.0	19	7.6
Telecommunications	13	7.4	4	5.3	17	6.8
Food and Drug Stores	11	6.3	4	5.3	15	6.0
Firms in Financial Industry	44	25.1	21	28.0	65	26.0
Banking	20	11.4	9	12.0	29	11.6
Insurance	16	9.1	11	14.7	27	10.8
Diversified Financials	3	1.7	1	1.3	4	1.6
Trading	2	1.1	0	0.0	2	0.8
Securities	3	1.7	0	0.0	3	1.2
Retailing	18	10.3	8	10.7	26	10.4
General Merchandisers	3	1.7	4	5.3	7	2.8
Specialty Retailers	4	2.3	0	0.0	4	1.6
Food and Drug Stores	11	6.3	4	5.3	15	6.0
Top Five Countries	144	82.3	58	77.3	202	80.8
USA	88	50.3	12	16.0	100	40.0
Japan	24	13.7	16	21.3	40	16.0
France	10	5.7	14	18.7	24	9.6
Germany	10	5.7	11	14.7	21	8.0
Britain	12	6.9	5	6.7	17	6.8
Country Groupings	175	100	75	100	250	100
NAFTA	90	51.4	12	16.0	102	40.8
EU	57	32.6	36	48.0	93	37.2
All Other	28	16.0	27	36.0	55	22.0

Key: For variables in bold, Chi-square test is significant at .05 or better level between firms with and those without online codes

Table 2: Median Values for Size and Performance of Firms in Sample

Size and Performance Variables	Median
Number of Employees	86,670
Equity	32,728 (millions)
Assets	55,069 (millions)
Profits	314.6 (millions)
2003 Revenues	32,505 (millions)

Table 3: Three Measures for Whistle Blowing,
N = 175 with On-Line Codes of Ethics for Employees

Measures	Number of "Yes" Responses	Percent of "Yes" Responses
Informant identity confidential	99	56.6
No retaliation policy	102	58.3
Due process for accused	8	4.6

Table 4: Scale Response Characteristics for Strength of Protection for Whistle Blowing

Level of Response	Possible Range of Summed "Yeses"	Number of Firms	Percent of Firms, Base =175
No On-line Code	--	75	--
Yes On-line Code	0-3	175	100%
No Protection	0	61	34.9
Weak Protection	1	24	13.7
Moderate Protection	2	85	48.8
Strong Protection	3	5	2.9

Table 5: Comparative Profiles of Firms with Different Protection for Whistle Blowing in Their On-Line Codes* #

Characteristics of Firms In Relationship to Reduced Sample of 175	All 175 Firms		No Protection		Weak Protection		Moderate Protection		Strong Protection	
	#	%	#	%	#	%	#	%	#	%
Number of Firms with Codes	175	100	61	34.9	24	13.7	85	48.6	5	2.9
Rank by Revenue--Top Half of Median Split	95	100	33	34.7	17	17.9	41	43.2	4	4.2
Rank by Revenue—Bottom Half of Median Split	80	100	28	35.0	7	8.8	44	55.0	1	1.3
Number of Employees--Top Half of Median Split	88	100	35	39.8	11	12.5	38	43.2	4	4.5
Number of Employees—Bottom Half of Median Split	87	100	26	29.9	13	14.9	47	54.0	1	1.1
Profit--Top Half of Median Split	86	100	25	29.1	13	15.1	45	52.3	3	3.5
Profit—Bottom Half of Median Split	89	100	36	40.4	11	12.4	40	44.9	2	2.2
Assets--Top Half of Median Split	**90**	**100**	**41**	**45.6**	**11**	**12.2**	**35**	**38.9**	**3**	**3.3**
Assets—Bottom Half of Median Split	**85**	**100**	**20**	**23.5**	**13**	**15.3**	**50**	**58.8**	**2**	**2.4**
Equity--Top Half of Median Split	85	100	24	28.2	12	14.1	45	52.9	4	4.7
Equity—Bottom Half of Median Split	90	100	37	41.1	12	13.3	40	44.4	1	1.1
Number and Percent in USA	**88**	**100**	**5**	**5.7**	**10**	**11.4**	**69**	**78.4**	**4**	**4.5**
Number and Percent in Not USA	**87**	**100**	**56**	**64.4**	**14**	**16.1**	**16**	**18.4**	**1**	**1.1**
Number and Percent in Top 5 Countries	**144**	**100**	**42**	**29.2**	**20**	**13.9**	**77**	**53.5**	**5**	**3.5**
Number and Percent not in Top 5 Countries	**31**	**100**	**19**	**61.3**	**4**	**12.9**	**8**	**25.8**	**0**	**0.0**
Number and Percent in NAFTA	**90**	**100**	**6**	**6.7**	**10**	**11.1**	**70**	**77.8**	**4**	**4.4**
Number and Percent in EU	**57**	**100**	**33**	**57.9**	**9**	**15.8**	**14**	**24.6**	**1**	**1.8**
Number & % in All Other Countries	**28**	**100**	**22**	**78.6**	**5**	**17.9**	**1**	**3.6**	**0**	**0.0**
Number and Percent in Top Five Industries	69	100	27	39.1	13	18.8	28	40.6	1	1.4
Number and Percent in All Other Industries	106	100	34	32.1	11	10.4	57	53.8	4	3.8
Number and % in Financial Industry	44	100	20	45.5	4	9.1	20	45.5	0	0.0
Number and % not in Financial Industry	131	100	41	31.3	20	15.3	65	49.6	5	3.8
Number and Percent in Retailing	18	100	3	16.7	4	22.2	9	50.0	2	11.1
Number and Percent Not in Retailing	157	100	58	36.9	20	12.7	76	48.4	3	1.9

Key: *** For variables in bold, the Chi-square test is significant at .05 or better** .
There were no firms with "very strong" protection for whistle blowing.

ON THE PROCESS OF WAGE ADJUSTMENT IN US AND PA: USING THE PHILLIPS-TYPE MODEL

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ABSTRACT

The adjusted Phillips-type model does a decent job in explaining wage adjustment for both the U.S. and PA manufacturing sector, showing a typical adjustment to price inflation expectation and the labor market tightness. Interestingly, however, it is shown that the US wage adjusts to the *long-run* labor market force, while the PA manufacturing wage adjusts to a short-run change in the labor market. The adjustment of the PA wage to price inflation expectation, on the other hand, appears to be much bigger for the PA manufacturing sector. When alternative demographic variables of unemployment are included in the model, the effect of aggregate unemployment rate is completely captured by one of the variables, the percent of unemployed of age 25 and older for the national model. The PA model also shows a significant effect of the same variable. This finding leads us to the suggestion that aggregate unemployment might not be a very effective measure of the labor market tightness and also that the effect of the long-run labor market force for the PA wage is revealed in a different way, only when alternative demographic variables are included in the model.

INTRODUCTION

The history of US economy reveals that both price and wage inflation followed a fairly predictable pattern in relation to the business cycle - it increased during an economic expansion, peaking slightly after the beginning of a recession, and then continued to decrease through the early stage (first or second year) of a recovery. It has been reported, however, that US inflation during the post-1991 period showed a noticeably different pattern. The rates of price and wage inflation have been surprisingly low during the post-1991 period, and failed to accelerate despite strong real growth and a falling unemployment rate until the late 1990s. The traditional Phillips curve models have tended to overpredict actual inflation for the post-1991 inflation.

Lown and Rich (1997) found that traditional Phillips curve model overpredicts price inflation during the 1990s recovery, and that it is partially explained by unusually low wage (compensation) growth, but the reason why it was like it was left unanswered. Duca (1996) also found that wage inflation is overpredicted by the basic Phillips curve model, and that the unusually high duration of unemployment add more information to explain the unexplained portion of wage inflation for the post 1991 period. Hyclak and Ohn (2001), using an adjusted wage Phillips curve model, confirmed the finding of Lown and Rich on the overprediction of the traditional Phillips curve model and Duca's finding on the negative effect of unemployment duration in forecasting the wage (compensation) inflation during the 1990s recovery. They further showed that, while the unemployment duration moved in tandem with the lagged unemployment rate until about the end of the 1991 recession, the post-1991 duration has been surprisingly higher than can be tracked by the unemployment rate and remained close to peak value until the mid-1990s. Hyclak and Ohn also showed the significant role of demographic variables in explaining the unusually high unemployment duration during the post-1991 recovery and conclude that recent change in the labor market such as technological change and corporate restructuring might be expected to result in a high fraction of older workers and a longer duration of unemployment for those groups, which should have a significant negative effect on wage inflation.

This paper performs a comparative analysis on the process of wage adjustment in US and PA State, especially focusing on the relationship between wage inflation, price inflation expectation, and unemployment rate and demographic variables, using a basic and adjusted Phillips-type wage models. Importantly, we check if the above overprediction pattern still exists in wage adjustment during the 2000s, and if the adjustment pattern found in the national level is also found in the PA State level. Importantly, we will examine how effectively the adjusted wage model explains and predict actual wage adjustment, both quantitatively and graphically.

DATA AND TEST MODEL

We examine the quarterly wage adjustment using a relatively simple Phillips-type model of wage adjustment, which follows the specification of Alogoskoufis and Smith (1991) and Hyclak and Ohn (1997, 2001). It represents labor market forces by the lagged level of unemployment as well as current change of unemployment, and controls for inflation expectation first by the lagged price inflation and then by expected rate of price inflation. Our basic test model is

$$\Delta w_t = \beta_0 + \beta_1 E(\Delta p_t) + \beta_2 u_{t-1} + \beta_3 \Delta u_t + e_t$$

where Δw_t is quarter-to-quarter wage inflation, u_{t-1} is the lagged level of unemployment, Δu_t, is the current change of unemployment, and $E(\Delta p_t)$ is price inflation expectation. In the basic model (M I), the lag of actual price inflation, Δp_{t-1}, proxies for price inflation expectation, while in the adjusted models (M II, III, and IV), expected rate of GDP price inflation projected at the end of the previous period, $E(\Delta p_t)$, from the Survey of Professional Forecasters at the Federal Reserve Bank of Philadelphia, is included to control for price inflation expectation. The lagged level of the unemployment rate is expected to represent a *long-run* change in the labor market force, and a current change of the unemployment rate to capture a *short-run* change in the labor market force. The three alternative variables are included to reflect the recent labor market change which has not been fully captured by aggregate unemployment as suggested by Duca (1996) and Hyclak and Ohn (2001) - the duration of unemployment, *DUR*, the percent of unemployed of age 25 and older, *R25*, and the fraction of unemployed due to permanent jobloss, *JOBL*. The adjusted model is

$$\Delta w_t = \beta_0 + \beta_1 E(\Delta p_t) + \beta_2 u_{t-1} + \beta_3 \Delta u_t + \beta_4 DUR_{t-1} + \beta_5 R25_{t-1} + \beta_6 JOBL_{t-1} + e_t$$

Including the duration of unemployment, *DUR*, is based on the hypothesis that the longer a worker is unemployed, the lower wage the worker is willing to accept, thus lowering the reservation wage of the worker. It is particularly true for the unemployed that result from skill-biased technology change and resulting structural unemployment. Including the percent of unemployed of age 25 and older is based on the hypothesis that, considering skill-biased technology change and corporate downsizing have a more serious impact on older workers, the higher the percent of unemployed of age 25 and older, the lower wage the workers are willing to accept[xxxi] We thus expect a significant negative effect of those two alternative variables on wage adjustment model. Including the percent of unemployed due to permanent job-losing is based on the hypothesis that, the higher the percent of permanent job-losing, the lower wage the workers are willing to accept. We again expect a significant negative effect of those two alternative variables on wage adjustment model.

The wage and the unemployment rate for the national and PA state used in this paper are available at the Bureau of Labor Statistics (BLS). The national wage data we use include total hourly compensation for the national non-farm business sector and the PA wage is for the PA manufacturing sector. The duration of unemployment, the percent of unemployed of age 25 and older, and the unemployed due to permanent job loss are obtained from the Current Population Survey. The expected price inflation is the rate of GDP price inflation reported at the Survey of Professional Forecasters by the Federal Reserve Bank of Philadelphia.

ESTIMATION RESULTS

Table 1 on page 177 summarizes the estimation results on the four different versions of the Phillips-type wage adjustment models. The first model (M I) is the very basic wage model which includes three basic variables: lagged price inflation (a proxy for price inflation expectation), lagged unemployment rate (*long-run market force*), and current change in unemployment rate (*short-run change in labor market force*). The second model (M II), while controlling for a quarter-to-quarter persistence of wage inflation by including lagged wage inflation, controls for price inflation expectation by including expected price inflation (from the Philadelphia FED) directly. The duration of unemployment is included in the third model (M III), and then two additional labor market variables are included in the fourth model (M IV), in order to capture the effect of recent labor market force, which may not have been fully captured by aggregate unemployment. In all four models, the effect of price inflation expectation is shown to be a major factor in wage iadjustment. Both the US and PA models show a significant coefficient for price inflation expectation. It is shown, however, that the adjustment to price inflation expectation is much better explained by directly including expected price inflation rather than lagged actual price inflation. When we replace lagged price inflation with expected price inflation in Model II, the coefficient for the variable has increased significantly from 0.45 to 0.99 for the US, and from 0.43 to 1.29 for the PA, and R^2 increased from 0.33 to 0.53 for the US results and from 0.32 to 0.38 for the PA results. Interestingly, the magnitude of wage adjustment to price inflation expectation is much larger for the PA manufacturing wage. While the effect of labor market tightness is not captured in the first model (M I), even showing a mis-fitting in the PA wage, it is clearly revealed in the second model (M II) but in different way – the national wage shows a significant effect of the long-run labor force, -0.69 (lagged unemployment), but the PA wage shows a significant effect of the short-run change in the market force, -2.12 (current change in unemployment rate).

When an alternative unemployment variable (duration of unemployment) is included in the third model (M III), the significant effect of lagged unemployment rate (long-run market force) for the national level is completely captured by the duration of unemployment (-0.35), with little impact on the PA wage, which seems to lead to the suggestion that aggregate unemployment rate might not be a very effective measure of the labor market tightness in the national wage adjustment.

When we include two additional variables of labor market - the percent of unemployed of age 25 and higher, $R25_{t-1}$, and the percent of unemployed due to permanent jobloss, $JOBL_{t-1}$, in the fourth model (M IV), the significant effect of unemployment duration in the national level is completely captured by the effect of *R25* (-0.25), with no significant effect of *JOBL* in the national model. Interestingly, however, the PA wage model shows a significant effect of *R25* (-0.36), along with a significant effect of current change in unemployment rate, Δu_t (-2.06). It appears that while the adjustment of the PA wage to a short-run market force is easily captured in the basic adjusted model, its adjustment to the long-run labor force is only revealed in the form of a significant effect of the percent of unemployed of age 25 and older, *R25*, as shown in Model IV.

Figure 1 on page 178 compares actual and forecasted wage inflation for the post-1991 period to the mid-2000s. The upper graphs show actual and predicted wage inflation for the US and PA based on the very basic model, Model I. The US model clearly shows overprediction pattern not only during the 1990s period, which is consistent with Duca (1996), Lown and Rich (1997), and Hyclak and Ohn (2001), but it is also found during the 2000s. Interestingly, however, the PA model does not show any overprediction pattern during the 1990s period, but it is found during the mid-2000s, starting around 2003. The lower graphs which compare actual and predicted wage inflation based on the adjusted Phillips-type wage model in Model IV for both US and PA. Most of the overprediction pattern both in the US and PA model disappears, and it shows a significantly improved predicting power for both the U.S. and PA level. It suggests that 1) the adjusted wage model with direct measure of expected price inflation in the model fits actual wage inflation better and 2) alternative demographic variables not only add to the explanatory or predictive power in the model, which was not well explained by aggregate unemployment rate, but also capture its effect in the national wage adjustment, and 3) the adjustment of the PA wage to the long-run labor force is only revealed by the adjusted wage model with alternative demographic variables (M IV), not by the basic model (M I or II or III).

CONCLUSION

In this paper, we performed a comparative examination on the wage adjustment to price inflation and the labor market forces represented by the unemployment rate and three demographic variables of unemployment for the US non-farm business and PA manufacturing sector. First, we find that the wage Phillips-type models do a decent job in explaining wage adjustment for both the U.S. and PA level. We find a typical strong positive adjustment to price inflation expectation and a typical negative adjustment to the labor market tightness represented by the unemployment variables in both the US and PA results. However, while the US wage shows a significant adjustment to a long-run change in the labor market, the PA manufacturing wage shows a prompt adjustment to a short-run change in the labor market force. With the three alternative variables of labor market forces, we find that the adjustment of the US wage to aggregate unemployment is completely captured by the significant effect of the percent of unemployed of age 25 and older, implying that the alternative variable reflect the recent labor market force more effectively. The PA wage still shows a significant adjustment to a short-run change in the labor market, but its adjustment to a long-run labor market change is revealed in the form of a significant effect of the same variable, the percent of unemployed of age 25 and older, R25.

The comparison of actual and forecasted wage inflation based on a very basic model shows that the US model shows overprediction pattern not only during the 1990s period but during the 2000s, while the PA model shows the overprediction pattern during the mid-2000s. The actual and predicted wage inflation based on the adjusted wage model with three alternative demographic variables shows that most of the overprediction pattern both in the US and PA model disappears. It suggests that the adjusted wage model with direct measure of expected price inflation and alternative demographic variables not only add to the explanatory or predictive power of the wage model, but also capture the effect of aggregate unemployment rate in the wage adjustment. Importantly, the adjustment of the PA wage to the long-run labor force is only revealed by the adjusted wage model with alternative demographic variables (M IV).

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[xxxi] The BLS database divides the entire unemployed in three age groups – age of 16-24, 25-54, and 55 and over. Considering the skill-biased technological change and corporate downsizing is likely to have more serious impact on older workers in the major work force, *R*25 is expected to capture the impact of recent labor market forces above, as shown in Hyclak and Ohn (2001).

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Table 1. Test Results on the Phillips-Type Wage Model for the U.S. and PA, 1975-2005

Regression Results

	United States				Pennsylvania State			
	M I	M II	M III	M IV	M I	M II	M III	M IV
Constant	3.38**	4.40**	7.97**	16.69**	-0.77	0.62	2.06**	19.28*
	(1.09)	(0.98)	(1.48)	(3.46)	(1.10)	(1.05)	(2.73)	(8.22)
Δw_{t-1}		0.25**	0.16^{+}	0.07		0.03	0.02	0.00
		(0.08)	(0.09)	(0.09)		(0.10)	(0.10)	(0.10)
$E(\Delta p_t)$[a]	0.45**	0.99**	0.80**	0.47**	0.43*	1.29**	1.20**	0.68*
	(0.08)	(0.16)	(0.17)	(0.14)	(0.07)	(0.22)	(0.30)	(0.31)
u_{t-1}	-0.02	-0.69**	-0.24	-0.34	0.40*	-0.31	-0.24	-0.47
	(0.17)	(0.18)	(0.22)	(0.34)	(0.16)	(0.19)	(0.30)	(0.37)
Δu_t	1.02	0.22	-0.45	-0.13	-0.82	-2.12**	-2.40**	-2.06^{+}
	(0.73)	(0.62)	(0.63)	(0.69)	(0.94)	(0.95)	(1.05)	(1.17)
DUR_{t-1}			-0.35**	-0.10			-0.10	0.00
			(0.11)	(0.13)			(0.21)	(0.19)
$R25_{t-1}$				-0.25**				-0.36*
				(0.06)				(0.16)
$JOBL_{t-1}$				0.10				0.14
				(0.09)				(0.14)
R^2	0.33	0.53	0.57	0.60	0.32	0.38	0.38	0.41
DW	1.68	2.13	2.10	2.05	1.68	1.93	1.94	1.97

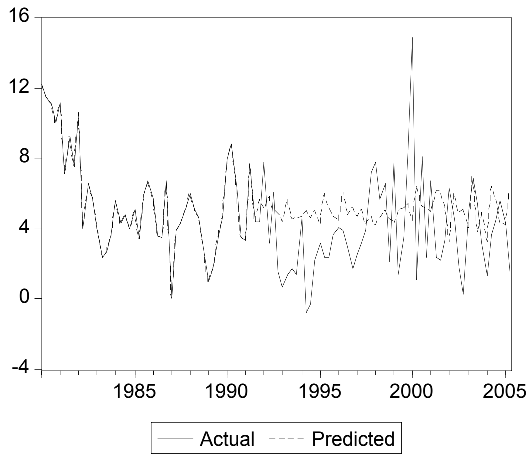
[a] $E(\Delta p_t)$ is expected price inflation based on the GDP price inflation, which is reported by the Federal Reserve Bank of Philadelphia. In the very basic model in Model I, however, it is the lag of actual price inflation, Δp_{t-1}, from the Bureau of Labor Statistics.

In the regression results, standard errors of the coefficients are in (parentheses). ** significant at the 1%, * significant at the 5%, $^{+}$ significant at 10%.

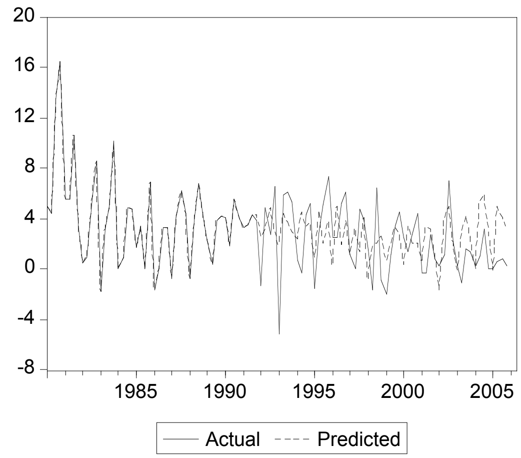
Figure 1. Actual vs Forecasted Wage Inflation based on Model 1: U.S. vs PA

A. Actual vs Forecasted Wage Inflation Based on Model 1, 1992-2005.

U.S.

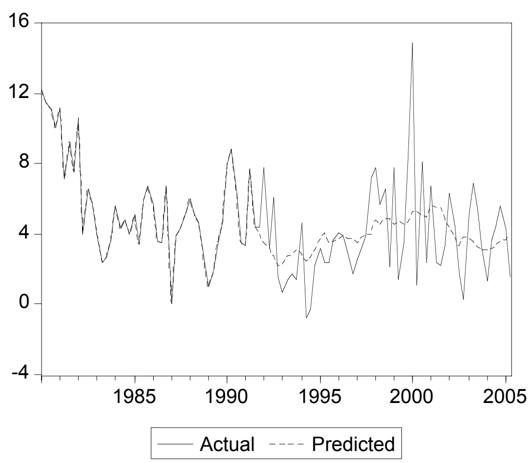


PA

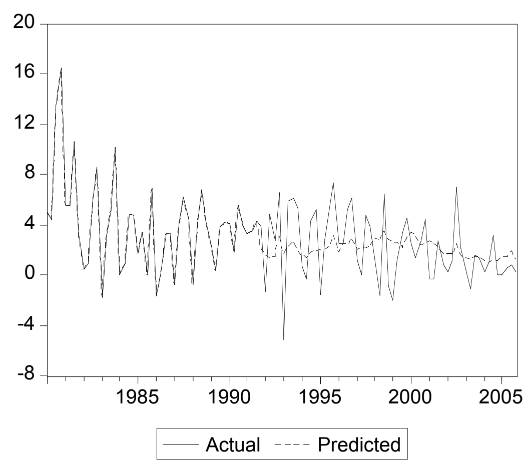


B. Actual vs Forecasted Wage Inflation Based on Model IV, 1992-2005

U.S.



PA



INTEGRATING INFORMATION TECHNOLOGY IN UNDERGRADUATE TAX ACCOUNTING CURRICULUM

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ABSTRACT

The use of information technology has become a key part of teaching accounting curricula. Individual and corporate tax courses are changing how the curriculum is delivered. Tax preparation software, tax research databases, spreadsheets, the Internet, and specialized software can be integrated into the tax curriculum to provide students hands-on experience with technology used in the field and to improve the learning process. This paper presents the experiences of integrating information technology in undergraduate tax accounting curriculum at a medium-size, AACSB-I accredited, regional state university.

INTRODUCTION

Albrecht and Sack's seminal 2000 study on improving accounting education called on accounting programs to produce accounting graduates that possess information technology skills (p. 57), and recommended that accounting programs include "technology assignments to teach technology" (p. 64). Despite this call from Albrecht and Sack and others -- see, e.g., AAA, 1986, 1987; IFAC, 1995 -- research indicates that coverage of information technology will be lower than faculty members' perceived level of the importance (Chang & Hwang, 2003). This paper presents our experiences integrating information technology in undergraduate tax accounting curriculum at a medium-size, AACSB-I accredited, regional state university.

UNDERGRADUATE TAX ACCOUNTING CURRICULA

The undergraduate tax accounting curricula consists of two courses, Federal Tax Accounting and Advanced Federal Tax Accounting. Consistent with the traditional approach to teaching accounting, Federal Tax Accounting covers an introduction to taxation, individual taxation, and the Schedule C. Advanced Federal Taxation covers the taxation of corporations, partnerships and other flow-through entities, as well as estates and trusts. In addition, students have the ability to participate in the university's Volunteer Income Tax Assistance program, a program that prepares and electronically files approximately

Federal Tax Accounting

After three years of trial and error, information technology is now integrated in the Federal Tax Accounting in a number of different ways – through tax preparation software, through spreadsheets, through tax research databases, through the Internet, through online course platforms, and through specialized software.

Tax Preparation Software

Tax preparation software is integrated in Federal Tax Accounting in two ways. First, students prepare tax returns using TurboTax. TurboTax now comes bundled with the West taxation texts (see, e.g., Willis et. al., 2007). Because accounting students are likely to use such software for their own returns and because accounting students are likely to be asked by other *pro se* filers questions about such tax preparation software, it is important that students become familiar with such software, even if they are unlikely to use it for professional tax preparation work. Students are required to e-mail their tax returns to the instructor, so that the instructor can tell by the file type that TurboTax was used to prepare the returns.

Second, students prepare tax returns using ProSeries. ProSeries is now available with no charge from Intuit as part of Intuit's Educational Institute Software Program. See, http://www.proseries.com/training/edu_program_overview.aspx. Again, students are required to e-mail their tax returns to the instructor, so that the instructor can tell by the file type that ProSeries was used to prepare the returns.

Tax Research Software

In addition to preparing returns using tax preparation software, students perform research on tax law using CCH Tax Research Network, which is available on-line to accounting students. (RIA tax research comes bundled with the West texts, for those without such access.) Students the CCH Tax Research Network to prepare tax memoranda on various hypothetical fact situations for hypothetical clients. Students are required to research classical tax cases, such as *Commissioner v. Flowers* (1945) and *Corn Products* (1955). Topics include travel away from home, the classification of various property transactions as inventory or § 1231 property or as capital property, and the like. The department also arranged for professional trainers from Commerce Clearing House to train students on CCH Tax Research Network.

Internet

In addition to preparing returns using tax preparation software and in addition to using tax research software, students are required to use the Internet to gather information related to taxation. Students are required to retrieve forms from the IRS, retrieve information from the principal Enrolled Agent web site, and retrieve information from various courts' websites.

Advanced Federal Tax Accounting

Multiple technologies are currently integrated into the Advanced Tax curriculum including a course website, professional tax software, online tax research databases, spreadsheet, and word processing software. Additional software currently used in the field is demonstrated in class.

The course website includes announcements, course information, staff information, email, threaded discussion, automated class lectures, selected text solutions, grading and links. Students submit assignments through digital drop box and have real time access to their grades.

ProSeries professional tax software is used for multiple assignments. The software is licensed to the University through Intuit. Students have been required to prepare tax returns for C-corporations, S-corporations, and partnerships. Students have also completed a C-corporation tax return using TurboTax for Business. Similarities and differences in the software interfaces and functionality are highlighted through the assignments and resulting class discussion. In addition, students have been provided with in-class demonstrations of Ultra Tax, and Pro System Fx to provide a broad exposure to professional tax software.

Electronic spreadsheets are used extensively by tax professionals in the field. Many tax return supporting schedules and advanced calculations are performed using spreadsheets. Students have been required to submit Excel assignments on the course website. Students are required to create a spreadsheet for Form 1120 Schedule M-1 and additional supporting statements.

Students complete basis calculations in Excel for multiple years for an S-Corporation with three shareholders. The S-corporation has losses in the early years which reduce stock basis to zero. This results in shareholder loans to the corporation to create additional basis in debt. Losses completely eliminate both stock and debt basis. In the out years the entity passes through enough income to restore debt basis, restore stock basis and provide for cash distributions to the shareholders.

Students have also been required to submit an Excel spreadsheet for allocation of partnership income and losses. This assignment involves a limited partnership with losses in excess of capital contributions, allocations to general and limited partners, and personal guarantees of debt by selected limited partners. Students provide calculations to limit pass-through losses to the limited partners with the excess losses passed through only to the general partners who have basis in partnership debt. In addition, the general partner is another partnership providing students with exposure to tiered partnership arrangements. Students also create an Excel spreadsheet for Form 1041 Trust calculations including distributable net income (DNI) and trust taxable income.

Students in Advanced Taxation are required to use the CCH online research databases for federal tax research. Tax research papers are submitted in word processing software formatted as facts, issues, discussion, conclusions/recommendations.

Additional technologies demonstrated in class include FAS depreciation software, PPC tax research databases, specialized software such as Steve Leimburg's number cruncher, present value and amortization software. There is additional discussion of the paperless office, the extensive use of notebook computers in the field, personal data assistants, wireless communications, and integration of tax software with other software such as CCH Trial Balance and Audit Vision.

Volunteer Income Tax Assistance Program

Although not an official part of the accounting curriculum, students are encouraged to participate in the university's Volunteer Income Tax Assistance Program. To help students gain an understanding of information technology, the program began filing tax returns electronically as part of its Volunteer Income Tax Assistance (VITA). The program uses the TaxWise software provided by the IRS. Last year, students prepared and electronically filed approximately 180 state and federal tax returns.

RESULTS

Informal discussions with students indicate positive experiences with this integration of information technology in the undergraduate tax accounting curriculum. In addition, experiences are formally evaluated in Federal Tax Accounting with an anonymous supplemental questionnaire that is administered at the same time as the formal class evaluations. This questionnaire has two questions that are generally related to integration of information technology in the undergraduate tax accounting curriculum, namely:

For each area listed below, please select the response that best describes your personal level of knowledge or understanding gained from this course:

5 Strongly Agree
4 Agree
3 Neither Agree Nor Disagree
2 Disagree
1 Strongly Disagree

1. I have an ability to prepare individual tax returns by hand & by computer.

   5 4 3 2 1

2. I have the ability to use the Internet as a tool for tax research and to obtain various tax documents.

   5 4 3 2 1

Table 1 shows the results of this survey for the past six semesters. A regression analysis of the data (not shown) indicate a positive, but not significant correlation between the introduction of using TurboTax and ProSeries in Federal Tax Accounting and TaxWise in the VITA program in the Fall of 2005.

Table 1
Summary Data

Q1						
Mean	4.21	4.63	3.68	4.47	4.45	4.29
	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Spring 2006
Q 2						
Mean	4.68	4.84	4.32	4.84	4.70	4.74
	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Spring 2006

DISCUSSION

Clearly, more statistical analysis needs to be done with the limited survey data available. For example, where possible such control variables as class grade point average, and student grade point average need to be included. Further, the surveys, which were inherited by the authors, need to be refined. For example, both questions are double-barreled questions; a student may have increased ability to prepare tax returns by computer and less ability to prepare it by hand, and this would stilt responses to question 1 in regards to information technology. The authors will develop a revised survey instrument to collect data related to course objectives, technology needs, and a proposed notebook computer requirement.

CONCLUSION

Contrary to commonly held expectations, incoming accounting students have limited information technology skills (Stoner, 1999). This paper details what we have done to integrate information technology in the tax accounting curriculum. While the results are positive, clearly more can be done. Future plans under consideration include making the VITA a separate course, which would expose students to additional use of information technology. The authors will collect additional data from both federal taxation and advanced federal taxation. This will provide approximately 100 observations for the refined survey instrument for use during fall 2006 and spring 2007.

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THE PPD SERIES: AN INTEGRATED LEADERSHIP AND ADVISING CURRICULUM

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ABSTRACT

Leadership and emotional intelligence are essential competencies in business leaders. The concept of emotional intelligence was brought to the forefront of leadership building by Daniel Goleman in his book, Emotional Intelligence (1995). At Wilkes University, the Personal and Professional Development Series (PPD) was developed to address the dual concerns of personal and professional leadership development for students in the Jay S. Sidhu School of Business and Leadership. Concepts in emotional intelligence and leadership are the foundations of this integrated advisement and leadership program. Using the guidance of Daniel Goleman (1995, 1998, 2002, 2003), Jay Sidhu (1994), and Tucker, Sojka, Barone, and McCarthy (2000), the PPD Series was organized to deal with student change readiness through the components of assessment/feedback, content/context, and modeling/coaching. The PPD Series incorporates conceptual and experiential learning and helps students to develop their own approach to life planning. Plans are being developed for program evaluation and longitudinal assessment of student personal and professional development throughout the program and beyond.

INTRODUCTION

Collegiate business programs at the undergraduate level prepare students for entry level contribution in both profit and nonprofit industries, in entrepreneurial ventures, and for graduate study in several fields. What is this contribution? Many business programs are defining this contribution as various aspects of leadership development especially leadership in identifying opportunities, motivating stakeholders, effective decision-making, ethical behavior, sustainability, and accountability.

The global business community is certainly changing and in need of agile and effective leaders. For example, David Murphy, Vice President of Human Resources at Ford Motor Company, views "grassroots leadership as the best vehicle for creating a nimbler business". According to Mr. Murphy, Ford needs 'people at all levels who will take risks, who are prepared to coach and to counsel, and who can make decisions" (Hammonds,2000,138). When describing the necessary traits of leaders in the international environment, Sir John Whitmore, the noted UK business consultant and author, cited emotional intelligence, inspiration, agility, self-knowledge, and a mind open to knowledge (Jayne, 2005).

THE SIDHU SCHOOL PROGRAM

At the Jay S. Sidhu School of Business and Leadership at Wilkes University we are developing learners who have the necessary content and competencies to begin the journey to leadership in business. Our program "combines a strong core business education with the development of skills for authentic leadership and ethical business practices" (Wilkes University Undergraduate Bulletin, 2006).

The Sidhu School faculty designed a program to enhance the development and nurturance of emotional intelligence and leadership in our undergraduate students. Specifically, we designed an integrated curriculum that encourages student self-development through three interconnected components: academic business foundations, career preparation, and leadership development" (Wilkes University Undergraduate Bulletin, 2006). The connecting thread is the Personal and Professional Development Series (PPD). The PPD was designed to achieve the following goals:

1. An engaging and effective advising process, and
2. A learning adventure that combines cognitive, affective, and behavioral experiences to help our students achieve their goals.

Since these two goals are dynamically interrelated, our approach is also interrelated -- as an integrated advising/curriculum approach.

Each semester, Sidhu students take a one-credit PPD course. The course activities will allow time for self-assessment, interpretation, and development of sensitivities and competencies in leadership, teamwork, and emotional intelligence. The first year is focused on learning about oneself and preparation for development; the second year adds a career focus in addition to leadership, team, and emotional competencies; the third year continues career preparation and skill development; and the final year looks toward graduation and life-long growth and development. The PPD Series includes self-assessment and interpretation, learning/action plans, learning portfolios, service learning, guest speakers, career preparation activities, and mentoring/coaching by alumni and of peers.

Our advising is a process designed to assist students in the development of their human potential. Advising is integrated with the PPD Series timeline. In Year 1, the first year advisors and freshman course business faculty are the primary advising team. As the students are further socialized in the professional program, their advising team evolves into a campus community support network. The advising goals are student success in their academic and professional preparation program, and development of self as a life-long learner.

Philosophy

According to the Vision Statement for the Undergraduate Program in the Jay Sidhu School of Business and Leadership at Wilkes University our learning-centered, entrepreneurial environment will "nurture the development of independent, self-initiating professionals" (Vision 2003). The promotion of emotional intelligence and authentic leadership are an integral part of the newly developed curriculum. Realizing the vision of a multi-layered learning environment requires curriculum with "interpenetrating content, context, and community" (Norris, et al, 2003).

The Personal and Professional Development (PPD) Series adds value and depth to the Wilkes University learning program by explicitly targeting personal and professional competency assessment, development, practice, and evaluation. The PPD Series is designed to engage a cohort group of students in a four-year advisement and development program. The students begin in the first semester by examining their knowledge, values, and competencies in a spirit of self-knowledge. This self-assessment will be expanded and reviewed throughout the 7 semesters of the series and will form the basis for the student's development of a Life and Learning Plan.

Structure

The initial experience (PPD 101) brought together first year students, faculty and peer advisor/facilitators, course content, and a learning exploration environment. As the cohort group moves through the experience, a team composed of faculty, staff, and, later, upper class students, serves as the advisory team for the students. This team has expertise in the area of learner focus. One faculty member will move with the group as their primary advisor/facilitator. Thus, the PPD 101-102 team consists of first year students and their freshman advising team --- their freshman advisor, the PPD Coordinator, and the faculty from the Integrated Management Experience, a first year required business course. PPD 201-202 students move into their planning phases with their primary advisor (Major Academic Advisor) and their advising/coaching team is developed from faculty and staff with expertise in assessment interpretation and career development. The third year team has added expertise in career preparation, planning, and portfolio development. The fourth year team helps students focus on graduation and developing a plan for life-long personal and professional development. Resource coaches from the University and community complement the support network for the student.

The Director of Leadership Education is responsible for the overall coordination of the integrated advising and leadership program for Sidhu undergraduates. The Director in close collaboration with the faculty develops course content, organizes the orientation programs, conducts program and evaluative research, coordinates student learning plans, portfolio development, and essentially serves as the visible core of the program.

Content, Context, and Community

Since the student learners are required to participate in this self-discovery and evolutionary process, extreme care must be taken to provide a nurturing, trusting environment. According to Cherniss and Goleman (1998) there are four stages of readiness for change. Essentially these stages are denial of the need for change, accepting the need but procrastinating doing anything about it, understanding the need for change, and finally, developing an action plan.

In 2000, Mary Tucker and her colleagues presented a multi-phase model for incorporating emotional intelligence into business curricula (Tucker, Sojka, Barone, and McCarthy, 2000). This model was based on the Goleman/Cherniss Four Phase Model for developmental efforts (Goleman, 2003). The Sidhu School PPD Series recognizes and addresses these stages of readiness through student assessment/feedback, content/context, and modeling/coaching and incorporates them into the developmental phases of the program.

Assessment/Feedback

The first type of assessment is confidential self-assessment. As the PPD Series progresses, team, coach, and field supervisor assessments are added to the knowledge base. The assessments are used as developmental tools and the roles of the PPD faculty and the advisors are to help the students interpret and use the assessment information. Knowing that change is difficult and that many students will not see a need for change, it is essential that the entire advising team be committed to the value of the PPD Series. In fact, it is important for the entire University's Business Program faculty and staff to be committed to the values and goals of the entire advising/development process. The faculty must be knowledgeable about emotional intelligence, leadership, and other basic competencies addressed in the PPD Series. In addition, the advising team will be the primary source of the students' perception of the long-term value of being involved in this developmental undertaking.

Context/Content

The PPD faculty designed learning experiences to provide theoretical background, enhance motivation, and supply context for the emotional intelligence, leadership, and professional development competencies. Readings, lectures, service learning projects, field observations, leader interviews, role-plays, case problem solving, and other exercises provide conceptual meaning and pragmatic practice for the students.

Modeling/Coaching

The faculty and staff advisory/coaching teams engage in constant self-assessment, planning, and working with their own support communities. Sharing their personal experience with continuous learning, along with the struggles, challenges, and benefits of being involved in the process, help bring a sense of reality and value to the students. As the cohort group progresses, collaborative learning and peer coaching are a part of the process. According to Vygotsky's Theory of Learning (1962), collaborative and peer learning take advantage of the concept of the *zone of proximal learning* (ZPD). The ZPD is the distance between the learner's actual development level, as determined by individual problem-solving and potential development (problem-solving with faculty guidance and /or in collaboration with more capable peers). The student cohort groups engage in collaborative and cooperative learning throughout the PPD Series. They enhance their leadership and teaching abilities when, in their third year, they move into peer advising and coaching of first and second year students.

DEVELOPMENTAL PHASES

The Consortium for Research on Emotional Intelligence in Organizations published *Guidelines for Best Practice* (www.eiconsortium.org 2003). Daniel Goleman and Cary Cherniss developed twenty-two guidelines representing the "best current knowledge about how to promote emotional intelligence in the workplace". According to the Consortium, these guidelines apply to "any development effort in which social and emotional learning is a goal." The Goleman/Cherniss Four Phase Model includes Preparation, Training, Transfer and Maintenance, and Evaluation. The PPD Series used the Goleman/Cherniss Model as a framework for our developmental work.

Phase One -- Preparation

Assessment of the environment, assessment of the learner, careful feedback, maximizing learner choice, encouraging/motivating, participation, linking learning goals to personal values, building and adjusting expectations, and assessing readiness are all part of the preparation phase.

The beginning stages of the PPD Series emphasize the preparation phase. General University orientation and advisement, business program advisement, and assessment are the focus of the early part of the series. Assessment includes measures of abilities in self- awareness, emotional management, self-motivation, empathy, and handling relationships. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is used to assess the following components of emotional intelligence: perception and identification of emotions, facilitation of thought, understanding emotions, and managing emotions (Mayer, Salovey, and Caruso, 2002; Salovey and Meyer, 1993). The MSCEIT, a 141-item test, is based on an ability model of emotional intelligence. In addition, indicators of learning style and personality (Jung-Meyers-Briggs) are assessed. Academic content in terms of social/emotional competencies, leadership, and ethics emphasize the strong connect between personal and professional values and success. During this first year, students began to interpret their assessments and explore developmental activities to help them enhance strengths and intervene with or side-step weaknesses.

Phase Two -- Training

The Goleman/Cherniss Guidelines emphasize fostering positive relationships, self-directed change, clear goals, step-wise process, practice, performance feedback, reliance of experiential methods, support, models, insight enhancement, and relapse prevention.

This Training Phase is integrated throughout the PPD Series. The students are encouraged to develop a Personal Marketing Plan, consisting of their self-assessments, career analysis, and plans for self-improvement; a Learning Plan, which plans out curriculum choices; and their Learning Portfolio, which contains selected demonstrations of their reflections, business plans, and other academic products.

The coaching/mentoring relationships focus on nurturing, positive relationships, encouraging experimentation with ideas and concepts in a safe environment, and developing mutual trust. In addition, training takes place via process linkages with academic courses and service learning projects. For example, in the first semester, PPD 101 students choose a team-based service learning project. This proposed project is carried out in the second semester, PPD 102. Concurrently, Sidhu students develop a team-based plan for a business in a first semester business course, Integrated Management Experience, and actually launch that business in the second semester continuation course. The PPD service learning project must relate to the proposed business. For example, if the student team proposes a book exchange network for their business, the service learning project might deal with community literacy. The goal is for the students to link strategy with community partnership.

Phase Three -- Transfer and Maintenance

Encouraging the use of the new competencies and developing an organization that supports learning are the two guidelines for Phase Three.

The peer advisement/coaching and collaborative learning experiences provide opportunities for safe practice. Internships and team-based consultancies and other service learning opportunities support deepened use of the learner's repertoire of competencies and enable a continuous improvement process.

Phase Four -- Evaluation

Both the program and the learner need to chart progress on acquiring competencies and relating the competencies to outcomes. The learner is asked to continue communication with the University in terms of outcomes, advice, and serving as community coaches for future Sidhu students.

SUMMARY

The PPD Series was developed to address the dual concerns of quality advisement and personal/professional development for students in the Jay S. Sidhu School of Business and Leadership at Wilkes University. The PPD Series incorporates conceptual and experiential learning and helps students develop their own approach to life planning. Concepts in emotional intelligence and leadership are the foundations of the integrated advisement and leadership program. Content and process are integrated with the overall Sidhu Business Program curriculum. Plans are being developed for program evaluation and longitudinal assessment of student personal and professional development throughout the program and beyond. The PPD Series begins with assessment and ends with assessment assuring a continuous quality improvement of the program over time. The PPD focus is on the student's authorship and ownership of their own self-development process.

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CORPORATE ACCOUNTABILITY: IS IT TIME TO CHANGE THE APPROACH TO PROSPECTUS LIABILITY?

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ABSTRACT

Government has tried in recent years through legislation and regulatory efforts to provide investors with the assurances they need to have confidence in the integrity of the capital markets. Such confidence is necessary to protect the vitality of the economic system. However, in the area of prospectus liability, especially as this type of liability applies to closed-ended investment companies, the courts have gone in the opposite direction and permitted issuers to use exculpatory templates to cancel explicit representations contained in a prospectus. As a result, an important area of investor protection has been neglected.

INTRODUCTION

The capital markets have been directly and negatively impacted by a corporate culture characterized by corporate fraud, insider trading, and auditor and director negligence. For good or bad, the political system has taken it upon itself to respond to these problems. The passage of the "Sarbanes-Oxley Act of 2002" has been the first significant output [xxxii]of the legislative branch of government in this regard. On the executive branch side, U.S. and state attorneys have also been active through investigations and prosecutions of wrongdoers. The SEC, as the primary administrative enforcement agency, has predictably been engaged in this process as one would assume. But what about the Judiciary? Unfortunately, the federal courts in the last 10 years have not had a good track record of upholding standards or interpreting laws and regulations in such a way as to demand accountability from corporate officers, directors, auditors and other insiders. Arguably, the place where investor protection has been the most jeopardized has been in the area of prospectus liability.

PRESENT PROSPECTUS STANDARDS: FEDERAL LAW

Section 5 of the 1933 Securities Act as amended requires that a purchaser of a security must receive a qualifying final prospectus before or at the same time as a confirmation of the purchase of the security[2]. A prospectus under section 5 is assumed to include any communication that offers a security for sale or confirms the sale of a security to the investor[xxxiii]. The content of the prospectus is similar to that required for a registration statement. Section 10(b) of the Act does give the SEC the authority to permit the use of a prospectus which omits or summarizes some of the information required in Section 10(a) of the Act[xxxiv]. Pursuant to SEC Rule 430 the Commission allows the offering price and related information to be omitted from a prospectus prior to the effective date of the offering[xxxv]. A special legend is required to be printed in red on the face of the prospectus; hence these types of preliminary prospectuses are called "red herring" prospectuses.[xxxvi] Section 11 of the Act establishes a statutory basis for liability for a false registration statement[xxxvii]. It is, however, Section 12 of the Securities Act that makes it clear that the prospectus is a liability document. That Section provides:

"*Any person who offers or sells a security…by the use of…a prospectus or oral communication, which includes an untrue statement of a material fact or omits to state a material fact necessary in order to make the statements, in the light of the circumstances under which they are made, not misleading (the purchaser not knowing of such untruth or omission), and who shall not sustain the burden of proof that he did not know, and in the exercise of reasonable care could have not have known, of such untruth or omission, shall be liable to the person purchasing such security from him.*"[xxxviii]

The full reach of liability is extended under Section 15 of the Act to apply to controlling persons as well[xxxix]. The form and content of the prospectus is laid out with a fair amount of elaboration in SEC Rules 420 to 432. The SEC rules, however, do not speak directly to the issue of liability.

Liability for the sale of securities can also be established under Section 10(b) of the Securities Exchange Act[xl] and SEC Rule 10(b) [xli].These provisions of the law contain broad antifraud rules applicable to any issuer of a security. Although statutory law is dominant in Securities Law, it is wise to keep in mind that common law fraud can also be raised as a cause of action pursuant to the state's law relevant to the federal district in which the case is litigated.

JUDICIAL INTERPETATIONS

What has prospectus liability come to mean? While the statutes provide the usual broad and abstract rules, the answer lies with the courts. Unfortunately for investors, the approach of the courts has been less than investor-friendly on these issues. Perhaps, among the most influential cases has been **Olkey v. The Hyperion 1997 Term Trust, Inc**[xlii]. In Okley, the Second circuit was confronted with a group of relatively conservative investors who purchased a new issue of a "Term Trust". A Term Trust is a form of business trust which as a closed-ended fund invests with a specific time horizon on which the fund will attempt to return the issuance price per share (in this case $10.00) back to the investors at a specified date in the future. During the term of the trust income generated by the Trust will be paid periodically to the investors. Most of these types of trusts invest in debt securities of an investment grade. In the case of Hyperion, the trust purported to invest primarily in mortgage-backed and asset-backed securities as well as government and municipal debt instruments. Hence, the investors after reviewing the prospectus and issuance communication believed that they were investing in a fund with a low to moderate return, primarily in the form of dividends, but that had a commensurate low to moderate market and credit risk. In the prospectus, the issuers clearly stated that they intended to achieve this goal. Language in the prospectus stated :

"The Adviser believes that it will be able to manage the composition of the Trust's portfolio in such manner that any decreases in the value of securities as a result of changes in interest rates will be offset by increases in the value of other securities, whose value moves in the opposite direction in response to changes in interest rates, thereby avoiding the realization of capital losses which are not offset by capital gains over the life of the Trust"[xliii].

The prospectus also stated that:

"*The Trust's investment in IOs, when combined with other instruments in the Trust's portfolio, is expected to aid the Trust in its attempt to preserve capital. The values of IOs tend to increase in response to changes in interest rates when the values of these other Mortgage-Backed Securities and of Zero Coupon Securities are decreasing, and to decrease when the values of such other instruments are increasing. While the Adviser has no control over changes in levels of interest rates, it has designed the initial composition of the Trust's portfolio and will manage the portfolio, on an ongoing basis in an attempt to minimize the impact of changes in interest rates on the net asset value of the portfolio.*"[xliv]

Reviewing these representations, the plaintiffs believed that they were purchasing an income-oriented investment for all interest rate seasons. Based upon a principle of finance known as *"convexity"* the investors were led to the conclusion that the trust would achieve a convexity which at any given time was close to zero. Zero convexity occurs when changes in a security's market value decreases or increases to the same extent as changes in a rising or declining interest rate environment. By contrast, a security that increases in value in a rising interest rate environment to a greater extent than it decreases in value in a rising interest rate environment is said to have positive convexity. Negative convexity then would occur when a security increases in value in a declining interest rate environment to a greater extent than it decreases in value in a rising interest rate environment.

This hope proved to be a false one. Rather the Trust purchased large amounts of interest only strips (IO strips). IO strips are investments or what is sometimes called synthetic securities whereby an investment bank separates from a note or bond the right to receive interest payments only in lieu of the right of to receive both interest and principal at the due date or call date of the note or bond. IOs strips respond to interest rate fluctuations in opposite direction from a debt security held outright since there is an adverse relationship between the price and yield of debt securities. The result of this imbalance was that fund proved to have a convexity which was largely biased toward the positive. Unfortunately for the advisers and the investors, interest rates fell during the period following the issuance of the securities. The result of this fall on the leveraged funds utilizing this approach was a substantial decline in net asset value of the fund. As a result, the funds were rated by a leading financial weekly as the worse performing funds of its class and the investors, even after the payment of dividends included, experienced huge declines on their investments[xlv]. Hence, the investors brought a class action lawsuit under federal rules for securities fraud under the 33 and 34 Acts and under the common law.

In challenging their claim under federal rules 12(b) (6) and 9(b), the Defendants argued that the prospectus stated cautionary language which outlined these risks. The Defendants pointed to several warning statements in the prospectus. Among the warnings were the following:

"A significant decline in interest rates could lead to a significant decrease in the Trust's net income and dividends… The Trust may be unable to distribute at least $10.00 per share…on its termination date…market prices of securities may be more sensitive to changes in interest rates than traditional fixed income securities. While the Trust seeks to minimize the impact of such volatility on the new asset value of the Trust's assets, there can be no assurance it will achieve this result…"[xlvi]

The prospectus also included the usual warnings that "The market value of the Trust's portfolio…is dependent on market forces not in the control of the Adviser" and "The Trust may be unable to distribute to its shareholders at the end of the Trust's term an amount equal to at least $10.00 for each Share then outstanding."[xlvii] The warnings also included the standard "No assurance can be given that the Trust will achieve its investment objectives, and the Trust may return less that $10.00 per Share."[xlviii] While the Court acknowledged that this language was the usual boiler-plate caution, nevertheless they agreed to the dismissal of the action. The majority in **Okley** based this decision on several arguments. The majority argued that the Plaintiffs offered:

"*no serious rationale as to why a reasonable investor would consider the warnings too generic to be taken seriously and, at the same time, would find the sections discussing the opportunities and protections enticingly specific. The plaintiffs conveniently dismiss as boilerplate anything in the prospectuses that undermines their argument.*"[xlix]

The majority also stated that to show misrepresentation under the securities laws, the complaint must offer more than allegations that the portfolios failed. Quoting **Kramer v Time Warner, Inc.**,[l] the Court stated *"It is in the very nature of securities markets that even the most exhaustively researched predictions are fallible". The Court also cited established case law to the effect that Fraud by Hindsight alone will not sustain a case.*[li]

Subsequent court decisions have failed to reverse the ***Olkey*** precedent. Although at least one decision seems to suggest that an opposite result could occur. In ***Hunt v Alliance North America Government Income***[lii] the Court did permit Plaintiff to plead a cause of action based upon misrepresentation in a prospectus regarding the use of hedging techniques. In that decision the Court ruled the prospectuses did not warn of the risk to the investor and that a reasonable investor could have been misled and would have considered the availability of hedging devices important in deciding to purchase shares.[liii] The Court in ***Hunt*** seems to suggest that a prospectus must be read as a whole to determine whether reasonable investor would have been misled. The case did not, however, specifically reverse ***Okley*** and did not speak directly to application of liability per se.

ARGUMENT FOR A CHANGE

Since **Okley,** the law of prospectus liability appears to provide a large degree of protection to issuers using boiler plate cautionary language. Since all issuers will use such language, it has become nearly impossible for investors to ever seek liability on a prospectus, except, perhaps in the most egregious and overt circumstances. Was this what Congress intended in 1933 and are investors really protected under the current judicial interpretations of the Securities Acts? Clearly, they are not. It is wise to revisit the **Olkey** decision. In the dissent, Judge Newman, Chief Judge for the Second Circuit, argues that the majority opinion leaves much to desire. The issuers of the Hyperion prospectuses plainly gave the impression that they intended to invest in securities that possessed a convexity close to zero. However, as we have seen they did not follow this investment approach and the value of the trust and, therefore, the value of the share price were destroyed. Judge Newman argued that *"Investors in fixed-income securities or funds…seek rates of return above Treasury issues and accept the risk that unforeseen developments might cause their asset values to drop"*.[liv] However, in **Olkey** the investment managers had in *"fact bet heavily on rising interest rates and used investors' money to make that bet"* even though in the explicit language of the prospectus the issuer provided *"repeated assurances that the funds would be balanced"* and therefore, the investors were *"entitled…to believe that the funds would be so structured as to be relatively insulated from any significant rate movements"*.[lv]

We are, therefore, left with three alternate approaches to the resolution of this issue. They are as follows:

1. We can continue to follow the **Olkey** approach and permit issuers to use boiler

plate exculpatory clauses to eliminate their liability for investor losses dues to false and misleading statements in a prospectus;

2. We can follow the mixed signals in **Hunt** and provide an investor with a remedy if we can show that a review of the whole document would have mislead the investor; or
3. We can take the position that clear, expressed statements in a prospectus directly related to the risks therein and strategies employed by Advisers to manage those risks take priority over boiler plate language where such statements prove to be false and misleading.

In this day of the realization of the need to protect investors from those who would give them misleading information, it can be argued that the best interpretation of the prospectus liability laws would place a heavier emphasis on the explicit statements and assertions of the prospectus and in a conflict between explicit language directly communicating the details of the security (or in the case of a closed-ended fund, the anticipated approach of the investment manager), that direct assertions cannot be cancelled by standard boiler-plate exculpatory clauses or blanket risk warnings. Investors should be entitled to expect the security or fund to conform to a standard that a reasonable person would come to expect after a careful review of the prospectus. While the ***Hunt*** decision gives investors some faint hope, the reality is that such a judicial standard does not presently apply to the law of prospectus liability.

CONCLUSION

In the present investment climate where we have the destructive impact of corporate irresponsibility and fraud on the financial market and the global economy, should we continue to let the **Olkey** interpretation stand? **The Sarbanes-Oxley Act of 2002** does not focus on this question. But should it? While it is only one piece of the puzzle to protect investors, meaningful prospectus liability is an important and necessary piece. It can be argued that the present status of the law should be changed by legislation or by new judicial thinking on this point. It would clearly benefit investors if they could rely on that language of a prospectus that expressly and clearly states the investment approach and philosophy of a fund or derivative security, even if such language is contradicted by the typical exculpatory boiler plate language. In 2003, the SEC did issues new rules to compel Investment Companies to issue prospectuses which are investor-friendly and that provide the investor with an objective way by which to judge past performance of the investment fund. However, the new rules did nothing to address the issue of liability for future performance failures. Confidence in the markets is necessary. The prospect of liability is the primary private market response to insuring issuer honesty on this subject. Honesty within the investment and corporate community is, at the end of the day, the key to financial market integrity and honesty.

[xxxii] H.R.3763
[xxxiii] See generally, Securities Act of 1933, Section 5, 15 U.S.C. section 77e
[xxxiv] Securities Act of 1933, Section 5, 15 U.S.C. section 77e(b)(1)
[xxxv] Securities Act of 1933, Section 10(b) 15 U.S.C. section 77j(b)
[xxxvi] SEC Rule 430
[xxxvii] See generally, Securities Act of 1933, Section 11, 15 U.S.C. section 77k
[xxxviii] Securities Act of 1933, Section 12, 15 U.S.C. section 77l(a)(2)
[xxxix] Securities Act of 1933, Section 15, 15 U.S.C. section 77o
[xl] See generally, Securities Exchange Act of 1934, 15 U.S.C. section 78(j)(b)
[xli] SEC Rule10b-5, 17 C.F.R. section 240.10b-5
[xlii] 98 F.3d 2 (2d circuit 1996); cert, denied, 117 S. Ct. 2433 (1997).
[xliii] Prospectus for the 1997 Hyperion Term Trust, Inc., page 19
[xliv] Prospectus for the 1997 Hyperion Term Trust, Inc. page 4
[xlv] Olkey v. Hyperion 1999 Term Trust Inc., 98 F.3d 2, 11 (2d Circuit 1996), cert denied, 117 S.Ct. 2433 (1997).
[xlvi] Prospectus for the 1997 Hyperion Term Trust, Inc., pages 13 to 14.
[xlvii] Prospectus for the 1997 Hyperion Term Trust, Inc., page 9 and page 19.
[xlviii] Prospectus for the 1997 Hyperion Term Trust, Inc., page 2
[xlix] Olkey at 9
[l] 937 F. 2d 767, 776 (2d Circuit, 1991)
[li] Denny v. Barber, 576 F.2d. 465, 470 (2d circuit, 1978)
[lii] *Hunt v. Alliance North American Income Trust, Inc.,* 159 F.3d 723 (2nd circuit)
[liii] *Hunt*, 159 F.3d 723, 731
[liv] Olkey at 13
[lv] Olkey at 13

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USING COMMUNITY PARTNERS TO FACILITATE LEARNING

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ABSTRACT

The utilization of community partners to facilitate learning is beneficial for the institution as well as students. Advantages include making connections with industry, providing real-world experiences for students, allowing students to apply lessons from class to a real business problem, the development of written and oral communication skills and providing a venue for students to network with industry executives. This paper describes a recent experience of partnering with a corporation for a regional student retailing competition. Advantages of the program as well as lessons learned are outlined.

INTRODUCTION

Changes in the education and business environment have prompted a demand for student-centered approaches to teaching (Lamont and Friedman, 1997). Business managers seek students with skills which apply concepts learned in college. Today's business managers seek employees with strong communication skills who are able and ready to apply knowledge in a business setting.

This article describes methods to increase experiential learning by engaging students in projects sponsored by community businesses and organizations. In essence these projects are live case studies. A live case study is differentiated from written cases in that the live case study involves student teams working with an outside organization to solve a real business problem(s) (Burns 1990). Live cases contain a majority of the critical components required for experiential learning (Gentry 1990). First a review of relevant literature is discussed then the suggested steps involved in coordinating community partner involved are presented.

Experiential Learning

In recent years marketing education has evolved into a student-centered approach. This approach represents a shift from an instruction paradigm to a learning paradigm (Saunders, 1997). In a learning paradigm, students are more engaged because they are active participants in the process as opposed to passive learners (Bobbitt, Inks, Kemp, and Mayo2000). Other terms for this shift include collaborative learning, experiential learning (Kolb, 1981) and service learning (Brown, 2000).

There are many activities and techniques that fall under the realm of experiential learning including but not limited to simulation games, internships, live cases, field projects (Gentry 1990), live cases studies (Cheney 2001) and working with organizations outside the university to solve real problems (Kennedy, Lawton, and Walker, 2001). Service leaning fits under the umbrella of experiential learning. According to Furco (1996), service learning is different from other types of experiential learning in that service learning projects "equally benefit the provider and the recipient of the service" and ensures "equal focus on the service provided and the learning that is occurring" (p. 6).

Value and Challenges

Experiential approaches benefit students, faculty members, the academic institution and the company involved. For example, Benigni, Heng and Cameron (2004) found that clients involved in experiential student exercises are very satisfied with the experience and often this satisfaction translates into offering students internships or jobs based on the performance in the projects. In addition, local media coverage often followed such projects. The Association to Advance Collegiate Schools of Business (AACSB International requires active student involvement in the learning process as a part of their accreditation criteria (AACSB, 2003). Many times experiential projects demand additional time and approaches than traditional lecture-style courses. Demands can include obtaining institutional permission, finding an industry sponsor, organizing transportation, organizing student and sponsor interactions, dealing with logistical problems (Kenworthy-U'Ren, 2003), students dealing with variable situations, uncertainty and incomplete information (Elam and Spotts, 2004).

Each year, the National Association of Colleges and Employers (NACE) surveys its employer members about their hiring plans for the upcoming class of new college graduates and other employment-related issues. According to the NACE *Job Outlook 2006* report, employers say they consider communication skills to be important in job candidates, but find that many potential employees lack strong communication skills. Other skills deemed important include, honesty/integrity, teamwork skills, strong work ethic, analytical skills, flexibility/adaptability, interpersonal skills and motivation/initiative. In order to provide students the opportunity to experience real-world issues, two professors from different colleges sought out an opportunity for a competition among regional colleges/universities.

Steps

There are a number of suggested steps that should be taken to increase the chances of success when incorporating a community partner into a class or club activity. The following steps are based on the authors' experiences and are presented with the hopes that instructors will sidestep any problems.

Step 1 – Finding a Fit

Step 1 involves finding a suitable community partner which fits the design of the class. While seemingly a simple endeavor, care should be taken to choose a partner that will be involved in all phases of the project. These phases include design, participation during the project, final student evaluation in written and oral project and follow-up. It is important at this step to create realistic expectations concerning time involvement on the part of the community sponsor.

Step 2 – Determine the Project

Step 2 involves discussion with the potential community partner on a suitable project for students. The professor may already have an idea in mind but it is important to be receptive to ideas offered by the sponsor. To be successful, this must be a collaborative effort. Once a project is chosen, the professor should write up a brief and send it to the community partner for review. This way, the partner can make any adjustment prior to launch. It is during this stage the logistics of the project are worked out. A project plan with dates and duties should be completed. Also any budgetary matters should be ironed during this step. Keep in mind that many times more than one school may be involved in the competition. As such each college (or university) should be provided case information in advance to allow ample time to work the competition into their semester learning plan, syllabus or club activity.

It is important that steps 1 and 2 be completed with enough lead time to make adjustments to the class design. Depending on the project it may take months or even a year of lead time to increase the chances of success. Many sponsors ask that students, or their faculty advisor, sign non-disclosure agreements for information that is provided which is of a sensitive nature.

Step 3 – Present Project to Class

In step three, the project is presented to the students in the class (club). At this stage it is important to provide a written document so that student can refer to it once they begin the project. This document should describe the project, provide deadlines and expectations, provide rules and present criteria on which the grade will be based. Additionally if there are monetary or trophy-based competitive elements to the project, the prizes should be described.

Step 4 – Communication During the Project

Whether or not the professor made a strong choice for a partner will become apparent in this stage. During the project, students or the professor may need questions answered from the sponsor. The most desired partners are those that promptly answer questions. It is suggested that any communication to the partner be done by the professor only. The last thing a sponsor wants is to be contacted individually by all students in the class. The professor can eliminate duplicate questions and screen the questions so that the university is seen in the best possible light (i.e. omit misspellings, inappropriate questions). This also allows the professor to gain insight into the types of issues that students or teams may be having.

Step 5 – The Final Written and Oral Presentations

A strong project will have both written and oral components to them. The written project can be given to the sponsor for their use. The oral presentations provide students the opportunity to display their work and enthusiasm for the project. This also provides students the experience of writing a "professional" business document and presented to "real" business people. It is important to review any written material before it goes to the sponsor. This prevents embarrassing situations where there may be a page missing, improper grammar/spelling or writing that makes no sense. If time permits, the students should deliver their presentation to the class before going live. Peer feedback can be used to strengthen speeches.

Step 6 – Follow-up

Once the project is completed, it is important to follow-up with the sponsor. A post-mortem is in order to determine what went well and what areas could be improved. It is also important to thank the sponsor. One idea is to have students write the sponsor a thank you letter describing how the project benefited them. Another idea is to present the sponsor with an appreciation award.

Outcomes

The outcomes of a live case study are numerous. First and foremost the experience provides students with experience in solving real business problems. The networking gained from the experience is also valuable. In many instances, these types of projects have resulted in an internship or permanent employment. Additionally, positive media coverage is often generated. The connection between the university and the community is strengthened when an event is well run. This leads to confidence from the community that the university is doing well in educating students.

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THE ATTITUDE - BEHAVIOR GAP IN ENVIRONMENTAL CONSUMERISM

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ABSTRACT

There is currently a challenging environment for marketers of environmentally friendly consumer products. While there is evidence that consumers are willing to pay more for green products there is also evidence of a gap between attitude and behavior. Consumers are not buying green products they claim when polled. This paper provides a review of the literature regarding the attitude-behavior gap in environmental consumerism. Two moderators are suggested under which the attitude-behavior relationship might be strengthened: level of consumer involvement and perceived consumer effectiveness.

INTRODUCTION

Research and opinion polls (The Roper Organization 1992) claim that despite American consumers expressing concern about the environment, they are unwilling to purchase or pay a higher price for environmentally friendly products (Ottman 1992, Schlossberg 1991, Jay 1990). These same studies also reveal that consumers don't buy the green products that they claim when polled (Jay 1990). A more recent report by Roper organization (2002) showed that environmental concern amongst the general population was on a decline with 59% of the general population not even thinking of participating in environmentally friendly activities. Despite a waning interest in overall environmental protection, the same poll surprisingly revealed that contrary to the above pattern, Americans were willing to purchase and even pay more for specific products that help conserve energy or are less polluting, such as major appliances, hybrid cars and electricity.

These results reveal a challenging consumer environment for marketers of environmentally friendly consumer non-durable products, i.e. green products. As a result, managers desire guidance on how to position environmental friendly actions (Osterhus 1997). An overall decline in environmentally friendly behaviors has accounted for a decrease in green buying or environmental consumerism with only 23% of the polled consumers having bought products made from recycled material, down 3% from the previous year (Roper 2002).

The lack of research to understand the green purchase process has compounded the puzzling question about why despite an overwhelming concern towards the environment (attitude) consumers fail to purchase environmentally friendly or green products (behavior)?

The objective of this conceptual paper is to provide a review of literature related to the attitude - behavior gap in the area of environmental consumerism (green buying). The review will focus on the profile of the green consumer, predictors of green buying behavior and the attitude-behavior gap. Although there are many potential predictors of behavior, this discussion will focus on the attitude toward environmentally-friendly products as the key predictor. The authors propose two personal norm conditions to strengthen the attitude – behavior link: level of consumer involvement with the environmental issue and perceived consumer effectiveness.

REVIEW OF LITERATURE

While it is difficult to understand the size of the green consumer segment, marketing managers realize that environmental issues are important to some consumer segments and this translates into decisions about product offerings and pricing tactics (Osterhus 1997). It is often difficult for researchers to measure actual behavior thus attitude measurements are hoped to predict behavior.

This paper focuses on one specific environmental conscious behavior – *environmental consumerism or green buying*. Environmental consumerism is defined as a consumer's purchase behavior influenced by environmental concerns (Shrum et al. 1995) to seek products and services with minimal impact on the environment (Mainieri et al. 1997). Simply, it translates into consumption behaviors such as purchase of green products and services (Easterling et al. 1995), such as purchasing products made from recycled paper.

Green Consumer Profile

A review of literature in the area of environmental consumerism revealed a bulk of research directed towards building a descriptive profile of the green consumer by using geographic (Samdahl and Robertson, 1989), cultural (Webster, 1975), personality (Kinnear et al. 1974) and a variety of socio-demographic measures. However, despite in-depth investigation and popular belief socio-demographic variables have proven to be poor predictors of environmentally responsible behaviors (Kinnear et al. 1974; Weigel 1977; Antil 1984a; Balderjahn 1988; Samdahl and Robertson 1989; Roberts 1996). Though there is moderate support that suggests a significant correlation between gender, age income, location and environmentally responsible behavior (Tognacci et al. 1972; Buttel and Flinn 1978) Compared to socio-demographic variables, personality traits (such as tolerance, understanding and harm avoidance) were found to be significant predictors of environmental responsible behaviors (Kinnear et al. 1974; Arbuthnot 1977; Borden and Francis 1978; Antil 1984a). In other words, those who were more open to new ideas (tolerance) with a strong desire to know how things work (understanding) and is concerned about being harmed by pollution would be more concerned about the environment.

Despite the paucity of dependable data that supports the use of socio-economic variables as an effective way to profile the green consumers, organizations such as The Roper Starch Worldwide continue to segment the U.S. consumer market into five environmental segments: true blue greens, greenback greens, sprouts, grousers and basic browns. Another lifestyle segmentation classification is the use of three distinct groups, planet passionates, health fanatics and animal lovers (J. Ottman Consulting, Inc., 1995).

Predictors

Compounding the above challenge (difficulty to accurately profile the environmentally conscious consumer segment) for green marketers, researchers have discovered a low degree of correlation between pro-environmental attitude and environmentally responsible behavior (Wagner 1997). In other words, individuals exhibit positive attitudes towards the environment but fail to execute these attitudes by engaging in environmentally responsible behaviors, i.e., purchasing green products. In one of the earliest studies on linking buying behavior with attitude toward the environment, Simmons Market Research Bureau (1991) found that U.S. consumer to not follow through and buy products they report to prefer.

Research suggests that while socio-demographic and psychographic variables are significantly correlated with the verbal expression of concern about environmental issues (attitude), these variables share no or weak relationships with environmentally relevant actions, i.e. environmental consumerism (Weigel 1977). As a result, there is a need to focus on identifying the correlates and determinants of environmentally relevant behaviors rather than environmental attitudes (Endo and Neilsen 1974).

Attitude - Behavior Gap

For marketers of green products, the gap between pro-environmental attitudes and green purchase behavior of the green consumer segment is a daunting challenge. An attitude is defined as "an enduring set of beliefs about an object that predisposes people to behave in particular way toward the object" (Weigel 1983, p. 257). Theory in the area of consumer attitude argues that individuals behave in ways consistent with their attitudes. However, research in the area has shown both positive relationships between attitude toward the environment and behavior (Arbuthnot 1977; Kellgren and Wood, 1986) as well as weak relationships (Wicker, 1969; Webster, 1975; Manieri et al, 1997, Tanner and Kast, 2003). Laroche, Bergeron and Barbaro-Forleo (2001) found a positive relationship between attitudes and willingness to spend more for green products when it was convenient to behave in an environmental favorable manner.

This attitude-behavior gap has been attributed to: low correlations among environmental behaviors, different levels of specificity in the attitude-behavior measures, effects of external variables and lack of measurement reliability and validity (Mainieri et al. 1997). Research has shown that pro-environmental behaviors are not significantly correlated (Tracy and Oskamp 1983-84) where an individual who performs one type of such behavior e.g. carpooling is also likely to engage in other similar behaviors such as recycling. Lack of measurement specificity between attitude and behavior suggests that the inconsistency exists as a result of researchers failing to measure behavior-specific attitude instead focusing on a generalized view of environmental attitude (Gardner and Stern, 1996; Manieri et al., 1997) and behavior. Therefore, measuring attitudes towards a highly specific object or behavior will predict that highly specific behavior (Heberlein et al. 1976, Weigel et al. 1974). Personal (knowledge, motivation or attitudes) and situational (social norms, other attractive choices or economic constraints) factors may also confound the relationship between environmental attitudes and behavior (Mainieri et al. 1997).

It has been suggested that consumers are ambivalent (Shrum, McCarty and Lowrey, 1995) and may be confused on how to put their intentions regarding environmental consumerism into practice (Simmons and Widmar, 1990). Mainieri et. al (1997) found that respondents expressing favorable environmental viewpoints did not translate their attitudes into product purchases.

As a result, there exists some pessimism regarding the ability of general environmental attitudes to predict purchase behavior (Berger and Corbin, 1992). According to Wicker (1969), attitudes are more likely unrelated or slightly related to overt behavior. Ajzen and Fishbein (1977) argue that by incorporating other external variables such as personal and social norms and matching the specificity of attitude and behavior, the link between attitudes and behavior may be strengthened. Weigel (1983) suggests that examining personal and situational characteristics would offer a more accurate insight into attitude-behavior link in environmental consumerism.

Conceptual Framework

This paper expands on the explanatory framework existent in literature by proposing two individual moderating conditions under which attitude - behavior relationship in green buying might be strengthened – level of consumer involvement with the environmental issue and perceived consumer effectiveness. We use environmental consumerism interchangeably with the green consumer. Thus following the lead of Shrum et al. (1995) and Mainieri et al. (1997), we define the green consumer is one whose purchase behavior is influenced by environmental concerns.

In taking the above moderator variable approach, the authors agree with Berger and Corbin (1992) "that environmental attitudes may sometimes be poor predictors of behaviors and…seek to specify variables that systematically moderate the attitude-behavior relationship" (p.80).

Consumer Involvement with the Environmental Issue

Researchers define involvement as a "causal or motivating variable with a number of consequences on the consumer's purchase and communication variable" (Laurent and Kapferer 1985 p. 42) such as decision making, interest in advertising, brand commitment, frequency of product usage (Laurent and Kapferer 1985; Zaichowsky 1985), shopping enjoyment and social observations of product/brand usage (Mittal and Lee 1989).

A common thread among the various definitions of involvement has been to conceptualize the construct in terms of "perceived personal relevance" (Bloch and Richins 1983; Zaichkowsky 1985) where, "a consumer's level of involvement with an object, situation or action is determined by the degree to which s/he perceives that concept to be personally relevant" (p. 211, Celsi and Olson 1988). The level of personal relevance or importance (Mittal 1995) with an object is represented by the perceived linkage between an individual's needs, goals, and values (self - knowledge) and their product knowledge (attributes and benefits). To the extent that product characteristics are associated with personal goals and values, the consumer will experience strong feelings of personal relevance or involvement with the product. In other words, the more the issue or object becomes integrated with the individual's values, the higher the level of involvement (Mitchell 1979). Therefore, in order to accurately reflect the experiential nature of this construct, Celsi and Olson (1988) suggest the term "felt involvement" and propose that the feeling of personal relevance is an outcome of both individual characteristics and the situational context and is only experienced at certain times and situations. Other key predictors of involvement are perceived importance of the product or purchase situation, perceived risk associated with the product purchase, product symbolism and the hedonic value of the product (Laurent and Kapferer 1985).

Consumer researchers and marketers have widely the used the concept of personal self relevance/importance to segment consumer markets for products and services based on a high vs. low dichotomy of consumer involvement. In addition to the high - low dichotomy, a conceptual distinction can also be drawn between a consumer's involvement in a product and his/her involvement in those tasks or activities that are related to this product, such as information search and acquisition, product purchase and product consumption or use (Antil 1984b). Research has also differentiated between behavioral and attitudinal involvement (Stone 1984) in an attempt to clear some of the obscurity over the clarity of the involvement concept. A *behavioral* definition of involvement is defined as time and/or intensity of effort expended in the undertaking of behavior with the *attitudinal* concept associated with the ego – a concept comprised of a constellation of attitudes that reflects on the very being of the individual. The proponents of this position (Sherif and Centril 1947) argued that highly involved individuals would be most likely to "take a stand" on an issue.

This paper extends the high vs. low dichotomy of consumer involvement in the realm of environmental consumerism and argues that a high level of involvement with the environment or a specific environmental issue will bridge the attitude-behavior gap plaguing green products. Therefore, for an individual who is significantly involved with the environmental issue of forest conservation, a product made of recyclable paper will solicit positive attitudes and purchase intent. On the other hand, a low level of involvement with an environmental issue, i.e. water quality protection will not benefit a product that promises to reduce water pollution (e.g. phosphate free laundry detergent) by triggering a positive attitude and purchase intent. A high level of product involvement has been hypothesized to lead to greater perception of attribute differences, perception of greater product importance and greater commitment to brand choice.

Building on this argument we suggest that an individual who is an advocate and a believer of environmental protection (i.e. experiences a high level of involvement with the environment) will experience low levels of attitude-behavior inconsistency and will be more likely to purchase a "green" product than an individual who is not. Hence,

P1: Low involvement consumers will display higher levels of attitude-behavior inconsistency.

P2. High involvement consumers will display higher levels of attitude-behavior consistency.

Perceived Consumer Effectiveness

The perceived consumer effectiveness (PCE) variable measures the extent to which a respondent believes that an individual consumer can be effective in pollution abatement by registering responses to scale items such as "I strongly believe that taking mass transit to work would result in a lower ozone level in my area." The PCE variable was obtained from responses to the following statement in the research by Kinnear et al. (1974): "It is futile for the individual consumer to try to do anything about the pollution." Berger and Corbin (1992) differentiate PCE from attitude in that the latter represents a summary evaluation of an individual's beliefs or feelings about an issue, while PCE represents an evaluation of the self in the context of the issue. According to them, an individual may feel very concerned about an environmental issue and at the same time totally helpless in his or her ability to have an impact on the problem through his or her own consumption. These individuals are likely to have high attitude scores but low PCE scores and most likely low scores on measures of environmentally friendly purchases. We propose the following:

P3: Consumer with lower levers of perceived consumer effectiveness (PCE) will display higher levels of attitude-behavior inconsistency.

P4: Consumers with high levels of perceived consumer effectiveness (PCE) will display higher levels of attitude-behavior consistency.

By combining the two moderators in question, level of involvement (low, high) and perceived consumer effectiveness (low, high) on a two by two matrix, the following situations emerge (Table 1):

Table 1: Combining Involvement and PCE

		Level of Involvement	
Perceived Consumer Effectiveness (PCE)	*High*	Idealistic Consumer	Intentionally Green Consumer
	Low	Accidental Purchase	Sometimes Green
		Low	*High*

Intentionally Green: This consumer displays both high levels of involvement and perceived consumer effectiveness. These consumers will display the highest levels of attitude-behavior consistency.

Idealist Consumer: The idealistic consumer believes in his/her ability to effect change in the environment but is low in the involvement required to carry through with the belief. In this case their will be high levels of attitude-behavior inconsistency.

Accidental Purchaser: This consumer doesn't believe he/she has an impact on the environment and does not actively pursue green products. If he/she does buy a green product it is through accident. In this case there will be high levels of attitude-behavior consistency.

Sometimes Green: This consumer has a low level of perceived consumer effectiveness but is highly involved in the selection of some green products. Because of the low level of perceived individual effectiveness on the environment, the consumer will display higher levels of attitude-behavior inconsistency.

Discussion

The conceptual framework offered in this paper directly responds to the need in literature suggested by Berger and Corbin (1992) to identify other moderating variables that help highlight conditions which strengthen attitude-behavior consistency. The framework contributes to the environmental consumerism literature by proposing the moderating influence of level of involvement and perceived consumer effectiveness on the attitude-behavior link. A review of the literature has increased the understanding of notable research in the area.

For managers, this framework provides additional information to help segment the green consumer market. With increasing environmental consciousness, companies need to understand green consumers' behavior by examining factors that influence 'green' purchases. This framework helps managers of green products understand the green consumer by identifying factors that elaborate on the process of environmental consumerism. With demographic and psychographic variables having been proven as being inadequate in profiling the green buying segments in the market, shedding light on personal norms such as PCE and involvement produces invaluable knowledge to help accurately segment this market. Inappropriate segmentation entirely based on demographic (i.e. gender and age) and psychographic variables (i.e. personality and lifestyle) is a risk to the company by targeting a segment with unprofitable responses. Instead, segmenting the market based on a combination of demographic, psychographic and individual characteristics promises to produce more accurate segments.

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A BRIEF HISTORY OF THE CAPITAL ASSET PRICING MODEL

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ABSTRACT

This paper explores the near-simultaneous development of the capital asset pricing model by four men: Jack Treynor, William Sharpe, John Lintner, and Jan Mossin. Further, it identifies the key ideas that inspired the research of these men. Lastly, it considers why the work of only one of them resulted in a Noble Prize in economic science.

INTRODUCTION

The history of scientific thought is replete with examples of individuals who independently and simultaneously discover the same concept. Undoubtedly, the most famous example of such a coincidence is the development of calculus by both Isaac Newton and Gottfried Leibniz in the seventeenth century. Such examples are considerably less common in the history of economic thought. However, during the early 1960s, four economists -- John Lintner (1965a, b), Jan Mossin (1966), William Sharpe (1964), and Jack Treynor (1962) -- developed essentially the same model for describing security returns. The capital asset pricing model (CAPM), as it later became known, revolutionized the theory and practice of investments by simplifying the portfolio selection problem. Interestingly, only one of these men, William Sharpe, received the 1990 Nobel Prize in economic science for this work. Further, Jack Treynor, who arguably wrote the earliest draft of this model, never had his work published until recently. This paper defines the intellectual milieu that inspired these men to develop this remarkable model at the same time and explains why only Sharpe's work was recognized by the Nobel Committee.

THE BEGINNINGS OF A MODEL

In tracing the origins of the CAPM, two papers appear to have been the primary inspirations. In 1952, Harry Markowitz provided the first truly rigorous justification for selecting and diversifying a portfolio with the publication of his paper "Portfolio Selection." Later, he would expand his mean-variance analysis to a book-length study (1959) which firmly established portfolio theory as one of the pillars of financial economics. Markowitz's work presents a direct and obvious root to the CAPM. After publishing his initial paper, Markowitz became interested in simplifying the portfolio selection problem. His original mean-variance analysis presented difficulties in implementation: to find a mean-variance efficient portfolio, one needs to calculate the variance-covariance matrix with N(N-1)/2 elements. Thus, a reasonably sized portfolio of 100 securities requires the daunting task calculating 4,950 variances or covariances. Markowitz suggested a possible solution to this problem by proposing a "single index model" (now referred to in the literature as a one-factor model). Indeed, it was this idea that involved William Sharpe with Markowitz and put Sharpe on a line of research that culminated in his version of CAPM.

The other paper which motivated researchers is Franco Modigliani and Merton Miller's classic 1958 analysis, "The Cost of Capital, Corporation Finance, and the Theory of Investment." In their original analysis, they explore the connections between a firm's capital structure and its cost of capital or discount rate. The absence of a theory for determining the correct discount rate provided the impetus for Jack Treynor to develop the first truly theoretical analysis for determining the discount rate.

FOUR ECONOMISTS IN SEARCH OF A MODEL

In reviewing the literature, it appears that Jack Treynor developed the earliest version of the CAPM. Jack Treynor attended Haverford College in the early 1950s. He notes that his "real love was physics."[lvi] Unfortunately, the physics department consisted of only two professors, one of whom was blind and the other one about to retire. Rethinking his choice of majors, he chose mathematics. After completing his undergraduate studies, Treynor attended Harvard Business School where he was awarded an MBA in 1955. "At Harvard Business School I hadn't begun to think about the CAPM problem except that I was dissatisfied with the answers of finance guys, especially the corporate finance guys, were giving me for the choice of discount rate for evaluating long-term corporate projects". In 1958, during a summer vacation, Treynor read Modigliani and Miller's paper. He returned from the vacation with 44 pages of mathematical notes – notes which eventually evolved into a paper entitled "Market Value, Time, and Risk," which he never published. Treynor believes he first showed his paper to John Lintner at Harvard. "He was the only economist I knew, which is why I gave him the paper. He didn't give much encouragement. I suppose my paper seemed like a bunch of gobbledygook to John." Interestingly, Lintner then published his version of the CAPM several years later.

In time, Treynor's paper found its way to Merton Miller who then sent it along to Franco Modigliani at the Massachusetts Institute of Technology (MIT). Eventually, Modigliani called Treynor and invited him to lunch. Treynor recalls that Modigliani said, "Merton gave me your paper, I've read it and frankly you need to study economics." Treynor then took a sabbatical from Arthur D. Little, where he was working at the time, and studied economics at MIT. While at MIT, Modigliani suggested that Treynor split his paper into two parts. The first paper, written in 1962 and published in 1999, became "Toward a Theory of Market Value of Risky Assets." The second paper, written in 1963 and never published, was called "Implications for the Theory of Finance". Treynor observes, "The second paper was a failure. It wasn't right. But the first paper was the CAPM. So basically Franco rescued the part of paper that was valid from the rest." Interestingly, the second paper was later reworked with Fischer Black and published in 1976 as "Corporate Investment Decisions."

After leaving MIT and returning to Arthur D. Little, Treynor received a call from Modigliani telling him that William Sharpe was working on a capital asset pricing model. Modigliani suggested that Treynor and Sharpe exchange papers, which they did. At this point, Treynor made a fateful decision that cost him the Noble Prize. He recalls, "I thought that if Sharpe was going to publish, what's the point of my publishing my paper?"

William Sharpe was born June 16, 1934 in Boston. He attended the University of California at Los Angeles where he earned three degrees in economics: Bachelor of Arts in 1955,a Masters of Arts in 1956 and a doctorate in 1961. After completing his master's degree and a tour in the army, Sharpe took a job as an economist at the RAND Corporation and began his Ph.D. studies. Sharpe took finance as one of his fields of specialization. Here, he first studied the work of Harry Markowitz. Fortuitously, Markowitz was working at RAND when Sharpe joined the think tank. At the suggestion of one of his professors, Sharpe asked Markowitz if he had any ideas for a dissertation topic. In his Noble Prize autobiography, Sharpe recalls, "He had, and I proceeded to work closely with him on the topic *Portfolio Analysis Based on a Simplified Model of the Relationships Among Securities.* Although Harry was not on my committee, he filled a role similar to that of dissertation advisor. My debt to him is truly enormous. The dissertation was approved in 1961, at which time I received the PhD degree."[lvii] In the final chapter of his dissertation, Sharpe developed the first draft of his capital asset pricing model which features the now famous security market line – a positively sloped straight line depicting the relationship between expected return and beta. In 1961, Sharpe began teaching finance at the University of Washington. While there, he began reworking the final chapter of his dissertation. He attempted to publish his analysis in the *Journal of Finance*. Initially, the paper was rejected. A referee deemed the assumptions of his analysis too restrictive and the results "uninteresting" (French, 2003, p.68). Eventually, the *Journal* changed editors and published his paper in 1964.

The third individual credited with developing CAPM was John Lintner. Born in 1916, Lintner received his undergraduate degree from the University of Kansas. He started his graduate work at Harvard in 1940 at the age of 24 after spending two years in a sanitorium recuperating from tuberculosis. In 1945, he completed a dissertation entitled "Tax Restrictions on Financing Business Expansion." In his book, *Fischer Black and the Revolutionary Idea of Finance* (2005), Perry Mehrling agrues that Lintner's analysis was inspired by the Modigliani and Miller paper, just like Treynor had been. Clearly, an examination of Lintner's earlier research reveals an interest in corporate finance. For example, after CAPM research, Lintner's most famous paper is arguably his 1956 empirical study of corporate dividend policies. Indeed, Mehrling argues that Lintner believed that Modigliani and Miller's analysis was wrong. Specifically, Lintner hoped to refute their theory of an optimal capital structure by developing a theory for valuing risky assets – a capital asset pricing model (Mehrling, 2005, ch.3). While Mehrling makes a plausible case for Lintner's independent development of CAPM, it is important to remember that Lintner saw Treynor's earliest draft of CAPM in 1960 or 1961—at least four years before Lintner's own version of the model was published. (In the Mehta interview, Treynor says he believes this paper was typed in 1960, but he is not certain.) Did Treynor feel that Lintner stole his work? If so, he has never stated so publicly. How closely do the two papers resemble each other? In fairness to Lintner, his 1965 papers are the most mathematically impressive of all the models published. In them, he provides numerous proofs and analyzes a variety of special cases where his model still applies.

While Treynor never felt compelled to compare his model with Lintner, Lintner did not hesitate to compare his own work with the then only published competitor William Sharpe. Lintner felt that his model was different and more general than Sharpe's model. For a short time, at least, he convinced Sharpe also. In his *Journal of Finance* "Reply," Sharpe agrees that conflicts exist between their models and that Lintner's analysis "supercedes" his model (Fama, 1968, p. 29). A closer examination of the two models by Eugene Fama (1968), however, reveals that "their general models represent equivalent approaches to the problem of capital asset pricing under uncertainty" (Fama, 1968, p.40). Fama notes, "Unfortunately, Sharpe puts the major results of his paper in his footnote 22" (Fama (1968), p.37). Like Treynor, it seems, Sharpe failed to fully appreciate the significance of his anlaysis. In the Mehta interview, Treynor notes, "We can look back now and talk about the significance of the CAPM, but if it has any real significance, it wasn't evident at the time to anybody…"

The last to publish the CAPM was Jan Mossin in 1966. Born in Oslo, Norway in 1936, Mossin graduated from the Norweigan School of Economics and Business in 1959. He did his graduate studies in economics at the Carnegie Institute of Technology (now Carnegie Mellon University) in Pittsburgh. In his studies, he gravitated toward the study of risk in financial markets. In the last chapter of his dissertation, "Studies in the Theory of Risk Bearing," contains a chapter that is the basis of his CAPM analysis. Mossin was quick to realize the importance of his work because he published his paper two years before completing his thesis in 1968. Once again, it is difficult to pin down exactly when he began work on CAPM and what he knew about the other three men's work. As noted on the first page of his paper, the revised manuscript was received by *Econometrica* in December, 1965. Assuming, at minimum, a one year's lag between originally submitting the paper to the journal and writing his first draft of the model, we can safely conclude that Mossin began work on CAPM no later than 1964 -- the year Sharpe published his first paper. In fact, Mossin cites Sharpe's 1964 paper and critiques "his lack of precision in the specification of equilibrium conditions" (Mossin, 1966, p. 769.)[lviii]

In comparing the Treynor, Lintner, Sharpe and Mossin models, it takes some time before it is apparent that they are all talking about the same issue. Indeed, the equivalence of Mossin's model to the three other's work was not demonstrated until 1970 (Stone, 1970). One simple reason for this difficulty is that the mathematical notation in the papers are inconsistent; only a very close reading of the texts reveals that the key equations are essentially the same. At a more profound level, each paper reveals a different point of view. For example, Treynor was originally interested in capital budgeting/ cost-of-capital issues. Hence, his emphasis on Modigliani and Miller's famous Proposition I – that the capital structure of a firm is irrelevant to its value. Lintner's approach appears to be motivated by the concern of a firm issuing equities. Unlike Modigliani and Miller, Lintner remained convinced that a firm's financial policy mattered a great deal. Sharpe approached the problem via optimum portfolio selection, inspired, no doubt, by the work of his mentor Harry Markowitz. Similarly, Mossin's work was grounded in portfolio theory but with a greater interest and emphasis on specifying equilibrium conditions in the asset market.

CONCLUSIONS

The 1990 Noble Prize in economic science was awarded to Harry Markowitz, Merton Miller, and William Sharpe for their contributions in financial theory. Until that moment, finance received little respect as a valid area of economic research. Sadly, the Noble Prize is not awarded posthumously. If it were, John Lintner, who died in 1983, and Jan Mossin, who died in 1987, would have been considered, most certainly, for the Noble Prize. Sadly, the first man to truly write down the capital asset pricing model failed to appreciate the significance of his model. By not publishing his work, Treynor effectively took himself out of contention for the award. Recently, his work was finally published (Korajczyk, 1999) and is now being acknowledged by scholars in the field. It remains to be seen if his momentous contribution will be acknowledged by a wider audience.

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[lvi] All quotes by Treynor are from the Mehta (2005) interview.

[lvii] Sharpe's dissertation advisor was Armen Alchian. His autobiography is available online at: http://nobelprize.org/nobel_prizes/economics/laureates/1990/sharpe-autobio.html.

[lviii] It is interesting to note that the title of Mossin's dissertation chapter is exactly the same as his *Econometrica* paper. Further, there are only eight references in that chapter including Markowitz's book, Sharpe's 1964 paper, and Tobin's Liquidity Preference paper.

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AN EXPLORATION OF ACADEMIC AND DEMOGRAPHIC INFLUENCES ON ALUMNI JOB PLACEMENT AND EARNINGS IN A FOUR-YEAR, UNDERGRADUATE BUSINESS PROGRAM

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ABSTRACT

A baseline, mailed survey of the alumni of a four-year, undergraduate program in business administration from a small state university was conducted in the academic year 2004-2005. From this survey, a regression model was built that measured the influence of academic and demographic variables on current salary in order to improve the understanding of the relationship between academic choices and one measure of success in a business career—earnings. With such an improved understanding, monitoring of and planning for curriculum and extracurricular activities may be undertaken on a regular basis for this stakeholder group.

INTRODUCTION

Business schools and colleges are taking a closer look at analyzing the attitudes, curriculum-related needs and wants, and earnings and other career performance of their alumni, partly to satisfy the outcomes assessments requirements of accrediting agencies (AACSB International, 2006; Nicholson, Barnett, and Dascher, 2005) and partly to contribute to internal strategic planning (Nicholson, Barnett, and Dascher, 2005). Such planning can help to improve curriculum, extracurricular activities, advising, and especially job placement, particularly when it is part of on-going, multiple stakeholder assessment and communication. When the job market environment is lean or competitive, as has been the case in the early 2000s (Morgan, 2002), a better comprehension of the relationship between career building and academic choices can provide a school's graduates with a competitive edge.

While many variables can be used to measure success in a business career like job satisfaction (Sumner and Niederman, 2003-2004; Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995), job turnover (Sumner and Niederman, 2003-2004), job performance (Zhao, Truell, Alexander, and Hill, 2006; Bowman and Mehay, 2002), or number of promotions received or job ascendancy (Zhao, Truell, Alexander, and Hill, 2006; Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995), salary or wages is probably the most common, objective measure (Zhao, Truell, Alexander, and Hill, 2006, Goldsmith, Darity, and Veum, 1998; Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995; Keith and McWilliams, 1995). The business and economics literature has a wealth of studies on the wage effects of many variables; the following is only a selection to show the highlights:

- Demographic
    - Age (Bowman and Mehay, 2002; Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995; Keith and McWilliams, 1995);
    - Gender (Zhao, Truell, Alexander, and Hill, 2006;Sumner and Niederman, 2003-4; Bowman and Mehay, 2002; Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995);
    - Race/ Ethnic (Zhao, Truell, Alexander, and Hill, 2006; Bowman and Mehay, 2002; Goldsmith, Darity, and Veum, 1998; Judge, Cable, Boudreau, and Bretz, 1995);
    - M-marital status and employment status of spouse (Bowman and Mehay, 2002; Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995);
    - Dependent children (Bowman and Mehay, 2002; Judge, Cable, Boudreau, and Bretz, 1995);

- Attitudinal and Behavioral
  - Working long hours and evenings (Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995);
  - Career identity salience (Aryee, Wyatt, and Stone, 1996);
  - Mentoring and ingratiation (Aryee, Wyatt, and Stone, 1996);
  - Self-esteem (Goldsmith, Darity, and Veum, 1998);
  - Cognitive ability/ score on Armed Forces Qualification Tests (Goldsmith, Darity, and Veum, 1998; Keith and McWilliams, 1995)
- Industry and firm (Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995);
- Job
  - Level (Bowman and Mehay, 2002; Aryee, Wyatt, and Stone, 1996; Keith and McWilliams, 1995);
  - Performance (Zhao, Truell, Alexander, and Hill, 2006; Bowman and Mehay, 2002);
  - Number of promotions (Zhao, Truell, Alexander, and Hill, 2006;Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995)
  - Seniority or work experience (Zhao, Truell, Alexander, and Hill, 2006; Keith and McWilliams, 1995);
  - Mobility (Keith and McWilliams, 1995);
  - Full or part-time (Keith and McWilliams, 1995);
- Educational
  - Level of degree (Zhao, Truell, Alexander, and Hill, 2006; Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995);
  - Public or private school or Ivy League (Bowman and Mehay, 2002; Judge, Cable, Boudreau, and Bretz, 1995);
  - Status of school (Bowman and Mehay, 2002; Judge, Cable, Boudreau, and Bretz, 1995)
  - Major field of study (Bowman and Mehay, 2002; Aryee, Wyatt, and Stone, 1996; Judge, Cable, Boudreau, and Bretz, 1995);
  - Academic performance or grades (Zhao, Truell, Alexander, and Hill, 2006).

The present study adds several academic variables to the above list that reflect student choices for work, internships and extracurricular activities. These variables should capture some of the effect of the student's outside-of-class experiences and choices that could make them more attractive to a prospective employer. This study then examines the effect on current salary of the gender, race/ethnic, pre-graduation work experience, participation in professional organizations, participation in coops or internships, degree, major, year of undergraduate graduation, within the context of a moderate status (small, public, AACSB International accredited) college of business. As in the previous literature, there may be wage gaps for men and women and for different races/ethnic groups, if there is any discrimination effect. There will probably be differences in current salary by level of degree (the more advanced the degree the higher the salary); by major (given market scarcity or plenty for specialties); and by year of graduation (the longer in the work force, the higher the salary).

METHODS

Surveys were mailed in spring 2005 to 5,000 (roughly half) of College of Business Administration alumni. Postage-paid, return envelopes were provided with a response rate of about 6-8% with 414 completed surveys. All surveys were anonymous. The surveys took about 30 minutes to complete. Space was provided at the end of the survey for written feedback or comments. Since the response rate is very low, non-response bias is quite possible. There was no budget for follow-up surveys. The low response rate becomes a major limitation on the interpretation of the results.

RESULTS

These results include both descriptions

- the composition of the sample,
- the most common program and extracurricular choices,
- current job and job placement history,
- the most common jobs and average starting and current salaries; and

model testing

- determinants of current salary and
- influences on timing of acceptance of first job.

The composition of the sample: As Table 1 indicates, the respondents were about equally divided between men and women. The majority (96.1%) were Caucasian with few minorities represented. The respondents were relatively young with the modal age group represented by graduates of 2004; over half of the alumni fell between 21 to 35 years old. The full spectrum of ages ranged between the 21-25 year old group to the 66 and over group. The earliest year of graduation was 1980. Very few international alumni responded—only two.

Table 1 Demographic Profile of the Sample, N = 414

Characteristics	Number Answering	Percentage Answering
Gender	410	100.0
Male	207	50.5
Female	203	49.5
Race/Ethnic Affiliation	410	100.0
Minority	12	3.9
African American	7	1.7
American Indian/Alaskan Native	0	0
Asian American	3	0.7
Hispanic American	2	0.5
Other	4	1.0
Non-Minority/Caucasian	394	96.1
Age	411	100.0
Under 21	0	0
21-25	74	18.0
26-30	84	20.4
31-35	91	22.1
36-40	91	22.1
41-45	49	11.9
46-50	15	3.6
51-55	4	1.0
56-60	1	0.2
61-65	1	0.2
66 and over	1	0.2
Year of Graduation	396	100.0
Up to 1985	1	0.3
1986-1990	112	28.2
1991-1995	99	25.0
1996-2000	85	21.5
2001-2005	99	25.0
Major (First Mentioned)	409	100.0
Accountancy	109	26.7
Administrative Science	98	24.0
Economics/International Business	12	2.9
Finance/Real Estate/Legal Business	71	17.4
Marketing	102	24.9
Business Undecided/Unspecified	10	2.4
BCIS/CAIS/Computer Science (located in Arts & Sciences)	5	1.2
All Business including Computers	407	99.5
Other	2	0.5

The most common program and extracurricular choices: All fields of accounting, marketing, administrative science including management, industrial relations, and small business), finance (including real estate and legal business), business computing (a major that was moved from business to arts and sciences in the 1980s) and economics (including international business) were represented. The three most common majors for the alumni were accounting, marketing, and management major; these have historically been the three most common majors. About 14% had a second major and about 16% had a minor. Seven even had a second minor (please see Table 2).

Table 2 Activities during BSBA, N = 414

Activities during BSBA	Number Answering "Yes" out of N = 414	Mean or Name, if Relevant
Had a coop/internship	173	
Only one coop/internship identified by name*	160	NA
Second coop/internship identified by name*	10	NA
Third coop/internship identified by name*	4	NA
Fourth coop/internship identified by name*	0	NA
Joined a student professional club or organization	187	
Only one club/organization identified by name	170	
Second club/organization identified by name	50	
Third club/organization identified by name	11	
Fourth club/organization identified by name	4	
#1 Most frequently mentioned club/organization	42	American Marketing Association
#2 Most frequently mentioned club/organization	21	Accounting Club
#3 Most frequently mentioned club/organization	21	Society for the Advancement of Management
#4 Most frequently mentioned club/organization	20	Society for Human Resource Management
#5 Most frequently mentioned club/organization	8	Phi Beta Alpha
Worked while a student	259	
Average hours per week worked	256	20.53 hours
Had a second major	53	
#1 Most frequently mentioned second major	11	Marketing
#2 Most frequently mentioned second major	9	Finance
#3 Most frequently mentioned second major	8	Administrative Science—Industrial Relations
#4 Most frequently mentioned second major	7	Finance--Real Estate

#5 Most frequently mentioned second major	6	Administrative Science--Management
Had a minor	56	
#1 Most frequently mentioned minor	15	BCIS/CAIS/Computer Science e
#2 Most frequently mentioned minor	12	Economics
#3 Most frequently mentioned minor	3	International Business
#4 Most frequently mentioned minor	3	Foreign Languages
#5 Most frequently mentioned minor	2	Speech/Communication
Had a second minor	7	
#1 Most frequently mentioned second minor	3	BCIS/CAIS/Computer Science
#2 Most frequently mentioned second minor	1	International Business
#3 Most frequently mentioned second minor	1	Management
#4 Most frequently mentioned second minor	1	Spanish
#5 Most frequently mentioned second minor	1	Theater

Key: To preserve confidentiality, individual company names will not be revealed.

The current job and the job placement history: As Table 3 indicates, more than half of the alumni were employed full time in their major and about a fourth were employed full-time in business but not the major. About 14% had a managerial position -- president, vice-president or director. Sales, marketing and/or transportation management, closely followed by accounting and a variety of management specialties were the most common jobs.

Table 3 Current Work Status, N = 414

Current Work Status	Number Answering	Percentage Answering
Total Responding	404	100
Employed Full Time in Major	223	55.2
Employed Part Time in Major	7	1.7
Employed Full Time in Business but not in Major	98	24.3
Employed Part Time in Business but not in Major	12	3.0
Employed Full Time in Non-Business	31	7.7
Employed Part Time in Non-Business	6	1.5
Attending Graduate School in Business Full Time	2	0.5
Attending Graduate School in Non-Business Full Time	2	0.5
Not Employed	8	2.0
Retired	3	0.7
Other Activity	12	3.0

As Table 4 indicates, most graduating seniors in initiated the contact with potential employers themselves; they sent out 55 resumes on average, interviewed 4 – 5 companies, interviewed primarily off campus (roughly 3:1), and accepted their first jobs after graduation (145:83). Many moved to take their first job – a few even moving out f state. In the interim between the first and current jobs, alumni reported an average of 3-4 jobs, 1-2 moves, and about 1 in 4 attended graduate school. Roughly half of the alumni are currently supervisors and it has been 2-3 years since their last promotion.

Table 4 Job Placement History

Characteristics	Number Responding	Mean	Standard Deviation
The First Job			
Salary in Thousands	375	23.393	8.567
Number of Resumes Sent out	369	55.05	522.111
Number of Companies Interviewed	379	4.76	5.552
First Job from Company that Contacted Me "Yes" Responses	155	--	--
On Campus Interview	42	--	--
Not on Campus Interview	113	--	--
Number Had Job Before Graduation "Yes" Responses	83	--	--
Number of Months	83	7.63	20.325
Number Had Job After Graduation "Yes" Responses	145	--	--
Number of Months	141	5.08	7.115
Faculty Member Recommended Me for the Job I Got "Yes" Responses	53	--	--
Moved to Take First Job "Yes" Responses	135	--	--
Moved out of State "Yes" Responses	60	--	--
The Interim Jobs			
Number of Jobs Since Graduation	406	3.21	2.042
Number of Jobs in Major Since Graduation	391	2.10	1.886
Number of Moves since Graduation	399	1.28	2.493
Attended Graduate School "Yes" Responses	114	--	--
The Current Job			
Salary in Thousands	369	57.734	42.3515
Currently a Supervisor "Yes" Responses	199	--	--
Number of People Supervised	202	30.49	212.67
Number of Years since Most Recent Promotion	386	2.76	3.612

The most common jobs and average starting and current salaries: Table 5 shows the top five jobs and the average current salary by major. There is some overlap in the job titles across majors and the differences in salary are not striking. In comparison to Pennsylvania data (Pennsylvania Department of Labor and Industry Center for Workforce Information and Analysis, 2004), the alumni within the range of state mean salaries.

Table 5 Top Five Jobs and Average Salary (000s) of All Alumni Classified by Department of First Mentioned Major

Top 10 Jobs	Actg.	Admin. Science	Econ. & Int'l Bus.	Fin., Real Estate & Legal Studies	Mktg.
1	Staff accountant	Assistant Manager	Assistant Vice President	Assistant Vice President	Account Executive
2	Controller	Sales Associate	Counselor/Co-ordinator	Administrative Assistant	Loan Officer
3	Financial Analyst	Account Manager	Customer Support	Bank Manager	Project Manager
4	Senior Accountant	General Manager	Operations Manager	Financial Manager	Accountant Manager
5	Auditor	Project Manager	Survey Co-ordinator	Insurance Agent	Business Manager
Average Salary (Current Dollars, 000s)	55.221	48.863	60.111	56.563	64.061
PA Range in Mean Salary and Median Salary (Current Dollars, (00s)	37.380 – 62.940 47.730 Median	34.120 – 89.190 66.410 Median	59.060-90.660 72.570 Median	36.280 – 65.400 48.820 Median	31.680-80.720 52.000 Median

Table 6 shows the breakdown of the alumni starting and current salaries by time period and gender. Clearly, there are marked differences in both starting and current salaries by gender (significant at .05 or better). Finance and marketing current salaries are somewhat higher than other departments in the earliest period but not that much higher on the average over time periods. There averages across periods for alumni salaries by major are fairly similar.

Table 6 Starting and Current Salary in Thousands for Men and Women of All Alumni Classified by Department of First Mentioned Major and by Period of Graduation*

Starting Salary

Decade	All Majors	Actg.	Admin Science	Econ. & Int'l Bus.	Fin. , Real Estate & Legal Studies	Mktg.
Up to 1990						
Men	20.208	19.983	20.786	20.218	20.454	19.909
Women	17.914	17.729	18.815	17.490	17.754	18.071
1991-1995						
Men	23.167	21.969	24.900	23.380	22.983	24.813
Women	20.220	19.715	20.226	20.176	20.521	20.280
1996-2000						
Men	28.769	30.008	28.937	28.769	28.704	28.778
Women	25.189	25.112	24.625	25.402	25.576	25.036
2001 and on						
Men	28.809	28.533	29.648	28.424	28.537	29.017
Women	25.443	23.868	26.150	25.616	26.209	25.625
All Periods						
Men	24.469	24.105	24.326	24.498	23.959	24.905
Women	22.338	23.423	22.260	21.167	22.595	22.293

Differences between men and women are significant at the .019 level.

Current Salary

Decade	All Majors	Actg.	Admin Science	Econ. & Int'l Bus.	Fin., Real Estate & Legal Studies	Mktg.
Up to 1990						
Men	93.637	88.081	68.243	68.000	106.378	107.529
Women	52.774	42.061	52.774	40.000	52.774	52.774
1991-1995						
Men	76.566	57.717	64.600	52.667	107.500	86.167
Women	51.146	54.028	40.667	58.000	49.000	53.291
1996-2000						
Men	57.997	51.400	68.180	57.997	59.038	57.552
Women	43.873	43.873	42.293	51.000	38.150	42.271
2001 and on						
Men	37.962	40.000	42.409	45.000	34.107	35.643
Women	32.966	40.317	30.100	32.500	30.678	34.667
All Periods						
Men	70.420	64.353	59.989	58.143	70.126	81.534
Women	44.782	47.651	40.029	61.000	39.721	47.318

Differences between men and women significant at the .000 level.

Determinants of current salary: In order to identify those influences from curriculum, extracurricular activities, and demographic characteristics, a regression model was specified as follows:

Current Salary = f (major, postgraduate work, participation in coops, and clubs, work while a student, Gender, minority status, year of graduation)

Since many of these variables are likely to be intercorrelated, the model was run in two steps—as a direct entry regression model for an explicit test of each potential influence and as a stepwise regression model for a more parsimonious predictor. As Tables 7 and 8 indicate, both the direct entry and the stepwise model are statistically significant and explain a modest amount of the variance (adjusted r^2 of .257 and .224, respectively). In the direct entry model, the significant influences were gender, year of graduation, and accountancy as a major; administrative science as a major is at.078 level. The salary was higher if the alum was male; higher if the year of graduation was earlier (more years of work experience); but slightly lower if a major in accountancy or administrative science. None of the extracurricular influences were relevant. In the stepwise model, only influences that remained were gender and year of graduation.

Table 7 Comparison of Regression Model Results on Current Salary, Direct Entry Method and Stepwise Method

Model	Sum of Squares	df	Mean Square	F	Sig.	r^2	Adj. r^2	Durbin Watson
Direct Entry Regression	163568.48	12	13630.707	9.881	.000	.507	.257	1.962
Residual	473176.97	343	1379.525					
Total	636745.45	355						
Stepwise Regression	142582.15	2	71291.076	50.926	.000	.473	.224	1.957
Residual	494163.29	353	1399.896					
Total	636745.45	355						

Table 8: Comparison of Coefficient Regression Results, Direct Entry Method and Stepwise Method

Model	Unstandardized Co-efficients	Standardized Coefficients		t	Sig.
	B	Std. Error	Beta		
Direct Entry Model					
Constant	5344.945	711.8		7.509	.000
Actg. Major	-25.478	52	-.265	-2.029	.043
Admin. Science Major	-22.233	12.55 7	-.223	-1.765	.078
Economics Major	-22.572	12.59 3	-.120	-1.540	.125
Finance Major	-12.247		-.109	-.960	.338
Marketing Major	-11.639	14.65 9	-.119	-.932	.352
Male	21.520		.254	5.231	.000
Minority	5.021	12.75	.023	.486	.627
Postgraduate Work	1.492	4 12.48	.016	.327	.744
Had a Coop	7.052	7	.082	1.553	.121
Joined a Club	3.723		.044	.825	.410
Worked as Student	-5.203	4.114 10.33	-.060	-1.221	.223
Year of Graduation	-2.648	0 4.568	-.382	-7.402	.000
		4.541 4.511 4.261 .358			
Stepwise Model					
Constant	5112.425	651.8		7.844	.000
Male	22.299	00	.264	5.591	.000
Year of Graduation	-2.540	3.989 .327	-.357	-7.775	.000

Influences on timing of acceptance of first job: Major, extracurricular activities, postgraduate work, gender, and year of graduation were also tested as potential influences on whether or not alumni had obtained their first career job before graduation. Table 9 shows that working as a student, and selecting the marketing major were all significant at the .5 level or better. In addition, participating in a student professional organization was significant at the .069 level.

Table 9: Influences on Timing of Acceptance of First Job—Before of After Graduation

Influence	After Graduation	Before Graduation	Chi-Square	Significance
Had a Coop				
No	196	45	.681	.829
Yes	135	38		
Joined Club				
No	188	39	2.578	.069
Yes	143	44		
Worked as Student				
No	131	24	3.220	.046
Yes	200	59		
Postgraduate Work				
No	242	58	.347	.768
Yes	89	25		
Accountancy Major				
No	251	54	3.969	.982
Yes	80	29		
Administrative Science Major				
No	251	65	.226	.375
Yes	80	18		
Economics Major				
No	313	79	.050	.539
Yes	18	4		
Finance Major				
No	277	66	.811	.856
Yes	54	17		
Marketing Major				
No	241	71	5.794	.010
Yes	90	12		
Gender				
Male	164	43	.072	.807
Female	163	40		
Year of Graduation				
Up to 1990	92	21	2.682	.443
1991-1995	82	17		
1996-2000	65	20		
2001 and up	74	25		

DISCUSSION

Several observations can be clearly made about these results. The alumni have been getting jobs at least comparable to state level employment. There is no a great deal of difference in alumni performance by major or by former participation in extracurricular activities. When current salary is the focus, the main influences are years of experience and gender. When the timing of the acceptance of the first job is the focus, then participation in student professional organizations, choice of major, and working while still a student are the main influences.

In terms of curriculum development and extracurricular activity planning, it is clearly important to ensure an excellent core curriculum and to assist students in work-related activities. The jobs do not always follow closely the choice of major; students need to be prepared to be generalists. Neither do students know what skills and competencies they will need as their multiple jobs throughout their careers unfold. In social terms, it is also still clearly necessary to work for equal opportunity employment; the society including the employers needs to be more sensitive to issues of equality.

CONCLUSION

This exploratory study, although limited in several ways, has revealed the continuing gender gap in salary; has revealed the importance of the common core of business knowledge over the major; has not validated the importance of participation in coops and internships although there is some support for student professional organizations and work experience while appear to be true regardless of year of graduation. These generalizations need to be considered within the context of the study's limitations. The response was low and there was no budget for a follow-up; therefore, there was a strong likelihood of non-response or other biases. It would have been helpful to have included grade point average and other indications of quality of job preparation as well as alternative measures of job performance in addition to salary. Since this study was a baseline for continued planning, these types of variables may be added.

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