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ACCOUNTING INFORMATION SYSTEMS: DOES THERE CONTINUE TO BE A LACK OF STANDARDIZATION IN TEACHING MEDIA?

Linda A. Bressler, University of Houston-Downtown

ABSTRACT

Many factors affect the way we teach accounting courses including new FASB pronouncements, industry need and changing technology. Limited research exists on specific practices of Accounting Information Systems (AIS) courses offered.

The purpose of this study is to identify colleges and universities that offer AIS courses in traditional and distance learning formats. The study will test 2 hypotheses: Ho1: There is a lack of standardization in teaching AIS courses; Ho2: More than one software package will be utilized when teaching AIS courses.

A sample of 200 colleges and universities with accounting programs was sent a questionnaire survey with follow up responses via Email. A pilot study was initially conducted in order to enhance validity and reliability of the study. Both hypotheses were proven and a very interesting finding could be noted in that of the respondents that did not offer an AIS course, 65% stated that they did not offer AIS courses because they could not find qualified faculty to teach these subjects.

There can be many different formats to offer AIS courses. In addition, automated or manual practice sets could be used to enhance student learning. AIS can be considered a new emerging discipline. The results of this study may assist faculty members structure new AIS courses or enhance existing ones to better meet the needs of their accounting students.

INTRODUCTION

Accounting courses can be affected by many factors including new FASB pronouncements, industry need and changing technology. Limited research exists on Accounting Information Systems (AIS) course media offered and even less research can be noted on specific practices of such AIS courses conducted in a distance-learning format.

Articles on research in distance learning (Cooper, 1999; Matthews, 1999; Sonner, 1999), on AIS courses (Davis & Leitch, 1988; Groomer & Murthy, 1996), and a few case studies (Geerts & Waddington, 2000; Kundey, 1991) on AIS courses can be found. Much more data could be accumulated on the teaching methods currently initiated by AIS faculty members, which could offer more options for teaching these courses.

The purpose of this study is to identify colleges and universities that offer accounting information systems courses (AIS). In addition, the study also attempted to identify the type of practice sets assigned, computerized projects, cases, simulations and other media offered in these courses.

LITERATURE REVIEW

Although much research exists on accounting education and AIS curriculum (Boyd, et al., 2000; Cohen, 1989; Groomer & Murthy, 1996; Kudney, 1991; Pei, 1988; Shaoul, 1989), not much research exists on what media can be used in AIS course offerings. One article noted the importance of technical communication in AIS courses. The authors suggested that integrating communication skills into a technical course such as AIS to enhance the students' understanding of AIS as well as improve the students' writing skills (Gelinas et al., 1997).

Other authors suggested the use of a database software when teaching AIS (Reuber, 1988). The students could be responsible for generating, testing, and the evaluating of database models relevant to AIS, auditing, and other accounting endeavors. Geerts & Waddington (2000) suggested the use of the Resource-Event-Agent (REA) model to structure a database in AIS courses. The authors noted that two AIS textbooks, Romney and Steinbart (2000) and Hollander et al. (2000) cover the REA model. Other AIS textbooks include the use of Access software. Perry & Schneider (2000) co-authored an AIS textbook using Access. Not only database software can be utilized in AIS courses but faculty can adopt other media in their classes as well.

AIS students can be directed to purchase integrated accounting packages. AIS faculty can incorporate integrated computerized cases into their course requirements such as Granite Bay Jet Ski, Inc. by Mansuietti & Weidkamp (1999). This computerized business simulation can teach students what a simple accounting information system might look like and give the students an opportunity to practice working with AIS software packages before graduating and beginning their careers.

There can be many techniques AIS faculty can choose to enhance their AIS courses. The purpose of this study was to note if a lack of standardization still exists as to techniques utilized in AIS classrooms, and if so, what media is currently being utilized in AIS courses at the present time. In addition the researcher also wished to know if the type of media chosen in the course would differ depending upon what program offered the AIS course. Also, the study would question whether one or more software packages could currently be noted in individual AIS classes.

METHODOLOGY AND DATA

A sample of 200 colleges and universities with accounting programs was sent a questionnaire survey with follow up responses via Email. Each Email memo included a survey instrument giving the respondents one week to return the survey. The sample of 200 was taken from Prentice Hall's Accounting Faculty Directories (Hasselback, 2000). The questionnaire was sent to department program directors, department chairs, or faculty members listed as being the contact individual for the business or accounting program.

A pilot study was initially conducted in order to enhance validity and reliability of the study. The pilot study outcome resulted in several changes to the survey tool such as expanding one of the questions to offer respondents an opportunity to describe what media they utilized in their classes. Even though limited respondents chose to offer details to this question in the pilot study, the format offered respondents to expand their answers if they wished to do so.

The survey tool included questions on the institution's classification, size of the institution, current graduate or undergraduate accounting information systems courses, media presently used in both traditional and distance learning AIS courses, number of students enrolled in AIS courses per year and if applicable, number of current AIS majors in the respondents' respective colleges or universities. The study resulted in one hundred and twenty-five completed questionnaires with one hundred eighteen usable responses.

RESULTS

The purpose of the study was to discover whether standardization exists in the teaching of AIS courses in colleges and universities. Survey questions included inquiries as to the media utilized in AIS courses, i.e., whether faculty members enhance their AIS classes with practice sets, simulations, computerized sets, cases or other endeavors.

The study included 2 hypotheses of which both were proven. Hypothesis 1 stated that there is a lack of standardization in teaching AIS courses. As noted in Table 1, the study results demonstrate that faculty members teaching AIS courses utilize diverse teaching methodologies and a lack of standardization still exists in teaching AIS courses (Davis & Leitch, 1988; Groomer & Murthy, 1996).

Table 1: Results of Preferred Media Utilized in AIS Courses

Media	Percentage
Access	17.8%
Papers/Presentation	15.3%
Excel, Internet/Research/Projects, & Peachtree	14.4%
Written Cases	12.7%
QuickBooks	9.3%
Simulations	8.5%
Great Plains	6.8%
Case	1.7%
Real World, Simply Accounting & Other	.8%
DacEasy, MAS/90, Lotus, One Write Plus, Oracle, People Soft, SPSS, Solomon	0%

Although 17.8% of the respondents utilized Access in their AIS classes, faculty continue to assign papers, presentations, research projects and other assignments. Faculty use other media in their AIS classes including Excel, Peachtree, and QuickBooks media at 14.4%, 12.7%, and 9.3% respectively in their classes as well. In addition, 8.5% of faculty members utilized AIS simulations and 6.8% of faculty members offered Great Plains software with 1.7% of faculty members teaching AIS classes with Case software.

The study results also indicated that the media chosen by faculty members teaching traditional AIS classes did not differ when teaching in a distance learning setting. It was interesting to note that the survey respondents utilized the same media types whether teaching AIS courses in traditional or distance-learning classes. Distance learning researchers indicated that distance learning classes should be adapted rather than directly copied from traditional courses and that what media works in a traditional class, may not be successful in a distance-learning format (Au & Chong, 1993; Hogan, 1997; Webster & Hackley, 1997).

Hypothesis 2 which stated that more than one software package will be utilized when teaching AIS courses was proven. The study indicated that 19% of the faculty members surveyed utilized only one media and 31% of the faculty members surveyed offered two different media and 50% used three or more different media in their AIS classes.

As indicated in Table 2, Most of the survey respondents taught at colleges and universities above the junior or community college level with the largest percentage of institutions being the category of baccalaureate college designation.

Table 2

Institution Category	Percentage
Doctoral/Research University	10%
Masters College and University	26%
Baccalaureate College	42%
Junior/Community College	22%

In addition, respondents of the study (Table 3) indicated that 60% of AIS courses were offered through business colleges or business departments. Accounting Departments offered 25% of the respondents' AIS courses with Economics and Computer Information Systems offering 13% and 2% of the college's AIS courses respectively.

Table 3

Department	Percentage
Business	60%
Accounting	25%
Economics	13%
Computer Information Systems	2%
Other	0%

OTHER FINDINGS

The respondents noted a few different media choices when asked what media was used in their AIS courses. Some of these other media choices included: Word for flowcharting exercises, SAP, Quattro-Pro, Net Meeting, Blackboard, J.D. Edwards and (ERP).

The AIS course name most noted by respondents was Accounting Information Systems. The respondents listed other AIS courses as well including: Accounting Concepts with Application, Advanced Accounting Information Systems, Financial Accounting Systems, Financial Management Information Systems, Management Information Systems, Computerized Accounting Applications, Microcomputer Accounting and Advanced Microcomputer Accounting, Basic Peachtree, QuickBooks, Enterprise Process Analysis, and Application Solutions in the Connected Economy.

Forty-five percent of the respondents stated that their institutions did not offer AIS courses. Of these respondents not offering AIS classes, it was interesting to note that 65% stated that they did not offer AIS courses because they could not find qualified adjuncts or were not able to hire full-time faculty members to teach AIS.

SUMMARY AND CONCLUSION

There can be many different formats to offer AIS courses. AIS courses can be taught via distance learning or in a traditional setting or as a combination of both. In addition, automated or manual practice sets could be used to enhance student learning. There still exists a lack of standardization in AIS course media. It might be interesting to note if there is a correlation as to this wide variation of AIS teaching media and the lack of qualified AIS faculty available to teach these classes. In addition, a future study might be to compare what AIS software packages businesses would like their prospective employees to know and if those skills are the similar skills that students are learning in AIS classes today. Although, the results of this study may assist faculty members structure new AIS courses or enhance existing ones to better meet the needs of their accounting students, future studies might be able to aid faculty, students and employers who look to hire adequately skilled graduating students.

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R&D LEVERAGE - A MEASURE TO EVALUATE IMPACT OF R&D ON EARNINGS

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ABSTRACT

The literature in finance and economics views R&D expenditure as an attractive means of investment in valuable intangible capital that has differing degrees of relevance in different economic sectors. This paper measures the impact of R&D investment on earnings of firms by estimating the degree of R&D leverage - a measure similar to degrees of operating and financial leverage. In this paper we develop and test the impact of R&D on the earnings by estimating R&D leverage. Impact of R&D expenditure on firm value, size, and variability of cash flows has been studied widely.

This study develops and measures the earnings elasticity of R&D coined as Degree of R&D leverage using a log-linear model. The results indicate that a one-percent change in R&D expenditure results in a quarter-percent change in earnings on average. However, differential impact of R&D is observed across industry categories. Availability of protection of intellectual property rights, existence of competition, and the ability to translate innovation into commercial viability may be some of the reasons for the differences. The impact of R&D on earnings may take place on a lagged basis. Pooling time series and cross-sectional observations may be the next step for getting additional insights.

INTRODUCTION

Research and Development (R&D) is treated as an expense item in accounting. However, the literature in finance and economics views R&D expenditure as an attractive means of investment in valuable intangible capital that has differing degrees of relevance in different economic sectors. This paper measures the impact of R&D investment on earnings of firms by estimating the degree of R&D leverage - a measure similar to degrees of operating and financial leverage. In this paper we develop and test the impact of R&D on the earnings by estimating R&D leverage. Degree of R&D leverage is useful for investors and analysts. If investors are optimistic about prospects for an industry they might favor firms with a high degree of R&D leverage as it may be a predictor of earnings growth. This paper is organized as follows. In Section II a theoretical discussion of degree of R&D leverage is provided. Data, methodology, and results are discussed in Section III.

DEGREE OF R&D LEVERAGE: A THEORETICAL FRAMEWORK

Finance has borrowed the concept of leverage from physics. Leverage provides mechanical advantage in physics. In finance leverage implies amplification of earnings by application of inputs such as debt. Operating leverage and financial leverage have been referred in an earlier section of this paper. Degree of Total Leverage (DTL) is defined in terms of elasticity of earnings with respect to sales revenues and is equal to the product of DOL and DFL. The degree of R&D (DRL) leverage as defined by Sung -Puo Chen (1998) measures the earnings elasticity of R&D. The degree of R&D leverage is an index number that measures the effect of incremental R&D expenditure on the net earnings per share. According to Chen the effect of R&D can be dichotomized as follows. Firstly the effect of R&D on earnings before R&D and taxes is measured (denoted DRL1), and secondly the effect of earnings before R&D and taxes on net earnings is measured (denoted DRL2). DRL1 measures the pure operational elasticity of R&D by excluding the tax deductibility of R&D. DRL2 takes into account the impact of tax deductibility of R&D on the net income. The concomitant effect is measured by DRL that is operationalized in the following paragraphs.

(1) $DRL1 = \%\Delta EBRT / \%\Delta R$
(2) $DRL2 = \%\Delta EPS/\%\Delta EBRT$
(3) $DRL = DRL1$ (C) $DRL2$,
Where EBRT = Earnings before R&D and Taxes,
R = R&D expenditure
EPS = Earnings per share
Δ = Change in a given variable
We can rewrite equation (3) and transform it into its logarithmic form. Hence,
(4) $DRL = \%\Delta EPS/\%\Delta R = \Delta EPS * \partial \ln EPS/\partial EPS/\Delta R * \partial \ln R/\partial R$,
(5) $DRL = \partial \ln EPS/\partial \ln R$.
Equation 5 can be transformed as:
(6) $\ln EPS = \alpha + \beta \ln R$.
The slope of the model specified in equation (6) is an estimate of DRL. It measures the earnings elasticity of R&D. Bhagwat, Debruine, and Gondhalekar (2002) have discussed this methodology to test R&D leverage for firms in the Pharmaceutical industry.

DATA, METHODOLOGY, AND RESULTS

Descriptive Statistics

This study uses data for the years 1987 through 1998 compiled by Standard and Poor's COMPUSTAT Services. Data include annual sales, R&D, earnings per share before extraordinary items on an annual basis. R&D intensity is defined as the ratio of R&D to Revenues (Sales). Exhibit 1 describes the data for all the firms classified by one- digit SIC codes. The distribution of R&D and R&D intensity is fairly skewed. R&D expenditure is concentrated among manufacturing firms. More than fifty percent of the sample comprises of manufacturing firms in communications, transportation, electronics, and chemical industries.

<<<<<< Insert Exhibit I here >>>>>>

Spending patterns for companies with reported R&D expenditures indicate nominal increases during the observation period. Panel A of Exhibit II divides the sample into three four-year time periods and shows a pattern of steadily increasing industry-wide and average firm-wise sales and R&D expenditures. It may be inferred from Exhibit II that R&D intensity is higher especially in the case of industries with high rate of new business formation (inclusion in COMPUSTAT data set).

<<<<<<Insert Exhibit II here>>>>>>

This result becomes less pronounced when the sample is reduced to firms with positive EPS and at least one hundred observations per two-digit SIC code. Panel B of Exhibit 2 reports higher average firm sales and R&D expenditures as expected. Interestingly, R&D intensity remains virtually unchanged for the restricted sample, while the changes in average firm sales confirm that the newly formed firms (included in COMPUSTAT data set) have non-positive EPS. Firms with positive EPS maintain R&D intensity levels. R&D expenditures in absolute terms and in terms of intensity differ significantly among industries. Companies in the business services sector are almost twice as R&D intense, but on average spend less than half as much on R&D as manufacturing firms. High-tech firms also spend on fundamental research whereas other firms invest in applied research.

<<<<<<Insert Exhibit III>>>>>>

The restricted sample of two-digit SIC codes included in Exhibit II are further classified into high-tech and low-tech categories. The two-digit SIC codes - 28, 35, 36, 38, and 73 are classified as high-tech and two-digit SIC codes - 25, 26, 29, 30, 32, 33, 34, 37, 39, 48, 50, and 87 are classified as low tech groups. The R&D intensity for all high-tech groups is at least 5% and more than 1% higher than the highest low-tech group. The communications sector reports the highest average annual R&D expenditures. The business service industry has the highest R&D intensity (about 8%).

Methodology and Discussion of Results

This study employs a cross-sectional log-linear model:

$$\ln EPS = \alpha + \beta \ln R$$

The relationship is derived in Section III earlier. The model includes observations with non-negative EPS measurements. These are known as eligible firms. The coefficient of the independent variable is the measure of degree of R&D leverage. The relationship is estimated for all eligible firms and are reproduced in Exhibit IV.

<<<<<<Insert Exhibit IV here>>>>>>

On an average during the period 1987 through 1998 for all eligible firms, a 1-% increases in R&D expenditure results in a .27% increase in the EPS. The results were obtained for several industries as food and kindred products, furniture and fixtures, paper and allied products, chemicals and allied products, petroleum refining, rubber and plastic products, clay and glass, metals and metal products, industrial machinery, measuring and analytical instruments, communications, business services, and engineering and other services. For every 1-% change in R&D the communications industry's EPS increases by .35%. and the R&D intensity of this industry is near the average for all firms. The high tech sector has above average R&D intensity and degree of R&D leverage. However, several firms with low R&D intensity show high R&D leverage. This implies that the earnings from operations are enhanced by increase in R&D. This needs to be studied further by analysis of DRL1 and DRL2 values defined in equations 1 and 2. The estimated models, intercept, and slope terms are highly significant with appropriate signs. The R2 value of .22 is also encouraging. In the absence of R&D the average earnings growth of firms would slowdown.

(ALL EXHIBITS AVAILABLE UPON REQUEST)

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PUBLIC SECTOR ACCOUNTING PRACTICES IN AUSTRALIA - AN OVERVIEW OF RADICAL REFORM IN ACTION

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ABSTRACT

In Australia, major reforms to public sector financial management practices have been implemented over the past decade in a bid to improve value extraction in relation to those resources devoted to the public sector. This has transformed the role played by accounting and accountants in the public sector away from a primarily stewardship / monitoring based role, to a position where accounting plays a privileged, perhaps even dominant role in the formation of many far reaching resource allocation and prioritisation decisions within the Australian public sector. Although Australia is a relatively small jurisdiction in terms of absolute population and total GDP, an examination of Australia's public sector accounting practices and the impact brought about by the adoption of these practices is instructive to a wider audience, because the accounting reform path travelled in Australia has been simultaneously radical and broadly focused compared to most other economically developed jurisdictions, with the possible exception of New Zealand and, in some limited respects, the United Kingdom. This paper reviews the basic elements of the accounting reform process undertaken in Australia over the past decade, and comments briefly on their impact to date.

INTRODUCTION

Over the past decade, managers within budget funded public sector agencies throughout Australia have been placed under consistent and growing pressure to constrain expenditure growth, find savings and improve the efficiency with which goods and services are produced and delivered. One means through which public sector agencies have attempted to achieve these outcomes has been the adoption of a range of accounting practices which have replaced the cash based financial reporting and budgeting model traditionally used in Australian government, and by the public sector in many jurisdictions. This has fundamentally transformed the role of accounting as a contributor to decision making processes within the Australian public sector (Guthrie & Parker, 1998). This paper concentrates on four related aspects of accounting and financial management reform as implemented in the state of Victoria, Australia's second largest jurisdiction in terms of population and contribution to total national gross domestic product. While the reform processes which have been adopted in Victoria have also been put into practice in other Australian jurisdictions, Victoria provides a useful framework for study because of its role as an early adopter. This allows a more considered analysis of the impact and implications of the adoption of the accounting and financial management reforms the subject of this paper.

THE MOVE TO ACCRUAL ACCOUNTING

The first element of the overall accounting transformation described in this paper to be adopted in Victoria, and other similar jurisdictions, was the replacement of cash based accounting and financial reporting systems with accrual based systems. There were several key motivations for this move, but the primary rationale was the desire to move towards a financial accounting and reporting system which encompassed not just period receipts and payments, but also measures relating to assets, liabilities and equity. Historically, very little balance sheet based information, apart from crude internal asset register systems, was maintained by Victorian public sector agencies. This caused several difficulties, the foremost of which was that agencies typically had little incentive to expend effort in appropriately identifying, valuing and reporting on assets under their control, as a result of a lack of a need to issue audited financial statements encompassing assets liabilities and equity (Guthrie, 1998).

This fundamental gap in the financial management and control practices of most Victorian public sector agencies meant that when the requirement to adopt accrual accounting was announced, many agencies were forced to expend considerable effort and resources working through the task of identifying which assets were actually under their control, and the value of those assets. That such a basic task needed to be carried out by most agencies prior to the adoption of accrual based financial reporting suggests that there was at least some weight in the arguments put forward by supporters of this reform, that in the absence of an accrual financial reporting framework, most agencies were not even able to identify the magnitude and value of resources under their control, with obvious implications for resource allocation decisions. Thus there were two key rationales for adopting accrual based financial reporting within the Victorian public sector (and in other Australian jurisdictions). The first was that such an initiative would force agencies to fully inventory their asset bases, allowing identification of surplus assets for possible resale or redeployment. The second was that the identification and valuation of assets would allow a better measure of the full cost of agency production of goods and services to be constructed, via the inclusion of depreciation charges which had been ignored under traditional cash based modes of financial reporting, as well as the modified expense recognition procedures associated with the adoption of an accrual framework vis a vis a cash based accounting system. Implementation of accrual based financial reporting systems for individual Victorian government agencies commenced in approximately 1992, and was largely complete by 1995.

THE ASSET VALUATION QUESTION

Given the substantial gaps which existed in asset control practices prior to the adoption of accrual accounting in Victoria, it was often the case that even where assets had been tracked in some form, there was little or no accompanying cost or valuation data. This meant that an intense asset identification and valuation exercise was required to be carried out alongside the other tasks necessary to the adoption of accrual based financial reporting. In some cases, valuation questions posed as agencies worked through this exercise became quickly intractable, particularly where the assets involved were in the nature of heritage and natural resources assets, or collections such as those maintained by libraries or museums. However, even in the case of more conventional property plant and equipment assets, questions arose as to the appropriate attributable value, especially since in many cases (particularly in relation to land controlled by government agencies - which had often been part of the asset portfolio for an extended period), no historical cost records existed to support the adoption of a valuation according to that methodology. Partly as a result of profound gaps in the pre accrual world asset databases, the most common asset valuation methodology adopted by Victorian public sector agencies was some variation on replacement cost. This is a pattern which has been maintained to the present time, and is replicated in other Australian jurisdictions which have followed similar reform paths (Carlin, 2000).

This approach to asset valuation has resulted in the opening of a considerable gap between the asset valuation practices of public sector entities and those adopted by private sector entities, which in Australia largely report assets on the basis of their written down historical cost. As explained below, this has direct implications for the assessment of the output production cost functions faced by public sector entities when compared against potential private sector competitors.

CAPITAL CHARGING REGIMES

The systematic preparation of balance sheets and measurement of asset values described above facilitated a further, and quite radical, transformation of public sector financial management practice in Australia. The systematic identification and valuation of assets employed and controlled by public sector agencies allowed an appraisal of the total amount of capital invested in any given agency by the government. This in turn facilitated the estimation of the opportunity cost associated with the level of capital invested by central government in its controlled operating agencies.

The possibility of creating such an estimate of opportunity cost is distinct from the application of the estimate within the context of the financial management practices of government agencies. Hence, in order to enforce recognition of capital as well as period costs in agencies' overall output production cost functions, a mechanism whose function was to transform an implicit cost into an explicit cost was required. This is the function fulfilled by capital charging systems implemented in the public sectors of a variety of Australian jurisdictions (Robinson, 1998).

In the case of Victoria, a system known as the Capital Asset Charge (CAC) was introduced from 1998 onwards. This system resulted in a charge being levied against all government departments at a fixed percentage (8% real in the Victorian model) of the written down value of non current assets controlled by public sector agencies. As such, the CAC system does not reflect the full cost of capital for any given agency, since this would be more meaningfully calculated as a percentage of the net assets of the agency rather than the base currently specified. Nonetheless, the fact of the existence of the CAC means that the opportunity cost of capital is now included in the total explicit cost function for each public sector agency in Victoria. This aggregate amount can in turn be internally allocated (via costing systems) to the cost of production of any group of outputs or indeed individual outputs produced by each Victorian public sector agency (Heald, 1996).

The adoption of this system arguably has two key effects. Firstly, since each agency must annually pay a capital charge to the treasury equal to the notional opportunity cost of capital for the agency for that period of time, capital is no longer treated as an economically free resource by managers. Secondly, total agency cost functions now include a measure of both the period and capital costs associated with the production of goods and services, allowing more accurate estimation of efficient market prices for these goods and services, and smoothing the path to the implementation of a broad range of market and quasi market based approaches to the delivery of goods and services (Heald, 1996).

A key motivation for the implementation of the system was therefore to provide managers with explicit, price based stimuli to incentivise them to be more frugal in their requests for capital, and more efficient in their utilisation of existing stocks of assets, identifying and liquidating assets surplus to needs (and returning the proceeds to the treasury for redistribution for other purposes), and pursuing less capital intensive solutions to production problems.

ACCRUAL OUTPUT BASED BUDGETING

Whereas traditional government budgeting systems have been focused on the management and reporting of cash inputs, Accrual Output Based Budgeting (AOBB), also introduced in Victoria in 1998, focuses on the cost and quantity of individual outputs produced by government agencies. The intellectual origins of AOBB systems is able to be traced back to the internal market model introduced into the British National Health Service in the early 1990s. AOBB extends that concept, which applied in the British model only to the provision of one type of government service, over the whole of government, allowing the estimation of a "full" market price for all goods and services (outputs) produced by government agencies.

Under the AOBB system, agencies are funded on the basis of a price paid for their outputs. Funding therefore becomes a function of the quantities of outputs purchased by government from agencies on behalf of taxpayers, as well as the prices negotiated between purchasing agencies (e.g the Treasury) and providing agencies (for example the department of education). On this approach, budgeting is conceptualised on the same basis as the commission of simple, market based transactions. Purchasers order a quantity of outputs from provider agencies, at prices which reflect the cost of production. This "sale" of outputs by providers is the means through which funding is obtained under the AOBB model, rather than the traditional, line item by line item cash based appropriation associated with more conventional public sector budgeting systems (Carlin & Guthrie, 2001).

IMPACT OF THE REFORMS

The implementation of the set of accounting and financial management reforms set out above has had a material impact on the manner in which the public sector in Victoria functions. Certain of these impacts may not have been intended by the architects of the financial management reform process implemented in that jurisdiction.

Recall that the core motivation for the adoption of novel accounting and financial management techniques was the facilitation of a public sector which consumed resources more efficiently, and therefore provided better value for money than had been the case prior to the adoption of the reforms discussed in this paper. At a surface level, it is possible to envisage how each of the techniques discussed above, both individually and collectively, might have been theorised, ex ante, to have such an effect. The adoption of accrual accounting can be rationalised as a means of ensuring that a full accounting for the resources employed by government agencies takes place, with a commensurately broader, though more accurate view of the cost of production of goods and services. The adoption of standardised asset valuation techniques can be rationalised as a necessarily adjunct to the adoption of accrual based systems of financial accounting and reporting. Capital asset charging systems appear to fall neatly within the logic of attempting to construct financial management systems which capture all aspects of output cost, while accrual output based budgeting systems represent a capstone methodology, drawing directly on the enhanced costing estimation facilitated by the other three reforms in order to allow detailed costing (and hence funding) at an individual output level.

In theory therefore, reforms of the nature set out above should make agencies more aware of the true full cost of production of goods and services, provide incentives to maximise the efficiency of production, and facilitate direct comparison between "in house" bids made by incumbent public sector producers and competing bids from (presumably) private sector competitors.

In practice however, results such as those set out above are only likely to be achieved where the base accounting assumptions made by public sector agencies the subject of the requirements described in this paper match closely with those applied by potential private sector providers of goods and services. This is unlikely to be the case (Carlin, 2000). The growing discrepancy between asset valuation practices in the Victorian public sector, and those typically adopted by private sector entities, is cause for particular concern. The practical effect of a replacement cost approach to asset valuation is to inflate asset values over and above values reported on a historical cost basis. This in turn increases depreciation charges, and increases capital charges assessed via the CAC system, thus inflating the total output production cost function as viewed through the gaze of the accrual output based budgeting system. There is a strong possibility therefore, that estimates of the cost of production of goods and services within the public sector are being biased upwards, vis a vis the cost estimates developed by potential private sector based alternative providers. Ironically therefore, a chain of reforms designed to facilitate more comprehensive and accurate estimates of cost, hence allowing improved management of both the resource and cost base of public sector agencies, may in fact be providing materially biased estimates, with potentially adverse consequences for the overall public sector service provision value equation.

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BALANCED SCORECARD IN A SOCIAL HEALTH CARE INSTITUTION

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ABSTRACT

The public policy of health aims to rationalize the supply of services for the social health care institutions. This rationalization means that several standards of performance have to be set for each institution. To supervise or control whether or not each institution applies a standard, it has to define its real level of performance. The notion of performance applies to defined categories based on the required services that are standardized and necessary (for example, the time required for nursing) and for biologic, psychological and social criteria of classification. Naturally, reality differ from standard services, which are base for the invoicing system and thus the financing of the institution.

In a first part, we will present a concept based on the "Dashboard" approach for measuring performance. Then we will present the concept of the "Balanced Scorecard" adapted to the social sector and link this concept to an ABC cost function. In the second part, we will focus on a large social health care institution (106 beds) that is state-subsidized and administered by a private foundation. We will illustrate how to consider real performance and then integrate our findings into a "dashboard".

INTRODUCTION

The notion of organizational performance subject to competition dominates much of current management debate. The debate has spread to cover competition and performance in the public sector, and in particular the public health industry. Until recently, the social health care centres were financed on the basis of fixed package rates intended to ensure a fair financing of the institution. The rationalization of public finances has had a significant impact on this and has led the way to the introduction of standardized services and diagnosis-related-group-type payments. Thus, the health care organizations suddenly started to be ruled by an economical consideration raising at the same time the question of performance. Thus, this traditional management vocabulary appears in the public sector for the first time. However, the health sector presents two specificities, these being : strong asymmetry of information, inelasticity of the supply and scarcity of resources by way of a rigid pricing policy. Concerning the first point, the patient lacks information about the conditions of admission, about the care-services he will receive when he applies for a room in a social health care center. The inelasticity of the supply can be explained as following : the social health care organizations do not have to attract patients as their occupation rate is close to 100% and each organization has queuing lists. This situation shows a growing demand and a non-elastic supply. The question of resources' scarcity can be analyzed on two levels : financial and technical. On the technical level, the social health care centers have to respect specific guidelines concerning their services and their quality. From the financial point of view, all the prices are fixed by political authorities, the institution has therefore no freedom of negotiation in pricing and budgeting.

The previous elements encourage to re-think the notion of performance in a constrained environment where neither the price nor the services can be managed independently. Thus the performance cannot be limited to financial elements alone, rather it should reflect sector related specificities. This leads us to consider the idea of integrating "dashboard" techniques to monitor and measure the different dimensions of the analysis. Of the different "dashboard" techniques available, we chose to use the "Balanced Scorecard" approach along with "Activity Based Costing (ABC)" approximation of cost functions. However, this brought us to question the relevance of the link between corporate strategy and the indicators used to represent the strategy.

In our analysis, we will concentrate on the problematic of building and setting up of a Balanced Scorecard in a social health care institution aiming to manage its performance based on newly imposed economical considerations. In the first part of this paper we will analyze the existing literature concerning the health care sector. Here, we will illustrate the ambiguity of the Balanced Scorecard concept and will propose an analytical approach based on the cost function suggested on the Activity Based Costing method. In the second part, we will tackle the setting up of the model through an experience at large Swiss social health care institution (EMS). Here we propose a Balanced Scorecard presenting an underlying economical rationale that should characterize an effective use of a Dashboard.

THE CONCEPT OF BALANCED SCORECARD

In recent years the notion of "performance" dominated the vocabulary used in management. New concepts such as Activity Based Costing and Management, Value Chain, TQM, Management by Objectives, Balanced Scorecard became common language of every up-to-date manager. The starting point of the Balanced Scorecard was Kaplan et Norton's reaction to the traditional financial accounting model which doesn't take into account such assets and information as employee skills, customer loyalty, turnover and other ratios and data. They concluded that by concentrating on financial measures only, a short-term performance is promoted instead of a long-term value creation (Kaplan, 2001). This statement pushed them to develop a new method that assembles the financial and non-financial indicators which give a clear picture of what is the "real" value of a company. The Balanced Scorecard was born.

The Balanced Scorecard considers company's performance from four angles: financial, customer, internal and learning/growth. These four perspectives are set in order to inform all company's stakeholders: customers, shareholders, employees, public authorities. Each perspective is expressed by a set of objectives and measures. "The measures represent a balance between external measures for shareholders and customers, and internal measures of critical business processes, innovation and learning and growth. The measures are balanced between the outcome measures - the results from past efforts - and the measures that drive future performance" (Kaplan and Norton, 1996).

Originally this multidimensional approach of measuring performance was created in 1992 for the for-profit sector. However, few years later, the same concept has been adapted to non-profit organizations. In the article that followed an international workshop on "The Role of Accounting in Public Sector Transition" Dana A. Forgione (Forgione D.A., 1997) introduces the idea of using the BSC in the health care sector. She argues that new management tools such as capitated payment systems or diagnosis-related group-type price controls place strong financial incentives in opposition to health care quality. While admitting the importance of the efficient allocation of capital resources, Forgione claims that quality disclosures are crucial for the efficient allocation of health care resources. The Balanced Scorecard combines this double requirement for profitability and quality of care.

BALANCED SCORECARD APPLIED TO HEALTHCARE PROVIDERS

"It's always been difficult to find a language that both administrators and clinicians can understand. The Balanced Scorecard bridges that language barrier.." (Meliones J.M., 2000). This quote of Jon Meliones, who introduced the Balanced Scorecard at Duke Children's Hospital, pinpoints the importance of the Balanced Scorecard in the health care environment. In fact, the Balanced Scorecard gives a more complete picture of health care activities than the financial statement alone and thus becomes a privileged tool for a deeper dialogue between professionals and health care management.

Besides this communication aspect, the Balanced Scorecard helps to set priorities between organization's objectives. When analysing his organization, Meliones noticed that its financial health is the condition for quality improvements: "I realized that Duke Children's Hospital" needed to start thinking less like a money-losing non-profit and more like a profitable corporation. (…) If the hospital didn't show a margin, clinicians wouldn't be able to fulfil their mission". Agreeing with these statements means placing the financial perspective at the very bottom of the perspectives' hierarchy, as being the condition of the fulfilment of the other three perspectives. The original architecture of the Balanced Scorecard, designed for the for-profit organizations, placed the financial perspective at the top of the hierarchy. If the other three perspectives were developed in the right direction, the financial results should follow. The non-profit organizations however, often place the customer perspective at the top. This choice will depend on what the long-term objective of the organization is (Kaplan, 2001).

In health care organizations, the cause-and-effect relationships between the perspectives is much less clear as it is in the for-profit organizations. As the patient doesn't pay the price relative to the cost that he generates and the organization's main revenues are provided by subsidies, the financial aspect looses its importance. Nevertheless, in reaction to the diminution of resources, the health care organizations' survival depends more and more on their accurate allocation and thus the financial perspective becomes a constraint not be ignored and a base for the fulfilment of the other three perspectives. In the Swedish experience, the four perspectives are not viewed as a hierarchy but as a network of perspectives in balance. "Balance was seen as a strategy to maximise patient utility not as the means to achieve financial success" (Aidemark, 2001). However, the Swedish system is known for being a very socially oriented system and thus a budget deficit would be covered by an additional subsidy. That is not the case in most other countries.

Several successful attempts of the Balanced Scorecard include the experience at Duke Children's Hospital (Meliones J., 2000) and the introduction of balanced scorecards in Swedish hospitals (Aidemark, 2001). However, the first well documented application of the Balanced Scorecard concept for a healthcare provider is the cited in report on the relative performance of 89 acute-care non-for-profit hospitals in the Canadian province of Ontario. The four Balanced scorecard perspectives have been adapted for use in a publicly funded health service setting as follows: Financial Performance and Condition, Patient Satisfaction, System Integration and Change and Clinical Utilization and Outcomes. For each perspective a set of performance indicators have been proposed and agreed on jointly by the research team and each perspective's stakeholders (for example: physicians, nurses and other clinicians for the perspective "Clinical Utilization and Outcomes") (Pink G.H., McKillop I & ss, 2001).

BALANCED SCORECARD'S ECONOMIC FOUNDATIONS

To conclude this brief description of the Balanced Scorecard we asked ourselves the question what is the causality logic between the variables of the Balanced Scorecard. After having examined the literature about Balanced Scorecard we found no information about the method used to choose the proxies for each of the four perspectives. Not satisfied with the answer that the BSC is a consensus-driven methodology and that the variables derive naturally from organization's strategy, we set out on a quest to find out what implicit economic foundations lie beneath the choice of the Balanced Scorecard variables.

Balanced Scorecard is broadly understood as a translation of the organization's strategy into operational objectives. In every organization - profit or non-for-profit - the strategy is to create value. Each decision or lack of decision has a financial consequence, for example: the level of dissatisfaction of a patient (a BSC variable) can lead to a conflict with nurses and their dissatisfaction resulting in a) absenteeism, b) trial against the hospital for mobbing, c) nurse quitting her job which requires hiring and training a new nurse. Each one of the listed consequences leads to a cost. Thus, we notice that there is implicit connection between the Balanced Scorecard variables and the components of the cost function.

Following the methodological approach described in the ABC method, we considered a series of variables to test whether or not they play a significant role in determining total cost. We define the organization's cost function as a function of volume-based, complexity and efficiency variables. It is logical to admit that these variables possibly influence the cost level and consequently we suppose here that Balanced Scorecard must translate their impact. As the translation of these variables into a Scorecard isn't obvious, we have to go through proxies. There can be more than one proxy for each variable. Therefore we will look for proxies for each of the four perspectives and find out which variables are the most significant cost drivers in modelling organization's cost.

If we adopt the proposed methodology, we shall formulate the cost function by connecting the total cost of the establishment and services realized for the patient. Let us call:

x_t : quantity of services realized at the time t, with t=1 .T,

c_t : total charge observed in t with t=1 .T,

ε_t : residual term,

a, b: unknown term translating an average variable cost and the term of fixed cost.
Thus, we obtain the relation:

(Equation 1) $c = ax + b + \varepsilon.$

In the next step we shall select the variables allowing to complete the explanation of the cost function with the help of the stepwise procedure . These variables concern not only the number of patients, the unit cost for each category of patient, but also the staff and the organization. In this perspective we use the standard cost to approximate the "real" cost. Following this we call :

a_i^*, a_i : standard cost and real cost for each category i,

a_i^+, a_i^- : upper and lover level of the standard cost I ,

c_t^+, c_t^- : upper and lover level of the total cost for each period t.

(Equation 2)

$$Min \sum_{i=1}^{n} (a_i - a_i^*)^2,$$

$$\text{Sc : } \sum_{i=1}^{n} a_i x_{it} \le c_t^+, \ \sum_{i=1}^{n} a_i x_{it} \ge c_t^-, \ a_i^- \le a_i \le a_i^+.$$

APPLICATION: ANALYTICAL DESCRIPTION OF THE EMS LB

The EMS LB (in French: EMS: Etablissement Médico-Social) is a private establishment for elderly people, located in Switzerland. This establishment is intended for people who need regular medical care and who can not live alone. It has a capacity of 106 beds, composed of 31 double rooms and 44 single rooms. Patients can enter this institution for a day, a short or a long stay.

This organization has first asked us to calculate the cost of their "products". We broadened this objective by proposing to elaborate together a Balanced Scorecard built on their actual priorities. In this type of organization we consider as "products" patients' categories composed of eight classes. In order to understand this classification, we present in the next section the method on which this categorization is based.

CLASSIFICATION PLAISIR

From 1990 on, Switzerland was subject to an economic crisis. The public health authorities were forced to reduce theirs budgets. That's why they decided to redefine the resources allocated for elderly people's institutions (EMS). In 1995, in order to solve this problem, nursing personnel together with management and the insurance companies chose an evaluation and classification method, previously used in Quebec, called PLAISIR. Subsequently, this system has been adapted and modified for Switzerland.

PLAISIR (Computerised Planning of Required Nursing Care) is a clinical-administrative information system that allows to follow the evolution of the patient's state, the services he requires and his needs for nursing care and assistance. The EMS accommodate more or less dependent patients, the majority of whom is over 65 (PLAISIR, 93).

The classification PLAISIR with a nomenclature of care (standard care and standard time nursing) calculate the quantity of nursing and assistance resources of the patient. Thus this system provides some information for elderly people : their bio-psycho-socio profile (problems, handicaps, disease and deficiency), the number of services (nursing care and assistance) and the amount of time resources (time required for nursing). These standards of care and assistance have to correspond to what is recognized as a "good practice" in the Swiss establishments. If they do not correspond to optimal care, they should guarantee the patient a well-being and a suitable security. Thus, thanks to the PLAISIR method each patient's category, needed nursing time, age and length of stay can be easily defined.

BUILDING THE BALANCED SCORECARD

For the time being, the information system at EMS LB is very limited. All the indicators that have been given to us, have been gathered manually. As the state doesn't require any clinical statistics, no proxies for the perspective "Clinical Utilization and Outcomes" are available. As for the perspective "Patient Satisfaction", a new law just introduced the requirement for patient-satisfaction surveys - first such inquiry will be done later this year. Therefore, we couldn't use the Ontario model as such. The information that is available is the following (per quarter during three years, between January 1999 and December 2001): profit & loss statement, balance sheet, number of patients in each class, number of disabled patients in each class, number of new admissions, number of different types of employees (nurses, animators, hotel staff, technical staff, administration staff).

We admit that this information is subject to a regular control (from financial and technical point of view) and thus that the variables are observed without error. In order to build the Balanced Scorecard, we proceeded as described in paragraph "Balanced Scorecard's economic foundations". Thus, we are looking for proxies for each of the four perspectives of the Balanced Scorecard. Our initial cost equation is a function of following, available variables: Occupation rate, Total salaries / total charges, Medical fees / total charges, Number of patients (variance), Nursing personal /total staff, Animation personal /total staff.

Through the stepwise regression of the cost function (equation 1) we obtain four significant variables. These four variables illustrate as many perspectives as can be defined in a Balanced Scorecard: Financial perspective (Total salaries / total charges), Patient perspective (Number of patients), Processes perspective (Occupation rate), Employees perspective (Nursing personal /total staff). These four variables can be illustrated by proxies derived from the organization's strategy (see Table 1). By hypothesis, the variables should be strongly correlated with the proxies.

The organization's strategy is to maximize the patient's comfort and well-being. Nevertheless, as there is a financial constraint and several patients to be satisfied, we could express the organization's strategy as optimising its expenses in order to satisfy the maximum of patients or, in different words, to supply all the patients with a basket of services, keeping to financial constraints linked to the pricing system and to the legal structure of the organization. The success factors formulated on four perspectives are : Financial: keep budgets, effective use of resources, Patient: satisfaction, availability, information, reception, security, Processes: effective chains of care and Employees: training, work satisfaction.

Translating these success factors into variables that are accessible in the organization leads on the following scorecard:

Table 1
Balanced Scorecard at EMS LB
Financial Patient Processes Employees
Average cost per patient category and per day (*) Average Length of Stay Nursing time per patient category Absenteeism rate
Added value per patient Mortality rate Application of "PLAISIR" guidelines Staff turnover
Added value per employee Dissatisfaction rate (food, hotel services, nursing, medical, leisure) Training (training cost / total cost)
Infirmity rate (number of infirm patient / total patients)
Prevalence of social activities (activity leaders' salaries / total salaries
Prevalence of nursing (nursing personnel salaries / total salaries

The variables that appear in this Balanced Scorecard have been chosen to represent the cost function and to capture the organization's strategy after discussion with the EMS LB manager, the head of nursing staff, the head of Human Resources and the chief-accountant. Only few of these variables are available. The others will be set up progressively in the near future.

Financial

The variable "Average cost per patient category and per day" can be calculated using the equation (2). We obtain the average unit cost for each of the eight patient categories. For the next year, these results will be used as standard costs and thus will allow useful comparisons. It is obvious that the EMS has to calculate the unit costs per patient category every quarter.

The variable "Added value per patient" can be calculated by dividing the net operating margin by the number of patients.

The variable "Added value per employee" can be calculated by dividing the net operating margin by the number of employees.

Patient

The variable "Average Length of Stay" is available but non systematically calculated

The variable "Mortality rate" is available but non systematically calculated

The variable "Dissatisfaction rate" (food, hotel services, nursing, medical, leisure) will be available at the end of 2002 after the patient satisfaction survey conducted in the first half of 2002

The variable "Infirmity rate" (number of infirm patient / total patients) is not yet available. The institution has to define what they consider to be infirmity

The variable "Prevalence of social activities" (activity leaders' salaries / total salaries) is available

The variable "Prevalence of nursing" (nursing personnel salaries / total salaries) is available

Processes

As for the variable "Nursing time per patient category", we have the standard values (calculated by the PLAISIR method). The knowledge of the real values would require setting up of an information system. Therefore, this variable will not be available before three-five years

The Application of "PLAISIR" guidelines is compulsory. The standard variable corresponds to the guidelines. The real variable is unknown.

Employees

The variable "Absenteeism rate" is known but non used in any printed reporting

The variable "Staff turnover" is known but non used in any printed reporting

The variable "Training" (training cost / total cost) is known but non used in any printed reporting.

Once all the proxies are available in the organization through a newly set-up information system, the correlations between the proxies and the four variables (see Table 3) will be tested. Only then a Balanced Scorecard adapted to the reality of the EMS LB will be defined. Obviously, this Balanced Scorecard should be updated each quarter.

CONCLUSION

In conclusion : The Balanced Scorecard has necessarily to follow the economical logic of the organization in its environment, and The construction of the Balanced Scorecard has to depend on the generalized cost function.

The first conclusion gives us an analytical basis for the construction of a Balanced Scorecard if we admit that every strategy aims to create added value for the organization. The second conclusion is derived from the conception of the cost function in the ABC-type approaches which have to integrate number of services, complexity and the nature of the organization.

At this stage two issues remain: the choice of the proxies to translate the cost function's variables and the optimization of the processes. Regarding the first point, an obvious link has to appear between variables and proxies chosen to translate the variables. However nothing allows to suppose that this choice is definitive, because, as the function is re-evaluated on a regular basis with new indicators, the structure of the Scorecard can change. Regarding the optimization of the processes, the key-variable generating income remain the patients classified by category. Therefore, to get optimum financial result, occupation rate and number of personnel, it is fundamental to optimize the number of patients per category. We have here our next step of the analysis.

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AN EMPIRICAL EXAMINATION OF THE DETERMINANTS OF COVENANTS IN PUBLIC DEBT CONTRACTS: AN EXAMINATION OF ACCOUNTING AND NON-ACCOUNTING FACTORS

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ABSTRACT

How are debt covenants selected? Given the many covenants available for use either independently or packaged in groups, how are the appropriate covenants selected for each issue. Previous research by the current authors, examined individual debt covenants to determine if identifiable patterns existed and whether there is a difference in debt covenant utilization among industry classifications. The evidence suggested that not only are there identifiable patterns, but that debt covenants are systematically grouped into packages. A theory of debt covenant utilization was offered to explain the theoretical significance of each of the independent variables that appear to influence selection. This paper develops a model to test the significance of those independent variables and the patterns and predictability of use. It seeks to identify both accounting and non-accounting factors that may be used to test the model herein developed to test debt covenant selection theory.

BACKGROUND

Previous research by the authors (2000) examined the type and incidence of restrictive covenants used in debt contracts. The sample surveyed consisted of 327 public debt issues for 28 different companies. The issues were chosen from the time period of the early 1920s to 1993. Five industries were represented in the sample: petroleum, food, steel, paper and plastics. These industries were chosen because they represent companies in existence during the time period studied. The time period and industry factor were included in the survey to later analyze whether these were variables in the determination of debt covenant selection. Only companies with at least three public issues of non-convertible, senior debt in at least three decades over the period of study were included.

Incidence of Individual Covenant Use	
Individual Restrictive Covenant	%Issues Containing
Rights on Default	85.9%
Callable Covenant	76.1%
Sinking Fund Requirement	59.3%
Security Requirement	17.1%
Dividend Restriction	22.6%
Debt/Priority Restriction	26.9%
Sales/Lease Restriction	53.2%

Also noted was that very few debt agreements contained a covenant for merger restriction, a covenant requirement for maintenance of assets, a covenant for a restriction on investments, a covenant for a restriction on disposition of assets, or a covenant for an indirect investment restriction. The results support the premise that some covenants are more efficient in controlling sources of conflict than others.

The survey of 327 packages of covenants from the study supports the theory that the covenants are ordered. Of the 208 issues including covenants in their debt contracts, all but 21 include a sinking fund covenant. Of the 65 issues including a dividend covenant, only nine issues include this covenant without a related sinking fund and security or debt priority covenant. Of the 93 issues including either a security covenant or debt covenant, only four issues do not include a sinking fund covenant.

A THEORY OF DEBT COVENANT UTILIZATION

A 2000 study by the current authors' 2000 identified patterns of individual and packaged covenant use. In an effort to further develop the field of research in this area, Carter, Hadley and Thomson (2001) developed a model to explain both the existence and ordering (ranking) of patterns of debt covenant packages. Toward this end, a model was developed to identify independent variables that have been observed to influence debt covenant package selection. These include, the size of the firm, the financial leverage of the firm, the bond rating of the issue, the firm's trend in profitability, the economic time period, the industry of the firm, and the length of the debt contract.

The Variables

Size of the firm. The literature in this area suggests that larger, well-established firms have reputations in the market and hence are subject to more analysis than smaller firms. Their investment opportunity set is considered to be available public information. The market has shown trust in the firm by allowing it to grow. If the firm had caused any of the sources of conflict to be realized in the past, the firm's ability to raise funds in the future would be altered (Malitz, 1986).

Financial leverage of the firm. It is hypothesized that the closer a firm is to bankruptcy, the more likely the bondholders will include a covenant to protect against claim dilution (i.e. secured debt covenant). Therefore, firms with higher financial leverage are theorized to have a greater probability of issuing bond packages with higher levels of protection than firms with lower financial leverage.

Bond rating of the issue. The higher the rating, the lower the perceived risk. Firms issuing bond with higher ratings are likely to have a higher probability of issuing packages with lower levels of protection than firms issuing bonds with lower bond ratings.

Profitability trend. In the event of declining earnings, the firm has an incentive to maintain dividend payouts at the expense of new investment, thus creating an underinvestment conflict. Firms with higher levels of earnings are not impacted by this conflict because the earnings are available for dividends. Firms with positive profitability trends have a greater probability of issuing bonds with covenant packages that have lower levels of protection than firms with lower average rates of return.

Economic Condition. Previous research in this area has not included aggregate economic performance as a variable in covenant selection. This study predicts that there is a greater probability that bond covenant packages with lower levels of protection are issued in periods of economic expansion and bond covenants packages with higher levels of protection are issued in periods of economic contraction.

Length of the debt contract. This is predicted to be a significant factor in debt covenant selection. The longer the contract, the greater the need will be to control possible sources of conflict. Therefore, the longer the contract, the greater the probability of including a debt covenant package with a higher level of protection.

Industry of the issuing firm. While it is not clear which covenant packages will be attractive to particular industries, it is clear that industry is likely to be a significant variable due to the nature and desirability of the firm's assets. The industry of the firm is particularly related to the need to control the conflict related to asset substitution. The more specialized a firm's resources, the less likely the firm will benefit from asset substitution (Smith and Warner).

METHODOLOGY

After initial descriptive statistics were obtained, the issues in the sample were segregated into four groups to test the theoretical model. The issues were segregated into PACK A, those issues that did not contain any of the covenants in questions; PACK B, those issues with only a sinking fund covenant; PACK C, those issues with the sinking fund covenant, a direct debt/priority covenant and/or a direct security covenant; PACK D, a sinking fund covenant, a dividend covenant, and either a direct debt priority covenant or a direct security covenant.

The model estimated to test the hypotheses was originally specified by the equation that follows. The significance of the individual independent variables was measured by the p statistic.

$$\text{Package of Covenants} = b_1(SIZE) + b_2(LEV) + b_5(ROR) + b_6(MAT) + b_7(RAT) + b_8(EC) + b_9(IND)$$

The dependent variable is a dummy variable representing the levels of covenant packages and was coded "0" for PACK A, "1" for PACK B, "2" for PACK C, and "3" for PACK D. Alternatively, the model can be stated in terms of probability with PACK A, where y=0 going to PACK D, where y = 3.

The general form of the model is as follows:

$$\Phi^{1}(p_1) = \alpha_1 + \beta' x$$
$$\Phi^{1}(p_1 + p_2) = \alpha_2 + \beta' x$$
$$.$$
$$.$$
$$\Phi^{1}(p_1 + p_2 ... + p_k) = \alpha_k + \beta' x$$
and $p_1 + p_2 ... + p_{k+1} = 1$

THE RESULTS

The industry variables, the type of issue (based on maturity) variable, the leverage variable (LEV4), and the size variable were significant at the .05 level. The first hypothesis predicted that packages of covenants with higher levels of protection are more likely the smaller the size of the issuing firm. This hypothesis was supported by the model. The coefficient for size (the log of total assets) was significant at the 0.000 level. Also, the coefficient was negative indicating that as the size of the firm increases, the probability of including a package of covenants with higher levels of protection decreases.

The second hypothesis predicted that the packages of covenants with higher levels of protection are more likely the higher the leverage ratio of the issuing firm. The leverage ratio did not behave act as predicted. This may be the result of having used actual debt ratios. Long-term debt to total capitalization and total debt to total assets may not have appropriately captured the leverage of the firm. A better ratio may have been long-term debt to the market value of the equity of the firm. The contrary performance may also have been the result of the other variables for size, industry, and maturity of the debt being more significant predictive factors, thus outweighing the leverage factor.

The third hypothesis predicted that packages of covenants with higher levels of protection are more likely the lower the prior average rate of return of the issuing firm. The independent variables measuring the average three prior year rate of return (ROR) was significant at the .10 level in the revised model (as measured by the p statistic). However, this variable also acted in the opposite direction predicted. It was predicted that as the average prior rate of return increases, the probability of selecting a package of covenants with a higher level of protection should decrease producing a negative coefficient. Additionally, based on correlation analysis, this variable was significantly correlated with the LEV4 variable. When the LEV4 variable was dropped from analysis, this variable (ROR) was no longer significant. The effect of this variable on the hypothesis is inconclusive.

There are several possible reasons that the prior three year average rate of return did not behave as predicted. First of all it is an average number and may not necessarily represent a trend in the rate of return. A better measure of the effect of rate of return on probability of default on the debt may be a variable measuring the volatility of earnings rather than the average rate of return. Additionally, the variable for size may be a better indicator of the probability of default on debt since it is a significant variable in the model. Also, the factors for industry and length to maturity were significant variables for the four packages of debt covenants.

The fourth hypothesis predicted that covenants with higher levels of protection were more likely for issues with longer maturities than issues with medium or short-term issues. This hypothesis was supported by the model. The coefficient for maturity of the debt was dummy coded based on long term (coded 0), medium term (coded 1), and short term (coded 2). The coefficient was negative in the model supporting the theory that medium term and short -term issues are less likely to include covenant packages with a higher level of protection.

The fifth hypothesis predicted that packages with higher levels of covenant protection were more likely for issues with lower bond ratings than issues with higher bond ratings. Bond rating was utilized in the model as an indicator of the level of risk of the debt at the time of debt issuance. The premise was the lower the bond rating the higher the probability of default on the debt and the greater the likelihood of a bond issue including a package of covenants offering a higher degree of protection to the bond holder. One reason that the bond rating was not a significant variable in this analysis is that only a small percentage of the sample issues contained a low bond rating. Of the sample issues, only 15 issues or 4.6% of the sample contained a low rating. The insignificance may also be the result of the variable being outweighed by other variables in the model.

The sixth hypothesis predicted that packages of covenants with higher levels of protection were more likely the lower the economic index of the issuing firm. The first economic index was computed based on the number of months of economic contraction and economic expansion in the year of issuance. Debt issued during a year with all twelve months in an economic expansion had the highest index and debt issuing during a year with all twelve months in an economic contraction had the lowest index. This economic index was not significant and was dropped from the final model. An alternative economic index (EC2) was included in the analysis. This index was coded "0" if the issue was issued during an economic contraction period and "1" if the issue was issued during an economic expansion period. This alternative economic index also proved insignificant. The insignificance of both economic variables may be the result of impact of other factors effecting the time period of issuance that weren't captured in the model. Examples include the effect of accounting standards and the popularity of a given covenant at a point in time.

The final hypothesis predicted that the industry of the issuing firm was a significant factor in the selection of debt covenant packages. The industry factors were significant in the model. The coefficient for petroleum was zero indicating that this industry was not as likely to issue packages with higher levels of covenants. The coefficients for paper and plastic were less than 1.0 indicating also that these industries were not as likely to issue packages with higher protection. The coefficients for the food industry and the steel industry were greater than the petroleum coefficient indicating that these industries were more likely to include covenant packages with higher levels of protection than the other industries.

CONCLUSION

Overall, the model provided a good fit for the data. The log likelihood ratio statistic supports the model's significance. The Chi2 was 312.227 at the .0000 significance level. Additionally, the results comparing predicted and actual outcomes indicated a correct classification percentage of 68.75%.

The study extends previous literature related to debt covenant existence by offering that debt covenants are part of a package and the packages are ordered in their degree of preference and protection. The study also provides insight into how accounting-based variables as well as non-accounting variables are used in the selection of debt covenant packages. The significance of the accounting-based variables found to exist in this model suggests that further research may be performed to determine how debt covenant selection impacts accounting choices made by firms.

Please contact authors for complete empirical results and references.

INTERNET STOCK VALUATION: THE IMPACT OF RELATIONAL VALUE ON MARKET VALUE OF EQUITY

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ABSTRACT

This study focuses on the impact of accounting and nonfinancial information on the valuation of internet-related stocks during the years 1996-1999, at the inception of the internet industry. Only nonfinancial information is found to be consistently positively related to the market value of equity of internet companies, using both traditional and Ohlson residual income valuation approaches over this time period. The unaudited nonfinancial information, including number of customers, used in this study was self-identified by the internet firms for voluntary disclosure in their annual reports, and this type of nonfinancial information has not previously been studied in the context of the internet industry.

Accounting information was not yet consistently positively related to market value of equity in this new industry during the years 1996-1999. Overall, nonfinancial information is found to be more value relevant than accounting information in the infancy (1996-1999) of the internet industry. These findings are of interest to both accounting researchers and investors in emerging industries.

INTRODUCTION

This study investigates the value relevance of accounting information and non-audited self-selected nonfinancial information found in the annual reports of internet companies. While other studies have investigated nonfinancial information in an emerging industry, the nonfinancial information in this study was self-selected by the companies as information that may be useful to investors and potential investors in a time period before accounting information becomes relevant. In addition, the nonfinancial information is unaudited and may allow the companies to signal their explanation of the reason for the growth in the firm's value.

Both traditional and Ohlson (1995) valuation models are implemented for 82 firm-years from 1996-1999. The firms were selected from Internet stock indexes on the basis of the availability of additional nonfinancial measures in the annual report. The unaudited, self-selected nonfinancial information is found to be more value relevant than financial information during this time period.

The second section of the paper reviews relevant prior results of studies focusing on internet stock valuation, the third section discusses the methodological approach used in this paper, and the fourth section describes the empirical results. Section five concludes.

LITERATURE REVIEW

Several studies have previously examined internet stock valuation. This study is unique in its use of a variety of nonfinancial measures that are reported by the internet firms themselves in their annual reports. These self-selected nonfinancial measures would not have been disclosed by the firms if they were not perceived as being useful to the investor or potential investor. The most common self-selected nonfinancial measure that firms chose to disclose was the number of customers/subscribers/registered users (75% of the 32 firms). Some nonfinancial measures, such as pageviews (16% of the 32 firms), were incorporated in prior studies, while others, such as number of registered customers, have not previously been investigated. Nonfinancial measures have been found to be value relevant in other emerging industries (Amir and Lev, 1996; Hirschey, Richardson, Scholz, 1998).

Gross profits, unique visitors, and pageviews were positively correlated with price in Trueman, Wong, and Zhang (2000). That paper also found differential effects for different types of internet firms; net income was negatively associated with internet retailer valuation but positively associated with portal and content firms. Pageviews were also found to be relatively more important for internet retail firms than for portal and content firms. Similarly, Rajgopal, Kotha, and Venkatachalam (2000) found that the proportion of unique visitors to a site was incrementally value relevant beyond book value and earnings.

METHODOLOGY

The first valuation model studied is a traditional linear model of the form:

$$MVE_t = a_0 + a_1SHEQ_t + a_2IBED_t + e_t \quad (1)$$

where MVE is the firm's market value of equity, SHEQ is the firm's book value of shareholders' equity, and IBED is the firm's income before extraordinary items and discontinued operations for the period ended at time t. This model and variations upon it have been used to study the value relevance of accounting information over time (Collins, Maydew, and Weiss, 1997).

In addition to contemporaneous accounting variables, anticipation of future earnings also is expected to affect firm valuation. However, many internet firms were not yet profitable during the study time period. Since it was difficult to use past net losses to project future profits in the internet industry of the late 1990s, some other information must have provided the basis for predicting future earnings. As discussed previously, many internet industry investors believed that nonfinancial measures such as pageviews, unique visitors, and number of subscribers were useful in predicting future market share, earnings, and ultimately prices. To incorporate nonfinancial information, in the spirit of this parsimonious model, a nonfinancial information variable may be simply added in along with the accounting variables. Thus,

$$MVE_t = a_0 + a_1SHEQ_t + a_2IBED_t + a_3NONFIN_t + e_t \quad (2)$$

where NONFIN is the nonfinancial variable measured during period t. Several studies have examined particular nonfinancial variables such as pageviews and unique visitors.

These traditional approaches are helpful as initial investigations, but the residual income valuation model combined with linear information dynamics is the ideal setting in which to integrate both types of information, because it sets market value equal to the discounted future cash flows of the firm. The empirical analysis that follows is based on the residual income valuation model with linear information dynamics in Ohlson (1995), which is more internally consistent than traditional models. From the assumptions of market value of equity being equal to the present value of future dividends, the clean surplus relation, and autoregressive abnormal earnings behavior, the following value relation is derived in Ohlson (1995):

$$MVE_t = SHEQ_{t-1} + b_1 ABIBED_t + b_2 v_t \quad (3)$$

or

$$MVE_t = SHEQ_{t-1} + b_1 ABIBED_t + b_2 NONFIN_t \quad (3a)$$

where ABIBED is the earnings of the firm before extraordinary items and discontinued operations minus a reasonable return on the book value of equity (abnormal earnings) and n is nonfinancial information, in this case assumed to be the nonfinancial information taken from firm annual reports (NONFIN). For the empirical implementation inspired by Myers (1999), the formula includes an intercept and a coefficient on SHEQ:

$$MVE_t = c_0 + c_1 SHEQ_{t-1} + c_2 ABIBED_t + c_3\ NONFIN_t + e_t \quad (4)$$

and the reasonable return rate used to calculate normal earnings is 15% (average return on equity over time) for firms in the sample over five years old and 20% for the newer firms that are assumed to be more risky. Again, NONFIN is expected to have a positive coefficient while the coefficients on SHEQ and ABIBED, usually expected to be positive, are not necessarily expected to have a significantly positive sign due to the lifecycle stage of the internet industry.

RESULTS

The sample was selected from 161 companies listed on Internet stock indexes in June 1999. After eliminating duplicates and firms with recent initial public offerings, annual reports for 1997 and 1998 were requested from 50 companies. Not all annual reports contained quantitative nonfinancial disclosures, reducing the sample to 32 firms. Additional information for the 1999 fiscal year was gathered when available for the sample firms, bringing total firm-years to 82.

Table 1 reports the results of the regression of market value of equity against the accounting and nonaccounting variables of interest based on equation (2). The first regression in the table regresses market value of equity against the nonfinancial measure while controlling for size with the lagged market value of equity. Even with the inclusion of this size control, the relation of the nonfinancial measure to the market value of equity remains significantly positive.

Table 1 : Traditional Accounting Valuation Regression Results for Internet Firm-Years 1996-1999						
$MVE_t = a_0 + a_1SHEQ_t + a_2IBED_t + a_3NONFIN_t + e_t$ (2)						
Regression	Constant	SHEQ	IBED	NONFIN	LAGMVE	Ad. R^2
	-2,235,246			347.574**	1.764**	.87
	(-1.252)			(13.795)	(9.466)	
	-2,197,039	5.361*	-5.781	404.065**		.80
	(-1.328)	(2.522)	(-.889)	(16.125)		
** - Significantly positive at the 0.01 level (two-tailed)						
* - Significantly positive at the 0.05 level (two-tailed)						
MVE = Market value of equity at yearend						
SHEQ = Book value of shareholders' equity at yearend						
IBED = Income before extraordinary items and discontinued operations for the year						
NONFIN = Nonfinancial measure reported at yearend						
LAGMVE = Market value of equity, beginning of year						

The nonfinancial measure is introduced in addition to the accounting variables in Table 1, and its coefficients are consistently positively related to market value of equity as expected. The accounting variables are inconsistently related to market value of equity, also as expected. These results are consistent with the popular impression that accounting measures are less value relevant for new industries, including the internet, while nonfinancial measures are more value relevant for new industries.

The results from the residual income perspective based on equation (4) are similar to the Table 1 results in that the nonfinancial measure is consistently positively related to the market value of equity, and the book value of equity and the residual income measures are generally not significant. Thus, the results remain similar to the traditional valuation framework even in the more internally consistent residual valuation setting.

CONCLUSION

This study has focused on the impact of both accounting and nonfinancial information on internet stock valuation in the late 1990s. Only nonfinancial information was found to be consistently positively related to the market value of equity of internet companies, using both traditional and Ohlson residual income valuation approaches. The nonfinancial information used in this study was self-identified by the internet firms in their annual reports, differentiating it from prior studies where homogeneous nonfinancial measures were used. Allowing for the use of different nonfinancial information is analogous to allowing for different methods of accounting from firm to firm that are self-selected. Presumably firms will report the nonfinancial information that is most relevant to their investors, and the value relevance evidence supports this conjecture.

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ENVIRONMENTAL HEALTH, POLLUTION AND INDUSTRIES: THE ASSOCIATION OF AUDIT PRIVILEGE AND IMMUNITY LAWS

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ABSTRACT

Research indicates that a large number of companies' real environmental, health and safety costs are 300 to 400 percent higher than recorded in their accounting records. An investigation of environmental, health issues and compliance initiatives should be valuable to regulated companies and the general public. In 1995, the Environmental Protection Agency (EPA) issued a policy to motivate companies to take an active role in monitoring their own pollution abatement processes by encouraging these regulated entities to self-audit, disclose, and correct any discovered violations. States further passed "environmental audit privilege laws" that in essence protect the information contained in environmental audits of firms. The objective of this exploratory study was to investigate whether emission levels of five "criteria air pollutants" and specific sectors of State's economies are affected by the passage of state environmental audit privilege and immunity laws. The results indicate that most of the states increased emission of the pollutants after enacting audit statutes. The study also finds that after the enactments chemical and allied products industries significantly increased output, on average, as measured in real GSP dollars.

ACCOUNTING PERFORMANCE MEASURES AND COMPENSATION OF CHIEF EXECUTIVE OFFICERS: THE EMPIRICAL EVIDENCE FROM PUBLICLY HELD TECHNOLOGY COMPANIES

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ABSTRACT

The paper investigates whether the accounting performance measures would help protect the cash compensation of chief executive officers from the market-wide noise in equity value. The study selects companies in the technology industry as its subject. The accounting performance measures usually include the changes in return on assets and the changes in basic earnings per share excluding extraordinary items. The market-based performance measure refers to the stock returns. Stock returns usually contain the firm-specific noise and the market-wide noise. The study assumes that the market-wide noise is a major source of noise in stock returns. Then, two additional hypotheses are generated. The hypothesis (H2) predicts that CEO cash compensation would be more sensitive to accounting-based performance measures than to stock returns as stock return is a noisier measure of executive performance. The hypothesis (H3) predicts that CEO cash compensation would be relatively more sensitive to the accounting-based performance measures when the correlation between the noise in stock return and the noise in accounting-based measures is less positive. The results are consistent with the hypothesis (H1) and the hypothesis (H2). But, the results for the hypothesis (H3) are mixed.

TREADING AN UNEASY PATH? THE SECURITIZATION OF GATE RECEIPTS

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ABSTRACT

This paper considers the securitization of gate receipts by UK football clubs in the context of the more usual structures of securitisation. The usual definition of securitization is as a process by which assets are sold by their owner and re-financed by their purchaser through the issue of securities backed by the cash flow from the assets, In essence the process packages illiquid financial assets in such a way as to be able to sell participations in the package to investors. This allows the illiquidity to be swapped for liquidity. A key characteristic required of the asset or flow of income to be securitized is that it should have certainty. Recent securitizations have moved to a greater extent than previously away from this key characteristic. This paper examines the recent securitizations undertaken by UK football clubs from this standpoint.

INTRODUCTION

This paper considers the securitization of gate receipts by UK football clubs in the context of the more usual structures of securitisation. The usual definition of securitization is as a process by which assets are sold by their owner and re-financed by their purchaser through the issue of securities backed by the cash flow from the assets, In essence the process packages illiquid financial assets in such a way as to be able to sell participations in the package to investors. This allows the illiquidity to be swapped for liquidity

Securitization has also been described as the process of distributing risk by aggregating debt instruments into a pool and issuing new securities based on the pool ; and as the issuing of traded financial instruments against anticipated cash flows of interest and principal from various kinds of receivables.

For an issuer the advantages of securitization are liquidity, a substantial reduction in the cost of funding, a diversification of the investor base which allows new sources of capital to be exploited and a reduction in the balance sheet. For securitization to be feasible for an organisation it is necessary for it to identify a receivable that is homogeneous and available as a steady stream and which can easily be rated investment grade.

The risks applicable to securitization are credit risk; liquidity risk; interest rate risk; fraud or other invalidity; legal uncertainties and changes; reliance on experts; structural risks; insurance risk and the risk of downgrading.

The securitization process has five stages:

Stage One:	Identify a pool of assets with a regular stream of cash flows
Stage Two:	Transfer these to a bankruptcy remote entity to insulate against the seller's credit risk
Stage Three:	Create a structure to package the cash flows supported by internal and/or external credit enhancement
Stage Four:	Provide external liquidity support to bridge the gap between the asset cash flow and the payment obligations on the securities
Stage Five:	Iissue securities backed by the asset pool and supported by credit enhancement and liquidity

Since the process was introduced in the 1970s with the securitization of mortgages in the US the range of assets securitized has continually extended. An at least partial list is cars, boats, equipment leases, recreational vehicles and light trucks, credit card receivables, consumer loans, trade receivables, affiliate notes, insurance policy loans, hospital receivables, home equity loans, time shares, junk bonds, middle market commercial industrial loans , LDC debt, and publishing rights. One of the more recent applications is reported in the European Commission's ART Market Study Final Report (October 2000)at p.16. This is catastrophe securitization where the cedant issues a bond under which the issuer or cedant is allowed to "default" on the bond in the event of an insured or trigger event occurring. The "default" may refer to capital, coupon or both. The securities are written so that the non-payment that occurs with the trigger event does not formally constitute a default on the debt and accordingly has no impact on the issuer's credit rating.

While an early paper described "the securitization of practically everything" (1985), it is really only in the past few years that the list of applications has burgeoned. Standard and Poor's (2000) remarked that securitisation was being embraced by investors because securitized instruments were of comparatively high quality and low volatility and the opportunities they offered for portfolio diversification. In this paper we consider the securitization of gate receipts by UK football clubs in the light of past experience and assess whether they are an appropriate application of the technique.

The approach taken will be to describe a traditional securitization process in detail and then to compare the gate receipt securitization with it to enable the differences to be identified. Certificates for amortising revolving credits (or CARDS) were developed based on the steady stream of credit card receivables a bank had. The receivables varied in quality. The bank identified a static pool of credit card balances of good quality and decided to sell participations in the pool. To do so a special purpose vehicle (SPV) was created to hold the credit card receivables and to issue certificates to buy these that would pay out for a certain period. The credit enhancement issue is dealt with by obtaining a guarantee from a AAA rated entity, or by overcollateralisation, which has already been done in this case by pooling assets to a much higher value than that issued, or by the creation of subordinated tranches

Placement, the next stage involved pricing. distribution and transferring the securities

The securities could have been privately placed, and this may be a good option in cases where the underlying asset has not been used as the basis for securitisation before. If, as is more usual, the issue is underwritten ,the underwriter may make a market. Finally the bank as the originator of the receivables received a servicing fee.

THE GATE RECEIPT CASES

The Ipswich Town ,Leicester City, Newcastle United, Tottenham Hotspur and Leeds United Football Clubs in the Uk have all securitized gate receipts. We will examine in detail the structure of the Newcastle United securitisation. The club securitized its match ticket and corporate hospitality receipts to raise 55 million pounds for the extension of its ground, St James' Park and for general corporate purposes. The funds raised were repayable over 17 years and had an average fixed annual interest rate of 7.43%,a then advantageous commercial rate.

The securitisation process differed from that already outlined in several respects ;first the nature of ticket and hospitality receipts did not allow a legally assignable book debt to be created. This problem was overcome by setting up a new company (Newco) to take a sub-lease of St James' Park from the club and by this process acquiring the right to ticket and hospitality revenue. A second difference was the less predictable nature of the revenues than for most securitizations and therefore the risk of reduced attendances over the 17 period, perhaps related to team performance had to be covered. A third issue was that Newcastle had substantial brought forward tax losses which they wished to remain available for set-off against future profits from match day receipts; and fourth, the club did not want the funding to restrict its normal operations and needed to maintain full flexibility with respect to player signings which could not wait for trustee consent.

The structure established to cope with these issues was for an SPV to issue the bonds and lend the money raised to Newco which then lent the funds to the club. Newco received a sub-lease of the stadium from the club and commissioned the club to operate the stadium and to play its home matches there/ The club receives a fee for its work and rent under the sub-lease, both of which are set-off against the loan repayments due to Newco from the club.

Security for the revenue flows was achieved by the creation of a cash management agreement between all the parties that provided for all ticket and hospitality revenue to be paid into a specified bank account from which monies were paid out into a series of accounts in a specified order to ensure sufficient funds would be available to service the payments to be made to investors. Once this is done, cash is paid back to the club in rent and fees under the service agreement. This arrangement is allowing the club to expand its ground, from which further gate receipts could well be received.

On the other hand, LeedsUnited Football Club launched a $US71 m securitisation of its gate receipts in order to recoup funds it had spent buying players to reach champion-challenging level. and Ipswich Town raised 25 million pounds securitizing ticket receivables to fund growth and restructuring when the club had only just been promoted to the Premier League and would also play in Europe.

While these clubs have loyal fan bases and capacity-constrained stadiums which combined with the widespread use of season tickets does put a level of support under the levels of ticket income, it is curious that securitization is being favoured at a time when the underlying assumptions may well be changing. Traditionally, clubs playing in the Premier League attract the largest crowds and a club being relegated to the first division would lose much of that attraction. The recent participation of UK clubs in the European competition creates a new level of club that plays in Europe. The Premier League clubs that fail to qualify to play in Europe form a second level and the first division clubs are now a distant third. Where securitized funds are being spent in some cases on gaining players to make a mark in the European competition, it remains to be seen whether this does not become a vicious circle when these players leave and must be replaced.. The credit enhancement issue which here is the guarantee of the persistency of substantial ground revenues seems to be the critical issue. This in effect needs to be a guarantee that the club will at the very least maintain a presence in the Premier League and appear not too rarely in Europe.

It is suggested that potential investors in such issues should pay particular attention to two particular aspects of the securitizations by football clubs; first that there are long-term benefits for the club from the funds received; and second, that the credit enhancement arrangements are sufficient to deal with the realistic expectation, however repugnant to a loyal fan, that by no means the full period of the securitisation will coincide with the club playing in both Europe and the Premier League.

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HAS INTRODUCTORY ACCOUNTING CHANGED?

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ABSTRACT

In the early 1990's several accounting bodies called for consideration of new approaches throughout the academic accounting program. These new approaches included change in focus from a preparer orientation to a user orientation, change in the utilization of technology, and change in delivery methods to include more emphasis on communication skills. We document these changes along with the current status of other teaching and assessment variables.

A survey for pedagogy in the introductory accounting courses was sent to 805 four-year programs in the United States offering accounting coursework. Current course offerings were compared to respondent perceptions of course offerings in 1991. For the schools responding to the questionnaire, significant change has occurred in introductory course pedagogy. The magnitude of that change, however, may be in the eye of the beholder.

Results of this study can be used to help judge whether introductory accounting classes are increasing the value added to a student's education sufficiently to warrant the current number of units devoted to the courses. Employers, other faculty, and administrators can use the results to support change in introductory courses. Finally, introductory instructors can compare the changes they have made to the results from this diverse sample of schools surveyed.

NEW DEVELOPMENTS IN REAL ESTATE TAX FREE EXCHANGES

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ABSTRACT

One of the last remaining tax shelters for real estate investments is contained in Section 1031 of the Internal Revenue Code. The primary reason that has been given for deferring recognition of gain under section 1031 on exchanges of like-kind property is that the exchange does not materially alter the taxpayer's economic position. The property received in the exchange is considered a continuation of the old property. Taxpayers and tax planners must be very careful in structuring an exchange if tax deferral is to be attained. This paper provides an overview of Section 1031, discusses the requirements for a valid exchange, and discusses tax planning strategies to optimize real estate exchanges. It also traces several recent developments in the technique called "reverse like-kind exchanges."

INTRODUCTION

Section 1001 of the Internal Revenue Code requires the recognition of realized gains and losses on the sale or disposition of property. However, Code Section 1031 provides for the non-recognition of gain or loss on the exchange of certain property for other property of like- kind. To fall within the provision, both the property given up and the property received must meet certain requirements. These are commonly referred to as "like-kind" exchanges.

There are three general requirements for non-recognition of gain treatment under Code Section 1031. First, there must be an actual exchange and not a sale. Second, the properties exchanged must be of like-kind. Third, the property transferred and the property received must be held for productive use in a trade or business or for investment If these three requirements are not met, gain or loss must be recognized on the exchange. There may be instances where a taxpayer may actually prefer that a gain or loss be recognized. For example, it may be desirable to recognize gain to obtain a stepped-up basis, to offset a loss, or to recognize a loss already realized. In these cases, the transaction has to be intentionally structured to fall outside of the requirements of Code Section 1031 because the like-kind rules are mandatory, not elective.

THE LIKE-KIND REQUIREMENT

To qualify for nonrecognition treatment, there must be an exchange of property. In Halpern v. U. S., the exchange requirement was not met when a cash sale of property was immediately followed by a cash purchase of like-kind property. An exchange will be treated as a sale if a step-transaction analysis indicates that the substance over the form of the transaction indicates a sale.

It is therefore important that all documents used at closing be exchange documents and not the typical purchase and sale agreements commonly associated with real estate.

In a "like-kind exchange" the property being acquired must be similar in nature and character to the property being relinquished. The Internal Revenue Service is quite liberal in its interpretation and views almost all real estate as similar in nature or character. Virtually all real property is thus like-kind property and can usually qualify for the "like-kind exchange" rules. The fact that real estate is improved, unimproved, productive or nonproductive is not material. Any mixture of office buildings, apartment buildings, factory buildings, shopping centers, stores, hotels, motels, farms, ranches and parking lots is permitted.

If nonqualifying property is included, §1031 may be partially or totally unavailable. For example, a taxpayer cannot exchange property for services, including brokerage fees or production services. The exchange of land for a building to be constructed on presently owned property is not a qualified exchange. In one case, the Bloomington Coca-Cola Bottling Co. transferred property to a contractor in exchange for the construction of a building on some other Coca-Cola land. The Court ruled that this was not a like-kind exchange as it was considered to have received building services and materials and not qualifying property.

The exchange of land for a building to be constructed on a site not presently owned however is a qualified exchange. In J.H. Baird Publishing Co., the taxpayer "sold" high-basis property to a contractor, then hired the contractor to build a building, and subsequently "traded" some low-basis property back to the same contractor. This was deemed tax-free under §1031. These two cases illustrate that a taxpayer can exchange existing property for property to be constructed on their own property but definitely not for future services.

In Starker vs. U.S., the court ruled that property constituting the taxpayer's principal residence did not qualify as investment property even when the taxpayer argues that the residence is being held for appreciation. Certain vacation homes also do not qualify as a like-kind exchange. A vacation home not held for investment is not qualified use property because it is being used for personal reasons and not for business or investment purposes.

In Revenue Ruling 57-244, the IRS addressed the issue of taxpayers who purchase property for the construction of a residence and then abandon that purpose for clearly established reasons and then hold the property for investment purposes. A subsequent exchange is held to qualify under §1031. Converting a personal residence into a rental unit would also change the use to qualified property. The burden of proving conversion is on the taxpayer and the success of this tactic depends on such efforts as how long the property is rented before the exchange, the documentation of rental efforts, and the substance of the transaction.

Property received in a like-kind exchange and immediately resold can create a problem for the taxpayer. The purpose the taxpayer establishes for acquiring the property is important because property acquired in an exchange for the purpose of immediate resale is not held for business or investment. This is especially true when the taxpayer has entered into a binding contract before the exchange to sell the property after the exchange. There is no specified length of time the property must be held before sale or liquidation. In Regals Realty Co. v. Commissioner, a taxpayer exchanged property for a commercial building and one month later initiated a plan of liquidation under which it would sell the building. The court held that the commercial building was not held for business or investment but was held for trading or resale and therefore the exchange did not qualify under §1031

TIMING OF THE EXCHANGE

During the 1970's, aggressive taxpayers and tax practitioners began structuring like-kind exchanges of real estate in which the replacement property was not received simultaneously with the relinquishment of the taxpayer's exchange property. In Starker v. United States, the court addressed the issue of the applicability of Code Section 1031 where the exchange of properties did not occur simultaneously. In the case, property was relinquished in exchange for property that was to be identified and conveyed within the following five years. The IRS argued that Code Section 1031 did not apply because the exchange was not simultaneous and further that what was received in exchange for the property was merely a contract and not property of like-kind. The Ninth Circuit disagreed and concluded that Code Section 1031 did not require that the exchange occur simultaneously and that contract rights were sufficient as long as like-kind property was ultimately received. The Tax Reform Act of 1984 subsequently enacted time limits governing the identification and receipt of property received in an exchange.

The first timing requirement is that the property to be received in the exchange must be specifically identified within 45 days of closing on the relinquished property. To prove that identification has occurred, the taxpayer must designate the property in writing and must have proof that this writing was received within the time period. Property is properly identified only if it is specifically designated as replacement property and specifically described. This requirement may be met by referring to a legal description, a street address, or a distinguishable name.

The second timing requirement that must be met is that the identified replacement property must be actually received before the end of the exchange period. The exchange period begins on the date the property is transferred and ends on the date that is the earlier of 180 days after the date of the transfer or the due date of the income tax return for the taxable year. The timing requirements must be strictly observed.

In Christensen v. Commissioner, replacement property was received within 180 days of the transfer of the relinquished property but after the due date of the tax return of the party relinquishing the property. The Ninth Circuit held that the exchange did not qualify for non-recognition of gain or loss. The party argued that the due date of the return should be determined by including the time of an automatic extension since the statute allows for the inclusion of extensions. The Court, however, pointed out that the party had not requested nor had been granted an extension, which placed the actual due date of the return prior to the time that the replacement property was received. The result in Christensen could have been avoided simply by requesting an automatic extension of the due date for the income tax return.

The Regulations state that replacement property can still qualify as like-kind property even if it is not in existence or if it is being produced at the time it is identified. For such property to be substantially the same as identified when it is received, however, there must have been no substantial changes made in the property.

STRUCTURE OF LIKE-KIND EXCHANGES TO DEFER GAIN

In structuring a like-kind exchange, it is important to identify that objective as early as possible. At a minimum, one must decide prior to the closing date of the sale of the property. When structuring a like-kind exchange, it is important to observe the two previously mentioned time requirements. After a taxpayer has transferred the relinquished property, he or she has 45 days to identify the replacement property. The taxpayer is required to take possession of the replacement property by the 180th day after the date of transfer of the relinquished property.

Two parties do not always hold like-kind property that they wish to exchange. Therefore, one of the difficulties in setting up a like-kind exchange transaction is finding two parties who have suitable property they want to exchange. When the buyer of the relinquished property does not have suitable replacement property, one option is to have the buyer purchase replacement property so the exchange can then occur. A buyer is often unwilling to go through the inconvenience of accommodating the seller, and a transaction that has the taxpayer selling property to one party and buying suitable replacement property from another does not qualify as a like-kind exchange transaction. In this instance, using a qualified intermediary to complete the exchange will satisfy the IRS's requirements to be classified as a like-kind exchange.

In a four-party exchange, the four parties are the taxpayer, the buyer of the taxpayer's property, the seller of replacement property, and a qualified intermediary. The qualified intermediary has a written agreement with the taxpayer to participate in the transaction. The intermediary acquires the relinquished property from the taxpayer and then transfers the property to the buyer. The intermediary then purchases suitable replacement property from the seller and transfers the property to the taxpayer. In this type of transaction the use of written contract assignments allows the transaction to occur without the fear that the taxpayer may lose title to the assets being sold and purchased.

It is important to remember that when a taxpayer sells relinquished property and later acquires replacement property, the sales proceeds must be kept outside of the taxpayer's control. Generally, the taxpayer should not have the right to receive, pledge, borrow or obtain benefit from the sales proceeds. This is because the IRS requires that gain be recognized in like-kind transaction to the extent of "boot," or cash received. By keeping the cash outside of the taxpayer's control, the taxpayer avoids the actual receipt or constructive receipt of boot. A qualified escrow account may be used in this instance.

RECENT DEVELOPMENTS

In recent years, many taxpayers have used a strategy called "the reverse like-kind exchange." Essentially, an intermediary acquires and holds the new property until the taxpayer finds a buyer for his or her property. In 1991, the IRS issued regulations that stated that these transactions did not qualify for like-kind treatment. Many taxpayers disagreed with the IRS position on this issue. In 1998, the IRS issued Letter Ruling 9814019 and permitted a two-party reverse exchange. In 2000, the IRS issued Revenue Procedure 2000-37 and established a safe-harbor for certain reverse like-kind exchanges. In this procedure, the taxpayer is allowed only 45 days between the time the property being exchanged is identified and the time the intermediary takes legal title to the new property. This procedure also states that a total of 180 days is the maximum time period allowed for the sale of the property being exchanged. This procedure states that the exchange will lose like-kind treatment if the 180-day time period is not met.

In the case DeCleene v. Commissioner, which was settled in late 2000, a taxpayer tried a like-kind exchange without using an intermediary. The taxpayer acquired some property called the Lawrence property in 1992. Approximately one year later, the taxpayer transferred the Lawrence property to Western Lime and Cement Co. (WLC) in exchange for a nonrecourse note. Then, three months later, reacquired the Lawrence property in exchange for a new property called the McDonald property. The court held that WLC did not acquire any of the benefits and burdens of ownership of the Lawrence property and, therefore, the Lawrence property was never transferred to WLC. If the Lawrence property was never transferred to WLC, then the only way in which the transaction could qualify for nonrecognition under section 1031 would be if the acquisition of the Lawrence property in 1992 was treated as part of an integrated plan to exchange it for the McDonald property. However, the taxpayer had not taken any steps to evidence intent to enter into an exchange.

In the case, the court pointed out that the taxpayer purchased the Lawrence property without the participation of an intermediary or exchange facilitator. The structure of the transaction created an inherently ambiguous position about whether an exchange would ever take place. The court thus ruled that transaction was a taxable sale and not a tax-free exchange.

CONCLUSION

Like-kind exchanges are a popular method of deferring taxes on the disposition of business or investment property, especially real estate. While real estate exchanges offer excellent tax advantages, it is important that they be structured in accordance with I.R.S. Regulations to realize tax deferment.

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CAMBRIDGE CAPITAL, LLC CASE

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Robert J. Barnett, Wells Fargo Mortgage Services

OVERVIEW

You are asked by Bobby Harnett, President of Cambridge Capital, LLC, to serve as a financial and accounting consultant for the new company he has formed with his capital provider, Rondell Luther, and Judd Kipson, a seasoned veteran of the sub-prime mortgage industry. Rondell Luther is the sole provider of financial capital. Bobby Harnett and Judd Kipson will provide "sweat equity" to establish and operate the business. In addition to his investment of $1 million, in the form of a line of credit that the company can draw down, Rondell will serve as the chief executive officer and will establish overall company strategic guidance for Bobby and Judd. Also, Rondell's considerable wealth will allow the company to establish the critical relationships with financial institutions that are necessary to establish warehouse lines of credit to allow the company to originate the sub-prime mortgage loan product line that is the company's main source of revenue. Distribution of cash flows by the LLC to the owners are as follows: Rondell Luther: 60%, Bobby Harnett: 25%, Judd Kipson: 15%. All of the distributions will occur on the last day of the month following year end of March 31.

THE CONTENT AND STRUCTURE OF ACCOUNTING ETHICS CURRICULA: A COMPARISON OF ACCOUNTING EDUCATORS' AND PUBLIC ACCOUNTANTS' PERCEPTIONS

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ABSTRACT

Ensuring the relevance of curricular coverage is an important and ongoing challenge for accounting educators. As the amount of information that may potentially be included in the accounting curriculum continues to increase, care must be taken with respect to decisions about what should be included in a student's course of study. Recent research suggests that there may be important differences between educators and practitioners with regard to such issues (Albrecht and Sack, 2000).

One area of particular concern is that of ethics. Some schools teach ethics by integrating them into existing courses and others teach them as a standalone course. Even if taught as a separate course, there is some disagreement over the 'ideal' nature and content of the course (e.g., should it be taught by a business school faculty member or by a philosophy professor?). Additionally, evidence exists to suggest that practitioners consider ethics to be a more important topic than do accounting educators (Albrecht and Sack, 2000).

The present study examines issues concerning both the format and potential content of ethics in the accounting curriculum. A survey instrument was distributed to accounting professors and public accounting professionals asking for indications of the perceived importance of over three dozen ethics topics, and the pedagogical format in which these topics should be delivered. Potential topics were selected from accounting ethics textbooks and journal articles. Responses to these items were provided on 7-point scales, and additional information was solicited regarding possible means by which ethical topics could be covered in the classroom. Demographic information was also collected.

Responses of 176 accounting faculty members (mean = 15.7 years teaching experience) and 60 Big 5 accountants (mean = 40.9 months' experience) indicate the existence of both significant areas of agreement and disagreement with regard to the absolute and relative importance of topics. There was generally consistent agreement with respect to the optimal delivery format of ethical coverage. Both groups agree that there should be some lecture and discussion but that primary emphasis should be placed on case analysis. The overall findings of the study are discussed and placed in contexts that should assist educators in the consideration of ethical coverage in their own courses.

SIGNS OF TROUBLE IN THE PROFESSION: A LOOK AT THE ETHICAL PERCEPTIONS AND EXPERIENCES OF ACCOUNTING PRACTITIONERS (PRE-ENRON)

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ABSTRACT

The Enron debacle is one in a string of headlines focusing on accounting firms and individual CPAs who have "crossed the line" by engaging in unethical, or at least what is widely perceived as highly questionable and ill-advised conduct. The purpose of this study is to provide further insight into issues of ethical and professional conduct in accounting via an examination of the perceptions of practitioners regarding the extent of ethical misconduct in accounting, the likelihood of serious sanctions being imposed for selected misconducts, and their direct personal experience with ethical issues. The data for this study was gathered prior to the disclosure of the events surrounding Enron.

The results provide evidence that accounting practitioners are largely comfortable with the ethical environment of the profession with few perceiving ethical misconduct as pervasive and most having a high opinion of the profession's concern about ethics. Practitioners perceived that the frequency of selected unethical activities is low and that those guilty of such acts will face severe sanctions. Relatively few accountants reported having felt pressured to engage in unethical conduct. However the findings reported in this study also provide evidence in contrast to the general sense of ethical well-being. Most of the misconducts listed in the study were perceived as occurring relatively infrequently. Yet, for many of these misbehaviors, a majority or close to a majority of the respondents had direct evidence of such behaviors occurring in practice. Thus, it appears that the profession of accounting does not, in reality, subscribe to a zero-tolerance policy regarding non-compliance with rules with the result being the recent major setbacks to accounting's professional reputation.

[1] The authors acknowledge the assistance of Drs. Thomas E. Wilson, Jr., and Marcus Odom.

REACHING THE CUSTOMER-INTERNET BANKING AS A DISTRIBUTION CHANNEL

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ABSTRACT

The key attributes of internet banking are that location and time become irrelevant in the access to banking services. Nevens (1999) in a well-known comparison suggests that the cost per transaction for internet banking is a fraction of that for traditional channels.

It is the argument of this paper is that as a stand-alone distribution channel, the internet will be at least as expensive to provide as more traditional channels. This result is due to a mis-specification of the infrastructure which though differently defined in the case of the internet nevertheless exists.

INTRODUCTION

Clarke (2001,at p 160) suggests that even when brand switching is just a click away customer retention remains the key to long term profits and there is a high cost penalty to low loyalty. This paper explores the issue with respect to internet banking .

The key attributes of internet banking are that it makes both location and time irrelevant with respect to access to banking services. What is different about internet banking is that it is a consumer-voluntary channel, that is, no matter how attractive and informative the site , nor how cheap the services it provides, the consumer must volunteer to access the site.

In this paper the experiences of "stand-alone" internet banking is compared with that of banks for whom the internet is just an additional channel. From the insights provided through this comparison, we discuss the cost of access issue

Howcroft and Kiely (1995) suggest that internet-based distribution channels reduce the entry barriers into retail banking and make it easier to cover a larger geographical area. On the other side, Angelides (1997) and Baer(1998) find that problems with technical and legal security comprise a significant barrier to success, while Birch and Young (1997) argue that a further problem may be how to convince new customers that they can trust the bank, especially if it is not well-known and has no significant physical presence.

Mols et al (1999) notes a key point that "the diffusion of electronic banking is more determined by customer acceptance than by seller offerings". This suggests that internet banking provides the first entirely "consumer- voluntary" channel, as opposed to other distribution channels where seller offerings dominate.

Sathye (1999) reports from an empirical investigation of the adoption of internet banking by Australian consumers that 78% of personal respondents had security concerns about internet banking.73% were unclear about the benefits or added value of internet banking, 60% regarded pricing/cost aspects as barriers and 50% were resistant to change.

STAND-ALONE INTERNET BANKING

In May 1995 Huntington Bancshares and Wachovia Corporation each invested $US1.2 m. each in the development of a complete internet-based bank. Created and designed by Cardinal Bancshares and funded by the other two financial services providers, the Security First Network Bank was launched in October 1995.

Nevens (1999) suggests that as a branch transaction costs $1.08,while the same transaction on the internet costs 13 cents or less, the internet's major is to reduce the cost of "the searching ,coordinating and monitoring that people and companies must do when they exchange goods, services or ideas." For a mortgage transaction Nevens claims that their cost would drop by as much as 80% when handled only electronically.

Security First Network Bank's channel of distribution was the internet selling of core deposit and lending products at a lower cost than those of competitors. The bank struggled to get customers past the early adopter stage and failed to reach profitability. It opened branches on the east and west coast of the USA but was still unable to attract profitable customers. In March 1998 it was acquired by the Royal Bank of Canada which was able to provide banking expertise, access to funds and an established bank brand.

First Direct was set up in 1989 as a division of Midland Bank. It was established as a direct marketing channel for rebranded Midland Bank products built around a call centre using Midland's core systems. The business was unprofitable at first due to establishment costs and the cost of attracting customers.

In New Zealand Ergo was launched in 1996 as a stand-alone direct bank offering home mortgages, term deposits and insurance over the telephone, through the internet and some selected mortgage brokers. It was funded by deposits and from the wholesale market. It offered cheaper loan rates and competitive deposit rates, but failed to generate sufficient customer base in its first year to continue. The next year it was relaunched as Ergo-an AMP Company which added brand strength to the business and lifted its level of activity, but did not improve its cost-income ratio to the predicted 25 to 30% for direct operations.

Internet Banking as an additional channel

The clear advantage of this strategy is that it enables the bank to leverage off its brand. Clarke (2001) suggests that bank customers fall into one of five categories:

1.	"aggrieved"-likely to switch to a competitor at the first opportunity;
2.	"seducible"-believe they may be better served by switching to a competitor
3.	"passive"-no significant ties of loyalty to existing bank
4.	"contented"-believe their current bank is in many ways superior to alternatives
5.	"brand champions"-ambassadors for their current bank

Where an existing bank offers internet banking as an additional channel, it will immediately attract those in categories 4 and 5 who have the following characteristics; they are connected to the internet for e-mail and for information searching about their special interests (Katz and Aspden,1997) are price-conscious, affluent and well-educated and do not put a high value on their personal relationship with the local branch (Evans and Wurster,1999, Katz and Apsden,1997,Rosen,1997).

Further, categories 4 and 5 are less likely to have security or trust concerns with respect to a new channel of distribution offered by their existing bank. Even if security was a concern to them, they may believe that their bank would fix any problems that arose.

ASB Bank in New Zealand decided to launch a direct bank after market research suggested that consumers were attracted to this channel by low cost rates and fees and 24 hour access. The target market was identified as busy people who valued their time and were comfortable with the technology. it was discovered that a link with an established bank to establish expertise and financial strength was necessary. The bank's five reasons for the launch were to attract new customers; to improve customer profitability because the direct bank would operate with new low cost technology, process automation, and a small staff; ;to prototype systems and processes for the parent bank; to develop marketing and retailing skills. The need to control the switch of customers from established to direct bank; the establishment of a unique value proposition to the consumer based on convenience service and lower cost; and the first mover advantage by being the first to market with a direct bank to gain "mind share" were seen to be the critical success factors.

A major advertising campaign communicated the initial offer of 24 hour access via telephone, Internet and ATM EFT-POS to home loans, personal loans, transaction accounts, VISA cards and home and contents insurance with a new low market rate for home loans. Customers were attracted by the low home loan rates and were then cross-sold other products. As anticipated most customers were busy people comfortable with the technology.

Commonwealth Bank of Australia which launched Commonwealth Direct in 1997 to manage telephone banking and to deliver on-line services has leveraged off the Commonwealth Bank brand very successfully and by 1999 had attracted 2.5 million customers. It was also providing 25,000 product sales per annum. For Commonwealth Direct the Internet enables information to be presented to the customer; facilitates comparison; reduces entry barriers and has been a significant change catalyst. The security and trust aspects associated with the Commonwealth brand have been instrumental in the acceptance of internet channels not only by existing Commonwealth Bank customers but by customers migrating from other banks.

The Bank also has the opportunity through communication with its existing customers to make clear to them the benefits or added value that internet banking might offer. Sathye's (1999) survey reported that 86% of personal customers would like the benefits of internet banking to be explained to them before they would consider adopting it.

There will be opportunities to reach the "seducible" and "aggrieved" categories of other banks, provided they can establish communications with them. It is this last issue, communication which must incorporate marketing the internet banking opportunity is crucial for both the attraction and retention of customers.

It is this aspect which is crucial and is required continuously if the economies of scale of internet banking are to be achieved. It is argued here that it is the continuous expenditure on marketing which is the equivalent of "infrastructure spending" for this channel, that is the crucial element for success in internet banking if it is offered as a stand-alone enterprise.

It may readily be seen from the examples discussed earlier of internet-only banks that they were all unable to reach critical mass on their own. In contrast established banks, such as Commonwealth Bank and ASB that add an internet channel to their range of distribution channels, are able to leverage off their brand, especially with respect to the aspects of trust and security. This suggests that Nevens' information about transaction costs reflects the variable costs with respect to internet banking but not the fixed costs.

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MARKET FRICTION, COMPETITION AND AUSTRALIAN VARIABLE MORTGAGE RATES

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ABSTRACT

This paper examines the nature and extent of price inertia in the Australian variable rate mortgage market, through an examination of the size, frequency and duration of variable mortgage rate changes, and the analysis of elasticities. This represents the first study of price stickiness of variable mortgage rates, and the first of its type using Australian data. Unlike the US style adjustable rate mortgages, Australian banks issuing variable rate mortgages have full discretion to change rates at any time and by any amount. If markets are frictionless, then we would observe continuous pricing. However, the analysis in this paper finds that this is not the case for Australian bank variable rate mortgages, and that there is evidence of price stickiness. Further, the results show that there appear to be differences in market friction in bank variable rate mortgages relative to that of bank competitors.

INTRODUCTION

The discussion of market friction concerns itself with one aspect of the examination of a situation in which a bank uses whatever control it has over the interest rate to increase profits (see [19]). Finance theory assumes prices adjust continuously, leading to market clearance through efficient resource allocation. Sticky prices do not fit this model, and consequently, debate over whether market friction creates inefficient resource allocation has ensued. There is, however, agreement that rational firms may not adjust prices quickly if other factors impact, such as price adjustment costs (Barro, 1972; Mankiw, 1985; Stiglitz, 1985).

There have been a number of empirical studies of links between price friction and industry type (Carlson, 1990; Simon, 1969; Primeaux & Bombull, 1974) and market concentration/power (Stigler, 1947; Hannan & Berger, 1991). However, studies investigating price friction per se have been few, despite economists placing great importance on price stickiness (Carlson, 1992). Blinder, 1991; Carlson, 1992; and Hannan, 1994; test for price friction by analysing the number and frequency of price. Both Carlton, 1986; and Carlson, 1992; calculate average duration between price changes, and its standard deviation, as measures of price rigidity. In Berger & Udell, 1992; an OLS regression of the loan rate premium against market indicator rates is undertaken to test for the rigidity of prices, and to find measures of the elasticity of loan rate premium relative to changes in the market or indicator rate, to calculate an estimate of the price rigidity.

METHODOLOGY AND DATA

Using a similar method to that employed in Hannan, 1994; and Carlson, 1992; the number and frequency of changes in bank variable mortgage rate are calculated. In addition, the duration to the next change in mortgage rates, and its standard deviation, are calculated, and to gain a richer understanding of the extent of price friction in the bank variable mortgage market, the size of the changes in variable mortgage rates are also analysed. Monthly bank variable mortgage rate data is used, similar to Hannan, 1994; Carlson, 1992; Carlton, 1986; and Berger & Udell, 1992. The data, obtained from the Reserve Bank of Australia (RBA), covers the period from January 1959 to December 1996.

The analysis of price friction, uses the calculation of the elasticity of changes in variable mortgage rate premia relative to changes in the market rate, similar to Berger & Udell, 1992; employing ordinary least squares (OLS) and tests the following function, where PREM(t), the variable housing loan rate premium at time t, is the difference between the variable mortgage rate, ht, and an indicator or market rate, BAB(t), which influences the rate charged on variable housing loans.

$$PREM(t) = a + b_1.BAB(t) + b_2.BAB(t)^2 + s(t)$$

The combination of BAB(t) and BAB(t) squared, allows the measurement of open-market rates and summarises credit market conditions at each t (Blinder, 1991). BAB is measured using the 90 day bank accepted bill rate (supplied by the RBA), the main indicator rate impacting variable mortgage rates in Australia. The period examined for the elasticity estimates is July 1969 to August 1999. The elasticity measure is found by using the estimated equation above to calculate the change in PREM of a increase in BAB by 100 basis points, using the mean values.

NUMBER, FREQUENCY AND DURATION OF RATE CHANGES

The results of the number and frequency analysis are shown in Table 1. Over the total period examined, there were 31 increases and 30 decreases, with changes occurring every 7.5 months, on average. In the 288 months of the first sub-period, banks changed the rate 22 times, 18 of which were increases and four decreases, a change on average, every 13 months. During the second sub-period, banks made 31 changes (10 increases and 21 decreases), a change every four months on average. The third sub-period saw little difference from the previous period, with changes every 5.25 months on average. These results indicate evidence of the existence of price friction and further, that it has reduced over time.

Table 1: Number and Size of Variable Rate Mortgage Changes												
Period	No. of increases	No. of decreases	No. of changes	No. of Months of Change	Proportion of Increases (%)	Proportion of Decreases (%)	% Of Months In Which Change Occurred	Ratio. of decreases to increases	Average Duration to Change (months)	Std Dev of Duration to Change (months)	Mean Variable Mortgage Rate over period (%)	Std Dev of Variable Mortgage Rates (%)
Banks:												
Jan ’59 to Dec, ‘82	18	4	22	288	81	18	8	0.22	13.09	12.33	7.34	2.37
Jan ‘83 to June ‘93	10	21	31	126	32	68	25	2.10	4.06	3.99	13.57	2.14
Jul ’93 to Dec ‘1996	3	5	8	42	38	63	19	1.67	5.25	5.83	9.66	0.79
Totals	31	30	61	456	51	49	13	0.97	7.48	8.91		
Building Societies												
Jan ‘83 to June ‘93	40	64	104	126	0.3846	0.6154	0.8254	1.6000	1.2115	1.4873	13.9568	1.9634
July ‘93 to Dec ‘96	9	17	26	42	0.34	0.65	0.62	1.89	1.62	2.54	9.60	0.72
Totals	49	81	130	168	0.38	0.62	0.77	1.65	1.29	1.81		
Mortgage Managers												
July ‘93 to Dec ‘96	15	19	34	42	0.44	0.56	0.81	1.27	1.24	1.11	8.59	0.48

ELASTICITY OF VARIABLE MORTGAGE RATES

The results of the OLS regression of the variable housing rate premium against the market indicator rate are shown in Table 2. As suggested by [5], the coefficients of BAB and BAB2 are difficult to interpret, and it is more meaningful to examine the summary statistic that measures the elasticity of the bank variable mortgage rate to changes in the indicator rate, shown at the bottom of Table 2. The results covering the entire period, show that the variable housing loan premium is expected to fall by 7 basis points, following a 100 basis point increase in BAB. This suggests a small amount of stickiness relative to market rates, but is substantial when noted that it represents 22.6 percent of the average spread over the 90 day bank bill rate for the period. In the first sub-period there is a small amount of stickiness, 9 basis points, indicating that a delay in rate change will cause a drop in the average premium of 11.0 percent. In the second sub-period, a 100 basis point shock to the funding rate would incur a drop in the premium of 40 basis points, or over 56 percent. In the final sub-period, the degree of stickiness falls, to 11 basis points, or 4.4% of the housing loan rate spread over BAB.

Table 2: Results of OLS Regression (t statistics in brackets)				
Variables	Jul 1969 to Aug 1999	Jul 1969 to Dec 1982	Jan 1983 to Jun 1993	Jul 1993 to Aug 1999
Constant	0.0261**	0.0100**	0.0605**	0.0109
	(4.0557)	(1.5846)	(5.3464)	(0.9127)
BAB	0.0034	0.1230	-0.1801	0.3739
	(0.0318)	(1.0648)	(-0.9324)	(1.0101)
BAB^2	-1.9572**	-2.8986**	-1.6965*	-2.2852
	(-3.5696)	(-5.8935)	(-2.1519)	(-0.7818)
Price friction of 100 bp increase in BAB rate	-0.0007**	-0.0009**	-0.0040**	0.0011**
	(-39.4870)	(-23.1364)	(-20.8915)	(-5.1551)
Price friction relative to average PREM (%)	22.58	11.06	56.66	4.41
** significant at the 1% level* significant at the 10% level				

PRICING BEHAVIOUR, PRICE CHANGE ASYMMETRY AND COMPETITION

The results of the analysis of number and frequency of rate changes and the elasticities indicate that the degree of stickiness in the Australian variable mortgage market changes over time. Further, as the time periods examined correspond to a large extent to changing competitive regimes in the market, the degree of stickiness may be related to market factors such as the competitive environment. The extent of asymmetry in bank rate changes was tested using the OLS results, to estimate the elasticity of the bank premium over 90 day BAB to a fall in 90 day BAB by 100 basis points. The resulting elasticity calculations are shown in Table 3. Table 3 reveals that a change in rates by 100 basis points does not produce a symmetrical impact on the bank premium on bank variable mortgage rates over 90 day BAB in any period examined.

There appear to be differences in the market friction in bank variable rate mortgages relative to that of bank competitors. Table 1 data suggests that the variable rate mortgages issued by Australian banks display far greater price friction than those of either the building societies or the mortgage managers. This indicates that, while there are common market influences impacting the pricing in the three groups, there may be other institutional specific issues, in addition to market factors, impacting the decision to change rates. Because the variable mortgage rate setting is discretionary, the differences across the different institutional groups suggest that each has different decision criteria impacting changes in variable mortgage rates.

SUMMARY AND CONCLUSIONS

The analyses of the number and frequency of variable mortgage rate changes, the size and distributions of increases and decreases, and the elasticities of rate changes, show evidence of the existence of market friction in the Australian variable rate mortgage market. The results also show that there are differences in price stickiness between increasing rates and decreasing rates, suggesting different decision criteria. The findings also show that there have been shifts in price stickiness over time, indicating changes in bank pricing behaviour. Further, bank variable mortgage rates appear to be more sticky than those of bank competitors, indicating different decision rate determination criteria across institutions.

As the least market friction was found during a period of increasing consumer awareness, the findings are consistent with Carlson, 1992 that price stickiness reduces as asymmetric information in the lender's favour reduces, producing increased consumer responsiveness (Hannan, 1994; Ball & Mankiw, 1995) and reduced market power (Stigler, 1947; Neumark & Sharpe, 1992). The analysis in this paper, while important in itself, provides useful input into further analysis of variable mortgage interest rate changes, enabling a better understanding of the risks associated with variable mortgage rates, Australian style.

Table 3: Results of Test of Price Change Asymmetry (t-statistics in brackets)

Period of Analysis	Price friction of 1% increase in BAB rate	Price friction of 1% decrease in BAB rate
July 1969 to August 1999	0.0007**	0.0071**
	(-39.487)	(-39.491)
July 1969 to December 1982	-0.0009**	0.0081**
	(-23.136)	(-23.135)
January 1983 to June 1993	-0.0040**	0.0084**
	(-20.892)	(-20.891)
July 1993 to August 1999	0.0011**	-0.0009**
	(-5.155)	(-5.155)
** significant at the 1% level		

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CONTEMPORARY ISSUES IN RISK MANAGEMENT

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ABSTRACT

This paper draws on a large body of risk management literature and interviews with risk practitioners to identify the most pressing issues facing those responsible for managing risk in financial institutions. We provide insight into three major issues: measuring and pricing extreme value risk, integrated risk management, and dealing with the gap between regulatory and economic risk capital for capital allocation purposes. Most notably, we find an increasing preoccupation on the part of regulators and institutions with measuring high probability/low loss operational risk events, and very little focus on modelling for extreme event risk. We also question a number of the common principles behind integrated risk management. This study was undertaken with financial assistance from the Munich Reinsurance Risk Competency Centre at Macquarie University.

INTRODUCTION

The aim of this paper is to identify key contemporary issues in financial risk management. Drawing from a large body of risk management literature and discussions with a number of risk practitioners, we identify and examine three major risk management issues. These are (1) measuring and pricing extreme value risk; (2) integrated risk management; and (3) dealing with the gap between economic and regulatory capital for capital allocation purposes. While this list is by no means exhaustive, these items featured consistently in our research as major issues facing risk management practitioners.

We find a major focus on operational risk measurement in financial institutions. Until recently there has been a clear lack of consensus regarding the sources and definitions of operational risk among many groups; the Basel Committee of Banking Supervision, a sub-committee of the Bank for International Settlements, has itself only just settled on a definition of operational risk. From a practical perspective, difficulties in determining a standard definition of operational risk have made the task of consistent measurement and effective management virtually impossible.

We find that most of the focus to date, on the part of both banks and regulators, has been on risk scoring systems and deriving operational loss benchmarks. It is our view that these approaches focus almost exclusively on high probability/low loss events such as processing errors and systems outages, and as such, do not come to grips with extreme event risk. This represents low probability/high loss events that defy basic statistical analysis but which are capable of wiping out an institution. Thus threats such as the ability of an individual trader to execute unauthorised trades still remain largely unaccounted for. The following sections examine our findings in more detail.

EXTREME EVENT RISK

The Basel Committee of Banking Supervision defines operational risk as "the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events (Bank for International Settlements, (2001a), p.2). Operational risk has been high on the regulatory agenda of financial institutions since the collapse of institutions such as Barings Bank, Daiwa Bank and the Sumitomo Corporation. This is because the collapse of these institutions has been attributed to poor operational risk management, and not the more traditional risks in trading/banking activities such as credit risk and market risk. Losses in these institutions were largely caused by the actions of single individuals which may have been prevented through appropriate oversight: individuals performed unauthorised trades and concealed losses over long periods of time. In response to a growing concern of poor operational risk controls in financial institutions, in January 2001 the Basel Committee issued a revised consultation paper aimed at providing for a more risk-sensitive regulatory capital profile (Bank for International Settlements, (2001b)). The revised Basel Accord focuses on the causes of operational risk and recommends basic quantitative techniques to calculate a minimum capital charge for operational risk. The Accord allows for banks to move through a series of three increasingly advanced approaches to measuring operational risk, and provides the potential for lower capital regulatory capital requirements with improvements in bank operational risk measurement and management.

The Basel Committee proposals omit reputational risk from the definition of operational risk for the purpose of a minimum regulatory operational risk charge. This is deliberate on the part of the Committee (Basel Committee (2001a) p.2) and indicates, in the first instance, focus by regulators on the more predictable losses that a bank should be able to absorb in the normal course of its business (higher probability/lower loss events). However, many financial institutions are concerned with reputational issues, and in particular, market reaction to news of losses. Managers report that, increasingly, small reported losses can lead to large reactions in share prices - since the large number of financial institution insolvencies in the last decade linked to operational risk, markets tend to react not to the size of the losses, but more the perceived loss of control.

Financial institutions are in the business of selling trust and creditability. Unlike other businesses, their market share is dependent on their credit rating and perception that management are in control of their operations. To the extent that a capital charge for operational risk leads to a tightening of procedures, processes and controls, the risk of losses and consequent reputational effects may be reduced. The capital charge is basically linked to statistical analysis of processing errors, etc and their costs. However, of concern is that the largest threats - extreme event risk and the volatility of reputation risk - may defy statistical modelling. These are the "stress losses" - improbable, but possible, extreme scenarios that the institution must be able to survive (lower probability/higher loss events).

Operational risk is not a new risk: financial institutions have always run an element of operational risk and carried a cushion of capital against it. However, there has been an increase in the susceptibility of financial institutions to extreme events. A number of factors are at play here, such as rapid growth in derivatives activities where some risks have not been fully understood or controlled; greater competition (under deregulation) promoting higher risk-taking and downsizing of middle management to reduce costs; the gradual shift from traditional intermediation towards a more trading-orientated environment; and a growing concentration of processing risks in some institutions arising from a push to outsource non-core activities. These developments combine with specific attributes of financial institutions to increase the susceptibility to extreme losses that are more difficult to model and provision against. These attributes are as follows: first, the nature of many financial products is that risks may change in nature and intensity from the point of sale: the bottom-line contribution of a transaction is generally uncertain until the contract ends, and this is typically well after employees have been compensated; secondly, financial institutions run on thin margins and high leverage, with changes in the value of assets magnified on the capital base; and thirdly, the high leverage of financial institutions means individuals have the potential to threaten the capital base/solvency of the institution. This is intensified when incentive structures are asymmetrical: rewarding good performance but not penalising bad performance equally.

Models being developed for operational risk capital charges tend to be based on a value-at-risk (VaR) framework (this currently applies to market risks). However, VaR or standard deviation approaches tend to focus on unexpected losses under normal market conditions. Normal market conditions imply that price movements are distributed statistically according to a normal distribution, or that markets will tend to behave in the same way as they have in the past. The problem is that VaR models have not provided a sufficient capital buffer when markets add new data points in the form of all-time highs, lows or extreme moves. For example, no VaR model predicted the Asian currency crisis of 1997 or the recent quasi-default of the Russian Government. VaR models cannot capture unexpected losses that arise as a result of exceptional, low probability events. The problem is that these types of events that are more likely to cause financial distress for financial institution than power outages, systems failure or processing errors.

Similarly, no VaR model can capture human intent. A common theme in reports on losses in financial institutions associated with "rogue traders" is that in none of the cases did the traders initially appear to intend to enrich themselves at the expense of the bank. While many traders circumvented poor internal controls, none appear to represent attempted embezzlement of funds. There is no sign in these reports that the traders involved engaged in true gambles - rather, they appear to have entered into trades that were, at the very least, fair bets with positive expected values. These individuals were largely driven by incentive systems that paid large bonuses based on trading profits, with little consideration of risks being taken in making these profits. We can conclude that the culture of these institutions, manifested in poor internal controls and poorly designed compensation systems, are as much to blame for the losses and failures as the individuals that executed the trades. Statistical models cannot capture the culture of organisations or the incentives of individuals within the organisations.

In this regard, some commentators consider the proposals in the Basel Consultative Document on operational risk to be less than effective because they focus on a loss-driven approach for quantification of risk rather than a performance-based approach (see King, 2001). Loss-driven approaches will not provide incentives for better operational risk management to the extent that they are not forward-looking. Loss-driven approaches primarily use historical data to measure performance effectiveness, and may reduce incentives to invest in improvements because outlays occur in current periods while paybacks will tend to be further in the future. There also appears no mechanism in the proposals for validating the operational risk capital charge. The difficulty for financial institutions is to determine how incentives can be appropriately structured for risk managers who, in addition to measuring expected levels of risk, are meant to be looking for unexpected and extreme risks over a much longer time horizon. Research papers examining the use of extreme value theory (EVT) for modelling financial risk exposures are beginning to appear (see Embrechts (2000)). EVT is a statistical method that has found applications in engineering (safety and design of bridges, dykes, etc) and aerospace. Actuaries are also using EVT to model casualty insurance claims. We see research into the application of EVT to the quantification of low probability/high loss operational risk events as a major focus of risk management in the future.

INTEGRATED RISK MANAGEMENT

A theme gaining increasing attention in the risk management literature is "firm-wide risk management" or "enterprise-wide risk management". The fundamental premise of enterprise-wide risk management is that risk is managed holistically within the organisation: risk management is seen as an integrated process under which risk is measured and managed in terms of a common unit, and business lines are managed as a portfolio. Specifically, business lines are evaluated in terms of risk/return criteria, with the aim of optimising resource allocation: those lines generating the best returns per unit of risk (lower volatility of earnings) can expect to receive greater emphasis within the organisation. The more sophisticated approaches measure diversification benefits across business lines and thus aim for risk optimisation using a portfolio approach. We believe that the increasing focus on an enterprise-wide approach to risk management raises a number of research issues.

First, the portfolio approach implicitly assumes that the risk profile of individual business lines can be measured without regard to the risks taken by other business lines. This misses the reality that the actions of one business unit may impact on the underlying volatility of the revenue or earnings in another unit. This means that the total risk of the institution may, at times, be greater than the sum of risks of the business units, particularly in times of crisis or major market disruptions. While much focus in enterprise-wide risk management revolves around the degree of correlation between the risks faced by individual business units, it is necessary to incorporate into modelling estimates of the extent to which the actions of one business unit impact on the risks taken by another.

Second, most enterprise-wide risk management approaches assume that in order to produce a consolidated measurement of risk it is necessary to develop risk measures that are highly comparable across risk types. This is the central principle of risk-adjusted performance measures: risk is measured in terms of the single criterion of maximum possible loss within a given level of confidence. Cumming and Hurtle (2001) question whether consolidated risk management systems need to have a fully consolidated risk measurement methodology at their core. The essence of their argument is that comparability across risk measures may not be strictly necessary for an effective consolidated risk management system. If risk measures cannot be made perfectly compatible across risk types and business lines, it is necessary to consider the possibility that there may still be benefits to imperfectly comparable measures.

Third, our examination of the literature on enterprise-wide risk management indicates that the underlying concept of risk in these approaches is downside risk (the risk of unexpected losses). Although risk optimisation is the principal objective of enterprise-wide risk management, there appears very little reference to 'strategic' risk management in these approaches. Strategic risk management can be thought of as managing risks to raise the probability of success. Specifically, taking too little risk can be considered as much a management failure as taking too much risk. Most risk-adjusted performance models do not incorporate upside risk in their assessment of performance. The focus on these models is what was achieved, rather than what could have been achieved. A truly integrated approach to risk management requires tools and techniques (supported by organisational structures, systems and processes) to enable individuals make intelligent risk-taking decisions before they commit limited capital and resources. Risk management is about the decisions that people take and the decisions they do not take. Downside risk management involves protecting the institution from losses through hedging techniques and compliance programs. Compliance programs, however, may generate high costs on organisations to the extent that they limit the ability of managers to pursue upside opportunities. This is likely to be intensified when penalties imposed on individuals are perceived to be more excessive than the potential rewards for gains that are achieved. A generally accepted problem with setting profit targets/budgets, for example, is that managers may act to avoid surpassing targets if they believe targets will be revised upward in future periods or if there appears no strong relationship between surpassing the target and the rewards for doing so. Also managers who consider that they are unlikely to achieve a target during the course of normal business operations may face an incentive to take on excessive risks in order to achieve target. Further, there may also be strong incentives to hide or misrepresent the risks that were taken in order to achieve target. Thus while risk management has traditionally focused on loss prevention and recovery for hard assets, there is a growing awareness that risk management must also incorporate the upside of business decisions. As organisations increasingly become knowledge based, risks associated with soft assets such as human resources and intangibles are becoming more important than hard assets such as property and equipment.

ECONOMIC VERSUS REGULATORY CAPITAL ALLOCATION

For some time banks have been using VaR approaches for calculating the economic (risk) capital in their products and business lines. The allocation of economic capital against these lines facilitates performance measurement and supports resource allocation by enabling banks to calculate the risk-adjusted return on economic capital in each of their activities. By comparing risk-adjusted returns to hurdle rates, banks have been able to determine which activities are value-enhancing and which are not, plus the size of their contribution to total economic value. A recent Lehman Brothers report finds that the insurance industry is behind banks in allocating capital on the basis of risk (Lehaman Brothers (2000)). The report finds that the industry is overcapitalised and does not make adequate returns on catastrophe-prone products. However, it notes that some insurance companies are implementing a risk-adjusted capital model to guide their pricing and business strategy.

The major issue facing banks is dealing with the "gap" between regulatory capital and economic capital. Internal bank models for calculating economic risk are telling banks that they need less risk capital than the minimum regulatory requirement. This is because internal models capture the unique risk profile of their banks and, in some cases, incorporate adjustments for diversification gains across the product mix. Regulatory models are standardised and as such are less likely to capture the unique risk profile of individual institutions. The gap between regulatory capital and economic capital can be large in many institutions, and banks face the dilemma of having to return an acceptable return on regulatory capital while at the same time implementing effective pricing strategies that incorporate the economic risk in products. While this is the subject of ongoing research, the emerging trend for financial institutions is to price products on the basis of regulatory capital (this does represent the capital base of the bank) but evaluate performance of individual products on the basis of return on economic risk capital. While this approach would appear logical, it nonetheless presents problems. Pricing on the basis of regulatory capital may render some products uncompetitive if the regulatory capital allocation substantially exceeds the economic capital allocation. This would particularly be the case for products provided by competitors that do not face the same regulatory requirements (for example, independent mortgage providers). Further, is measuring performance on the basis of economic equity economically sound? While this approach aims to capture the "true" risks in products, it nonetheless presents a dilemma when a product that has low economic risk also has a relatively high regulatory capital charge. While such a product may utilise less economic capital, economic capital is purely conceptual; that is, a tool for management. Other business segments may argue that if this product absorbs a high proportion of actual (regulatory) capital, then this should be incorporated in assessing its performance relative to other products.

CONCLUSION

The three major risk management issues identified in this study have at their core the appropriate level of capital that a financial institution should hold. Regulators and institutions are spending considerable resources determining an appropriate capital charge for operational risk, but paradoxically, the low probability/high loss events that have recently wiped out some institutions remain largely unaccounted for in capital charge determinations. Integrated risk management has at its core a portfolio approach to risk that implies lower capital charges may apply when risk is measured and manage from an enterprise-wide perspective. We find the portfolio approach may not be appropriate when institutions are exposed to extreme events. Finally we find that regulatory capital charges may differ considerably from economic risk measures, and as such, distort capital allocation within a financial institution to the extent that the riskiest activities may be undercapitalised.

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STOCK RETURNS AND INFLATION IN THE EMERGING CAPITAL MARKET: EVIDENCE FROM JORDAN

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ABSTRACT

Using a vector-autoregression (VAR) approach, this paper investigates the relation between stock returns and inflation in the emerging market economy Jordan. The Fisherian assumption that the expected nominal return on common stocks consists of a "real" rate plus expected inflation is soundly rejected for each stock market under study. The results of the VAR model indicate the lack of a unidirectional causality between stock returns and inflation. It also fails to find a consistent negative response neither of inflation to shocks in stock returns nor of stock returns to shocks in inflation.

INTRODUCTION

The purpose of this paper is to examine the relationship between stock returns and inflation in the emerging market economy Jordan. From the beginning, tests of the stock return-inflation relationship yielded mixed results. Most researchers have found evidence that counters the stock return-inflation relationship. Results of empirical studies have shown that expected inflation, changes in expected inflation, and unexpected inflation are negatively correlated to stock returns (Bodie, 1976; Fama & Schwert, 1977; Gultekin, 1983a; Jaffe & Mendelker, 1976; Kaul, 1987; Lee, 1992; Marshall, 1992; Nelson, 1976; Solnik, 1983; Khil & Lee, 2000). However, Kaul (1987), Boudoukh and Richardson (1993), and Martin, Evans, and Lewis (1995) report that when stock returns and inflation are evaluated over a longer time period, the Fisher hypothesis cannot be rejected. Even for a short time covering the post-war period, Firth (1979) and Gultekin (1983a) find that the relationship between nominal stock returns and inflation in the United Kingdom is reliably positive, which is consistent with the stock return-inflation relationship.

Practically all empirical studies concerning the stock return-inflation relationship have primarily focused on the U.S. and European economies; with a few studies covering the Pacific-rim economy. No published work relating the Fisher hypothesis in the Jordanian economy was found in the course of this study.

The focus of this paper is to investigate the relationship between common stock returns and ex-ante inflation in Jordanian economy. Also the general efficiency of capital markets is evaluated. More specifically, such efficiency is determined by testing whether or not stock prices are fully adjusted to expected inflation. In addition, causal relations and dynamic interactions between stock returns and inflation are examined by applying the vector autoregressive (VAR) model. The remainder of this paper is organized as follows: Section 2 discusses some theoretical considerations and the Fisher hypothesis, Section 3 explains the data, Section 4 describes the VAR analysis, Section 5 discusses empirical results, and Section 6 summarizes.

THE FISHER HYPOTHESIS APPLIED TO COMMON STOCKS: THEORY

Fisher (1930) in his seminal work on interest rates suggested that the nominal interest rates fully reflects the available information about the future values of the inflation rate, and thus, the nominal interest rate can be expressed as the sum of an expected "real" rate and an expected inflation rate. This proposition, also known as the Fisher Effect or the Fisher Equation, has been widely accepted among financial economists and can be generalized to rates of return on common stocks and other assets. Fama and Schwert (1977) explain the stock return-inflation relationshipeffect such that the market, if it is efficient and reflects all the available information at time t - 1, will set the price of common stocks so that the expected nominal return from t -1 to t is the sum of the appropriate equilibrium expected real rate and the market's assessment of the expected inflation rate for the same time period. Formally,

$$E(R_t/\Phi_{t-1}) = E(r_t/\Phi_{t-1}) + E(\pi_t/\Phi_{t-1}) \tag{1}$$

where R_t is the nominal return on an asset, $E(r_t/\Phi_{t-1})$ is the equilibrium expected real return, and $E(\pi_t/\Phi_{t-1})$ is the expected inflation rate; i.e., the market uses the information set Φ at t -1 to assess the expected rate of inflation and to determine the expected real return on common stocks with an appropriate risk premium. Then the market sets the price of common stocks such that the expected nominal return is the sum of the equilibrium expected real return and the best possible assessment of the expected inflation.

Fisher believed that the real and monetary sectors of the economy are independent. Thus, he hypothesized that the expected real return on interest rates is determined by real factors such as the productivity of capital and time preference of savers, and that the expected real return on interest rates and the expected inflation rate are independent. This assertion obviates the need, otherwise, for a complete general equilibrium model for the expected real returns.

Like previous empirical research on this topic , this study tests the joint hypothesis that the market is efficient and that the expected real return on common stocks and the expected inflation rate are independent and can be obtained from the following standard regression model:

$$R_t = \alpha + \beta E((\pi_t/\Phi_{t-1}) + \varepsilon_t \tag{2}$$

The regression model in Equation 2 estimates the conditional expected value of the stock market return as a function of the expected inflation rate. Provided that the expected inflation rate can be estimated, an estimate of β is statistically indistinguishable from unity and is consistent with the hypothesis that the expected nominal return on common stocks varies in a one-to-one correspondence with the expected inflation rate. As stated earlier, the latter implies that common stocks are a complete hedge against expected inflation. Furthermore, the expected real return on an asset is equal to its expected nominal return less the expected inflation rate. Thus, an estimate of ß that is indistinguishable from unity is also consistent with the hypothesis that the expected real return on stocks and the expected inflation rate are independent.

As reported in the studies of Fama and Schwert (1977), Gultekin (1983a), and Solnik (1983), interest can be focused on expected and unexpected components of the inflation rate and their influence on stock returns. Therefore, to capture the impact of the unexpected component of the inflation rate on common stock returns, Model 2 is expanded as follows:

$$R_t = \alpha + \beta E((\pi_t / \Phi_{t-1}) + \gamma[\pi_t - E(\pi_t / \Phi_{t-1})] + \varepsilon_t \tag{3}$$

where $E(\pi_t)$ is the expected component of inflation and $\pi_t - E(\pi_t / \Phi_{t-1})$ is the unexpected component of inflation. β and γ are the regression coefficients. An estimate of the regression coefficient γ, that is statistically indistinguishable from 1.0, is consistent with the previous hypothesis that on average the nominal return on common stock varies in a one-to-one correspondence with the unexpected inflation rate.

Since the unexpected rate of inflation is, by definition, uncorrelated with the expected rate of inflation, Model 3 produces tests of the Fisher hypothesis that $\beta = 1.0$, with results that are identical to those that would be obtained from Model 2. When $\gamma = 1.0$, the common stock returns are a complete hedge against unexpected inflation. When the tests suggest that $ß = \gamma = 1.0$, one can say that the common stock return is a complete hedge against inflation. The nominal return on the common stock varies in a one-to-one correspondence with both the expected and unexpected components of the inflation rate, and the ex-ante real return on the common stock is uncorrelated with the ex-ante inflation rate.

DATA

Monthly stock market returns and prices, monthly consumer price index (CPI), and monthly short-term interest rates, money market rate, were obtained from International Financial Statistics (IFS), published by the International Monetary Fund and from the Central bank of Jordan (CBJ). Monthly inflation rates were calculated as the change in the consumer price indices. The data set covers the period from January 1978 through December 1999.

METHODOLOGY : CAUSALITY AND VECTOR AUTOREGRESSION (VAR) ANALYSIS

This study attempts to determine the causal relations between stock returns and inflation in the Jordanian economy. The empirical tests are based on the Granger causality tests. These are essentially tests of the predictive property of time series models. A time series Y (inflation) predicts another time series X (stock returns) in the Granger sense if present X can be predicted better by using past values of Y than by not doing so, considering also other relevant information, including past values of X. More specifically, X is said to cause Y, provided some ci is not zero in Equation (4),

$$Y_t = a_0 + \sum_{i=1}^{k} b_i Y_{t-i} + \sum_{i=1}^{k} c_i X_{t-i} + \eta_t \ . \tag{4}$$

Similarly, Y is causing X if some ci is not zero in Equation (5),

$$X_t = a_0 + \sum_{i=1}^{k} b_i X_{t-i} + \sum_{i=1}^{k} c_i Y_{t-i} + \eta_t \ . \tag{5}$$

The test of the null hypothesis that X (Y) does not cause Y (X) is a test that $c_i = 0$ for $i = 1, 2, \ldots, k$.

In addition to employing the simple and multiple regression analyses, this study also applies the vector autoregressive (VAR) model. Empirical causal relationships are examined under the VAR framework, which treats all variables within the system as endogenous. Essentially, such an approach estimates a system of structural equations under an unrestricted reduced form. The system's responses to random shocks are traced by the decompositions of variance or error term and innovation accounting. At the same time, the dynamic interactions among the variables of the system are examined by analyzing the impulse response function. Such a nonstructural (or as some argue, semi-structural) model is particularly suited for the purpose of investigating the causal chains within a system of equations. The model sheds light into the exogenity of a variable and reveals the dynamic response of one variable to random shocks in innovations of another variable in the system.

The VAR representation is expressed as follows:

$$A(L)\, x_t = u_t \tag{6}$$

where $A(0)$ is an identity matrix, x_t is a stationary vector consisting of a measure of inflation and other relevant variables, u_t is the innovation vector of x_t, and L is a lag operator. In order to examine the effects of inflation shocks on stock returns, the VAR representation of model 6 is transformed into a moving average (MA) representation as follows:

$$x_t = B(L) u_t = \sum_{s=0}^{\infty} B(s) u_{t-s} \, , \tag{7}$$

where x_t is a linear combination of current and past one-step-ahead forecast errors or "innovations." $B(0)$ is an identity matrix; $b_{ij}(s)$ is the $(i,j)th$ component of $B(s)$, which represents the dynamic response of each endogenous variable x_{it} to a shock, u_{jt-s} , after s periods; u_t is a vector of unorthogonalized innovations; and the covariance matrix $E[u_t\, u_t'] = S$ is not, in general, an identity matrix.

Since the study is interested in the MA representation with orthogonalized innovations, it chooses a matrix G such that $G^{-1} \Sigma G^{-1\prime} = I$. This gives a vector of orthogonalized innovations $v_t = G^{-1} u_t$ satisfying $E[v_t\ v_t'] = I$. By using the Choleski decomposition , one can obtain a lower triangular G as a solution to $GG' = S$. Thus one has the following MA representation with orthogonalized innovations:

$$x_t = \sum_{s=0}^{\infty} B(s)\, G v_{t-s} = \sum_{s=0}^{\infty} C(s) v_{t-s}, \tag{8}$$

where v_t is a vector of orthogonalized innovations. Using Equation 8, impulse responses are derived and confidence bands are generated by Monte Carlo Integration. The coefficients of *c(s)* represent responses to shock in particular variables. The variance of each element in *x* can be allocated to sources in elements of *v* because *v* is serially and contemporaneously uncorrelated. This allows a definition of the variance decomposition as:

$$\sum_{s=0}^{h-1} c_{ij}(s)^2 \Big/ \sum_{j=1}^{m} \sum_{s=0}^{h-1} c_{ij}(s)^2 \tag{9}$$

where *m* is the number of variables in *x*. This measure gives the fraction of error variance in the *h*-step ahead forecast of x_i, which is accounted for by innovations in x_j.

SUMMARY

Using data between January 1978 and December 1999 from the emerging market Jordan, this paper examines the generalized Fisher hypothesis, which states that the real rates of return on common stocks and the expected inflation rate are independent and that nominal stock returns vary in a one-to-one correspondence with the expected inflation rate. This study conducts an investigation, based on a VAR analysis, of causal relations and dynamic interactions among stock returns, inflation, and expected inflation. Compared to other regression techniques, the VAR analysis, based on innovation accounting, provides a rigorous study of the dynamic relations among the variables without imposing a priori restrictions.

The results of the VAR model indicate the following: (1) nominal stock returns seem Granger-causally a priori in the sense that most of the forecast error variances is accounted for by their own innovations in the three-variable system, (2) inflation does not appear to explain variation in stock returns, (3) stock returns do not explain variation in expected inflation, and (4) the stochastic process of the nominal stock returns could not be affected by expected inflation.

The study fails to find either a consistent negative response of stock returns to shocks in inflation or a consistent negative response of inflation to shocks in stock returns in the Jordanian economy. The generalized Fisher hypothesis is rejected. It appears that the relation between nominal common-stock returns and inflation in the emerging market is as puzzling as the findings in the developed countries.

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ENDNOTES

[1] Khil and Lee (2000) examined the relationship between real stock returns and inflation in the U.S. and 10 Pacific-rim countries.
[2] The results, tables, charts, references, and complete paper are avaiable upon request from the author. This paper is condensed to fit the proceedings guidelines.
[3] See Fama and Schwert (1977), Solnik (1983), and Martin, Evans, and Lewis (1995).
[4] The stationarity of rate of return on common stocks prevented this study from using cointegration test. In order to test for cointegration between two time series data the following conditions have to be satisfied: (1) the two variables are nonstationary and integrated of the same order, that is, the same order of differencing is required to produce stationarity; (2) there exists a long-run equilibrium relationship; and (3) the error term is stationary.
[5] See Sims (1980) For detailed discussions.
[6] The standard orthogonalization method used by RATS is the Choleski factorization.

DOES THE BRAIN'S HEMISPHERE DOMINANCE IMPACT AN INDIVIDUAL'S CHOICE AND SUCCESS IN THEIR PROFESSION?

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ABSTRACT

Since students come in all shapes, sizes, and age levels, it should be no surprise that whole generations and the individuals within those generational categories process information differently. The manner in which an individual processes information may lead one to naturally excel in certain disciplines. While the left-brain hemisphere thought processes is dominant in verbal and analytical ability, the right brain thought processes are rapid, complex, whole-pattern, spatial, and specialized for visual imagery and musical ability. The right-brain thought processes include the tendency to synthesize rather than analyze, and to relate to things in a concrete rather than a symbolic fashion. Left-brain thinking tends to represent wholes by abstraction. Research on both split-brain and normal subjects since the 1960s has confirmed that both hemispheres of the brain use high-level cognitive modes. (Gale Encyclopedia of Psychology, 2nd ed. Gale Group, 2001 in association with The Gale Group and LookSmart. http://www.findarticles.com/cf_dls/g2699/0002/2699000296/print.jhtml) Experimentation has demonstrated that the two different sides ("hemispheres") of the brain are responsible for different modes of thinking. In general, the division is:

Table 1: Left Brain/Right Brain	
Column 1	Column 2
LEFT BRAIN	RIGHT BRAIN
Logical	Random
Sequential	Intuitive
Rational	Holistic
Analyzes	Synthesizes
Objective	Subjective
Parts	Wholes
Table from: RIGHT/LEFT BRAIN THINKING (http://www.eiu.edu/~edtech/teamTeach_Ex/rightbra.htm)	

Several theories and measurement devices have been developed to explore how students learn (Dyrud, 1997; Taylor, 1998; Felder, 1996; McKeachie, 1995). In addition to an individual's

right/left brain dominance, their personality types and generation affects their different information processing systems and their probable success in their choice of majors and subsequent professions.

A test that determines an individual's right/left brain dominance will be rendered to incoming business students (Junior level) and graduating business students. The incoming business students' (Junior level) right/left brain dominance and their choice of majors will be compared to graduating business students' right/left brain dominance and the major in which they graduate to see if the brain's hemispheric dominance might cause the student to choose or change majors that are more synergetic with their brain's dominant hemisphere. Further, successful professionals in business fields will be measured for their right/left brain dominance in order to determine if successful professionals in certain fields are predominately right or left brain thinkers. The results of these tests may lend insight in helping individuals choose a major and subsequent profession in which they will be more likely to succeed.

BUSINESS STUDENTS' ATTITUDES TOWARD STATISTICS: A PRELIMINARY INVESTIGATION

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ABSTRACT

Many college students harbor negative attitudes toward statistics even before they have had direct experience with the subject. In addition, it has been proposed that negative attitudes toward statistics among college students can lead to significant levels of anxiety and can pose an impediment to successfully mastering the material comprising the introductory college course. Previous research has not focused specifically on students in introductory business statistics courses and has not addressed how such students' attitudes toward statistics may change from the beginning to the end of the course. This study specifically addressed these issues. The Survey of Attitudes Toward Statistics (SATS) scale was administered during the first week of the semester to a total sample of 137 business statistics students and re-administered during the last week of the semester. The results indicated that 1) initial differences in attitudes existed among the various majors comprising the sample and 2) that attitudes comprising the Affect and Cognitive Competence scales of the SATS became significantly more positive from the beginning to the end of the semester.

INTRODUCTION

It is well known that negative attitudes towards statistics are held by many college students for whom statistics is a degree requirement. Several instruments have been developed in an attempt to better understand the nature of these attitudes. These have included: the Multifactorial Scale of Attitudes Toward Statistics (Auzmendi, 1991), Statistical Anxiety Rating Scale (Cruise, Cash, & Bolton, 1985), Statistics Attitude Scale (McCall, Belli, & Madjidi, 1990), Statistics Attitude Survey (Roberts & Bilderback, 1980), Attitudes Toward Statistics (Wise, 1985), and Statistics Anxiety Inventory (Zeidner, 1991). Several studies have now been published assessing the prevalence of statistics-related anxiety among college students (e.g. Cruise, Cash, & Bolton, 1985; Wise, 1985; Schau, Stevens, & Daphinee, 1995). The best validated of these instruments was developed by Schau, Stevens, Dauphinee, and DelVecchio (1991). Their instrument, the Survey of Attitudes Toward Statistics (SATS), consists of four subscales: 1) Affect, assessing feelings toward statistics, 2) Cognitive Competence, measuring attitudes concerning self-perception of intellectual knowledge and skills relating to statistics, 3) Value, attitudes concerning the utility of statistics, and 4) Difficulty. Schau et al. (1995) present a detailed account of the development of this scale along with a discussion of its psychometric properties.

Much of what is known about attitudes toward statistics has been discovered from students in social sciences and education, curricula that are not typically quantitatively-based. Business curricula, however, vary in terms of quantitative focus. Some majors (e.g., accounting, finance) are heavily quantitative in nature. Although students majoring in business disciplines have been included in some previous studies, students in introductory business statistics courses have not been specifically studied as a group and no data have been collected with respect to how their attitudes toward statistics may change from the beginning to the end of the course. This study represents a preliminary attempt to provide such information with the expectation that better understanding the nature of the attitudes of students majoring in business disciplines toward statistics will prove useful in enhancing the learning process for future students.

METHOD

Using a pretest - posttest design, the Survey of Attitudes Toward Statistics (SATS) developed by Schau et al. (1991) was administered during the first week of the Fall 2001 semester to a total sample of 137 students enrolled in an introductory (sophomore level) statistics course at a mid-size regional public university in the Southeast. Of these, 97 students were again administered the SATS during the last week of the semester. Additional information concerning the gender and major of the participants was captured. All questionnaires were completed anonymously by the students. Unique alpha - numeric codes were used to match the protocols of individual students for the pre-test and post-test measures.

Of the initial pre-test sample, 53.3% were female and 45.3% were male. The respondents ranged in age from 18 to 41 years with a mean age of 21.72 years. The following majors were represented: Accounting - 26.3%, General Business - 23.4%, Management - 18.2%, Marketing - 17.5%, and Other - 14.6%.

RESULTS

One-way ANOVAs were used to determine if any of the subscales (pre or post) differed as a function of major. These analyses resulted in a significant main effect for major for the Affect subscale administered at the beginning of the semester ($F(4, 120) = 2.672$, $p = .035$). Tukey HSD tests indicated that Accounting majors had significantly more positive initial affective attitudes as compared to Management majors with the other groupings of majors intermediate in their initial attitudes. None of the other comparisons revealed statistically significant effects as a function of major.

In addition, 2 (gender) X 2 (time) mixed model ANOVAs were used to evaluate gender differences and gender by time interactions in the pre - post comparison for each of the four subscales. These analyses revealed no significant main effects or interactions.

Pearson correlation was used to determine if significant relationships existed between age of the respondents and the four subscales of the SATS for the pre-test and the post-test measures. None of these correlations were statistically significant.

Separate dependent t-tests were employed to test for pre-test - posttest differences for each of the four SATS subscales. These analyses indicated that scores on the Difficulty and Value subscales did not change from the beginning to the end of the semester. In contrast, scores on both the Affect and Competence subscales increased significantly from pre-test to posttest (affect: $t(94)= 3.092$, $p=.003$; competence: $t(96)=4.079$, $p<.001$).

DISCUSSION

Although the present results are based on analyses from a limited sample of business students and as such must be considered exploratory in nature, several patterns are evident. Data collected during the first week of the semester may be considered to represent general prevailing attitudes toward statistics, as exposure to the material had not yet taken place. As such, it is interesting to note that among the various business majors comprising the sample, the attitudes measured by the Affect subscale of the SATS were most positive among those students majoring in Accounting. One likely explanation for this difference is that Accounting majors may be more comfortable with course material that is quantitative in nature by virtue of inclination and prior exposure. This explanation is made tenable by other studies (e.g. Shelley, Wilson, Boothe, Greenstone, Schober, and Lipscomb, 1999) that have similarly demonstrated the positive relationship between measures of quantitative knowledge and measures of affective attitudes toward statistics.

The other interesting finding is the nature of the change in attitude structure itself that took place over the course of the semester. There is no evidence that general sample characteristics such as gender, age, and college major differentially affect attitude change. It is likely that, as is often reported in the attitude change literature, the effects observed here in attitudes of business students toward statistics result from familiarity mediated by exposure. It should be noted in this context, however, that attitudes toward statistics, like all other attitudes, are multidimensional in structure. Students may not view statistics as less difficult following a statistics course (even when they are successful in the course) nor place higher value on statistics as being of benefit in their future careers. Depending upon the instructor's pedagogical philosophy, s/he may wish to address the students' attitudes concerning the value of statistics in their future careers by using instructional methods that reinforce the utility of statistics as a practical tool for making real world business decisions.

In contrast, there are some elements of the attitude structure that do, indeed, change and do so in a positive direction. Specifically, students in the current sample had more positive feelings (affect) concerning statistics following the course and viewed themselves as more competent with respect to statistics. It seems reasonable to suggest that relationships may exist between these changes in attitude structure and course performance or outcome. These relationships between these measures and course outcome may prove to be a valuable direction for further research in the area. For example, cognitive competence, or confidence in one's abilities, is related to performance, then it may stand to reason that improvement in cognitive competence, whether a simple result of exposure or as an outcome of formal course objectives, would correspond with improved course performance.

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STOCHASTIC DOMINANCE AS A DECISION TECHNIQUE FOR RANKING INVESTMENTS

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ABSTRACT

This paper introduces the importance of stochastic dominance approach in decision making. Also, it explores the derivation of the various degrees of stochastic dominance ranking rules by integrating the expected utility functions of the two choice rules alternatives. The stochastic dominance ranking model is a technique for ranking investments that avoids many of the assumptions required by other popular ranking models. It also shows how stochastic dominance test can be implemented. Finally, stochastic dominance model is applied to show that small stock returns dominant low-grade bond returns.

INTRODUCTION

Decision-making is as old as the human race and, indeed, some might distinguish people from other creatures by their ability to introspect on their preferences and make choices in decision problems. The study of decision-making both as a phenomenon of empirical interest and as a deductive science is centuries, and perhaps, millennia, old.

By definition, a decision involves a choice among alternative courses of action offering consequences. To make a choice, the decision-maker must apply some criterion or valuation principle to the consequence. Having selected the best course of action, the decision-maker implements the action and the decision becomes historical.

Decision-making is an ongoing and virtually continuous activity. It determines the nature of our existence and is unavoidable. Even indecision is implicit decision–making, for choosing to do nothing is a choice to continue one's present course of action. Given the significance of decision problem so the phenomenon can be studied scientifically both from descriptive and normative viewpoints.

This research is concerned with one methodological segment of decision theory. This theory has been called dominance criteria, or more precisely, stochastic dominance criteria. Stochastic dominance (SD) is a condition that may exist between two mutually exclusive investment alternatives; all individuals with defined qualitative wealth preferences would choose one alternative over the other. The preferences are qualitative rather than quantitative, because only ordinal concepts are involved. Also, SD is a technique for ranking investments that avoids many of the assumptions required by other popular ranking methods. For example, the widely used mean variance approach requires either the assumption of quadratic utility functions on the part of investors or normal distribution of security returns for accuracy of rankings. By avoiding these restrictive assumptions, the SD technique should be more applicable than alternative models. The individual prefers more wealth to less, and it is unnecessary to measure exactly how satisfaction would increase for a given increase in wealth. Another preference specification is that the individual is risk averse.[1] If a choice between a certain amount of money and a risky prospect with the same arithmetic means money return is given, the individual will choose the certain amount. A third specification is that the individual's risk aversion decreases as the amount of wealth possessed increases. These three specifications correspond to the signs of the first three derivatives of the individual's utility function which is more general than specifying the mathematical form of the individual's utility function (as done in alternative decision models such as the geometric mean model). The SD decision model that is based upon these qualitative specifications, therefore, should be more generally applicable than a model that relies on an exact mathematical form of utility function or an exact form of statistical distribution for its theoretical validity.

The purpose of this paper is to show how stochastic dominance can be used to select and rank investments. Furthermore, it summarizes the relationship between the mean variance dominance criterion and stochastic dominance ordering rules. Also, it applies the stochastic dominance criterion to show that small stock returns dominate low-grade bond returns.[2]

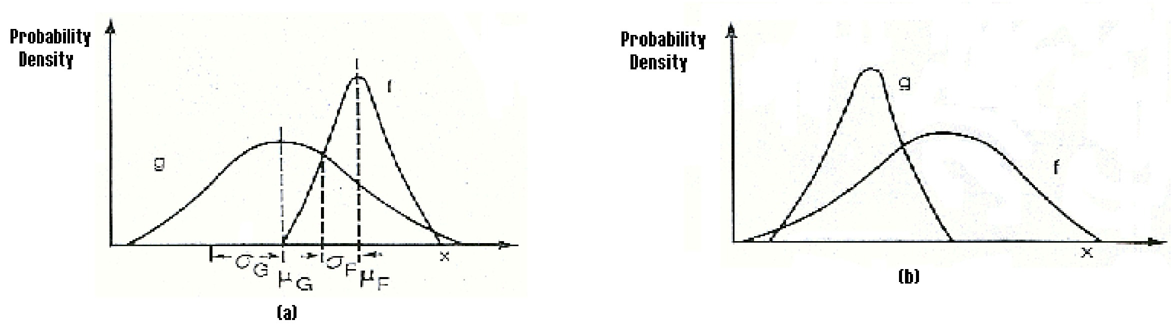
The reminder of this paper proceeds as follows. Section II presents mean-variance preferences ordering, section III introduces stochastic dominance model, section IV presents implementation of stochastic dominance, and section V summarizes.

MEAN-VARIANCE PREFERENCE ORDERING

The application of variance as a risk measure in portfolio analysis was promoted by Markowitz (1952), who suggested the famous mean-variance, or EV, ordering. In this theory the investor is assumed (or advised to make portfolio decisions through a series of tradeoffs between mean return μ and "risk" or "variability" as embodied in the standard deviation measure σ. In a choice between distribution functions of return F and G, a risk-avers investor is presumed to prefer F to G, or to be indifferent between the two, if the mean of F is as larger as the mean of G and the variance of F is not greater than the variance of G, i.e., if $\mu_F \geq \mu_G$ and $\sigma_F \leq \sigma_G$. Furthermore, if at least one of these inequalities is strict, then some investors prefer F to G in the strict sense and F is said to dominate G in the sense of EV. In this case G can be eliminated as a non-contender with no loss of optimality. If only one of the inequalities holds, the problem of choice depends on the individual's personal mean-variance tradeoffs, and neither F nor G can be eliminated under the criterion of EV dominance.

Using probability density function f and g to represent the distributions F and G, Figure 1a illustrates a case in which F dominates G in the EV sense since F has larger mean and smaller variance. Neither F nor G is EV dominates in Figure 1b since F has the larger mean but G has the smaller variance. Despite its simplicity and appeal, the EV dominance criterion, or EV rule, can fail to make a choice between two prospects even in obvious cases. As an example, consider outcomes X and Y, with distribution functions F and G respectively, for which P(X=\$1) = P(X=\$2) =1/2, and P(Y=\$1) = 1. Then $\mu_F = \$3/2 > \mu_G = \$1$, and $\sigma_F = \$1/2 > \sigma_G = \$0$. The EV rule, blindly applied, is unable to choose F for in preference to G even though F is obviously better than G for anyone who prefers a \$2 payoff to a \$1 payoff. Furthermore, EV analysis is generally not consistent with expected utility analysis in the presence of nonlinear utility functions, except in special cases.

Figure 1. EV Dominance (a) and Nondominance (b)



STOCHASTIC DOMINANCE RANKING RULES

There are three major types of stochastic dominance; first order (FSD), second order (SSD), and third order (TSD). The derivations of the three types of stochastic dominance are presented in the following subsection.

To derive proofs of the SD ranking rules, a choice of variables must be made. The investments' outcomes could be measured in terms of the individual's wealth, or the rate of return earned on investments. The most practical dimension seems to be wealth.

Using the notation X for wealth and U(X) for the utility function, the successive derivatives of the utility function are U' (X), U"(X), U"'(X), and in general $U_{[k]}$. The assumed sign of the first derivative, U′(X) is greater than zero, results from the assumption that an individual always prefers more wealth to less. The second sign, U″(X) is less than zero, is determined from the assumption that the individual is risk averse. The positive sign of the third derivative, U"'(X) is greater than zero, comes from the assumption that the individual becomes less risk averse as wealth increases. The general result is that even numbered derivatives should be negative and odd numbered derivatives should be positive. The typical admissible mathematical forms of utility function, are $U(x) = \ln X$, $U(X) = aX^b$, and $U(X) = M - e^{-ax}$ (where a is a positive constant, b is a constant with value between zero and one, and M is an arbitrary large positive constant).

The investment alternatives to be compared are assumed initially to have distributions of returns such that the individual's wealth is distributed continuously over the interval from a to b. Since wealth is the variable X, a is constrained to be positive. If the individual chooses the first investment, resulting wealth has the probability density function f(X). If he/she chooses the second investment, the probability density function of wealth is g(X). The SD ranking rules will always be in the form where the first investment dominates the second investment. The two investments are defined to be mutually exclusive, so a joint distribution of the two random variables is not relevant.

The SD ranking rules are derived by comparing the expected utility resulting from choice of the first investment to the expected utility from the second. Expected utility for the first investment is defined as

$$E_f(U) = \int f(X)U(X)dX. \tag{1}$$

This integral is not evaluated directly, but is integrated by parts to allow comparison of the two investments' expected utilities.

When $E_f(U)$ is integrated by parts, f(X) is assigned as dv and U(X) as *u* in the standard formula. The resulting expression involves the integral (antiderivative) of f(X), F(X) and the derivative of U(X), U′(X). The initial result of the integration is

$$E_f(U) = U(b)F(b)-U(a)F(a)- \int F(X)U'(X)dX. \tag{2}$$

The mathematical characteristics of the distribution function, F(X), can be used to simplify the expression. F(X) is the probability of an outcome of X or less for the random variable and, therefore, F(a) = 0 and F(b) = 1 for all distributions. The expected utility from the first investment is

$$E_f(U)=U(b)-\int F(X)U'(X)dX. \tag{3}$$

The expected utility from the second investment is derived by performing the same operations on $E_g(U)$ or by the simple substitution of g for f in the formulas,

$$E_g(U)=\int g(x)U(X)dX = U(X)-\int G(X)U'(X)dX. \tag{4}$$

If the expected utility of the first alternative is to be greater than that of the second alternative, then

$$E_f \geq E_g(U). \tag{5}$$

Substituting (3) and (4) into (5), the result is

$$U(b)-\int F(X)U'(X)dX \geq U(b)-\int G(X)U'(X)dX. \tag{6}$$

Simplifying and rearranging yields:

$$\int F(X)U'(X)dX \leq \int G(X)U'(X)dX. \tag{7}$$

The derivative of the utility function is the same on both sides of the expression. Since U′(X) is greater than 0 by assumption, the inequality (7) will hold if

$$F(X) \leq G(X) \text{ for all X}. \tag{8}$$

Inequality (8) is the ranking rule for FDSD.

First degree stochastic dominance (FDSD) often does not result in dominance between investments, making it desirable to pursue the higher degrees of SD models. Second and higher degree stochastic dominance ranking rules can be derived by further integrations of expected utility functions. Equation (3) can be integrated by parts with F(X) as dv and U′(X) as u in the standard formula to yield

$$E_f(U)=U(b)-F_1(b)U'(b)+\int F_1(X)U''(X)dX, \tag{9}$$

where $F_1(X)$ is the integral of F(X). $F_1(a) = 0$, but F_1 is not necessarily equal to one. Similarly, the expected utility from the second investment is

$$E_g(U)=U(b)-G_1(b)U'(b)+\int G_1(X)U''(X)dX. \tag{10}$$

If the expected utility from the first investment is to be larger than the expected utility resulting from the second investment, equations (9) and (10) can be substituted into inequality (5) to yield

$$U(b)-F_1(b)U'(b)+\int F_1U''(X)dX \geq U(b)-G_1(b)U'(b)+\int G_1(X)U''(x)dX \tag{11}$$

which can be simplified and rearranged as

$$F_1(b)U'(b)-\int F_1(X)U''(X)dX\leq G_1(b)U'(b)-\int G_1(X)U'(X)dX. \tag{12}$$

The property of risk aversion implies U″ is less than 0. Using the signs of the first two derivatives of the utility function, it is seen that if

$$F_1(X) \leq G_1(X) \text{ for all } X \quad (13)$$

then the inequality in (12) holds and the first investment is at least as preferred as the second investment by the expected utility criterion. Inequality (13) is the second degree stochastic dominance (SDSD) ranking rule.

SDSD can be expected to yield more frequent dominance between pairs of investments than FDSD. It is, therefore, a more powerful tool for discrimination. The increased power of the SDSD ranking rule adds results from the assumption about individual's utility function, U″(X) less than 0. One of the mathematical characteristics of positive valued functions is that their integrals must be ordered. If FDSD exists between two alternatives and F(X) is less than or equal to G(X) for all X, then $F_1(X)$ is less than or equal to $G_1(X)$ for all X. SDSD exists as well. FDSD implies SDSD. In considering the set of pairs of investment alternatives, the second degree test will detect all the pairs where preference exists that would be detected by the first degree test. The second degree test also may detect some additional cases of preference that failed the first degree test.

As the degree of stochastic dominance test is increased, the discrimination power becomes greater. Third degree stochastic dominance (TDSD) will detect more preferences than SDSD, and so forth. The TDSD rule is developed with another property of the utility function, decreasing risk aversion, or U‴(X) less than 0, and by a further integration by parts of the expected utility function. When equation (9) is integrated by parts, the result is

$$E_f(U)=U(b)-F_1(b)U'(b)+F_2(b)U''(b)-\int F_2(X)U'''(X)dX \quad (14)$$

If the expected utility of the first investment is to be at least as large as the expected utility of the second investment, then this inequality must hold:

$$F_1(b)U'(b)-F_2(b)U''(b)+\int F_2(X)U(X)dX \leq$$
$$G_1(b)U'(b)-G_2(b)U''(b)+\int G_2(X)U'''(X)dX. \quad (15)$$

Given the signs of the utility function derivatives U′(X) is greater than 0, U″(X) is less than 0, and U‴(X) is greater than 0, sufficient conditions for (15) to hold are:

$$F_1(b) \leq G_1(b), \text{ and } F_2(X) \leq G_2(X) \text{ for all } X. \quad (16)$$

Inequalities (16) form the TDSD ranking rule.

IMPLEMENTATION OF STOCHASTIC DOMINANCE

The first step in processing the data for SD tests is the approximation of the true underlying distribution functions by finite (and therefore discrete) sets of sample observations. For this purpose, the three dominance criteria must be redefined in terms of these discrete observations. This result is obtained by first listing the sample observations in ascending order such that if X_i and X_j are the ith and jth observations, then $X_i \leq X_j$ if and only if $i < j$. Note that although it is possible for two or more observations to have the same numerical value, for consistency in labeling, each observation is considered to be distinct. If there are K distinct observations of return on a given portfolio, then each occurs with a relative sample frequency $f(X_i) = 1/K$. The corresponding distribution function $F_1(X_n)$ is generated directly by summing these sample frequencies for all X_i, $i \leq n$. Finally, in the comparison of two probability functions, f(X) and g(X), there are a total of

N = 2K distinct observations. If the ith observation belongs to portfolio f, then $f(X_i) = 1/K$ and $g(X_i) = 0$; if it belongs to portfolio g, then $g(X_i) = 1/K$ and $f(X_i) = 0$. With this framework the SD rules can be restated as follows:

FSD: The probability function f(X) is said to dominate the probability function g(X) by FSD if and only if $F_1(X_n) \leq G_1(X_n)$ for all $n \leq N$ with strict inequality for at least one $n \leq N$, where

$$F_1(X_n) = \sum_{i=1}^{n} f(X_i) \qquad n = 1, 2, 3, \ldots\ldots, N$$

And

$$G_1(X_n) = \sum_{i=1}^{n} g(X_i) \qquad n = 1, 2, 3, \ldots\ldots, N$$

SSD: The probability function f(X) is said to dominate the probability function g(X) by SSD if and only if $F_2(X_n) \leq G_2(X_n)$ for all $n \leq N$ with strict inequality for at least one $n \leq N$, where

$$F_2(X_n) = \sum_{i=2}^{n} F_1(X_{i-1})\,(X_i - X_{i-1}) \qquad n = 2, 3, \ldots\ldots, N$$

And

$$F_2(X_1) = 0.$$

$G_2(X_n)$ is similarly defined.

TSD: The probability function f(X) is said to dominate the probability function g(X) by TSD if and only if $F_3(X_n) \leq G_3(X_n)$ for all $n \leq N$ with strict inequality for at least one $n \leq N$, and $F_2(X_n) \leq G_2(X_n)$ where,

$$F_3(X_n) = \tfrac{1}{2} \sum_{i=2}^{n} [F_2(X_i) + F_2(X_{i-1})]\,(X_i - X_{i-1}) \qquad n = 2, 3, \ldots\ldots, N$$

And

$$F_3(X_1) = 0.$$

$G_3(X_n)$ is similarly defined.

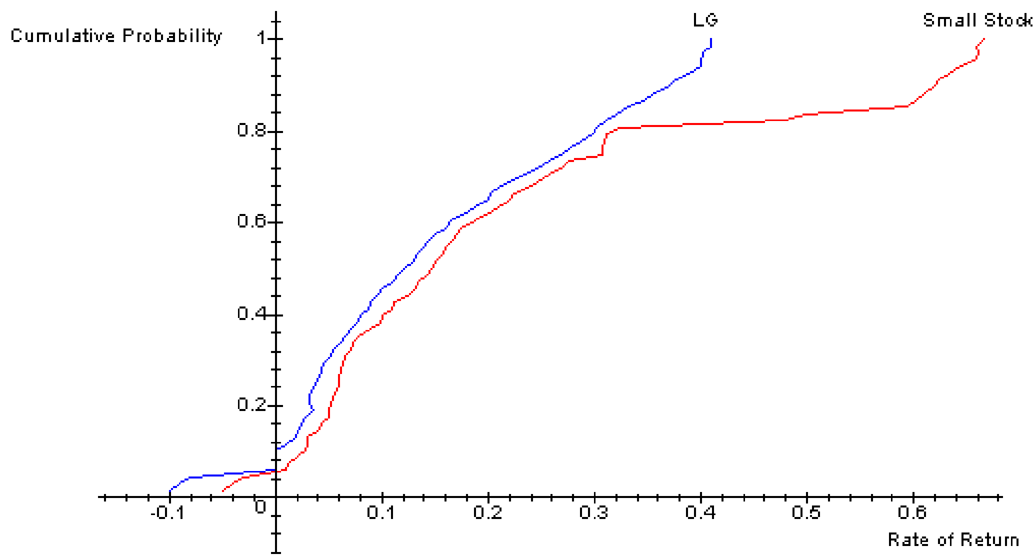
This study examines the distribution of January small stock and low-grade bond returns. To examine SD of small stock versus low-grade bond returns we construct the cumulative density function (CDF), the *n* realized monthly returns are ranked in increasing order. Since each observation has an equal probability of occurrence, each realized return is assigned a probability of 1/72.[3] Hence, the lowest realized return has a cumulative probability of 1/72, the second lowest realized return has a cumulative probability of 2/72. Finally, the highest realized return has a cumulative probability of 72/72 or 1. Plotting these points produces the empirical CDF.

To examine stochastic dominance in January returns across small stock and low-grade (LG) bond, Figure 2 shows the cumulative density function (CDF) of the realized total returns in January from 1926 to 1997. As Figure 2 shows, the CDF of small stock is shifted to the right, while the CDF of LG bond is shifted to the left. Figure 2 produces visual proof of the first-order stochastic dominance of the January returns in small stock over the January returns in LG bond. Furthermore,

Table 1 shows that small stock returns dominate low-grade bond returns for each month by first degree.

Table 1: Monthly stochastic dominance of small stock returns over low-grade bond returns from 1926-1997											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
FSD	FSD	FSD	FSD	FSD	FSD	FSD	FSD	FSD	FSD	FSD	FSD

Figure 2: Cumulative Density function of January Returns for small Stock and Low-Grade Bond



SUMMARY

This paper introduces the importance of stochastic dominance approach in decision making. Also, it explores the derivation of the various degrees of stochastic dominance ranking rules by integrating the expected utility functions of the two choice rules alternatives.

The stochastic dominance ranking model is a technique for ranking investments that avoids many of the assumptions required by other popular ranking models. For example, the widely used mean variance approach requires either the assumption of quadratic utility functions on the part of investors or normal distribution of security returns for accuracy of rankings. By avoiding these restrictive assumptions, the stochastic dominance technique should be more generally applicable than alternative models.

By using stochastic dominance approach, this paper finds that small stock returns dominate low-grade bond returns over the study period from 1926 to 1997.

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ENDNOTES

[1]An investor who will not assume a given level of risk unless there is an expectation of adequate compensation for having done so.
[2]This paper is condensed to fit the guidelines of the proceedings. The complete paper is available upon request from the author.
[3]The number of years in this study is 68.

INTERNATIONALIZING THE TAX RESEARCH COURSE

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Thomas C. Pearson, University of Hawaii at Manoa

ABSTRACT

Accountants in both practice and academia are pushing for a major restructuring of accounting education, away from a content-driven focus and towards a skills-based curriculum. This paper presents a tax research course framework that is consistent with the calls for accounting curriculum reform. The tax research course illustrated focuses on developing the students' critical thinking, communication, interpersonal, teamwork, and technological skills. The paper first points out why tax educators should increase students' exposure to international tax issues. Next it presents curriculum development ideas for organizing and structuring a tax research course with an international emphasis. Throughout the paper, various examples of how to Internet-enhance the tax research course are given. The tax research course described has a U.S./Asian-Pacific orientation, but the concepts can extend to tax research courses for any set of countries or trading blocks.

ROBOTS "R" US

Victor Selman, The American University
Jerry Selman, ERA, Inc.

At its Best, Technology Can Be Virtually
Indistinguishable from Magic.
Ad for Bose Technology [Y2000]

Fuzziness Begins Where Western Logic Ends.
Bart Kosko

The Future Is Bound to Surprise Us, but We
Don't Have to Be Dumbfounded.
Kenneth Boulding

ABSTRACT

Our vision for the world of the future, post Millennium-3 that we entered on 11 September "through a gate of fire," is that the future will be very different than we can imagine it even today; particularly, in the global environments, business and personal relationships with alternative interpersonal connections. With the unpredictable fuzzy future of Hi-Tech science, quantum aberrations, spiritual verities, eternal truths, emerging new paradigms, bioethics decisions, morality controls, and the Damocles sword of global terrorism, affecting all. With short cuts to emerging long-term realities---like cryogenics for immortality gigs, and smart Bots [robots] helping us more and more along the way, like the Search & Rescue Robots at the WTC.

INTRODUCTION

The definition of artificial intelligence is just as controversial today as the definition of human intelligence. Larry Tessler is credited as being the first to suggest that artificial intelligence is "whatever hasn‘t been done yet!" Machine Intelligence Technology that combines advances in artificial Intelligence (AI), computer science, and microelectronics is used by the US Defense Department to develop a new breed of robots that can be used in connection with cruise missiles, underwater robots, and tanks. Questions keep popping up---Are there things robots should not be allowed to do? Will humans remain in control?

The Robot Institute of America offers the following definition of a robot:

> *"A reprogrammable, multifunctional manipulator designed to move material, parts, tools or specialized devices, through variable programmed motions for the performance of a variety of tasks."-*

Robot comes from robota, the Czech word for an annual debt of forced labor. Historically, in 1848, the serfs rose up against their Austro-Hungarian landlords in protest; hence, a robot revolution. Czech writer Karel Capek's 1921 play Rossum's Universal Robots (RUR), brought the word into the English language. In Capek's play, hero-engineer Rossum creates a new breed of robots to do the world's dirty work. The robots eventually rise up and take over the world, like cloned Frankenstein monsters [18].

Mechanical figures of animals and figures were popular in the eighteenth century, performing mechanized actions that imitated real life---.dipping a pen in ink and writing on a pad, a human-sized flutist playing 12 melodies. These "clockwork automation" models, using mechanisms similar to those contained in music boxes, danced and even had mechanical ducks drink and splash in water. The word "automation" and "automatic" can be traced back to 1586. "In the 18th century, some mechanical figures were accused of being the work of witches, and at least one designer of automatic people was arrested on the charge of witchcraft by the Holy Inquisition [10]."

In 1948, W. Grey Walter, a British brain physiologist, invented an appealing type of robot he called a "machina specilatrix," more popularly known as the turtle or tortoise---a metal box on wheels with two sense organs: one, a bank of photocells, and the second organ that detected whenever the turtle bumped into something, and moved it along a random path until it cleared the obstacle, returning to its "hutches" when the batteries needed recharging. One purpose of the turtle was to study the electrical activity of the brain, and to make humans question whether or not they were "beings," as they had senses that could detect a stimuli and respond to it. The Terrapin Turtle [Terrapin, Inc.], a computer turtle, designed by Dan Hillis of MIT's AI Laboratory, had blinking eyes, beeped in two tones, drew with a pen, and moved on two separately controlled wheels---and had a sense of touch.

Our first generation of computer-controlled robots known as universal transfer devices (UTDs) were little more than mechanical arms--deaf, dumb and blind--, used for spot-welding, paint-spraying, loading and stacking. The industrial robots used at the Roundtree Chocolate factory in England had two arms, which give them the ability to pick up two pieces of candy at a time and place them in boxes. At the rate of two pieces per second, every second---without coffee breaks or any absenteeism! In the 1980s, a Japanese robot crushed a human worker to death, causing the world's first high-tech robo-murder. Today Bots retrieve information and respond to events on Usenet, the Web and other corners of cyberspace; some are interactive, such as chatterbots---the kind of bot one can talk to. Eliza was created in 1966 by Professor Joseph Weizenbaum of MIT to study natural communication between man and machine. Eliza parodies a therapist by answering questions with questions. Try a session with Eliza today at <www-ai.ijw.si/eliza/eliza.html>.

ALICE (Artificial Linguistic Internet Computer Entity), a more sophisticated program that creates the illusion of natural conversation, as ALICE can even tell lies, spread gossip, etc., as you will find out in www.alicebot.org.

The Science of Robotics has been called the marriage of man and machine, or computer and machine. The late Isaac Asimov's Three Laws of Robotics (c .1950), [see his I, Robot] which states that robots can protect themselves as long as they don't disobey human orders or harm people. According to new computer scientists, that definition of functioning in the "real World" is also changing. They believe that cyberspace and artificial reality are as real as the physical world. If the electronic world is "real," than robot controller brains could contain the computer programs of artificial life behaving like living organisms---mating (interacting with other programs), reproducing (creating new programs), passing on characteristics according to the rules of genetics, competing with other programs, and evolving into very different programs. Ellen Thro [21] states: "Some artificial life programs use computer graphics to draw pictures of the creatures. Each new generation appears on the screen, showing new characteristics and mutations. Some of them even evolve into different species. They become predators and prey. Some species become dominant; others die out. Some scientists say these organisms are very close to being alive. They fit the biological definition of life, erasing gradually the line between living organisms and non-living matter."

MIT roboticist Cynthia Breazeal talks about the social interaction needs of their robot Kismet, with Groucho Marx eyebrows and licorice-whip lips, programmed to seek sensory stimulation---voices, movement, brightness, color—which it attracts with beguiling expressions and a sort of babbling baby talk. If an expression works, and a passing human stays to play, Kismet's internal "social drive" is satisfied. If not, the levels sink and Kismet tries a new strategy to connect. Basic movements are programmed into Kismet's behavior, but its handlers hope human feedback will help it learn new gestures and vocalizations by imitating people and storing successful attempts in its memory. "It helps the robot learn the social meaning of its action," Breazeal says. "The whole point is that the robot is trying to get you to interact with it in ways that can benefit its ability to learn." The goal for Kismet to learn is not just to "think" for itself, but also, as every child must, to understand that its actions have consequences.

According to the International Federation of Robotics [Sweden], there will be nearly 900,000 robots of all types installed around the world by 2003. In 1995, there were 615,000, mostly in Japan, welding cars, assembling electronics and constructing other robots.

In North America robots have had terrible PR. We normally associate robots with herky-jerky movements, brutish strength and a personality limited to grim, remorseless logic---a kind of anti-robot prejudice. Not all robots, however, are like the delightful R2-D2 from Star Wars. RB5X, a barrel-chested ‘bot that could be one of R2-D2's ancestors comes with various sensor kits (video, light, temperature, sound) and other add-ons like robotic arms and extra memory to speak any language with its universal phonemes dictionary. [$3,495, includes recharging station and phoneme dictionary from General Robotics.]

Recently, at the Comedy Central's Battlebots competition in Las Vegas, Tonight Show host Jay Leno created the strategy for his robot "Chin-Killa" [to ram the other guy], and easily won over "Ginsu," a combination of saw blades on wheels. About 140 robots entered the competition, in different weight classes ("super heavyweight robots" can max out at 488 pounds) and can be fueled by battery or by internal combustion engines---featuring alligator-style jaws, spikes, spinning buzz saws. Pairs fight three-minute duels inside a 48-foot square arena encased in a shatterproof Plexiglas "BattleBox," where booby traps (such as buzz saws, and automated aluminum sledgehammers) add to the excitement. The first Battlebots competition was in 1999, which was broadcast on the Internet. Comedy Central picked up the show in 2000, after a pay-per-view event. Launched in August 2000, Battlebots with its omnipresent heavy metal soundtrack is now the station's third most popular show. In it "techies" (mainly male) operate remote-controlled robots (which they designed) to beat the rivets out of an opponent's robot (for bragging rights, prizes and money. BattleBots has recently signed a deal with Fox TV to air a Saturday show called BattleBots

IQ, where youngsters will learn about robots as they clobber each other's ‘bot, says Greg Munson, co-creator of the show.. Tiger Electronics is releasing a series of video games based on the show. A toy line is also in the works. NEC's personal 15-inch robot is a step up in sophistication with 5 sensors, recognizing up to 650 phrases, speaking more than 3,000 words, dancing, and alerting you of e-mail and home security. Before the actual fight above in Las Vegas, Jay Leno had "Chin-Killa" destroy a mock Florida stylus-punching ballot-counting obsolete voting machine [6]—now being disposed of on eBay.

As we enter the Age of Robots, making succeeding-generation robots more humanlike and more conscious, we realize the enormity of the task that still faces us: how to program logic and problem-solving into robots at the same time as teaching robots perceptual and intuitive things that any child can do, like running, listening, recognizing friendly faces---which cannot be done by even the most advanced robot today. The elaborate computerized problem-solving programs that researchers installed in robots in the late twentieth century assumed initially that the sequence of facts, physical laws and logical relationships would somehow add up to thinking (machine consciousness) and real world smarts.

Starting Summer 2001, an interactive 6-foot-tall robot designed by Mobot, Inc. designated as "Adam 40-80" has interacted with travelers passing through Pittsburgh International Airport, roaming the airline hub at the escalators that link the four concourses, offering information ranging from flight schedules to Pittsburgh's coming attractions. Mobot's robots are also stationed at the Carnegie Museum of Natural History and the Sen. John Heinz Pittsburgh Regional History Museum.

SEARCH AND RESCUE ROBOTS

Amid the rubble of the twin towers of the WTC in New York, four teams of roboticists initially responded---Foster-Miller (a robot manufacturer), iRobot (a robot manufacturer), University of South Florida (robot research on smart bots), and SPAWAR (a Navy lab that develops robots). Their small experimental urban robots —now 40 in existence, developed after the Oklahoma City bombing---searched for 9/11 victims within six hours of the attacks, and remained onsite through 2 October---moved through broken glass and twisted steel to reach areas too dangerous for human rescue workers or search dogs. Shoe box size, hand-operated robots developed by computer scientists under Dr. Robin Murphy at the University of South Florida carried cameras and specialized sensors that detect body heat or colored clothing against the grey dust that coated the debris.

There are three species of rescue robots now: 1) Tethered with a long cable or umbilical cord connecting the robot to a computer and power supply outside the site [$8K-13K], 2) Untethered, tactical mobile robots which have an onboard computer and battery to be autonomous [$33K-$40K], 3) Snakes or serpentine robots that look and move like snakes. [A miniature FLIR camera (that sees body heat) costs about $15K.] The Center for Robot Assisted Search and Rescue (CRASAR) exploits new technology development in robotics and unmanned systems for humanitarian purposes worldwide. In the future robots will be able to deliver food and medicines to injured persons and send back pictures of their exact location. The four major tasks that robots could help in this type of emergency situation are listed in Appendix A.

RoboCup is an international joint project to promote Artificial Intelligence (AI), robotics and related fields. It is an attempt to foster AI and intelligent robotic research by providing a standard problem where wide range technologies can be integrated and examined. RoboCup initiated ROBOTCUP RESCUE project to specifically promote research in socially significant issues. RoboCup chose to use soccer game as a central topic of its research, aiming at innovations to be applied for socially significant problems and industries. The ultimate goal of the RoboCup project is---By 2050, develop a team of fully autonomous humanoid robots that can win against the human world champion team in soccer. In order for a robot team to actually perform a soccer game, various technologies must be incorporated including: design principles of autonomous agents, multi-agent collaboration, strategy acquisition, real-time reasoning, robotics and sensor-fusion. RoboCup is a task for a team of multiple, fast-moving robots under a dynamic environment.

In previous years, the Annual AAAI Mobile Robot Competition and Exhibition had attracted both local and national news media---the 1996 contest resulted in a segment in Alan Alda's "Scientific American Frontiers" program on the Discovery Channel. A RoboCup Rescue competition is dedicated to encouraging researchers to develop intelligent robots, as well as software decision tools. In the next time period, it is anticipated that the RoboCup/AAAI Rescue Robot League will use the NIST Urban Ruin Test Course for Search-And-Rescue Robots---housed by Washington State Convention and Trade Center. The Rescue Robot Symposium was held in Kobe and Tokyo (Japan) in January 2002. The Sixth Robot World Cup Soccer Games and Conference is being held this June in Fukuoka/Busan---www.robocup2002.org/---

Microsoft's chairman Bill Gates (1999) stated in his Business @The Speed of Thought, his Twelve New Rules for success in the digital universe: velocity is the key---when the increase in velocity is great enough, the very nature of business changes. If the 1980s were about quality, and the 1990s were about reengineering, then the 2000s will be about velocity: Quality improvements and business-process improvements will occur far faster. "To function in the digital age, we have developed a new digital infrastructure---it is the human nervous system. Companies need to have that same kind of nervous system---the ability to run smoothly and efficiently, to respond quickly to emergencies and opportunities, to quickly get valuable information to the interested people in the company who need it, and the ability to quickly make decisions and interact with customers. The successful companies of the next decade will be the ones that use digital tools to reinvent the way they work." The millennial robots must also have this capability of high velocity changes. As Lewis Thomas so aptly states:

> *we are, quite literally, in a new world, a much more peculiar place than it seemed a few centuries back, harder to make sense of, riskier to speculate about, and alive with information which is becoming more accessible and bewildering at the same time. It sometimes seems that there is not just more to be learned, there is everything to be learned.*

SUMMARY

New age managers--that is, managers who are or will be successful in the digital future are a different breed of managers, an evolutionary mutant, not necessarily begot in the ivory towers of academia, nor from the robber barons of the recent past, nor from Japanese ritualistic approaches, nor developed in industrial training laboratories, nor on skunk work farms, but who, somehow, have integrated right-brain/left-brain/mixed-brain harmony and conflict, the whole and its parts, creative stress and senses of security, have natural inherent talent for functioning successfully on the boundary, the frontier, the fence, the cutting edge of corporate survivability over time, in a semiotic relationship with smart robots that fluctuates from day to day. The "excellent" corporations of the past are-not/may-not-be those survivors into the future [9]. Of the corporations in the Fortune 500 rankings in 1984, 143 are missing in 1989. Yet, in the twenty-five year period 1955-1980, only 238 companies dropped out. Toffler, in his The Third Wave [22] touches upon these new concepts that are essential for survival into a millennium of chaos:

> *... a new civilization is forming. So profoundly revolutionary is this new civilization that it challenges all our old assumptions. Old ways of thinking, old formulations, dogmas and ideologies, no matter how cherished or how useful in the past, no longer fit the facts. The world that is fast emerging from the clash of new values and technologies, new geopolitical relationships, new life styles and modes of communication, demand wholly new ideas and analogies, classifications and concepts. We cannot cram the embryonic world of tomorrow into yesterday's conventional cubby-holes.*

Bots have served such functions on IRC (Internet Relay Chat) as greeting new participants, searching the Internet, monitoring the use of offensive language, gathering relevant information, and presenting it on a daily or other periodic basis, etc.

Ray Kurzweil, an AI pioneer, has given humans, in his The Age of Spiritual Machines, about 20 more years of intellectual superiority over computerized robots. By that time, he argues computers will not only be "intelligent," they will be conscious feeling beings deserving all the same rights, privileges and considerations we give each other.

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APPENDIX A
The Four Major Tasks that Rescue Robots could Help with:
Reconnaissance and site assessment.
Rescuer Safety.
Victim detection in rubble.
Mapping and characterizing the structure.

THE IMAGE OF ACADEMIC JOURNALS: ANALYZING EDITOR'S COMMENT

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ABSTRACT

Editor's letters is a direct channel for journal editors to communicate with their readers. The sore purpose of this genre is not only for editors to address their opinion about the trend of research and the importance of a specific topic. It also reveals the journal's positioning which the editor perceives or tries to create an image of journal. This study are concerned about the image of journal provided in editor's letters in both MISQ and CACM. Through the aid of metadiscourse analysis, we observe that it is a dialectical influence between journal image and the written style of editor's letters. More specifically, image of journal may influence the speech act in editor's letter, and the speech act in editor's letter will further enhance the image of journal image.

Keywords: Image, Editor's letters, Metadiscourse

INTRODUCTION

"Where should I publish my research?" Hamilton and Ives (1983) note that it is important to identify journals quality so that researchers can decide where to submit their study, especially under the situation that the abundance of journals and long publication lead times. Thus, to researchers who want to publish and influence their fields, they must exploit their understanding of these genres.

Editor's letter is a direct channel to create a social communication between journal editors and readers. It is not only for editors to address their opinion about the trend of research or the importance of a specific topic. It also reveals the journal's positioning which the editors perceived and what image they try to create about their journal. This study are concerned about the speech acts provided in editor's letters in two of major journals in MIS discipline. These speech acts reveal the forming of journal's image. Through the aid of metadiscourse analysis, we observe how journal image and the writing style influence each other in editor's letters.

METADISCOURSE

Metadiscourse reveals how writers attempt to influence readers' understanding of both the text and their attitude toward the content and the audience (Hyland, 1998a). Many studies have applied metadiscourse in various areas, such as written genres in business (Hyland, 1998), in science (Crismore & Farnsworth, 1990; Harris, 1991), and persuasive writing (Crismore, et al. 1993). These researches are based on an important assumption that "writing as a social and communicational engagement between writer and readers and focus on writer project themselves to their work to signal their communicative intentions" (Hyland, 1998, p.226). Hyland (1998) revises both Crismore et al (1993)'s and Haliday's (1973)'s researches, and defines two categories of metadiscourse markers: textual and interpersonal metadiscourses.

According Hyland (1998), textual metadiscourse refers to devices which reveal the writer's intention by explicitly establishing preferred interpretations of prepositional meanings. Devices in this category help to form a convincing and coherent text by relating individual propositions to each other. This kind of markers are including (1)Logical connectives: it expresses semantic relation between main clauses and the typical examples are including "in addition, " "but," and "therefore." (2)Sequencers: it denotes sequence of text material. The examples are "first, "next," "finally," "then." (3)Frame markers: explicitly refer to discourse acts or text stages. "Finally," "to repeat," "my goal is" are belong to this sort markers. (4)Endophoric markers: it refer to information in other parts of the text. The examples are "noted above" and "see below." (5)Code glosses: it helps readers grasp meanings of ideational material, and the examples are "namely," "e.g." and "in other."

The other kind of metadiscourse considers about interpersonal relationship. Interpersonal metadiscourse "reveals the author's attitude towards both the prepositional information and the reader, thus contributing to the development of a writer-reader relationship"(Hyland, 1998, p.229). It influences the author's intimacy or remoteness, expression of attitude, commitment or propositions, and degree of reader involvement. The markers as including: (1)Hedges: it withholds writer's full commitment to statements, such as "might," "perhaps" and "it is possible." (2)Emphatics: it emphasizes force or writer's certainty in message and the examples are including "in fact," "definitely," and " it is clear." (3)Attributors: it indicates the source of quoted information, and its typical examples are "according to," and "X says." (4)Attitude markers: it expresses writer's attitude to proposition content, such as "surprisingly," and "hopefully." (5)Relational markers: it explicitly refers to or build relationship with reader and the examples are "between us," "you can see" and "I / We."

RESEARCH METHODOLGY

This study explores how journal editors create and enhance the journal image by adopting speech acts in editor's letter. The data collected in this study are editor's letters which are published in each issue of both MISQ and CACM in 2000. MISQ and CACM are chosen because both of them are suggested as top five ranked journals but on different focus (Hardgrave & Walstrom, 1997; Walstrom et al., 1995; Holsapple et al., 1994; Gillenson & Stutz, 1991). A content analysis is adopted based on the inventory of metadiscousal markers. All of editor's letters are analyzed sentence by sentence. The coding process is complied by the two authors independently and then discussed the different clarification in order to make a consistence results. ANOVA is applied to test the difference of the metadiscourse markers that appear in these two journals, too.

DATA ANALYSIS

ANOVA tests are applied to examine if the adoption of metadiscourse forces in editor's letters is different between these two journals. The result shows that the speech act of editor's letters in these tow journal is significant different in both of interpersonal forces ($F= 10.417$, $p= 0.002<0.01$) and textural forces ($F=12.871$, $p=0.001<0.01$). It means that the writing styles of editor's letter in these two journals are different. Thus, the editors in MISQ and CACM apply different speech act to create and enhance the image of their journals. The metadiscourse markers adopted in both MIS and CACM are represented in Table 1.

Table 1 the frequency of metadiscourse markers in the two journals				
	MISQ		CACM	
Categories	Total number (rank)	%	Total number (rank)	%
Interpersonal				
Attitude Markers	24 (1)	0.29	14 (3)	0.15
Emphatics	18 (2)	0.22	11 (4)	0.12
Relational Markers	18 (2)	0.22	46 (1)	0.48
Attributors	13 (4)	0.16	19 (2)	0.2
Hedges	9 (5)	0.11	5 (5)	0.05
Textual				
Code glosses	32 (1)	0.32	45 (1)	0.45
Logical connectives	31 (2)	0.31	10 (4)	0.1
Sequencers	23 (3)	0.23	17 (3)	0.17
Frame Markers	12 (4)	0.12	22 (2)	0.22
Endophoric markers	1 (5)	0.01	5 (5)	0.05

Generally speaking, editor in MISQ used a lot of code glosses and logical connectives to form rational inferences to persuade readers. On the other hand, it concerns reader intimacy as well, since a lot of relational markers are used, too. In contrast, the editor in CACM use a lot of relational markers which distinguish the editor, readers and writers, and adopt attributors to provide a brief summary of what are included in this issue.

DISCUSSION AND CONCLUSION

Editors in MISQ and CACM adopted different speech acts in their editor's letters. How these speech acts will influence mage is discussed in following section.

Images And Editor Letter Written Style

The image of journal affects the writing style of the editor's letter. With a image as a director or guru in MIS research, the editor's letter in MISQ using a lot of attitude markers which address editor's prefer to specific issues, and many emphatics which express the editor's assurance about a specific issue. In addition, editor's letters in MISQ are employed more logic connectings which denote how the writer intends the meaning relations between ideas to be understood. Theses forces indicate the editor's letter are concerned about to direct and to advice MIS research by explicitly stating their views, organizing their ides and building arguments.

On the other hand, CACM has vary ranks in years, it lacks of a fixed position in the pool of journals. The most frequently forces used in editor's letters is "relational marker," which explicitly seek to involve the reader by selectively focusing their attention, and emphasizing a relationship in the text situation. It implies that the editor take a position to treat himself as a guide to introduce the others what has been studied in MIS discipline.

Editor Letter Writing Style and Images

The metadiscourse forces will reinforce the image of journal. In MISQ, the editor uses attitude markers and emphatics to underline their certainty and boost their presence in discourse. Both of these forces help the editors to instill confidence and trust in readers through an impression of certainty, assurance, and conviction in the views presented. In addition, relational markers are also used to demonstrate common ground with the reader, trigger agreement on the claims discussed by presenting oneself as a person with similar views, interests and objectives as the reader. All of these three forces make readers easier to be persuaded and then reinforces the image as a director.

On the other hand, relational marker, attributor and attitude marker are major metadiscourse forces in CACM. Attributions are used to support and give credit for the editor to persuade the readers. In addition, the use of third-person forms contributes to persuasiveness of a text by making the shared interests of writher and reader transparent. These two forces further strengthen the image of introducer in CACM.

To be concluded, this study applies metadiscourse analysis to examine editor's letters in MISQ and CACM in 2000. The finds show that these two editors apply different forces to communicate with their readers. It also suggests that the relationship between image and editor's letter is a reciprocal influence. Previous image and editor's reputation may determined the writing style of editor's letter, the speech act of the editor's letter will directed the reader's perception and interpretation of what has been presented in the journal and then enhance their image.

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DOUSING THE FLAMES: REDUCING WORKPLACE AGGRESSION THROUGH CONFLICT MANAGEMENT

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ABSTRACT

"The easiest, the most tempting, and the least creative response to conflict within an organization is to pretend it does not exist." The only problem with this approach is that conflict will not go away on its own. The word "conflict" conjures up feelings of anger, threat, and fear. Yet, conflict is not all bad. Through conflict, people learn how to resolve issues, understand different points of view, and make better decisions. On the other hand, conflict also can be destructive. This paper will discuss the reasons why conflict occurs, describe bullying bosses and coworkers, discuss workplace violence, outline communication techniques to resolve conflict, and tell what employers can do to help resolve conflict in their organizations.

INTRODUCTION

> "Now, I give you fair warning! shouted the Queen, stomping on the ground as she spoke.
> "Either you or your head must be off, and that in about half no-time! Take your choice!"
> Alice In Wonderland

Life would be easier if everyone saw things in the same way; we don't. Whenever two or three are gathered in any community, for any reason, at any time, there will be some dissension, difficulty, or difference of opinion. Because people come from such divergent backgrounds, think so differently, and communicate so uniquely, conflicts are highly probable (Booher, 1999). Thus, conflict in the workplace can be normal and healthy. A workplace devoid of tensions is ultimately dull and stagnant, unlikely to foster creativity and growth (Blackard, 2001).

Yet, when the word "conflict" comes to mind, most people envision anger, harsh words, hurt feelings, or damaged relationships. However, not all conflict is bad. Disagreeing on solutions can lead to more creative problem solving and better outcomes. The destructive conflicts are those in which the real agenda of the conflict is a personal one. These are conflicts in which the purpose of the interaction is to harm someone physically, psychologically, or both (Lloyd, 2001).

WHY CONFLICT OCCURS

> "The quickest way to kindle a fire is to rub two opposing opinions together."

Conflict occurs for a variety of reasons including a lack of communication, a misunderstanding, a failure to meet expectations, and stress (VanDer Wall, 2000). In addition, as rational adults, we expect that when we present an idea at work, we will have consensus. Because each of us has a different perspective, however, we support only those views closest to our own. Opinions and ideas grind against each other until a resolution is reached (Fernberg, 1999).

In addition, people bring their own baggage to work. There are people who are easy to get along with who, when put together, do not have a synergistic response. As a result, conflict ensues. Also, every workplace has pockets of negative people whose dissatisfaction sabotages both the efforts and morale of the people around them. Another sources of conflicts are swelling workloads, shrinking staffs, low budgets, strained relationships, self-destructive behaviors which create a volcanic environment. Add poor management, and eruptions are imminent (Fernberg, 1999).

The first thing a person must do is determine the nature of the conflict. Conflicts can be divided into five categories:

1. Conflicts Over Personalities - this occurs because one is an introvert and one is an extrovert. Even those with similar backgrounds and experiences have conflicts because of personal habits and idiosyncrasies.
2. Conflicts Over Goals - this occurs when driven professionals pursing certain objectives run headlong into other professionals pursuing other objectives.
3. Conflicts Over Values - these are the most difficult to resolve. Values have taken root in a person's life and are difficult to change.
4. Conflicts Over Circumstances - these occur when two employees want to take vacation the same week and both can't be gone at the same time.
5. Conflicts Over Facts - this involves differences in sources, authorities, and definitions (Booher, 1999).

In addition to recognizing the nature of the conflict, it is essential to recognize that destructive types of conflict have predictable patterns. This pattern is called a "drama triangle." In this triangle, there are three principle players: The first player is the Persecutor - The person assuming this role will use aggressive behavior toward another person attacking the intended victim. The attack can be physical, verbal or both. It can be direct or indirect. The second player is the Victim - People who assume the victim role use nonassertive behavior to invite others to see them as "not okay." The victim will feel inadequate, helpless, sad, scared, or guilty. This behavior invites others to either rescue or persecute the victim player. The third player is the Rescuer - Those who take on this role use either nonassertive or aggressive behavior. Sometimes people become rescuers because they won't say "no" and reluctantly take on the responsibility of trying to solve the victim player's problem. In addition, someone may assume the role of rescuer as a way to demonstrate superiority to the victim player (Lloyd, 2001).

Not surprisingly, bosses are positioned in organizations to receive the almost unconditional respect from their subordinates. Yet, many individuals suffer at the hands of their Boss who is brutal and who is a Bully.

BULLYING BOSSES AND COWORKERS

"Keep your Temper" said the Caterpillar - Alice in Wonderland

Broadly defined, bullying is any behavior that intimidates, humiliates or demeans a person. Sometimes it is directed at one employee in particular; other times it is a part of a hostile or poisoned work environment (Bernardi 2001). Bullies often target people who come from races, religions, gender, or sexual orientations (Atkinson, 2000). There are three categories of brutal bosses: (1) Dehumanizers - remove any and all human elements of an employee and deal with a faceless figure. The dehumanized employee becomes an entity that does not require respect. (2) Blamers - cast responsibility on the employee for deserving such mistreatment. (3) Rationalizers - view their behavior as a means to an end (Monahan, 1999). One brutal boss found it hard to believe that an employee deserved sick days for emergency surgery and asked to see the incision. Another kept an employee in an all-day meeting even though the employee's mother was on her deathbed. A third, a chronic yeller, used an employee as a go-between with his ex-wife (Terez, 2001).

The consequences of brutal bullying on subordinates and coworkers are many. There are both health and work consequences for employees who are repeatedly subjected to abusive treatment. Health consequences include gastrointestinal disorders, headaches, dermatological reactions, sleeplessness, and sexual dysfunction. Low self-esteem, anxiety, and frustration have consequences for the workplace. These factors affect the bottom line. Unhappy employees take longer to solve problems and do so in less creative ways (Monahan, 1999). Not surprisingly, victims of bullying blame themselves, doubt their self-worth, are less productive, and are at greater risk of alcoholism or suicide. Bullying behavior in the workplace can lead to higher turnover and absenteeism, decreased morale, losses in productivity, and legal costs incurred to defend claims brought by employees (Bernardi, 2001).

Brutal bosses and coworkers can also suffer from "desk rage." Desk rage is defined as inappropriate displays of anger in the workplace. Such displays consist of yelling, swearing, throwing things, and slamming doors. In addition, those who are suffering from desk rage might blame others for their own mistakes, demand that they be treated as an exception, and get even with others in secretive ways (Brown, 2001).

To get even, frustrated employees may commit sabotage. The derivation of the word sabotage - from the actions of French mill workers who threw their wooden shoes, or "sabots" into the gears of the machinery in protest - is very telling of why people use this behavior to vent their feelings of anger about their employment situations. Employee sabotage is actually a rarely discussed form of workplace violence. Angry, bitter, envious, and resentful employees are taking out their aggression on their employers for inequities they have experienced. It is usually misconduct tinged with an edge of revenge, and the sabotage is directly proportionate to the way in which a company treats its employees unfairly (Gleninning, 2001). Desk rage and sabotage should not be taken lightly. If not addressed, both can lead to workplace violence

WORKPLACE VIOLENCE

"Passions are generally roused from great conflict." Titus Livius

Violence is the ultimate form of conflict in the workplace and an employer can no longer afford to ignore it. According to a report by the U.S. Department of Justice in 1998, approximately 1,000 employees are murdered yearly while performing their work duties. The same study noted that there are two million incidences of workplace violence reported, including one million simple assaults and 400,000 aggravated assaults. And reported is the key word; the vast majority of workplace assaults and other forms of aggression go unreported (Atkinson, 2000).

Homicide is the second leading cause of death among American workers and the leading cause of death for female workers. Workplace violence was 10 times more prevalent in the 1990s than in the 1980s (Flynn, 2000). Since about one-third of our lives is spent at work associating with people whom we have not chosen to be with, it is little wonder that disagreements abound and resentments fester day after day. In fact, on-the-job suicides and murder statistics have caused the National Center for Disease Control to classify workplace violence as a national epidemic (Laplaca, 2001).

In addition, the cost of violence in the workplace is high. For example, the average direct cost to employers of a single violent episode is $250,000 and the aggregate cost to employers has been estimated to be as much as $36 billion. The indirect costs resulting from these incidents, which can include decreased productivity, increased stress, and greater employee turnover, significantly adds to the burden on employers (Flynn, 2000). Not surprisingly, it is better to resolve conflicts than to let them escalate into an episode of workplace violence.

COMMUNICATION TECHNIQUES TO RESOLVE CONFLICT

"If passion drives you, let reason hold the reins." Benjamin Franklin

Strong interpersonal skills are needed to resolve conflict. For example, there are many skills an employee can use to douse the flames of conflict. Employees can use active listening techniques to summarize points, to rephrase inappropriate attributions into more positive language, and to demonstrate interest in, and understanding of the problem. Active listening also helps communicate that you understand both the content and the emotion being expressed (Cohen, 1999). In addition, body language is a powerful communicator, and people are more persuaded by attitude than by logic. As an employee struggles to say the right words, s/he should consciously relax the body. If possible, s/he might assume a stance similar to the position of the angry person. Keep the voice low and the speech evenly paced. When sitting across a table, lean forward on your elbows to invite communication. Tilt your head and acknowledge that you are listening by nodding or making encouraging sounds like "Uh-huh" (Laplaca, 2001).

A employer might also want to consider being proactive rather than reactive. Rather than interceding, the employer may hope the parties will work it out themselves. Unfortunately, conflict, left alone, does not go away on its own. And, finally, don't expect miracles. Not every problem can be resolved quickly. It takes time to build communication and trust between parties, but this is vital to building commitment to the eventual solution. Meet several times to resolve complex or particularly difficult problems. During the process, the parties develop the relationship and the skills to solve their dispute. This initial investment of time will produce better results (Cohen, 1999).

WHAT EMPLOYERS CAN DO TO HELP

> "The fibers of all things have their tension and are strained like the strings of an instrument." Henry David Thoreau

There is much an employer can do, even if the manager is the bully.

1. Train managers/supervisors/employees how to recognize signs of conflict and how to defuse hostility before it gets out of hand. While employers cannot radically change employees' behaviors, they can modify and influence their behaviors through responsible supervision (Atkinson, 2000).
2. Develop a comprehensive conflict resolution/violence prevention plan. A good plan combines resources from various parts of the industry and requires teamwork, communication, ongoing assessment, and training (Meyer & Bosner, 1999)
3. Employers should consider offering confidential employee assistance programs to help workers cope with stress and manage anger. These programs are often able to resolve potentially serious problems before they become disruptive or lead to violence.
4. Employers should develop policies designed to encourage communication in the workplace. Effective examples might include scheduling regular meetings in which employees can express concerns and grievances without fear of retaliation, implementing complaint resolution procedures, establishing confidential hot lines, and allowing employees to leave anonymous notes for HR representatives or supervisors (Flynn, 2000).
5. Require exit interviews of terminated employees. This is an excellent resource for finding out if there is a Bully in your midst.
6. Hire the very best people in the first place. Keep communication lines wide open at all times, and take time to celebrate good work and results.

CONCLUSION

We spend more of our waking lives at work with people we don't particularly care for than we do with our family and friends. Dousing the flames of conflict is essential so that the conflict does not escalate into bullying, desk rage, sabotage, and/or workplace violence. Employees are tired of being abused by either their manager and/or their coworkers, and companies have come to realize that conflict seriously affects its bottom line. Employing excellent communication skills can defuse conflict long before it escalates into a volcanic eruption. There is an old saying "Do it now or do it later; either way, it will have to be done."

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COGNITIVE, AFFECTIVE, AND BEHAVIOURAL RESPONSES TO THE INTRODUCTION OF INTERNET-CONNECTED-COMPUTER REQUIREMENT: A STUDY AMONG ENROLLING DISTANCE EDUCATION STUDENTS IN A PRINT-BASED ENVIRONMENT

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ABSTRACT

A review of published papers on Internet-based education reveals that there are at least four obstacles to Internet-based teaching: institutional (for example, financial support from the university to develop the Internet technology), instructional (for example, time commitment by faculty in developing the course or the program), technical (for instance, equipment reliability), and personal (for example, faculty / student technological competence, and attitudes toward acceptance of the Internet) (Piotrowski and Vodanovich 2000). This research deals with "personal" obstacles to Internet-based instruction. Specifically, the question, "What are the cognitive, affective, and behavioural responses of enrolling distance education students in a traditional print-based environment to the introduction of Internet-Connected-Computer Requirement (ICCR)" is addressed.

An empirical analysis of surveyed beliefs, feelings, and intentions regarding ICCR suggests that even though students believe that ICCR will cost them money, students do recognise the importance of computing and Internet skills for employment. This results in students assimilating the negatives associated with ICCR and feeling positive or happy about the stimulus. It is suggested that universities meet stakeholder needs in order to compete with corporate universities such as Motorola.

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CHANGING CONSUMER NEEDS CALL FOR THE MARKETING OF EXPERIENCES ACADEMY OF MARKETING STUDIES

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ABSTRACT

The recognition and satisfaction of consumer needs is at the heart of marketing. Technological advances, economic developments, demographic shifts and societal changes all have an influence on customer needs.

An analysis of consumer desires and associated behavioral trends, points to a movement away from physiological needs to a focus on inner needs. Inner needs can be grouped into self-centered, emotional, social, spiritual and intellectual needs. Since few inner needs can be satisfied by products and services alone, a further form of value distinction is called for. The unique characteristics of experiences make them particularly suited to such a role.

This research analyses the changes in consumer needs, explains how the marketing of experiences can address these changed needs and highlights the unique challenges facing experience marketers.

INTRODUCTION

The satisfaction of consumers' needs is at the heart of marketing (Lambin, 2000). Need recognition occurs when a consumer: becomes conscious of either an unrest from within or an urge to reach out and address some previously unrecognized need or desire (O'Sullivan & Spangler, 1998); is faced with an imbalance between actual and desired states (Lamb, Hair & McDaniel, 2000; Dibb, Simkin, Pride & Ferrell, 2001); or has an identified need to fulfill or a problem to solve (Zeithaml & Bitner, 2000).

The above definitions of need recognition point to consumers' desires to solve problems, rectify imbalances and address urges or unrests from within. These desires have conventionally been addressed through products and services (McDonald, Christopher, Knox & Payne, 2001).

If needs give rise to a demand for satisfaction, it seems logical to expect that as consumers' needs change, the problem-solving benefits expected from purchases will change accordingly. This research contemplates the profound changes in consumer needs and ways of addressing these changed needs.

CHANGING CONSUMER DESIRES, NEEDS AND BEHAVIOURAL PATTERNS

A changed society results from advances in technology, demographic shifts, economic developments, and societal changes. These developments also bring many new needs. Advances in science, for example, allow people to live longer and often more independently, but at the same time, also allow thousands to be killed in a single incident such as that of September 11. Since people are living longer, societies consist of multiple generations. At the same time pandemics such as AIDS are expected to wipe out almost complete generations, bringing numerous new socio-economic needs. Technological developments and economic pressures, for example, force people out of their jobs and replace them with machines, but also allow them to work almost anywhere from virtual offices. These developments invariably result in changed consumer behavior.

Consumer behavior and life style patterns are often a reflection of consumers' needs, since "needs are a person's basic shopping requirements consistent with his or her present demographics and life style" (Berman & Evans, 2001). A number of trends in behavior and lifestyle patterns, together with some consumer hot buttons, were analyzed, and are summarized in Table 1. When these behavior patterns and hot buttons are scrutinized more closely, a number of underlying psychic or inner needs emerge. Upon regrouping and matching the hot buttons, behavioral patterns and needs, five categories of inner needs can be identified, namely self-centered needs, emotional needs, social needs, spiritual needs and intellectual needs. Table 1 further shows specific needs that could be associated with each category.

Table 1: Consumer hot buttons, behavioral trends and needs

Column 1	Column 2	Column 3
Consumer hot buttons	Behavioral trends	Underlying consumer needs
Desire for control Being the best one can be	Egonomics - a focus on the self and inner feelings Staying alive - concern and focus on health and wellness The vigilante consumer - emphasis upon demands and expectations for value and personalization in the marketplace	Self-centered needs: self-esteem accomplishment recognition dominance confidence self-reliance
Discovery Excitement Fun Novelty	Pleasure revenge - rebelling against the "right" things Fantasy adventure - the desire for escape and entertainment Small indulgences - seeking little, often inexpensive rewards as sources of comfort and pleasure	Emotional needs: excitement escape relaxation pleasure joy delight
Nurturing Belonging	Cocooning - people seeking shelter and solace within the home Clanning - getting together with others with whom one shares common interests Femalethink - caring and sharing approach Mancipation - caring and sharing for men	Social needs: interpersonal relationships friendships companionship fellowships affiliation belonging community

Table 1: Consumer hot buttons, behavioral trends and needs		
Column 1	Column 2	Column 3
Consumer hot buttons	Behavioral trends	Underlying consumer needs
Revaluing Chance for a clean slate	Anchoring - connecting with a spiritual base Cashing out - the tendency to exchange monetary rewards for life quality and satisfaction Save-our-society - interest and involvement in community, environmental and societal concerns	Spiritual (not necessarily religious) needs: contemplation reflection renewal aesthetics appreciation faith ecstacy sacredness magic
Ability to stay ageless Immortality	Down-aging - redefining the roles and expectations of the maturing process 99 lives - prevalence of people to assume and attempt to balance many roles and responsibilities	Intellectual needs: stimulation exploration creativity problem solving
Source: Feig, 1997; Popcorn, 1991; Popcorn & Marigold, 1996		

It is unlikely that needs such as accomplishment, excitement, escape, relaxation, delight, fellowship, affiliation, renewal, appreciation, stimulation and creativity, would be satisfied by products and services only. A further form of value distinction is clearly called for. The unique characteristics of experiences make them ideal satisfiers of such needs and hence warrant further investigation.

DIMENSIONS OF EXPERIENCES

Experiences can be best understood by comparing them to commodities, goods and services (as shown in Table 2).

Table 2 shows experiences as an economic offering distinct from commodities, goods and services. True commodities are animal, mineral and vegetable materials extracted from the natural world. After slaughtering, mining, or harvesting the commodity is processed or refined to yield certain characteristics and then stored in bulk before being transported to the market. Commodity prices are generally determined by supply and demand (Pine & Gilmore, 1999).

Table 2: Differences between commodities, goods, services and experiences				
Column 1	Column 2	Column 3	Column 4	Column 5
	Commodities	Goods	Services	Experiences
Economy	Agrarian	Industrial	Service	Experience
Economic Function	Extract	Make	Deliver	Stage
Nature of Offering	Fungible	Tangible	Intangible	Memorable
Key Attribute	Natural	Standardized	Customized	Personal
Method of supply	Stored in bulk	Inventoried after production	Delivered on demand	Revealed over a duration
Seller	Trader	Manufacturer	Provider	Stager
Buyer	Market	User	Client	Guest
Factors of Demand	Characteristics	Features	Benefits	Sensations
Source: Pine & Gilmore, 1999				

Using commodities as raw materials, companies make and then inventory goods, that is, tangible items sold to customers who buy them off the shelf or order them from a catalogue. Prices are based on the costs of production and on product differentiation. Because products can be put to immediate use, their users value them more highly than the commodities from whence they came (Pine & Gilmore, 1999).

Services are intangible activities customized to the individual needs of known clients. Goods are used to perform operations on a particular client, or on his property or possessions and in the process a desired service is delivered. Clients generally value the benefits of services more highly than the goods required to provide them. Services accomplish specific tasks consumers want done but do not want to do themselves, while the goods merely supply the means (Pine & Gilmore, 1999).

Contrary to buying a set of tangible attributes (products), or intangible activities carried out on their behalves (services), buying an experience, means paying to spend time enjoying a series of memorable events, rich with sensations, staged by the provider thereof. The consumer can be engaged on an emotional, physical, intellectual, or even spiritual level (Pine & Gilmore, 1999). Since each experience derives from the interaction between the staged event and the individual's prior state of mind and being, experiences are inherently personal.

O'Sullivan and Spangler (1998) identified further characteristics that differentiate experiences from the experience components of products and services. An experience is characterized by: the participation and involvement of the individual in the consumption process; the state of being physically, mentally, emotionally, socially, or spiritually engaged; a change in knowledge, skill, memory, or emotion derived through such participation; the conscious perception of having intentionally encountered, gone to or lived through an activity or event; and an effort directed at addressing a psychological or internal need of the participant. These foregoing characteristics make experiences exceptionally suited to the consumer needs listed in Table 1.

CHALLENGES TO MARKETERS OF EXPERIENCES

Given the characteristics of experiences as economic offerings and the complexity, uniqueness and variety of consumers' inner needs, numerous challenges are posed to the marketers of experiences as inner need satisfiers. A number of these challenges are pointed out below.

The value derived from an experience is personal in the sense that it varies from one individual to another. Organizations are therefore challenged to create experiences that are personal, individual and customized, but to do so in a cost effective manner.

Experiences are characterized by the participation and involvement of the individual in the consumption process. In designing and staging their experience offerings, marketers will have to take into consideration factors such as: the role of the participant; the impact of the participant's competency or performance upon the experience; the presence or involvement of other participants; and the role of the provider personnel.

Since consumers may be physically, mentally, emotionally, socially or spiritually engaged in the experience, marketers will have to address all of these dimensions and provide value as defined by the participants (not by the marketers), which is unique compared to the value provided by competitors. At the same time, they will have to take cognizance of the change in consumers' knowledge, skills, memory and emotion derived through the participation in the experience.

The second time a consumer encounters, go to or live through an activity or event, it is likely to be marginally less enjoyable than the first time. Organizations will have to find ways to prevent experiences from becoming commoditized. This could mean continually reinventing the experience either in reality or in the mind of the customer, or providing customers with the unexpected to ensure delight. It may also require building collaborative relationships with consumers to enhance long-term customer satisfaction and retention.

MANAGERIAL IMPLICATIONS

The new demands created by changed consumer needs, societal changes and technological developments, mean that organizations would have to keep up with these changes and start to rethink their ways of operation. Organizations can no longer attempt to satisfy consumer needs by only offering products and services, since the greater emphasis on consumers' inner needs necessitates the availability of experiences as a further economic offering.

The complexity of consumers' inner needs and the unique characteristics associated with experiences as need satisfiers, mean that organizations will have to be agile, flexible, and change the ways in which they perceive their customers and carry out their marketing functions. Rather than viewing consumers as customers with certain demands, seeking satisfaction, consumers should be seen as collaborators with particular expectations, seeking personalized benefits. Mass marketing of products and services need to be replaced by mass customization of experiences, accuracy with agility and quality with enhanced and enriched value if organizations want to provide customers with personalized experiences that address their customers' self-centered, emotional, spiritual, intellectual and social needs. This in turn would require a shift from a focus on the organization's tangible assets to its intangible assets such as people, knowledge and information.

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THE ELICITATION AND EVALUATION METHOD

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ABSTRACT

A simple, useful method for modifying multi-item scales and lists is described and illustrated. The elicitation and evaluation method is a refinement of the free elicitation technique, whereby respondents generate relevant lists and subsequently indicate the relative significance of the generated items. Following this, respondents evaluate lists, and/or scales and/or scale items supplied by the researcher. This information can give researchers guidance on how to use theories and measurement scales in specific contexts.

THE MOST IMPORTANT FINANCE SKILLS FOR ENTREPRENEURS: DIFFERING VIEWS AMONG FINANCE PROFESSIONALS

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ABSTRACT

Finance is commonly viewed as one of the most important topics for entrepreneurs to understand to ensure their survival and success. This study addresses 10 finance topics commonly taught in university courses. Each topic was evaluated by financial advisors on its level of importance for inclusion in entrepreneurial finance courses. The financial advisors include accountants/CPAs, bankers (lenders), investment bankers, venture capitalists, angels, personal financial advisors, and "others." The financial advisors considered all 10 topics to be at least "very important." However, some important differences did emerge among the various types of financial advisors on the topics of financing sources and methods, the relationship between outside investors and the entrepreneur, and the time value of money.

INTRODUCTION

Entrepreneurial finance is a relatively new subdivision within the discipline of finance and researchers have only begun surveying finance professionals as to which finance skills are most important for entrepreneurs. In this study, we compare the perceptions of different groups of finance professionals who advise entrepreneurs. Each group was asked to comment on the importance of ten finance skills for entrepreneurial success (see Table 2 for a list of these topics).

LITERATURE REVIEW

Several prior studies have surveyed financial professors to learn what topics are most important to cover in finance courses. For example, Cooley and Heck (1996) found that the time value of money, capital budgeting, risk and return, security valuation, and cost of capital were the introductory finance course topics viewed as most important by academics. Other researchers have surveyed finance professors to identify what topics are most important to cover in specialized finance courses. For example, Gardner and Mills (1990) gathered data on the financial institutions.

An alternative approach taken by some researchers is to gather data on the perceptions of finance practitioners, or of finance practitioners and academics (see Graham and Krueger, 1996; Gup, 1994). McWilliams and Pantalone (1994) surveyed top financial executives of large corporations and found that they believed working capital management, capital budgeting, and financial institutions should be required courses for finance majors.

Anderson, Envick, and Roth (2001) surveyed entrepreneurs and financial advisors to entrepreneurs to examine the perceived importance of different finance skills for entrepreneurial success. Their evidence suggests that entrepreneurs and financial advisors are in general agreement regarding the seven most important skills; however, entrepreneurs placed a higher value on the "behavioral" topics in finance.

METHODOLOGY

A nonprofit business organization, which primarily focuses upon promoting entrepreneurial activities, was utilized as the target pool for participants. This organization consists not only of financial advisors, but entrepreneurs, management and marketing consultants, among other types of members. We targeted 186 participants, which is the entire listing of members we believed to be financial advisors. Ninety-two surveys were returned, resulting in an outstanding 49.5% return rate. See Table 1 for demographic information regarding the participants.

Table 1: Demographic Information on Participant Financial Advisors

By type:		***By financial advisor education:***	
Accountants/CPAs	24	High school	3
Bankers (lenders)	26	Trade school	0
Investment bankers	7	Bachelors	37
Venture capitalists	10	Masters	42
Angels	8	Doctorate	7
Personal Financial Advisors	9	Other	1
Other	8	Unknown	2
	92		
By business age:		***By financial advisor age:***	
Infant (less than three years old)	15	Twenty-six to thirty-five	13
Young (three to seven years old)	15	Thirty-six to forty-five	33
Mature (more than seven years old)	60	Forty-six to fifty-five	29
Unknown	2	Fifty-six to sixty-five	13
		Sixty-six and over	3
		Unknown	1
By business size:			
Small (less than 50 employees)	50	***By gender:***	
Medium (50 – 250 employees)	13	Female	10
Large (more than 250 employees)	25	Male	74
Unknown	4	Unknown	8

The topics included were chosen from a previous study conducted by Anderson, Envick, and Roth (2001), which asked both entrepreneurs and financial advisors to rank thirty finance topics according to their importance for entrepreneurs. The current study focuses on the ten topics deemed most important in the aforementioned study. Mean scores were used to rank the finance topics from most important to least important according to each group. The data were also analyzed using ANOVAs to determine if significant differences exist among the seven groups.

RESULTS

The means and standard deviations of all ten topics according to the seven groups of financial advisors are reported in Table 2. All topics received mean scores higher than five, which implies all topics are considered at least "very important." This high level of importance is due to the fact that the ten topics selected were ones previously identified as "very important" (see Anderson, Envick, and Roth, 2001).

As one can see by reviewing Table 2, the opinions of the different financial advisors are similar. However, there are some significant differences that deserve mention. Table 3 summarizes significant statistical differences found between the mean scores of the financial advisors. Only those three topics where significant differences were found are reported. These topics include the "overview of major finance sources and methods," "the relationship between outside investors and the entrepreneur," and "the time value of money."

CONCLUSION

The evidence from this study suggests that financial advisors generally agree on the importance of different finance skills for entrepreneurs, but the advisors do disagree on the importance of three skills. The significant differences observed suggest that financial advisors place a higher value on the skills that relate more closely to their own professions.

First, venture capitalists, investment bankers, and angels valued the topic "overview of major business financing sources and methods" more highly than did accountants. Obviously, venture capitalists, investment bankers, and angels provide financing to entrepreneurs and accountants do not. Many new entrepreneurs do not understand that angels primarily finance extremely young, very risky ventures; investment bankers finance much more established ventures with proven track records; and venture capitalists finance large new ventures in between these two extremes. Venture capitalists report that often entrepreneurs, with good business plans, seek venture capital when another form of financing would be much more appropriate.

The second topic where significant differences were found is "the relationship between outside investors and the entrepreneur." In this case, three types of outside investors-venture capitalists, bankers, and angels-all ranked the topic more highly than did accountants. This finding likely reflects that these investors have dealt with entrepreneurs who did not understand the nature of the relationship between outside investors and the entrepreneur. Personal financial advisors also viewed "the relationship between outside investors and the entrepreneur" as more important than did accountants. In contrast, accountants focus on accurately reporting the historical accounting income and the book value of assets. It seems natural that in their transactions with entrepreneurs, personal financial advisors would have more opportunity to consider the impact that outside investors can have on the entrepreneur's goals.

The third topic where significant differences were found is "time value of money." Venture capitalists ranked this topic more highly than did bankers or professionals in the "other" category. Personal financial advisors ranked it more highly than did bankers, accountants, or professionals in the "other" category. Again, these differences can be explained by reference to the professional activities of these groups. The time value of money topic is concerned with the discounting process to find present value and the compounding process to find future value. Venture capitalists often discount a new venture's expected cash flows, using very high required rates of return, to estimate the firm's value (see Smith and Smith, 2000).

Personal financial advisors assist entrepreneurs in planning for long-term financial goals, e.g. selling the business and retirement. The time value of money concepts, present value and future value, are essential to this planning process. In contrast, accountants emphasize the accurate reporting of historical income and book value, while bankers concentrate on determining the credit worthiness of potential borrowers. These activities do not rely as heavily on the time value of money as do the activities of venture capitalists and personal financial planners.

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Table 2: Means and Standard Deviations of Finance Topics According to Financial Advisor Groups

Finance Topic	VC		Bankers		IB		Angels		Acct.		PFA		Other	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
Forecasting and financial statements	6.500	0.707	6.538	0.706	6.571	0.787	6.250	0.707	6.625	0.711	6.333	1.118	6.375	0.913
Cash management and projecting cash flows	6.300	0.823	6.269	0.827	6.571	0.787	6.625	0.518	6.583	0.654	6.667	0.707	6.750	0.707
Financial statement and financial ration analysis	6.200	0.919	6.269	0.827	6.286	0.756	6.250	0.463	6.500	0.590	5.667	1.732	6.250	0.707
Overview of major business financing sources and methods	5.900	0.994	5.522	1.275	6.333	0.816	6.250	0.463	4.957	1.147	5.778	1.202	5.875	0.991
Receivables management	5.600	1.174	5.692	1.123	5.571	1.397	5.000	0.756	5.583	1.018	5.778	1.394	5.750	1.389
The relationship between outside investors and the entrepreneur	5.900	0.876	5.696	1.146	5.333	0.816	6.125	1.356	5.000	1.348	6.444	0.726	5.125	1.458
Time value of money	6.200	1.033	5.154	1.461	5.143	1.464	5.500	0.926	5.417	1.176	6.444	0.882	4.750	1.982
Inventory management	5.200	1.229	5.462	1.240	5.571	1.397	4.750	1.389	5.478	1.310	5.667	1.225	5.375	1.408
Project evaluation approaches	5.500	1.650	5.423	0.945	5.571	1.618	5.375	1.598	5.261	1.137	5.556	1.333	5..000	1.309
Capital structure theory and liability management	5.100	1.287	5.435	1.376	5.000	1.414	5.500	.0926	5.478	1.275	4.889	1.764	5.750	0.707

Note: Italicized topics indicate significant differences exist. Refer to Table 3

Table 3: Information Regarding Significant Differences Among Financial Advisors

Overview of the major business financing sources and methods:				***p = .0295***	***F = 2.486***	
Accountants/CPAs with:	VC	IB	Angels	Other		
Means: 4.957	*5.900**	*6.333***	*6.250**	*5.875**		
The relationship between outside investors and the entrepreneur:				***p = .0333***	***F = 2.423***	
Accountants/CPAs with:	VC	B-L	Angels	PFA		
Means: 5.000	*5.900**	*6.696**	*6.125**	*6.444***		
Personal Financial Advisors with:	Other					
Means: 6.444	*5.125**					
Time value of money:					***p = .0665***	***F = 2.060***
Venture Capitalists with:	B-L	Other				
Means: 6.200	*5.154**	*4.750**				
Personal Financial Advisors with:	B-L	Acct./CPA	Other			
Means: 6.444	*5.154**	*5.417**	*4.750***			

* = Significant @ .05
** = Significant @ .01

EXEMPLARY DAMAGES IN AUSTRALIAN TORT LAW

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ABSTRACT

The extent to which exemplary damages is available as a remedy within the context of tort law differs from jurisdiction to jurisdiction. This paper sets out the basis on which exemplary damages will be awarded according to the Australian law of tort. Although the situations in which such an award will be made are rare, Australian courts have been prepared to flexibly countenance the use of such a device in a widening range of situations. Importantly, Australian courts will countenance the use of exemplary damages irrespective of the tort used to frame the plaintiff's cause of action. It is therefore the nature of the behaviour complained of, rather than the cause of action selected, which will determine the availability or otherwise of exemplary damages.

INTRODUCTION

This necessarily brief review of the law relating to examplary damages in Australia has the following goals. Firstly, it summarises the role or function of exemplary damages within the context of actions in tort in Australia, and then goes on to examine the scope of awards of exemplary damages within the same context. Some difficult and unresolved issues arise, notably the apparent extension of exemplary damages into the realm of negligence, and the tension between criminal and civil punishment. Arguments in relation to these and other contentious issues are considered, and in conclusion, an opinion is reached as to the degree of match between the apparent reality of exemplary damages in Australia and their envisaged role according to the Law Reform Commission of the United Kingdom's report No. 247.[1]

THE ROLE OF EXEMPLARY DAMAGES IN AUSTRALIA

Unlike compensatory damages, the focus of exemplary damages is on the conduct of the defendant, and in particular, the degree to which the defendant's conduct "shocks the tribunal of fact, representing the community."[2] Exemplary damages are therefore seen as being separate from, though nevertheless parasitic on [3] compensatory damages.[4] They are awarded when the behavior of the defendant, in addition to causing some compensable damage to the plaintiff, consists of a "conscious wrongdoing in contumelious disregard of another's rights."[5] In that sense the role of exemplary damages is to punish the defendant for his or her high handed or wrongful conduct and to deter the particular defendant, as well as potential defendants, from committing such an act in future. The award of exemplary damages demonstrates the court's detestation of the action in question [6], and as such is a mark of opprobrium against the defendant. In addition, it has been argued that there are broader social considerations to be taken into account, for example to teach tortfeasors that "tort does not pay" [7], and to assuage any urge for revenge felt by victims and thus to discourage any temptation to engage in self-help likely to endanger the peace. [8]

SCOPE OF EXEMPLARY DAMAGES

It is apparent that exemplary damages have been awarded by courts in a wide range of circumstances. Traditionally, exemplary damages were only associated with intentional torts - including trespass to land [9], trespass to the person [10], trespass to chattels [11], defamation [12] and deceit [13]. Even if the scope were stopped at that point, the breadth of application of exemplary damages in Australia would be quite wide compared with the prevailing conditions in other jurisdictions, notably England among common law jurisdictions.

More recently however, Australian courts have contemplated the question of whether exemplary damages are available to plaintiffs who have framed their actions in negligence rather than in some other (intentional) tort. This trend has been noted by several authors who have voiced their concerns that the extension of exemplary damages into the realm of negligence is a dangerous state of affairs. One recent editorial claims that there is a "pressing need for the High Court to define the proper parameters for the award of exemplary damages" [14] while others have noted the confusion amongst contemporary practitioners as to the appropriate bounds and rules for the application of exemplary damages. [15]

Perhaps the confusion in relation to the award of exemplary damages in negligence matters can be best clarified with reference to the High Court's judgment in Gray v Motor Accident Commission [16] in which a general principle appears to have been developed. The court noted that it expected that awards of exemplary damages in negligence matters would be rare [17], but that in those rare instances, an important principle in determining the availability of exemplary damages was that attention should be paid to the conduct of the defendant, not the nature of the tort chosen by the plaintiff to bring action against the tortfeasor [18]. Thus although exemplary damages have been awarded in product liability cases [19], cases where employers knowingly failed to create a safe working environment and persisted with that unsafe environment irrespective of the known danger of doing so [20] as well as cases of medical negligence [21], the mere fact that those particular actions were brought in negligence is arguably of residual importance. Thus it appears that Australian courts have not seen fit to create a general principle on scope founded on the nature of the action brought, but rather, have determined that they should look behind the type of action, to determine whether the award of exemplary damages would be in accordance with the objectives for the award of such damages noted previously.

COMMON LAW RESTRICTIONS TO SCOPE

Exemplary damages are often described as anomalies within civil law remedies, perhaps due to the similarities between the language of punishment, deterrence and moral retribution within the law of civil exemplary damages and the criminal law. Indeed, one of the most difficult issues faced by courts is the extent to which they ought to take into account any punishments meted out in criminal jurisdictions to defendants subsequently the subject of an action in tort. One early consideration of this issue suggests that if criminal punishment has already been given, no exemplary damages should be awarded since this would be to punish the defendant twice for the same act. [22] A recent revisitation of the same issue resulted in the majority of the High Court of Australia concluding that "where, as here, the criminal law has been brought to bear upon the wrongdoer and substantial punishment inflicted, we consider that exemplary damages may not be awarded…because we consider that the infliction of substantial punishment for what is substantially the same conduct as the conduct which is the subject of the civil proceeding is a bar to the award." [23]

However, the law is not as straightforward as the statement above would suggest. For example, what if the punishment meted out by the criminal court was not "substantial"? The judgment in Gray v Motor Accident Commission specifically declined to comment on what that term would be taken to mean, but an analysis of the transcript [24] reveals some division in the court. McHugh J, at p 17 states "…take a case where insulting words are used of a very bad kind, the magistrate might give a bond, might not even proceed to conviction, but in a civil case it might nevertheless, in all the circumstances call for the award of exemplary damages. So arguably, the fact that you have been punished in a criminal court would not deter the court from awarding exemplary damages."

This indicates a willingness on the part of at least some members of the court to view the "bar" as discretionary rather than absolute, but other members of the court, notably Kirby J, were not happy with such an open position. Thus Kirby J makes comments such as "…but that would mean that the sentencing judge would have to say, "now, steady on, one day somebody might come along and seek to recover damages and I've got to keep that in mind and, therefore, I've got to reduce the punishment that I impose to make sure that you do not double count." [25]

Indeed, several questions of significance have been explicitly left open. In addition to questions about the meaning of the term "substantial", questions are raised about the position when criminal proceedings are possible or probable (though have not yet commenced) at the time of civil proceedings, about the position when an accused is exonerated of criminal charges, and the necessary degree of overlap between the criminal and civil actions brought.

Thus while the position seems relatively clear when an individual has been imprisoned as a result of an earlier criminal action, and is now the subject of civil proceedings arising out of the same or substantially the same actions which resulted in the original criminal proceedings, the law is not at all clear in many other situations. In passing, prior to examining critiques of the operation and role of exemplary damages in Australia, it is noted that a further common law restriction on exemplary damages - relating to the law of contract. Simply, punitive damages are not recoverable for a breach of contract unless the conduct constituting the breach is also a tort for which exemplary damages are recoverable. [26]

CONCLUSION

To state that exemplary damages should be an exceptional and rarely rewarded remedy is in essence a statement of hope. If society adopts behavioral standards in which high-handed disregard for the rights of others is a less observed phenomenon, then the UK Law Reform Commission's desire will be a reality. The position in Australia, notwithstanding the apparent extension of the applicability of exemplary damages identified in this paper, is in accordance with that statement of hope. [27] The fulfillment of the second leg of the test - the reservation of such damages for wrongdoings that would otherwise go unpunished, is less certain. This is because of the identified possibility that exemplary damages may in certain circumstances be awarded against an individual who has already been punished within the criminal system. It is in this respect that great vigilance is required, and it is in this respect that the most fundamental and as yet unresolved problems with the law of exemplary damages have arisen.

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[19] Vlchek v Koshel [1988] 52 DLR (4th) 371
[20] Midalco Pty Ltd v Rabenalt [1989] VR 461; Coloca v BP Australia Ltd [1992] 2 VR 441; Trend Management v Borg [1996] 40 NSWLR 500.
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[23] Gray v Motor Accident Commission [1998] 158 ALR 485 per Gleeson CJ, McHugh, Gummow and Hayne JJ at 494.
[24] High Court of Australia Transcript: Gray v Motor Accident Commission A36/1997 (28 May 1998) at p.17.
[25] High Court of Australia Transcript: Gray v Motor Accident Commission A36/1997 (28 May 1998) at p.19.
[26] Butler v Fairclough [1917] 23 CLR 78.
[27] Gray v Motor Accident Commission [1998] 158 ALR 485 at 488 "exemplary damages are awarded rarely".

ONCALE REVISITED: WHEN IS SAME-SEX HARASSMENT "BECAUSE OF … SEX"?

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ABSTRACT

The paper reviews Justice Scalia's 1998 opinion in Oncale v. Sundowner Offshore Services, Inc., arguing that Justice Scalia, after holding that same-sex harassment could be actionable under Title VII, deliberately chose not to consider directly whether Joseph Oncale's harassment was " because of… sex" and therefore actionable, perhaps in order to get all eight of the other justices to join his opinion. But the opinion implies that it adequately addresses the statutory "because of sex" requirement in same-sex harassment and remands Oncale and a companion case, Belleville v. Doe, to the Court of Appeals for reconsideration in its light. Not surprisingly, Oncale has given minimal and confusing guidance to the Circuits of the U.S. Court of Appeals dealing with the issues of when the statutory requirement of "because of …sex" is satisfied in same-sex harassment cases.

NAVIGATING THE LEGAL MINEFIELDS IN NICHE MAIL ORDER BUSINESSES: MARKETING LAW PRIMER FOR CATALOG RETAILERS AND E-TAILERS

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ABSTRACT

Modern mail order businesses serve their customers through a variety of traditional and innovative marketing practices. This paper applies the discipline of marketing law to discuss a variety of legal trade requirements for niche (special product) mail order businesses at the local, national, and international levels. The paper discusses legal marketing issues relating to product development, promotion, distribution, and sale, and also discusses including emerging marketing cyberlaw.

INTRODUCTION

We live in an era where various forces have helped reshape American and world economies in terms of structure and use of resources of business operations. While many of the "old guard" businesses still exist in today's economy, many of these traditional business entities either had to alter their level of operations or search for alternative methods to produce and/or sell goods to survive. The recession seen in the United States two decades ago to a great degree eliminated the large, inefficient elements in the manufacturing sector while sending warning signals to various service sector operations such as retailers. Whether because of economic realities, changes in technology, the recent terrorist attacks of September 11 (Del Franco, 2001), or the changes in consumer buying patterns, much current retail marketing is in the form of mail order cataloging and e-tailing operations by the small business community. By some estimates, as far back as 1995 roughly 40 percent of the gross national product was comprised from the small business sector with about 4 percent of the population seriously considering the development of a small business enterprise (Bursey, 1995). In addition, in spite of the burst of the popularity of e-commerce stocks, the actual practice of e-tailing is on the rise, especially those firms who were traditionally the brick-and-mortar only retailers of the past. Traditional retailers and many newer small businesses find it hard to ignore the obvious fact that e-tailing offers new ways to sell to the consumer (Ferriolo, 2000) and that the National Retail Foundation reports that total online spending averaged about $3 billion a month during the year 2000 (Abend, 2000).

All these reports indicate that niche marketing is increasing in every conceivable commodity from the traditional pharmaceutical industry with mail order prescriptions and "online drugs" to specialty products of interest to large consumer constituencies. In fact, some organizations have reported that the use of mail order and e-commerce have significantly changed their mode of operations and their marketing strategies. For example, one pharmacist, once an independent drug store owner, closed his business to conduct a much more lucrative and successful mail order business (Ukens, 1996).

GROWTH OF MICRO-SPECIALISTS, NICHE CATALOGS, AND LEGAL PROBLEMS

Micro-specialist marketing to niche areas that were once thought of as merely interesting potentialities are now being aggressively undertaken. Companies specializing in narrow and deep assortments of specific categories have been gaining consumer support, especially those who have gone public and become leaders in their sub-categories (Doolittle, 1998). However, with all the successes and rewards of being in a rapidly growing segment of the retailing sector comes the reality of being competitive while simultaneously abiding by the legal standards at various levels of the economy.

The naive notion of not knowing the legal implications is not acceptable and can easily kill a successful enterprise. For example, whether its mail order sales of alcohol to minors (Girard, 1997) or trying to sell restricted products such as radar detectors in Virginia, hearing enhancement products in California, or alcoholic beverages in Vermont and New Hampshire (Dowling, 1995), specialty catalogers not aware of certain legal restrictions on their products have paid severe penalties.

MARKETING LAW PRIMER AND APPLICATION

Navigation of marketing law requires some knowledge of the law and also the ability to apply the law to a particular enterprise. Accordingly, the following paragraphs set forth basic components of marketing law and concurrently apply the law to an example niche catalog retailer/e-tailer of gifts for professionals (e.g. doctors).

This paper considers only marketing law issues, which are those legal issues most directly involved in developing, promoting, distributing, and selling a product. Such legal issues arise from a variety of state, national, and international laws and many involve emerging issues of cyberlaw, which is law governing the use of computers and the Internet (Ferrera, Lichtenstein, Reder, August & Schiano, 2001). This paper does not discuss generally non-marketing legal issues such as choice of entity, capitalization, licenses/permits, zoning, taxes, insurance, and hiring personnel.

With respect to developing and promoting a product, niche businesses must not infringe upon the intellectual property rights of other businesses, and they must establish and protect their own intellectual property rights. For example, a new business with a new name must avoid infringing upon the rights of other businesses by searching corporate filings and fictitious name filings in states and/or counties so as to not use a name deceptively similar to existing names. Moreover, the business should search the United States Patent and Trademark Office website (http://www.uspto.gov) to determine name and product availability under federal law. Online trademark searches are available with the Trademark Electronic Search System (TESS), and online patent searches are also available for full text and page image databases. E-tailers must find and reserve a domain name for their web site via the Internet Corporation for Assigned Names and

Numbers. Because the Internet is international, e-tailers must also consider possible infringement and protection of intellectual property at the international level.

Businesses can protect their names or products via patent, copyright, and trademark protection. Patents give inventors exclusive rights to make, use, or sell useful novel products or processes. A U.S. patent generally takes at least eighteen months and costs thousands of dollars to obtain. To be protected internationally, an inventor has to file in individual countries. Copyrights generally give owners of creative works the right to preclude others from using the works without permission for the life of the author plus seventy years. Copyrights occur automatically, but authors gain further rights with a copyright notice (© or Copyright, Year, Author) and even further rights with a copyright registration with the Copyright Office (http://www.loc.gov/copyright/). International copyright protection exists for signatories of the Berne Convention, which recognizes copyrights of other signatory countries, but enforcement mechanisms are weak. Some businesses would rather attempt to maintain a trade secret instead of registering their product. With respect to the marketer of professional gifts, the idea of the business itself would not be patentable or copyrightable. However, the paper catalog and web pages of the business would be automatically copyrighted and could be afforded greater protection with a copyright notice and a copyright registration.

Information (including product name) in marketers' catalog and web pages are critical to product promotion and may be trademarkable. Trademarks are words, symbols, sounds, smells, or anything else companies use to distinguish their goods and services from others. Generally, trademark ownership in the U.S. is by senior use. However, registration helps prove senior use and permits federal legal action. A registered mark is designated with the ®. An unregistered trademark or service mark can be designated with TM or SM. International law differs with respect to trademarks in that ownership is determined not by first to use, but instead by first to register, in each particular country. The professional gift business could register its name and any other distinguishing marks, or at least employ the TM symbol. The business must not violate other marks or copyrights. For example, the business could not use in its catalog or sell as part of its products depictions or reproductions of the profession done by prior creators unless the copyright has expired or the copyright owner has granted permission. Also, the business should obtain signed releases from persons who serve as models for the catalog. The business' Internet catalog similarly should not use copyrighted or trademarked images and also should not use links to or banners of other companies without permission so as to imply a false association between businesses (Oswald, 2002).

Marketing laws protect not only intellectual property rights of owners in the development and promotion of products, but numerous state, federal, and international laws protect consumers from the improper marketing of products. The federal Lanham Act protects both business competitors and consumers by prohibiting businesses from passing off or palming off other businesses' products as their own. It also prohibits unfair commercial disparagement of competitors' products and other types of false advertising. Similarly, the Federal Trade Commission prohibits unfair or deceptive acts or practices, and issues general guides on topics such as substantiation, bait advertising, deceptive pricing, use of the words "free" and "sale", warranty disclosures, endorsements and testimonials, and "green marketing" (product environment claims). The FTC also issues specific guides on particular products such as dietary supplements, eye care surgery, food advertising, jewelry, furniture, and vocational/distance learning. Moreover, the FTC has specific mail order rules about shipping times, delay notifications, refunds, cancellations, and customer rescissions (FTC & DMA, 2002). Finally, the FTC has special regulations on advertising and the Internet, which state that the previous guides also apply to Internet advertising and specially mention privacy issues, including the collection and usage of customer information (FTC, 2002). Use of the Internet makes any business international, and subsequently susceptible to international privacy law, such as the European Union Data Protection Directive (Baumer and Poindexter, 2002). Countries may also have packaging and labeling requirements, including bilingual requirements. Internet advertisements also expose companies to state regulations, such as those against unsolicited email (spam). Nevada, Washington, and California have such laws, with California's law, for example, providing for no unsolicited email and requiring advertisements to contain email headers with "adv." Each violation of the California law subjects offenders to civil remedies and possible criminal remedies of a $1,000 fine and six months' imprisonment (Steingold, 2001).

Businesses also need to know marketing law that regulates the distribution and sale of products. In distributing products, marketers must be aware of antitrust and franchise laws for particular selling arrangements. In selling products, companies need to know what constitutes a binding contract, what type of payment to accept, who bears the risk of shipping loss, what express and implied warranties are present, how to reduce product liability, and how to resolve disputes. Each of these questions raises further questions. For example, does a contract become binding when a customer places an automated telephone order or when the business ships the product? Should the business accept cash, credit cards (with the attendant 3-5% fees), and/or personal checks (with bad check risks)? Does the seller have to collect and remit sales or use tax (Keup, 1993)? Who bears the risk of loss if a shipped product gets lost or destroyed? Who should the business ship with and should it purchase shipping insurance? What warranties should be offered, or should all warranties (including those that would otherwise be implied) be disclaimed? Which states (e.g. Connecticut, Kansas, and California) preclude standard disclaimers (Steingold, 2001)? What is the exposure for product liability in each state and internationally? How can product liability, including strict liability in the U. S. European Union, and Japan) be minimized? For example, should certain professional gifts (such as profession-related beany-type bears or various types of decorative pieces) be labeled as not suitable for young children or as not suitable for functional use? Does the law of the state or the country of the seller or of the buyer apply, and where would a lawsuit take place? What are other ways to resolve disputes, including ways to resolve Internet disputes (Miller & Jentz, 2002)? The marketer needs to consider all of these questions, and more, in distributing and selling its product.

CONCLUSION

Even small, niche marketers must concern themselves with a plethora of state, national, international and Internet marketing laws in order to minimize legal liability. The paper has presented an overview of such laws along with applying the laws to a typical niche marketer who sells via direct mail catalogs and Internet e-tailing.

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STRUCTURAL PROBLEMS IN THE JAPANESE ECONOMIC SYSTEM

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ABSTRACT

Between its prewar peak in 1938 and 1990, Japan's GDP increased from being only five percent of the United State's to almost eighty percent. Although Japan occupies only 0.3 percent of the world's land area and has less than three percent of the world's population, it has become the second largest industrial economy in the world, producing fifteen percent of the world's output of goods and services. It has enjoyed large balance of trade surpluses with the United States since the early 1980s, and has foreign exchange reserves of over $200 billion. In the mid-1980s, Japanese companies' results were so stunning that many Western companies believed that they were competing unfairly. After making economic history with spectacular advances in its economy, Japan now confronts an economic malaise that has lasted for almost ten years. The purpose of this research is to identify structural inefficiencies with the Japanese economic system. Specific focus areas include structural problems in the labor market, capital market, product market, and with government intervention.

INTRODUCTION

Until the oil shocks in the 1970s, Japan experienced outstanding growth rates in national income: from 1950-1973, the annual real growth of Japan's GDP averaged ten percent. After the first oil crisis in 1973, Japan's growth rate was sharply reduced to 3.8 percent per year from 1973 to 1979. But this fall was true for all countries, and Japan still enjoyed higher growth rates than the OECD average of 2.8 percent per year from 1973-1979. Between 1980 and 1990, national income per person rose in real terms nearly four percent annually, compared with less than two percent in the United States. But the Japanese economy has dramatically slowed down since 1992. There is great debate over the reasons for the recent economic stagnation in Japan. The discussion that follows provides an overview of structural problems with the Japanese economy. The primary ideas in this paper are based on the works of Buchholz (1999), Krugman (1997), Meier (1998), and Porter (2000).

PRODUCT MARKET

Does Japan really play by different economic rules? You might think that this would be a simple question of fact, but it is not. On paper, Japan's markets are fairly open. Japan is blatantly protectionist when it comes to agricultural goods. On manufactured goods, however, Japan's tariff rates are about the same as those of other industrial countries, and Japan has few of the voluntary export restraints that limit imports of autos, steel, and other goods in both the United States and

Europe. Japanese officials can describe their nation as a leading practitioner of free trade. There is only one thing wrong with this picture: If Japan is so open to the world, how come nobody can sell there? The common complaint is that Japan negotiates freer trade in order to gain export access to other markets, while using a variety of explicit and implicit restrictions to keep foreign imports out of Japan. This lack of trade reciprocity is one of the most commonly cited inefficiencies in the Japanese economic system. In many ways Japan and West Germany before its reunification with East Germany were similar economies. Both were high-saving countries that exported large amounts of capital to the rest of the world. Both were also crowded countries, with few raw materials, that had to run trade surpluses in manufactured goods simply to pay for their food and energy. And both ran very large trade surpluses in manufacturing in the 1980s. But there the resemblance ends. Germany is one of the world's greatest markets for imported manufactured goods. The trade surplus came about only because exports were even larger. Germany simply trades more, in both directions. Whatever complaints one may hear about German economic policy, neither the Americans nor their fellow Europeans accuse the Germans of having a tacitly closed market. Manufactured imports as a percent of GDP were 3% in Japan versus 17% in Germany for the year 1990. This is an extremely large difference for two countries that have economies and populations that are approximately the same size.

Another structural problem in the Japanese product market is the misalignment between the needs of Japanese customers and the needs of the global market. The consumers in Japan are very hard to please and sensitive to appearance and packaging. Demanding consumers continually push producers to upgrade their products through improved performance and additional features. But Japanese products are often too costly or unique to compete in the global market. One of the consequences has been the concentration of Japanese success to a limited array of fields and industries that is too narrow for a nation of its size and national income. The Japanese have excelled in areas like electronics and autos, but are not competitive producing food, software, and textiles. Most countries have a modest amount of success in most major industries, but the Japanese are consistently in an all or nothing market situation.

A well-established problem in the Japanese product market is the creation of an environment where business deals are developed out of loyalty, old-school-ties, and bribery instead of market competition. In the eighties and nineties the Japanese were famous for running up the corporate expense account in order to wine and dine business partners and politicians (domestic and foreign). A famous example is the implicit purchase of the 1998 Nagano Winter Olympics. Financial markets have long had unique characteristics through special relationships between Japan's banks and industries. In the early postwar period of economic growth, controlled interest rates meant that access to credit was crucial, leading to guided rationing to favored industry groups clustered around powerful main banks. In the end, Japanese corporations in the postwar period that gained access to credit were those that new or learned how to gain favor from bankers. This vestige of imperfect competition and good-old-boy mentality has been a lasting drain on the Japanese economy.

LABOR MARKET

The Japanese labor market has two notable structural inefficiencies. The first problem is the well-known tradition of lifetime employment. This commitment has traditionally aligned the incentives of the employee with those of the company. Furthermore, employee identification shifts to the company and away from the specific job or task. The notion of lifetime jobs has several positive features including lower turnover and decreased hiring and training costs. The structural problem with lifetime jobs is that the system is not flexible enough to adjust to business cycles. One only needs to think about how technological advances eliminate old jobs and creates new jobs to understand the inefficiency of lifetime employment. The second problem with the Japanese labor market is the shortage of trained talent. Japan is often praised for its strong basic education system and its large pool of well-trained engineers. Although Japanese universities produce many graduates in fields such as electrical and production engineering, they are surprisingly weak in fields that have been performing poorly during the last decade or so including chemistry, chemical engineering, finance, software engineering, and aeronautical engineering. More broadly, the Japanese employment system excels at developing multi-skilled workers, but it is much less effective at developing specialists. This proved to be particularly problematic in industries such as securities and software, which require highly specialized workers in an increasingly knowledge-intensive economy.

CAPITAL MARKET

Japan has historically been a market with several formal and informal capital market restrictions. One of the most notorious has been the strict restriction on foreign direct investment and arduous rules governing local ownership. The common complaint is that the Japanese are willing to invest abroad but try to limit foreign ownership on their soil. Government reasoned that infant industries and industries with high spillover effects to other industries need protection. During the immediate postwar period, a series of laws were introduced to regulate the financial markets, including the separation of banks and securities firms and the establishment of specialized financial institutions. The regulations were intended to allocate scarce financial resources to necessary sectors while the capital market was still undeveloped and bank loans represented the dominant form of corporate financing. It was not until 1970 that the government allowed 50-50 joint ventures. Although efforts toward deregulation continued, this basic framework was still intact in the 1990s, even though Japanese firms had free access to overseas capital markets. The restrictions placed on foreign investments have stunted the growth of the Japanese economy.

A second structural problem in the Japanese capital market has been persistently low returns on investment. While periods of low profits would have been expected as companies pursued long-term competitive advantage, low profitability has been a chronic condition. Many companies seem to gain market share by sacrificing long-term profits rather than by offering superior quality or attaining a lower total cost position than rivals have. Because they face little pressure from shareholders, large Japanese companies tended to maintain unprofitable businesses indefinitely instead of deploying capital and labor to more productive uses. This long-run inefficiency in the capital market is analogous to the structural problems associated with lifetime jobs in the labor market. In fact, the existence of lifetime jobs with long-run objectives and security is one of the reasons that Japanese firms have had problems earning short-run returns.

Another structural problem with the Japanese economic system is directly related to the savings and consumption habits of the nation. In parallel to other policies, the Japanese government maintains a set of generally sound macroeconomic policies. Aided by low defense spending throughout most of the post-World War II era, the government sustained a budget surplus for many years. Individual savings rates were high because of government policy, the need to save for the purchase of a home and fund retirement, and the Japanese cultural view of savings as a virtue. The net result has been an ample supply of low-cost capital for the corporate sector. The problem with all of the savings is that consumption in Japan has not expanded as much overtime as national and personal income. Domestic consumption in the United States is approximately 65% of total gross domestic product. The economic growth of Japan has been highly dependent on foreign consumption through exports instead of domestic consumption. Given the impressive level of economic growth and development achieved by Japan since World War II, the expansion of domestic consumption is a crucial part of future economic growth. Essentially, Japan is a country that has outgrown the ability to achieve high economic growth by relying on exports.

GOVERNMENT INTERVENTION

The history of Japanese government intervention in industrial development began in the early post-World War II period, when the nation was in shambles and the government sought to rebuild the economy and restore their balance of payments. As time passed, proponents of the government model justified continuing intervention by arguing that late developer countries, such as Japan, needed government participation in industry to catch up to their more developed rivals. Responsibility for guiding economic growth lay with the central ministry bureaucrats who created and implemented industrial policies. As the chief formulator of industrial policies, the Ministry of International Trade and Industry (MITI) was identified as the catalyst for the Japanese miracle, supported by other agencies including the Ministry of Finance (MOF), the Ministry of Posts and Telecommunications, the Bank of Japan, the Economic Planning Agency, the Liberal Democratic Party, industry associations, and the keiretsu business groups. These networks offered MITI the crucial mechanisms through which it affected industrial policies and coordinated policy initiatives. At the same time, these networks made it difficult for foreigners to enter Japan. In particular, networks involving suppliers, wholesalers, and retailers kept foreign firms from competing on an equal footing with domestic counterparts. The side effect has been the traditional deadweight loss and X-inefficiency caused by limited competition.

The belief that the government should actively guide the economy is the cornerstone of the Japanese government model. The principal agents for playing this role were powerful ministries, notably MITI and MOF. Staffed by elite, career bureaucrats, these ministries ensured the continuity of policy well beyond the terms of elected officials. Retiring from politics at a relatively young age, bureaucrats then took key posts in other public institutions or the private sector. Government entities have traditionally targeted desirable industries for support. Targeting was manifested in laws, policy guidance provided to companies, and in the official visions for the economy prepared by MITI that was disseminated widely. After the 1970s, targeting sometimes involved more of a signaling role, highlighting the importance of an industry without explicitly offering subsidies or tax incentives. Government intervention in particular industries has continued, however, often in the name of goals such as promoting information technologies or conserving energy. Many failures occurred in sectors or industries in which basic and applied research and innovation are important to competition. This was a chronic problem in chemicals, aircraft, software, and securities. In essence, too much money was spent developing industries deemed strategic by the government, neglecting other industries that might have been more profitable.

Another structural problem with the Japanese economic system is the creation of implicit policies that restrict competition by fostering the growth of quasi-monopolies. The Japanese government has stressed the importance of limited domestic competition so that a few companies in Japan are big enough to compete effectively in the world market. A notable example is Nippon Steel, formed in 1970 by the merger between Fuji Steel and Yahata Steel. Originally one company, Fuji and Yahata Steel had been broken up by the Allied Occupation Command after World War II. MITI welcomed the merger, which would produce a company that controlled more than 30% of the market for major steel products. Although the Fair Trade Commission (FTC) initially opposed the merger, it was eventually approved with only a few conditions. The approval of this merger sent a clear signal that anti-trust regulation in Japan is essentially nonexistent. In addition to allowing larger mergers that concentrated major industries, government has also coordinated the allocation of new plant investment. This occurred in petrochemicals, synthetic fibers, and pulp and paper, among other industries. The aim has been to minimize over-capacity and excessive competition. Several attempts to tighten antitrust enforcement in the 1970s and 80s failed due to political opposition. The FTC has been more active since 1990 because of strong pressure from the United States. Government planners believed that regulating capacity and preventing excessive competition were necessary for long-term industry success. Bureaucrats have been concerned that Japanese companies were too small to take advantage of the economies of scale necessary for international competitiveness. To achieve these economies, companies were strongly encouraged to cooperate by dividing up product lines in order to increase the scale of their production. Mergers were especially encouraged, because they were the most effective means to achieve scale economies quickly. These ideas were first advanced by MITI in 1963, but they remained firmly in the government mind-set well into the 1990s, despite the fact that Japanese companies have become large and powerful global players.

CONCLUSION

Forty years from now the economic stagnation that is currently plaguing Japan will probably be nothing more than a deviation from the log-run positive trend. In the past the Japanese viewed many of their structural inefficiencies as part of the strength associated with their unique economic system. Today it is clear that the key to economic recovery is the elimination of these structural inefficiencies.

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REEXAMINING THE EFFECTIVENESS OF THE NEURAL NETWORK APPROACH TO ASSESS RISK OF MANAGEMENT FRAUD IN THE SALES AND COLLECTION TRANSACTION CYCLE OF PUBLICLY HELD TECHNOLOGY COMPANIES

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ABSTRACT

The purpose of the study is to reexamine whether a back-propagation neural network approach could accurately assess the risk of management fraud in the sales and collection cycle of a publicly held technology company. A back-propagation neural network is an artificial neural network, which uses a back-propagation algorithm as its learning algorithm. Several prior researches acknowledge that a back-propagation neural network is an effective risk assessment tool for detecting management fraud. The study uses a back-propagation neural network approach as a fraud classification model. On the basis of the benchmark that a risk assessment tool is both effective and efficient if Type I and II error rates are significantly less than 0.5 and sum to less than 1.0, the study develops three research hypotheses. According to prior researches, the study defines nineteen financial statement accounts and ratios as independent variables, and designates fraud or non-fraud as a dependent variable. Descriptive statistics, the Wilcoxon signed-rank test, and one-sample z test for proportions are employed to analyze independent variables and examine the research hypotheses. The findings of the study are consistent with the findings from prior researches.

THE TRADE-CREATING EFFECTS OF CAPITAL FLOW LIBERALIZATION IN ASEAN COUNTRIES

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ABSTRACT

Foreign capital liberalization stimulates bilateral trade. Accordingly, countries without asset restrictions tend to have lower trade barriers, more trade, and higher welfare. A gravity model of bilateral trade is used to empirically quantify the effects of asset liberalization for five ASEAN countries: Indonesia, Malaysia, Philippines, Singapore, and Thailand. The estimates indicate that the trade-creating effects are substantial, averaging nearly 200 million U.S. dollars for every one-tenth reduction in capital restrictions. This result is consistent with models that illustrate the optimality of unobstructed asset-trade flows between trading partners. To increase trade volume and economic growth among ASEAN members and non-member economies, financial reforms that pursue open and impartial treatment of foreign investment are required.

INTRODUCTION

In addition to exports and imports, factor movements are also an indicator of economic integration. As national economies become more interdependent, labor and capital should move more easily across national boundaries (Gerber, 2002). Capital movements between countries that are in the interest of economic efficiency are eminently desirable. There are several ways to measure capital flows. The most basic distinction is between flows of financial capital representing paper assets (stocks, bonds, currencies, bank accounts, etc.) and flows of capital representing physical assets (real estate, factories, businesses, etc.). The latter type of capital flow is called foreign direct investment. To some extent, the distinction between the two is immaterial, because both types of capital flows represent shifts in wealth across national boundaries and both make one nation's savings available to another. The purpose of this paper is to investigate the impact foreign capital liberalization has on bilateral trade and economic welfare. Specifically, a gravity model of bilateral trade is used to empirically quantify the effects of asset liberalization for five ASEAN countries: Indonesia, Malaysia, Philippines, Singapore, and Thailand.

CONTROLS ON CAPITAL FLOWS

A potential problem with short-term capital moving freely between major countries is exchange rate instability. Many of these capital flows have nothing to do with economic fundamentals such as inflation rates, resource productivity, and general economic conditions. Rather, they reflect reactions to rumors, political events, and bandwagon effects where speculation against a currency in and of itself generates further speculation against that currency (Appleyard and

Field, 1995). Such volatile short-term capital flows cause considerable instability in exchange rates. A remedy is to impose limitations on the inflow and outflow of funds (Goldstein, 1984). Capital flows among countries could be restricted in a number of ways. For example, a tax could be levied on any exchange market transaction involving a capital flow, or a tax could be imposed on all short-term foreign bank accounts in a country (Tobin, 1978). A second way to limit capital flows is to employ a system of dual or multiple exchange rates. In this situation, a different exchange rate is employed depending on the nature of foreign transactions. The central monetary authority of the country could also restrict capital flows by exercising moral suasion against capital outflows such as the United States did in the late 1960s through its voluntary restrictions on bank lending overseas. Stronger measures such as outright prohibitions might also be adopted. Many countries resort to restrictions on the capital inflow, such as ceilings on foreign borrowing, minimum reserve requirements on foreign loans, and interest rate equalization taxes.

Controls on capital mobility, however, go against the most efficient use of capital in the world economy. If capital moves from a country where the marginal product of capital is low to a country where the marginal product of capital is high, there is an increase in world output and greater efficiency in resource allocation from the capital flow. However, proponents of capital controls contend that a large fraction of the capital flows in the recent floating-rate period is not of this type. Rather, the daily movements of the speculative funds in and out of leading countries' financial markets may be hindering efficient resource allocation because traders and long-term investors are receiving misleading and uncertain signals. Yet, the majority of economists dislike capital controls. The danger is that the controls will prevent the flow of capital that is moving in response to true marginal productivity differences. Nevertheless, there appears to be no time in the postwar period when at least some countries did not have capital controls.

ASEAN BACKGROUND

The Association of Southeast Asian Nations (ASEAN) is a political and security grouping of nations in Southeast Asia. ASEAN was founded in 1967 and has recently begun a slow movement toward creating a free trade zone. The five ASEAN countries included in this study are Indonesia, Malaysia, Philippines, Singapore, and Thailand. The ASEAN countries not included did not have complete and reliable economic data for empirical evaluation. Singapore is clearly the most successful free-market economy in ASEAN. Singapore is blessed with a highly developed and free business environment. Singapore traditionally receives high marks from international business experts for being open to trade and investment. Exports, particularly in electronics, chemicals, and services are the main drivers of the economy. In contrast to Singapore, the economy of Indonesia is generally recognized as corrupt and restrictive. The country faces severe economic problems stemming from secessionist movements, the lack of reliable legal recourse in contract disputes, weakness in the banking system, and strained relations with the International Monetary Fund.

The ASEAN country with the most volatile economy during the last five years is Thailand. After enjoying the world's highest growth rate from 1985 to 1995, increased speculative pressure on Thailand's currency in 1997 led to a crisis that uncovered financial sector weakness. Thailand entered a recovery stage in 1999, expanding 4.2%, largely due to strong exports. An ailing financial sector and the slow pace of corporate debt restructuring has been a drag on economic growth in

Thailand. In 1998 the Philippine economy deteriorated as a result of spillover from the Asian financial crisis started in Thailand. Growth fell to -0.5% in 1998 from 5% in 1997, but recovered to 3% in 1999. The government of the Philippines has a solid economic reform record in recent years. In addition to dismantling monopolies, opening the banking sector to greater foreign competition, and reducing the level or regulation, the government recently cut tariffs in order to increase trade and further their economic integration within the region. The fifth ASEAN country included in this study is Malaysia. Economic reforms started in the 1970s have helped Malaysia develop a free-market economy. Malaysia had a GDP growth of 8.6% in 2000, mainly on the strength of double-digit export growth and continued government fiscal stimulus. Malaysia's failure to make substantial progress on key reforms of the corporate and financial sector clouds prospects for sustained growth and the return of foreign investment. In the end, the five ASEAN countries included in this study represent a robust sample of economic and political diversity in Southeast Asia.

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MILES & SNOW STRATEGIC TYPOLOGY AND ITS CURRENT RELEVANCE: AN EMPIRICAL STUDY IN SINGAPORE

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ABSTRACT

This empirical research, done in Singapore, contributes to knowledge in the area of business strategy. There is currently a lack of literature concerning the strategy dynamics of successful companies in Singapore.

The primary goal of this study is to develop a theoretically based, economical framework for the examination of the relationships between environment, competency and strategy types and performance. Broadly, the research addresses the question whether there is one best business strategy based on core competencies for a given competitive environment.

The data that I obtained from objective primary sources was subject to a series of statistical analyses. Factor analysis was performed to determine the hidden constructs which could characterize a strategy type. A multiple regression model was developed to explore whether there was any relationship between performance and the firm's competency factor, while cluster and discriminant analysis were attempted with satisfactory results.

The dissertation includes description of the theoretical literature from which the research was conceived, the results obtained and the conclusions as derived from the study. The primary contribution of this research was the development of a broadly applicable model, which could be a useful platform for the future study of strategy and organizational performance.

INTRODUCTION

Business challenges today are becoming more varied, numerous, threatening and urgent. Firms need to respond effectively to these challenges, which include global competition, industry restructuring, internet-driven upheaval and market transformation to sustain growth and even to survive in the ever-changing environment. As every firm needs to compete for a set of customers against a variety of competitors and interacts with many components of its environment (Abell, 1980), getting the right 'formula' for achieving success in this increasingly competitive and hostile business environment is one concern held by many in this era of rapid change.

Singapore is one of the most competitive countries in the world. The Government has adopted a free market system for Singapore to attract foreign investors to bring in both capital and professional skills. Over the years, many foreign MNCs have set up their regional headquarters in Singapore. The Singapore Government has in recent years actively encouraged local firms to move away from lower to higher value-added activities. The Government has also established an S$1 billion fund as part of its efforts to develop local companies' technological capabilities and encourage them to expand businesses beyond Singapore. Such government funded initiatives provided Singapore homegrown companies with assistance and opportunities to develop new competencies and business management know-how for managing a global business. Some local firms with firm commitments to expand businesses beyond Singapore have already grown to considerable size with investments and facilities overseas. A few have gone global in a different kind of way, leveraging on knowledge tapped globally, rather than merely growing outward from a domestic base. Creative Technologies, SingTel and Singapore Technologies are some examples. Thus, Singapore is an ideal place for this study given the intensely competitive marketplace, with many international and local companies vying for a share of the respective businesses.

PURPOSE OF THE RESEARCH

The purpose of this study is to explore and examine the relationships between strategy types, environment, competency and performance. The study will pay explicit attention to the impact of business level strategy and environmental influences on organizational performance, using Miles and Snow strategic (1978) archetypes as the strategy construct, the Porter's (1980) Five Forces framework as the environment construct and Return on Investment (ROI) as the performance measure. The analysis will focus on the management perceptions of medium to large sized companies in Singapore.

SIGNIFICANCE OF RESEARCH

Public and privately held large and medium-sized enterprises play an important role in the growth of the Singapore economy. Together, they employ about 50 per cent of the workforce and contribute around 40 per cent of the total value added in the economy. Their continuing growth and success is crucial, especially with increasing competition from the region. Identifying the strategic postures and distinctive competencies of successful enterprises, gives insight and understanding of how these enterprises remain competitive and excel in the harsh operating environment. The findings of the research are likely to be relevant and applicable to both local and foreign companies operating in Singapore and the region.

SOME DISCUSSION OF THE RELEVANT LITERATURE

According to eminent academics, who include among others, Chandler (1962), Ansoff (1965), and Mintzberg (1987), strategies define the purpose of organizations, the competitive domain of firms and the resource commitment these organizations make to achieve and sustain competitive advantage. Hence, developing an appropriate strategy that fits the marketplace is one necessary ingredient for business success, which according to Miles and Snow is 'achieving fit' between the firm and its environment. In operationalizing the business strategy concept, Miles and Snow (1978), Porter (1980) and Miller and Friesen (1983) as well as other researchers have done much in developing empirical and conceptual typologies of strategies.

The typology as proposed by Miles and Snow (1978) remains one of the most popular approaches for defining and measuring the effectiveness of business level strategy (Zahra and Pearce, 1990). It has been debated and supported by many researchers over the years (Hambrick, 1983; McDaniel and Kolari, 1987; Reukert and Walker, 1987; Snow and Hambrick, 1980; Snow and Hrebiniak, 1980; Hawes and Crittenden, 1984; Zahra, 1990). These studies have contributed significantly to the body of knowledge on strategic archetypes.

According to Porter (1980), successful strategy formulation, involving the identification and exploitation of a firm's competitive advantage, arises from an understanding of the five forces affecting the firm and its competitors in any given industry. In Porter's framework, profit potential in an industry is directly related to the collective strength of these five forces, and a firm's ultimate performance in the industry is a function of the environment and the firm's positioning in the market. Distinctive competence, which refers to things that an organization does especially well in comparison to its competitors (Selznick, 1957), has been the focus of many studies (Bourgeois, 1980). The relationship between strategy types, distinctive competence and organizational performance has also been examined in a number of studies (Hambrick, 1983; McDaniel and Kolari, 1987; Miles and Snow, 1978; Snow and Hrebiniak, 1980). Conant et al. (1990) suggest that strategy types, distinctive marketing competencies, and organizational effectiveness determine how a business performs.

Most prior research in strategic management had been focused on the strategy or environment independently as determinants of a firm's performance. Particularly in Asia, there is a lack of studies to enhance our understanding and ability to predict 'what performance outcomes could result from following specific strategies under different environmental conditions'. This study sought to provide an understanding of the relationship between strategy, environment, distinctive competence and performance

THEORETICAL FRAMEWORK AND RESEARCH APPROACH

The main focus is to gather insights on how strategy types are dictated or influenced by various environmental factors as well as by internal competency factors, which interface with the environment. For this study, I classify strategy types into two groups, namely, the Adaptive/Defender and the Proactive/Prospector type classifications. The following hypotheses are developed for this study.

Defender Type

Will be able to meet competition with better management of costs and marketing mix; Will be more reliant on internal strengths for their positioning in the marketplace to meet competition, assuming such lateral movements as appropriate; Defensive posture to hold turf does not mean they would lack confidence, for they have to operate in an increasingly competitive environment.

Prospector Type

More reliant on marketing strengths and is opportunity-seeking, which includes regionalization; Will not be solely reliant on flanking, and will be competitor-centered with focus on product offerings, quality and value for the customers;

Will exhibit relatively superior collection of distinctive abilities to deal with the environment and the marketplace. Such collection of superior abilities will likely result in superior organizational performance.

METHODOLOGY

The survey instrument comprises a total of 10 questions for gathering the data required. We were able to get 64 usable responses out of the 100-targeted medium to large companies in Singapore. In the Singapore context, this has often been the most difficult part of any market-based study. Most of the firms, which responded to this survey, had been personally approached. Though random sampling in the strictest sense was not done for this research, its purpose was still maintained, as the probability of companies being included in the sample was independent of any other factors, other than just getting them, through introduction from various contacts, to agree to respond to the survey questionnaire. The sensitive nature of the questions did not allow any other means to enable a sufficient response with reliable data for analysis. Considering Singapore's small economy, the sample size or response received was adequate for our purpose.

DATA ANALYSIS AND RESULTS

Data obtained from the survey through interviews was subject to a series of statistical analyses. Measures of central tendency, such as the mean and median, as well as standard deviations, were obtained from the analysis, and the t-test among others was conducted as appropriate. Factor analysis was performed to determine the hidden constructs which could characterize a strategy type and its given environment. It was noted through cluster analysis that the sample did in fact divide and fall under the two strategy types. A multiple regression model was developed to explore whether there was any relationship between performance and the firm's competency factor.

The general profile of the surveyed companies is shown in Table 1. The companies are categorized into the four industry types: manufacturing, retail, engineering, services and others. The response obtained from the sample was adequate for analysis.

According to the perceptions of the respondents on the strategic orientation of their firms, the majority of companies surveyed belonged to the Prospector type, total 37 or about 57.8 per cent. The Defender's strategy type formed about 27 of the 64 companies or 42.2 per cent. The ranking of contribution of the distinctive competencies to their businesses are given in table 3 and 4.

Defensive/Prospective types

Table 1 - Strategy Types of Surveyed Companies					
		Frequency	Percent	Valid percent	Cumulative percent
Valid	Defensive group	27	42.2	42.2	42.2
	Prospective group	37	57.8	57.8	100.0
	Total	64	100.0	100.0	

Table 2 - Distinctive Competencies			
		Defenders	Prospectors
Question	Distinctive Competencies	Mean	Mean
Q2 (a)	Financial Management	3.00	3.54
Q2 (b)	Sales	2.96	2.38
Q2 (c)	Market Research	3.19	3.59
Q2 (d)	Product R&D	3.08	2.43
Q2 (e)	Industrial Engineering	3.96	3.91
Q2 (f)	Production	3.65	4.26
(1 – Most; 2 – next; and 5 is least etc)			

Both groups ranked Sales as the most important distinctive competency. The Prospector group has an edge in both Sales and Product R&D capabilities, giving them the confidence to explore, while the Defender group emphasized Financial Management and Production. It was noted that the Defender group attached high importance to market research. This was evident as Defenders carefully searched out market segments that were most profitable to serve and then concentrated their efforts there.

Table 5- Competitive Forces			
		Defenders	Prospectors
Question	Key Content	Mean	Mean
Q8 (a)	Competitive Forces: Threat of New Entrants	2.7353	2.7619
Q8 (b)	Competitive Forces: Threat of Substitute Products	3.0000	2.7143
Q8 (c)	Competitive Forces: Jockeying Among Competitors	3.5294	4.0952
Q8 (d)	Competitive Forces: Power of Buyers	3.1765	3.5238
Q8 (e)	Competitive Forces: Power of Suppliers	2.5588	1.9048
(Scale: 1-Least Important … 5-Most Important)			

An embedded hypothesis that competitive forces were affecting all firms more or less equally was confirmed here. Both strategy types ranked the competitive forces in the same order and viewed the environment as equally competitive.

The above results as perceived by the respondents were subject to further tests (factor analysis, cluster analysis) to confirm that these samples indeed fell into two distinguishable groupings (Prospectors and Defenders). The analysis and results also supported the hypotheses developed for this study. The distinctive competencies of the responding companies and their interactions with the environment were cluster analyzed. The classification result was encouraging, as the predictive accuracy of the two clusters as identified was quite high. Cluster 1 identified 22 Defensive companies as against 27 perceived by the respondents, while Cluster 2 classified 38 companies as Prospective companies as against 37 classified by the respondents directly.

CONCLUSIONS

The results of this empirical research are significant for several reasons. Firstly, the results provided support for the recent arguments of some strategy scholars regarding the importance of strategy, environment and competencies to firm performance. As importantly, the results confirmed the view that both large and medium companies in Singapore, as well as subsidiaries of major MNCs, did align their strategic posture and formulated competitive strategies (adaptive/Defender or proactive/Prospector) in congruence with the requirements of their environment. The study also provided evidence that there was a positive relationship between firms' performance and their distinctive competencies. The results also showed that the character of firms was more dominated by 'competencies' factors and provided support for the resource-based view of the firm which has been presented by many scholars and researchers in recent years (Barney, 1991; Peteraf, 1993; Robbins & Wiersema, 1995).

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TOURISM, DEVELOPING REGIONS, AND ECONOMIC GROWTH: AN INPUT-OUTPUT PERSPECTIVE

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ABSTRACT

Input-output analysis is a classic model of economic research of potential value when analyzing the impact of tourism upon developing regions. Here, the value of Input-Output analysis is discussed in terms of tourism strategies aimed at developing regions. When combined with more qualitative social measures of analysis as part of a more robust research agenda, Input-Output analysis has a significant role to play as developing regions plan tourism initiatives.

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HELL'S GATE POWER PLANT: SUPERVISING THE SUPERVISOR

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CASE DESCRIPTION

This case can be used to illustrate several important topics in the management of human resources, including: 1) management styles, and McGregor's classic distinction between Theory X and Theory Y assumptions about employees' behavior; 2) a progressive system of employee discipline; 3) the importance of communication within organizations, and the value of "voice systems," organizational mechanisms that allow the voices of employees to go upward in the organization, providing important information to management on the performance of supervisors and creating an environment conducive to employees' loyalty and morale; 4) workers' compensation, including the problem of potential worker's compensation fraud, and the potential hardship to employees when claims are mismanaged by employers. The case is a difficulty level of 2 or 3 and is suitable for a junior or senior or graduate level course in human resource management. It is best taught in the last half of the course when students are better able to handle the intersection of the various topics.

CASE SYNOPSIS

A conflict develops between an employee and his supervisor. The supervisor has given what he considers a strict order during a shift. The employee thinks it is a request that is overridden by the crisis situation continuing throughout a twelve-hour shift. The supervisor, contrary to the company's policies and the union contract, gives the employee a menial assignment as a punitive measure, and the employee injures his knee while carrying out the assignment. The employee files for worker's compensation, but the company uses its 90-day wait and see policy before accepting the employee's claim as valid. This puts the employee in a difficult situation, his health insurance won't cover his medical bills because it is a workers' compensation case. Workers' compensation, however, won't begin coverage until the employer accepts the claim. Eventually the company accepts the claim. The employee files and wins a grievance against the supervisor.

ACCOUNTING DIVERSITY AND THE VALUE RELEVANCE OF ACCOUNTING EARNINGS AND BOOK VALUE IN FOUR COUNTRIES—THE UNITED STATES, THE UNITED KINGDOM, CANADA AND JAPAN

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ABSTRACT

Diversities in accounting standards across different countries are of serious concern to the international investment community. Analysts, investors and security regulators have indicated that accounting differences can affect the usefulness of accounting numbers in assessing firm values (Choi and Mueller 1992). This paper investigates the impact of accounting diversity on the relative value relevance of accounting summary numbers in four countries: the United States, the United Kingdom, Canada and Japan. Accounting systems of these four countries are of interest because of the varying degree of perceived conservatism in accounting measurement practices across these four accounting systems and the size of the capital markets in these four countries.

To assess the differences in value relevance of two accounting summary numbers, earnings and book value, across different countries, we use empirical models and measurements that allow direct comparisons of the weights assigned to accounting earnings and book value by market participants of these four countries. To compare the relative value relevance of accounting earnings with that of accounting book value within each country, we use a standardized procedure to control the scale differences in earnings and book value so that the earnings valuation coefficient and the book value valuation coefficient can be compared. A ratio measure, which scales the valuation coefficients by the overall informativeness of earnings and book value of each country, is used to allow additional cross-country comparisons.

The results show that systematic differences in the importance of earnings and book value do exist across national boundaries. On average, earnings are more important than book value in explaining firm values in the U.S. and the U.K., while book value is more important than earnings in Canada and Japan.

In a model incorporating both earnings and book value to explain market values, accounting earnings and book value both have incremental value relevance over each other for the U.S. and Canadian samples. However, U.K. accounting book value and Japanese earnings do not consistently have incremental value relevance.

Our results also indicate trends of change in the overall, as well as the relative, importance of earnings and book value over the sample period. In particular, the overall value relevance of accounting earnings and book value increases over time for all four countries, and the value

relevance of accounting book value relative to accounting earnings increases in both Canada and the U.K. over the sample period. Neither the U.S. or Japan show significant changes in the relative value relevance of the accounting numbers over the sample period.

PRECISION MANUFACTURING: THE RISKS AND REWARDS OF MINORITY BUSINESS VENTURING

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CASE DESCRIPTION

The primary subject matter of this case involves the intricacies of negotiating and financing the acquisition of a small manufacturing company. The case also provides insight into the risk/reward assessment potential entrepreneurs face as they contemplate business venturing opportunities. More specifically, the case provides insight into the personal considerations and financial decisions that must be made prior to starting or acquiring a business. One of the distinguishing features of the case is its focus on the unique challenges faced by minority entrepreneurs.

Secondary issues examined in the case include financial statement and ratio analysis for decision making, implications of capital structure and the attractiveness of the Small Business Administration's 8(a) and Small Disadvantaged Business Certification Programs.

This case has a difficulty level of three or four. It is relevant for an introductory or advanced entrepreneurship class or an undergraduate or first-level graduate business finance course. It can also be used in an intermediate accounting course, junior level management course or senior level business policy course. In an introductory entrepreneurship course, the instructor may wish to minimize/avoid discussion of financial ratios and financial statement analysis. These topics would be more appropriate for students that are taking or have completed the business finance course. While historical and proforma financial information is provided, this is not a business valuation case. It is recommended that the case be used to highlight the challenges, both internal and external, faced by aspiring entrepreneurs. The case is designed to be taught in 1 class hour and requires 3-4 hours of outside preparation by students.

CASE SYNOPSIS

The case unfolds as two African-American CPAs contemplate the risks and rewards of becoming entrepreneurs in the southeastern United States. They conclude that business ownership, as opposed to their traditional role as salaried accountants, provides a more realistic path to wealth accumulation and financial independence. More specifically, the principals believe that manufacturing affords the best opportunity for extraordinary wealth creation. They realize that manufacturing venturing runs counter to the prevailing trends among minority entrepreneurs who have typically targeted the service sector. Further, they are well aware of failure statistics that could transform their pursuit of the "American Dream" into their financial demise.

Despite the risks, the CPAs begin to actively search for the right business opportunity. One such opportunity is identified in eastern North Carolina within a hundred miles of the city in which *the potential partners reside. The target is a manufacturing facility that is being offered by its current corporate parent.*

The focus of the case involves the intricacies of negotiating and financing a deal for the manufacturing business and ultimately the go/no go decision facing each of the entrepreneurs. One must decide whether he is willing to leave corporate America in order to pursue his dream. The other CPA must determine whether he will invest a significant sum of money in a venture that shows substantial promise, but poses significant risks.

INTRODUCTION

Richard Thomas could not sleep. He had recently celebrated the birth of his daughter. His thoughts now focused on what kind of life he could provide for her. Life had seemed so simple. He and his wife had successful business careers. They owned their own home, drove nice cars. They were active participants in the Charlotte, North Carolina social scene. Recently, this had come to seem insufficient. Though Richard and his wife enjoyed their lifestyle, their daughter's birth served as a wake-up call. Richard realized that he presently lacked the financial resources necessary to assure his daughter's education much less assure his family's future financial independence. He wanted to provide his family with a level of financial security that would accommodate a more affluent lifestyle and build his net worth to the point that his daughter's financial independence would be assured. From discussions with friends and colleagues, Richard became interested in an opportunity to acquire a manufacturing firm. Though he had no manufacturing experience, he believed that his extensive administrative and managerial experience would facilitate a successful transition. Richard's insomnia resulted from his churning of the pros and cons of just such an opportunity: financial independence or financial ruin.

As an African-American, Richard was aware of the fact that most minority entrepreneurs initially venture into service-sector businesses. The barriers to entry in the service sector are typically substantially lower. Most importantly, starting a service business does not usually require such a substantial capital investment. Lack of access to capital has been a significant impediment to entrepreneurship among African-Americans. On the other side of town, Mike Jones, a friend of Richard's, found himself in a similar position. Mike was a Certified Public Accountant (CPA) with a wife and three kids. He had a successful financial planning practice and was a business school faculty member at a nearby state university. Mike's wife had been a judge since she was first elected eight years ago. The Jones' had a comfortable annual income yet Mike, like his friend Richard, yearned to increase his family's net worth by developing sources of income that did not require his time; he was comfortable with the prospects of serving as a passive investor. His goal was to develop sources of income that did not require his time.

RICHARD THOMAS

After graduating from Ohio University with a BS in accounting, Richard joined a major public accounting firm. While there, he passed the CPA exam completing the certification requirements. In 1982, he left public accounting to join a major real estate development firm in Dallas, TX. He was transferred to the Charlotte office in 1986. In 1988, principals of the

Dallas-based firm decided to start their own real estate development firm. Richard was recruited to join the new firm. He served in a number of managerial capacities and ultimately became Chief Administrative Officer.

Richard's wife, also a CPA, started a CPA firm in partnership with another female CPA. Her goal was to build a successful CPA firm by providing quality accounting and tax services to small businesses and not-for-profit organizations.

AN OPPORTUNITY?

In September 1993 Richard spotted the following ad for the sale of a precision machine shop in the Wall Street Journal. The company was located in a small community in Eastern North Carolina. Richard felt the opportunity was worth pursuing even though the facility was a 3-4 hour drive from Charlotte.

Precision Machine Shop
Sharpsburg, NC
Fortune 500 Customers
CNC Machining
$800K Annual Revenue

Richard contacted the owners of BARO, AG. He learned that two employees bought the company in a leveraged buyout. The company, headquartered in Schoolcraft, MI, had a subsidiary, Precision Manufacturing, in Sharpsburg, NC. The owners decided to sell the Sharpsburg facility because they did not believe they could manage this facility effectively given the distance involved.

PRECISION MANUFACTURING

Precision Manufacturing was established as a subsidiary of BARO, AG in 1983. It produced full precision machine parts for customers in the East and Southeast. Precision's primary customers were aircraft, aerospace and medical equipment manufacturers. Sales at BARO, AG grew steadily through 1990 as the number of employees increased to 28. After 1990, sales began to decline and the number of employees was cut back to 13.

Table 1: Summary of Operations for the Periods ended May 31					
	1988	1989	1990	1991	1992
Sales	1,202,483	1,310,696	1,544,376	1,077,170	908,843
Cost of Goods Sold	858,010	954,076	1,253,521	902,788	809,501
Gross Margin	344,473	356,620	290,855	174,382	99,342
Operating Expenses	202,508	260,873	269,797	270,027	207,483
EBIT	141,965	95,747	21,058	(95,645)	(8,141)
Interest Expense	13,261				
Earnings Before Taxes	128,704	95,747	21,058	(95,645)	(108,141)
Income Taxes	55,343				
Net Income	73,361	95,747	21,058	(95,645)	(108,141)

From a personal perspective, Richard was not willing to relocate his family. How could he effectively manage a business in Sharpsburg and uphold his family obligations?
He had limited cash available to finance the purchase ($50,000) and he had limited manufacturing experience.

Richard believed that the opportunity was worth pursuing despite his concerns. He believed that onsite management and marketing personnel would result in additional sales and improved profits. Further, the company would qualify for 8(a) certification from the Federal government's Small Business Administration (SBA) as a minority-owned business.

Richard anticipated that this would lead to business opportunities with the government and to joint ventures with major corporations seeking to do business with the government.

Richard negotiated a purchase price of $500,000 with BARO, AG for the assets of Precision Manufacturing. This did not include the land and building that were leased by the sellers. It was Richard's intent to continue to lease the real property under the same terms as the seller. Richard had $50,000 to commit to the project. Accordingly, his challenge was to raise $450,000.

Richard sent a copy of his business plan to the larger banks in Eastern North Carolina. He also sent the plan to the Small Business Investment Corporation (SBIC) of one of the major banks. He met with investment groups and other interested parties to secure financing.

Table 3: Proforma Summary of Operations for the Periods ended December 31					
	1994	1995	1996	1997	1998
Sales	1092481	1212907	1470094	1662358	1751023
Cost of Goods Sold	683772	813757	1030576	1157483	1208288
Gross Margin	408709	399150	439518	504875	542735
Operating Expenses	255927	252130	331756	368936	397604
EBIT	152782	147020	107762	135939	145131
Interest Expense	29186	27379	25128	22715	20126
Earnings Before Taxes	123596	119641	82634	113224	125005
Income Taxes	50675	49052	33880	46422	51252
Net Income	72921	70589	48754	66802	73753

January 16, 1984 Richard received a bank's commitment letter from a regional bank. The bank agreed to provide $350,000 and establish a $100,000 line of credit under one condition: Richard must move to the Sharpsburg area.

Richard sent a copy of the commitment letter to the SBIC. In February, Richard received a commitment letter from the SBIC for $100,000 of debt financing. The SBIC agreed to $100,000 in 12% subordinated debentures. The new entity would pay interest only for the first year. The loan would be fully amortized in years 2-6. In addition, the SBIC would have the option to purchase 40% of the company at the end of year 6 at a bargain price. The SBIC would also have an option to put the shares back into the company at fair market value.

Richard had discussed his pursuit of a manufacturing company with Mike Jones. Mike had, in turn, expressed his interest in investing in a manufacturing company. When Richard detailed the proposed financing, Mike stated that he would take the place of the SBIC under the same terms. Richard preferred to have Mike involved in the deal. To induce Mike to participate, Richard offered him a 20% equity interest upfront. Mike had the option to sell his equity interest back to the company at fair market value at any time after year six.

The bank determined that the deal structure for the asset purchase was unacceptable. They were not comfortable with 90% debt financing. The bank required 20% equity. Richard had no additional capital to contribute. The only viable option was to recharacterize Mike's investment from 100% debt to 50% debt and 50% equity.

Mike was not enthusiastic about the proposed change. The debt financing offered a fixed 12% return and a fixed repayment schedule. At the time, the prime rate was 7%. The change in the characterization of Mike's investment would introduce additional uncertainty regarding the return of the initial capital invested.

Mike also learned that Richard was successful in securing financing to purchase the real property. The lender, however, would require that Mike subordinate his loan to both the bank loan and the real estate loan (i.e. a third position). This further increased Mike's risk. Mike agreed to consider the change in exchange for a greater equity interest (40%). See Table 4 for the terms of the financing.

Table 4: Proposed Financing of Assets	
Bank Loan	$350,000
Richard's Equity	50,000
Mike's Equity	50,000
Mike's Loan	50,000
The terms of the bank loan were as follows: *Prime + 1.5%* *Interest only for year one* *Loan balloons in 10 years*	
The terms of Mike's loan were as follows: *12% fixed; Interest only for year 1; Fully amortized over years 2-6*	

So Richard sat sleeplessly in his chair reviewing his options. All the pieces were in place to close the purchase of Precision Manufacturing including the real estate. Richard would serve as President of the company. He would have an initial annual salary of $40,000. This amount would escalate annually at $10,000 per year for the next four years. He would also have the opportunity to receive bonuses based on the amount of annual profits generated. Closing the deal would also put his family's finances at substantial risk. Richard would be required to personally guarantee both the bank debt and the real estate financing. He would be financially ruined if the deal didn't work.

Mike also had a serious decision to make. He had long wanted to invest in a manufacturing company. Was this the right opportunity? Was Richard capable of successfully managing this business? Was this a good deal structure? An investment of $100,000 was quite significant. This money could be used to educate his children.

Richard and Mike both pondered into the night. Each knew that the decision they would make in the morning had the potential to secure their financial future or to destroy it: make or break?

PRICE WATERHOUSE V. HOPKINS: ARE GENDER STEREOTYPES ILLEGAL?

Philip McGough, Sonoma State University

CASE DESCRIPTION

This case uses the facts of the landmark law-suit, Price Waterhouse v. Hopkins, to cover sex discrimination and gender stereotyping. Ann Hopkins, a senior manager at a large public accounting firm, was able to use evidence of gender stereotyping to prove that Price Waterhouse had discriminated against her on the basis of her sex in refusing her partnership status in the firm. The case addresses the issue of gender stereotyping and how conscious and unconscious attitudes can shape our attitudes, influence our opinions, and affect employment decisions. It is best presented in the context of the law that has developed around sex discrimination under Title VII of the 1964 Civil Rights Act. In a business law class, the case can also be used to illustrate the role of evidence in a law- suit, how facts and expert opinion can be used to prove an assertion, in this case, that a woman was evaluated differently for partnership status because she was a woman and not a man. The case is of a difficulty level of 2 to 3 and can be used in any level course-- business law, management, human resource management, government regulation of human resources--in which there is coverage of sex discrimination.

CASE SYNOPSIS

A woman, Ann Hopkins, goes up for partnership consideration at Price Waterhouse, a large partnership providing audit, tax, and consulting services to corporations and government agencies. Nationwide at this time Price Waterhouse, out of 662 partners, has 7 female partners. This year, of the 88 candidates throughout the entire firm for partnership status, Ann Hopkins is the only woman. If made partner, she would be the first female partner in the division where she works. At first the decision of whether to make her partner is postponed. Then the following year, the partners in her unit decide not to propose her again for partnership, and she resigns. Ann Hopkins sued Price Waterhouse for sex discrimination and was able to use evidence of gender stereotyping to prove that she as a woman was evaluated differently for partnership status than male candidates. Price Waterhouse appealed the case to the U.S. Court of Appeals and the U.S. Supreme Court and lost.

PROCESS ANALYSIS AND RISK ASSESSMENT IN A NOT-FOR-PROFIT ORGANIZATION: AN ASSURANCE SERVICES CASE

John M. Coulter, Western New England College
Melissa S. Madden, Western New England College

CASE DESCRIPTION

Audit education and practice have seen a shift in emphasis in recent years toward process analysis and risk assessment as an important component of evidence gathering and evaluation. With this, the concept of assurance has moved beyond the traditional notion of what a financial statement audit has been traditionally thought to encompass. As the content of practice changes it is of critical importance that instructional materials evolve to incorporate these changes.

CASE SYNOPSIS

This instructional case reviews the internal control processes of a not-for-profit audit client (specifically a Roman Catholic diocese) from both a traditional internal control and a process analysis/risk assessment framework (see Knechel, 2001). Most audit instructional cases involve more traditional for-profit clients, so students should benefit from an examination of textbook concept sin a less familiar environment. The diocese has a number of important problems associated with its pledge recording and cash collection processes. In answering questions on the case materials, students are provided with an appreciation for the difficulties inherent in establishing and maintaining an effective system of internal control in an environment that has significant cost/benefit constraints. Additionally, they gain experience in using risk documentation and analysis tools that have become increasingly common in recent assurance services practice, research and pedagogy (e.g., Bell et al. 1997; Walker, Shenkir and Hunn, 2001; Eilifsen, Knechel and Wallage, 2001, Knechel, 2001).

AIRPORT CONCESSION: DEVELOPING A BUSINESS PLAN AND PROFORMA ANALYSIS

Michael D. Evans, Winthrop University
Bennie H. Nunnally, Jr., University of North Carolina - Charlotte

CASE DESCRIPTION

Illustrating the interrelationship between finance and other core business courses is the primary focus of this case. This is accomplished by asking students to prepare a business plan. In order to do so, they must draw on key concepts learned in accounting, marketing and management courses. More specifically, students must prepare proforma financial statements, perform ratio analysis, choose a form of business organization and make a risk/reward assessment regarding the business venture. This is a Level 3 case. It is appropriate for the first undergraduate course in financial management or in intermediate accounting. The case can be covered in one 50-minute class and will likely require 2-3 hours of outside student preparation.

CASE SYNOPSIS

The case unfolds as Mike Thomas considers an entrepreneurial opportunity. He has a strong background in accounting and finance. However, he has no retail management experience. Nonetheless, Mike decides to investigate an opportunity to operate a food concession at the Charlotte/Douglas International Airport. He believes this offers the potential to add another income source and substantially increase his net worth. Mike is aware that he must do his homework prior to taking on such a venture. This opportunity offers substantial rewards, but poses significant risks as well.

CASE

Mike Thomas, a well-respected Professor and practicing financial planner, developed a strong desire to become an entrepreneur. Mike felt he had the background to start and run a small business successfully. He had an MBA and was a CPA. Mike had prepared winning business plans for others. Now it was his turn to do for himself. If only he could identify an attractive business opportunity.

Mike actively reviewed the listing of businesses for sale in the local paper and the Wall Street Journal. He also networked with other professionals (i.e. bankers, attorneys and accountants) to seek out business opportunities. Franchises were considered as well as buying an existing business. Months went by and Mike still had no ideas.

In November 1995 Jost International, Inc. (Jost) ran an ad in the local newspaper inviting interested parties to submit a proposal to operate either a Kentucky Fried Chicken (KFC), TBCY or TBCY/Mr. Felds concession at the Charlotte/Douglas International Airport for a term commencing when the concessions were available for occupancy (expected to be January 1, 1996) through December 31, 2004. These concessions were to be part of a new food court built at the Airport. It was estimated that 6,100,000 passengers would pass by the food court each year in route to board their flight.

Mike contacted Jost to request additional information. Mike learned that Jost had a master lease to operate all of the concessions at the Airport. As part of its master lease agreement, Jost is required to sublease some of the concessions to local small businesspersons.

Mike's research revealed that the Airport is ranked 10th nationwide in total operations and 22nd nationwide in total passengers. In 1994 a total of 18,275,339 passengers utilized the Airport. In addition, the Airport employs approximately 10,000 individuals.

This opportunity looked attractive. It presented the opportunity to operate a well-established franchise in an airport environment. Mike had previously explored operating a KFC stand alone franchise. He had visited KFC headquarters in Louisville, KY. Unfortunately, there were a limited number of stores available at that time and all were located in the Northeastern part of the U.S. Mike was not interested in moving to any of these locations.

Mike was undecided regarding which concession to pursue. He decided to accumulate as much background information as possible on all three. He received franchise information and visited existing stores to determine staffing patterns and menu prices. It became readily apparent that food prices at the Airport were significantly higher than those of a stand alone operation.
After conducting preliminary research, Mike decided to pursue the KFC concession. Table 1 contains key information received from Jost and KFC. Note that there was no historical data regarding airport concessions since franchisers were just beginning to open them. The information provided by Jost and KFC represented their estimates of revenues and cost of goods sold. Jost based its estimates on airport demographics and experience operating other food concessions at airports. KFC based its estimates on average sales per store for existing locations. In addition, the rent to be charged was 15% of sales for each of the concessions. Mike also learned that royalties would be charged by the franchiser. The Airport would charge each concession for maintenance. This charge was expected to be 3.5-4.5% of sales. The average hourly wage rate paid to concession workers at the Airport is $6.00.

Table 1: Key Assumptions Provided by Jost and KFC

	Jost	KFC
Projected Sales	$700-750,000	$600-675,000
Cost of Goods Sold (% of Sales)	25%	28%
Annual Royalty (% of Sales)	10%	10%

Mike wasn't sure which estimates to use in preparing proforma financial statements.
The sales forecast was extremely important. Once projected sales were established, other expense items could be determined. He learned that he could expect payroll costs to be 20% of sales. Employee benefits would be 20% of payroll.

An investment of $425,790 was required to open the KFC concession. $15,700 of this amount was for equipment. Construction costs were expected to total $395,423. The remaining funds ($14,667) would serve as working capital. Construction costs would be depreciated over 31 years. The equipment would be depreciated over 7 years. The Airport would retain title to all improvements and equipment.

Mike would have to arrange his own financing. Neither Jost nor the Airport would provide any financing assistance. Mike had approximately $50,000 to invest in the deal. He also had a family member who was willing to provide some additional capital.

SELECTING THE APPROPRIATE ARTIFICIAL NEURAL NETWORK TO MINIMIZE AUDIT COSTS WHEN ASSESSING THE FINANCIAL VIABILITY OF AUDIT CLIENTS

Harlan Etheridge, University of Louisiana at Lafayette
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ABSTRACT

Auditors are required by generally accepted auditing standards (GAAS) to evaluate the financial viability of audit clients when conducting an audit. GAAS also require that auditors supplement their professional judgment with analytical techniques during audits. Consequently, auditors have turned to decision tools such as artificial neural networks (ANNs) when evaluating client financial viability to ensure compliance with GAAS. However, auditors may not be aware that different types of ANNs may not be appropriate for use when evaluating the financial health of audit clients. This study examines the performance of different ANNs, categorical learning ANNs, probabilistic neural networks, and backpropagation ANNs, in evaluating firm financial viability. The study also explains why the rates of type I and type II errors and their relative costs must be considered when selecting an ANN to use in audit engagements.

The results of the study indicate that estimated cost to use categorical learning ANNs is less than that of either probabilistic neural networks or backpropagation ANNs when examining the financial health of firms. This is the case even though the categorical learning ANN used in the study had the highest overall error rate of the three ANNs used in the study.

RES IPSA LOQUITUR: POLITICAL AND ETHICAL RESPONSE TO LEGAL DEBATE

Bernie O'Connor, Eastern Michigan University

ABSTRACT

Among the most problematic of legal doctrines for today's business community is that referred to as res ipsa loquitur, a phrase literally rendered as "the thing speaks for itself." Black's Law Dictionary offers a succinct description of res ipsa as "a rule of evidence whereby (the) negligence of (an) alleged wrongdoer may be inferred from (the) mere fact that (an) accident happened." Black's continues the traditional recital of core elements, noting that the cause of injury must be under the exclusive "management and control" of the alleged wrongdoer, and that no possible culpability may be traceable to the victim. The presumption is that had the one exercising control also exercised proper care, it becomes reasonable to deduce that no accident would have occurred. Ergo, the defendant should be held liable.

Res ipsa's focus is upon the weight of purely circumstantial factors. On the basis of inference drawn from circumstance, various organizations and corporations find themselves responsible for staggering judgments. Health care facilities, the transportation industry (especially related to aviation), pharmaceutical companies and manufacturing firms are targeted on an habitual basis. Naturally, what follows are efforts by the commercial and public service sector to counter the impact of this rather tenuous legal assailant. The result is a confusion of blurred concepts, dubious precedent, vague rationale and academic controversy.

The author of this study has researched some thirty years of cases arising from those state courts which comprise the federal sixth circuit. Judicial decisions rendered in Michigan, Ohio, Kentucky and Tennessee afford a range of content which parallels legal thinking elsewhere throughout the country. That compendium of decisions also provides a volume and diversity of scenarios sufficient to enable a comprehensive view of the manner in which res ipsa is judicially applied. In summary , this unprecedented analysis of these court decisions reveals that res ipsa surfaces with regularity within the lower court system, but is invariably rejected by the Appeals and Supreme Court levels. Res ipsa, from the perspective of sheer pragmatism, is a menacing waste of judicial resources; time, energy , expenditure and attention. On the surface of the debate about res ipsa's legitimacy and worth, there is no indication that the doctrine exhibits a function or purpose that can be considered as remotely beneficial. However, while these four states' higher courts appear not to have sustained a single res ipsa claim in three decades, the doctrine manages to linger.

Secondary sources of legal clarification also fail to resolve the res ipsa dilemma. For example, legal dictionaries, law school texts and law review articles, display little more than a tendency to repeat res ipsa's component traits, together with the frustration of authors who try to discern a logic amidst futile attempts to endow res ipsa with meaningful substance. At this point, common sense seems to suggest that res ipsa should be permanently assigned a status of antiquated curiosity, rather reminiscent of that bygone era which extorted confessions under torture. Like res

ipsa, such a practice is so alien to our modem sensibilities that it is as absurd as it is arcane. But the nagging question remains. Why does res ipsa survive in defiance of apparent reason and utility?

An answer may reside in the political and ethical implications pertinent to res ipsa. For example, there is the issue of whether or not potential use of res ipsa is superseded by such statutory developments as assumption of risk and contributory negligence. Then, too, is it simply that legislatures are so inherently conservative that they cannot help but to resist formally abolishing a doctrine that might well justify itself in the very next complaint asserting negligence? Or is res ipsa shielded because legislators implicitly apprehend that res ipsa symbolizes other principles which are basic to our overall campaign for a balanced legal identity? This author examines that possibility. The conclusion is that the debate about res ipsa has hitherto centered solely upon the limited efficiency of res ipsa. But said debate may overlook that any bid for legal reform automatically challenges the legal community to ponder how its doctrines -including that of res ipsa -may still embody premises and values that are intrinsic to our fundamental perceptions about democracy. This could account for res ipsa's survival, since it may succeed in reflecting some measure of the tenacity and character of our nation's political instincts and will.

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