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CREATING A NEW TYPE OF STUDENT MANAGED FUND USING PEER-TO-PEER LOANS

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ABSTRACT

Finance students can experience real-world challenges and enhance their learning by running an investment fund. However, most of the student-managed funds that currently exist are relatively large, equity-focused portfolios; few funds concentrate on debt, since fixed-income investing usually requires larger investments and higher expenses. In this paper, we present a new type of fixed-income fund: a peer-to-peer lending portfolio, run through the Prosper Marketplace electronic platform. Such portfolios can be hundreds of times smaller than even the smallest traditional student-managed funds. Using Prosper, business programs of almost any size can offer students the educational experience of running an investment fund.

JEL: A2

KEYWORDS: student-managed funds; peer-to-peer lending

INTRODUCTION

Finance students can gain great insight from managing their own funds. Although both students and their faculty advisors note that running a fund takes a lot of time, they also report that the experience of running real money in real time creates an understanding impossible to gain from a textbook alone (see, for example, Clinebell, *et al.*, 2008; Morgan, 2008; and Peng *et al.*, 2008). The impact of this experience is underscored by the rising popularity of student managed investment funds (SMFs): while there were only about 30 SMFs in the early 1990s, there are more than 200 today (Peng, *et al.*, 2008).

However, most of these extant student managed funds are equity funds. Incorporating fixed-income has proved unwieldy, since these assets tend to be very large and expensive to trade. In this paper, we discuss a new type of fixed-income fund, whose assets are Prosper peer-to-peer (P2P) loans. Prosper loans can be as small as $50 each, so creating funds of these loans should be possible for even the smallest business program. No special infrastructure is required, only internet access. Since students need not devote considerable time to learning the platform, which extrapolates almost seamlessly from popular social networking sites, they can concentrate their efforts on analysis, counterparty evaluation, and portfolio construction. Prosper lending thus offers unique opportunities: to students, who can experience debt trading in a cutting-edge, rapidly growing OTC marketplace; and to small schools, which may lack the resources to provide such an experience using the traditional equity-focused, infrastructure-intensive SMF model.

The paper proceeds as follows. In the next section, we briefly review the literature on student-managed funds. We also describe the Prosper electronic marketplace and survey the recent literature on Prosper, noting salient relationships to the more general work on microfinance. In the third section, we link our new SMF model to standard finance curriculum, illustrating how running a Prosper fund can enrich and support students' learning. In the fourth section, we provide details for our fund, the Four Horsemen Investment Fund, explaining our unusual business form and our lending strategies. We summarize our findings in the final section.

LITERATURE REVIEW

Student Managed Funds

The rapid spread of SMFs has been noted even in the popular press: as Gullapalli (2006) reported in the *Wall Street Journal*, "Once an anomaly, student-run investment funds are taking off as a teaching tool everywhere from the University of Texas at Austin to Cornell…" However, the funds that are "everywhere" are usually very large and focused on equity. Small, debt-concentrated funds, on the other hand, are almost nonexistent.

The equity bias of SMFs is clear from the results of recent surveys of these funds. For example, in Neely and Cooley's (2004) survey of 61 SMFs, there are only four funds (6.6%) that are restricted to bonds. Of the other 57 funds that may invest in domestic equity, only 17 may also add bonds. Thus, at least two-thirds of Neely and Cooley's funds are effectively equity-only. Similarly, Peng, *et al.* (2008) find a strong equity bias in their 35-fund sample: 98% of their funds have at least a 60% weight in equity, 69% of the funds have at least a 90% weight, and almost half, 49%, are equity-only. Only one of their funds has no stock—a fund that is required to invest solely in debt by the terms of its initial funding. In contrast, Morgan's (2008) survey has more debt-only funds: in his sample, "14% behave as if they are bond or fixed income funds," with seven funds fully invested in fixed income and cash assets.[1] However, even in this survey, 2/3 of the sample funds "act as equity funds even though some are allowed to acquire bonds." Morgan concludes that while "there is a rising interest in fixed income student-managed funds… there are currently only a handful of pure fixed income funds operating in U.S. universities."

The fixed-income funds that do exist are larger than their equity counterparts. For example, all of Morgan's "pure" fixed income funds had more than $1 million in assets, with one fund (Iowa State University's) having around $100 million. For comparison, only one-third of Peng *et al.*'s (2008) equity-heavy sample exceed $1 million. Their median fund size is $460,000; 18% of these are below $100,000, with the smallest at only $21,000. Neely and Cooley's (2004) results are similar: they estimate the "current modal value" of SMFs to be between $200,000 and $400,000, with a range of initial funding of between "less than $50,000" to $1 million. $1 million, then, is an important reference for both equity and fixed-income funds: for equity, it serves as a near-upper limit; for debt, however, it is a minimum. Morgan (2008) sums up these relative sizes by concluding that fixed income funds are "at least double or triple the size of equity funds."

Morgan attributes this size discrepancy to the underlying challenges of managing bond portfolios. For example, while the bond market may be less volatile than the stock market, it is also much less liquid and less transparent. There is less readily available information on bonds, and bonds' round-lot size is large (a minimum of $5,000 in par value). These challenges translate into higher fixed transactions costs and management expenses for bond portfolios than for equity portfolios, expenses which may be only manageable for very large funds. Thus, the existence of only a few, very large, student bond funds may be a consequence of the greater inherent difficulties of running fixed-income portfolios. We now consider how using Prosper can alleviate these difficulties.

The Prosper Marketplace and Microfinance

Prosper is an on-line, peer-to-peer lending platform launched in 2006. While there are now several other similar sites (for example, Freedman and Lin, 2008b, note that twelve such sites have opened around the world in the past three years), Prosper was the first in the U.S. It currently has about 750,000 registered members, both lenders and borrowers. So far, these participants have contracted for more than $160 million in loans, at an average size of about $6,300. As with online dating sites, not every would-be participant is successful on Prosper: fewer than one in ten posted loan requests are actually funded, which

Freedman and Jin (2008b) interpret as evidence of credit rationing. However, the lenders and borrowers who do negotiate successfully for loans may benefit from Prosper's P2P platform, splitting the spread they would otherwise pay in a traditional intermediated market.

Individuals who want loans post a "listing," noting the amount of money they want (from $1,000 to $25,000) and the maximum interest rate they are willing to pay. Before April 15, 2008, they would also specify the number of days that the bidding would stay open, from three to ten days; now, however, all loans are open for seven days. (They may also choose an "automatic funding" option, which stops the auction when enough bids have been received to fund the borrower's entire requested loan amount. Borrowers who choose this option lose the potential benefit of the auction process, because their loan rate is set at the maximum rate they specified in their listing.) Listings also note a borrower's (self-reported) income, occupation, and employment status. Borrowers may add additional information to entice lenders: for example, they may add pictures, other background information on themselves, or descriptions of their plans for the money.[2]

Prosper pulls each potential borrower's credit report, then assigns her one of seven credit grades based on her Experian ScorexPLUS[SM] credit score, which ranges from 300 to 900. Prosper assigns credit grades based on score ranges; for example, borrowers with scores above 760 are rated AA; those between 520 and 559 are rated HR ("high risk"). Borrowers with scores below 520 are not allowed to post listings on the platform. Lenders see only Prosper's credit grade, never the actual credit score. (This may lead to a "lemons" problem, where only lower-quality borrowers within a credit range choose to list on Prosper. Indeed, Freedman and Lin, 2008b, find evidence consistent with such a problem: over time, more listings and more loans on Prosper are at the lower end of each credit grade.) Summary information from the credit report is included in the listing, however: for example, the number and age of open credit lines, the bank card utilization ratio, and any delinquencies. Prosper also calculates and reports a debt-to-income ratio for the borrower, using her self-reported income and the debt amounts from her credit report.

Lenders on Prosper can be individuals or institutions. Lenders bid on listings, specifying the amount of money they will lend to a particular borrower (with a minimum of $50) and the minimum rate they will accept. If the total of all lenders' bids on a listing equals or exceeds the amount the borrower requested ("full financing"), the loan will be made, with the rate set at the lowest rate acceptable to the winning lenders. There may be hundreds of winning bids per listing: for example, in 2007, an AA-rated borrower's request for $25,000 garnered 498 bids, 201 of which won. The winning bidders lent between $50 and $1,500 each, at a rate of 11.74%. The 297 bidders who were shut out had bid for rates between 11.75% and 15%.[3]

Despite the terminology, lenders do not really "lend." Instead, they buy "notes" from Prosper. Prosper issues these notes—one for each winning bid—after it funds the loan. Thus, Prosper is an intermediary, first lending its own funds to borrowers whose listings have garnered sufficient lender bids, then selling notes in the amount of that loan to the winning bidders. Notes are "three-to-five year, unsecured, fully amortizing credit obligations of individual borrowers," which are "without recourse to Prosper" (Prosper, 2007).

Lenders and borrowers may know each other only by "screen names," pseudonyms that they adopt for use on Prosper. Participants may choose to reveal their identities, however; for example, they may identify themselves as "friends" of other participants. They may also choose to form groups, using as criteria for membership any "common interests, including social, cultural, ethnic, professional, athletic, religious, or any other official or unofficial affiliation" that they wish (Prosper, 2007). Borrowers and lenders may belong to only one group at a time. Prosper rates each of its groups based on the repayment history of its members. Thus, being a member of a group with a good rating may help a potential borrower draw more favorable bids. A borrower's group membership also may translate into better

performance for the lender; in its prospectus, Prosper states that it "believes that the group structure may positively influence Borrowers' Loan repayment performance, in that Borrowers in groups may be less likely to default since default would negatively affect the group to which they belong."

Thus, Prosper believes that group membership may inspire "consciousness of kind" and a sense of moral obligation (Herzenstein, *et al.*, 2008). This can be important for a borrower, since it is otherwise difficult to develop a positive reputation on the platform: Prosper limits borrowers to two outstanding loans, and—at least at this point—the three- to five-year terms of the loans are longer than Prosper's entire history. As Herzenstein *et al.* (2008) note, "Creating trust is relatively difficult in P2P lending communities…[borrowers] must convince lenders that they can be trusted and will repay the loan *before* they have the opportunity to demonstrate trustworthy behavior."[4] Given this difficulty, Prosper's group approach may "help identify good risks, enforce on-time payments, and expand the market beyond the reach of traditional banks" (Prosper, 2007).

Prosper's emphasis on peer relationships and group membership demonstrates a "microfinance approach" to lending (Freedman and Jin, 2008b). The literature on more traditional microfinance thus informs our expectations for the success of Prosper's strategy. For example, La Ferrara (2003) discusses "collective responsibility," illustrating how group membership can facilitate credit flows within a community. Using census data from Ghana, she shows that members of kinship groups lend much more frequently to each other than to "outsiders," and at lower rates. (For more on preferential lending within "insider" groups, see Udry, 1994.) Trust is built partially through "reciprocity," which results in intergenerational lending: a lender is more likely to help the offspring of a family who helped him in the past. Penalties for past default can also punish later generations; thus "social collateral" helps ensure current repayment. This type of enforcement mechanism works better in close-knit groups than in more general lending situations, and requires that actions are publicly observable. However, it allows for cooperation even in short-term interactions, and among different subsets of group members. Thus, this type of enforcement may be relevant within Prosper groups, whose reputation depends heavily upon the repayment behavior of past loans, whose members share information freely and publicly, and whose direct peer-to-peer interactions are relatively short-lived, one-shot deals.

Freedman and Lin (2008b) study this type of social enforcement on Prosper, and, consistent with La Ferrara's "kinship" observation, find it may work best when group members have offline ties. They observe better loan performance and higher returns to lenders when loans are made to members of small, less borrower-concentrated groups—especially if the groups are formed through alumni or other "tangible" connections—and if loans are largely funded by other group members.[5] They also show that listings with *friend* endorsements and bids are much more likely to be funded and to have lower interest rates than are other loans, and are much less likely to default.

These sorts of microfinance characteristics are features of the "democratized," P2P Prosper market, and differ substantially from traditional considerations in traditional lending. Students running a Prosper portfolio must therefore look beyond the traditional "five Cs of credit" when choosing which loans to fund.[6] We will discuss more of the unique aspects of Prosper lending in section four. First, however, we consider how a student managed fund based on Prosper loans can enrich appreciation for more standard topics throughout the finance curriculum.

USING A P2P STUDENT MANAGED FUND TO ENRICH THE FINANCE CURRICULUM

All student managed funds offer experiential learning opportunities that enhance student learning. However, basing a fund on Prosper's electronic P2P platform changes the customary SMF opportunity set, allowing unique applications for both basic and advanced finance course material. For example, for personal finance courses, instructors can use Prosper loan disclosures to illustrate consumer credit laws

(such as the federal Truth-in-Lending Act's Regulation Z disclosure requirements), or to compare these P2P loans to other types of consumer lending (such as payday loans). Students working with Prosper will also learn the importance of their credit history. Prosper's relies on credit reports to determine borrowers' credit grades; students, in turn, use these grades to determine a borrower's eligibility for the portfolio. By examining Prosper's highlighted credit inputs, students will learn about the types of data collected in a credit report, about the three agencies that maintain credit files, and about the many types of credit scores. For example, the Experian score that Prosper uses is a proprietary product "built for predicting risk on new accounts for all types of traditional consumer credit products"; students should contrast the range and inputs for this score with those associated with the more familiar FICO credit score.

Perhaps more pedagogically interesting than these personal finance applications, though, are Prosper's potential ties to the traditional finance curriculum. In this section, we highlight some of these broader curricular opportunities.

Links to Introductory Corporate Finance Courses

Instructors of introductory survey courses can use a Prosper portfolio to illustrate basic time value concepts, interest rate risk, and default and liquidity premiums. Prosper's loans are fixed-rate, fully amortizing loans, with no prepayment penalty. To illustrate basic time value principles, students can be asked to find the required monthly payment, the balanced owed after any scheduled or special payment, and the number of required payments remaining. (See, for example, Ross *et al.*, 2007, Chapter 5.) They may also verify Prosper's posted rate for resales, which is described as "the effective rate that corresponds to the offered sale price." They can justify Prosper's daily compounding interval with its monthly payment schedule. Finally, they can explain why Prosper stipulates that, on the resale platform (which we discuss below), "[t]he minimum offered sale price may not exceed the sum of (i) the total of all remaining monthly payments of principal and interest on the Note, plus (ii) accrued but unpaid late charges."

From the basic time value problems, students can begin to appreciate interest rate risk. For example, Prosper notes that when rates fall, lenders may not be able to reinvest at comparable rates if borrowers repay early—that is, lenders suffer from reinvestment rate risk. (Instructors may also take this opportunity to link this risk of prepayment to the comparable risks of securitized assets such as mortgage-backed securities.) Conversely, if rates rise, the fixed return on its notes may "not reflect the full opportunity cost to you when you take into account factors such as the time value of money." Thus, lenders holding their notes to maturity may suffer loss of purchasing power, while those who sell early on the resale platform face the risk of price declines.

In addition to time value principles, foundations courses usually consider the components of interest rates, such as liquidity and default premiums. (See, for example, Ross *et al.*, 2007, Chapter 6.) It is often difficult to illustrate the liquidity premium, but Prosper's 2007 prospectus offers a clear example. This prospectus is primarily associated with the launch of Prosper's "resale platform," a proposed market for previously issued notes. Once this secondary market is established, initial lenders who have held a note for at least three months will be able to sell it, in full, to another lender. (Once the note is trading on the resale platform, there will be no further holding period requirement.) The success of this platform depends on its liquidity, so liquidity issues figure prominently in the prospectus's discussion of risk factors. For example, the prospectus warns that large notes may be "difficult or impossible" to sell. Students should evaluate how the size of the note, the size of the full Prosper market, and the generally illiquid characteristics of debt affect the return that participants will realize.

Default risk is even easier to illustrate. Also in its prospectus's "risk factors" section, Prosper notes that "Borrowers may not view person-to-person lending obligations…as having the same significance as other

credit obligations arising under more traditional circumstances, such as loans from banks." This sort of statement should be sufficient to illustrate the need for a default premium in the stated loan rate. However, if instructors wish to dig deeper, they can link these risks of P2P lending to economic fundamentals. For example, Freedman and Jin (2008a and 2008b) note that internet lending entails significant information asymmetry, which may result in adverse selection (for example, a borrower may choose to list on Prosper because she is in the lower, "lemon," half of a credit grade; once there, she may choose to list a higher maximum rate, knowing that she will not repay the loan), moral hazard (a borrower may take risky actions even if that makes it less likely he can repay his loan), or even complete market breakdown. (In fact, Freedman and Lin, 2008b, find that Prosper loans perform much worse than Experian loans of comparable credit grade, which they attribute to these sorts of "severe" information problems.) Potential borrowers with lower credit profiles may also systematically migrate to Prosper from traditional lending venues, if they perceive the lending standards on Prosper to be more lenient (perhaps because lenders there are less savvy in evaluating credit risk than professional lenders). Students should be able to assess the qualitative effect of these risks on the stated rates determined for Prosper loans, relative to traditional consumer credit like bank or credit card loans.

Links to Advanced Courses

Running a portfolio of Prosper loans will also introduce students to practical applications of more advanced finance principles. For example, there are straightforward links to advanced corporate courses, investment courses, and financial markets courses, as we discuss briefly here.

A borrower may take out additional debt after she borrows on Prosper; more debt can make it less likely that a borrower will repay her note. Instructors in advanced corporate courses can use Prosper's warnings to lenders (e.g., "if a Borrower incurs additional secured indebtedness, the Notes will be effectively subordinated to existing and future secured indebtedness to the extent of the value of any assets securing such indebtedness") to discuss financial leverage, subordination, the ability of real assets to support debt, the value of tax shields, and other capital structure issues. The personal-finance context of Prosper loans may make such issues more accessible to students, who are often overwhelmed by the traditional Modigliani/Miller development of such topics. (See, for example, Brealey, *et al.*, 2006, Chapters 17 and 18.)

Any student managed fund is a natural complement to investments courses. For example, running a fund dramatically illustrates the benefits of diversification. As Prosper's prospectus warns, "If you do not diversify your investments in the Notes by Borrower and credit type, you may increase your risk of Borrower defaults." A more interesting wrinkle of P2P for investments students arises in performance measurement: with a Prosper portfolio, students cannot easily use standard bond index benchmarks to assess the relative performance of their assets. Developing a custom benchmark, utilizing the default characteristics posted on the platform, would be an interesting student exercise. (See, for example, Bodie, *et al.*, 2008, Chapter 24.)

Perhaps the most exciting opportunities for pedagogy are for financial markets courses. The prospectus alone gives instructors the opportunity to discuss intermediation—which is Prosper's business—and the secondary markets, since the purpose of the prospectus is to create a platform for interlender trading of "old" notes. Prosper is also, of course, a novel example of OTC trading. Electronic trading platforms are becoming increasingly common (see, for example, Brown *et al.*, 2008). Prosper provides a useful link between students' (probable) experience with auction sites like eBay and modern securities trading platforms like Nasdaq, NYSE Arca,[7] and BATS.[8]

However, the most fruitful application of Prosper's technology is in the discussion of the primary markets. (See, for example, Fabozzi, *et al.*, 2010, Chapter 13.) Prosper's prospectus is a shelf

registration; students can use it to learn about Rule 415. The proposed new resale platform requires a holding period; students can relate this to the much longer seasoning period required under Rule 144. Higher-risk borrowers may gravitate to Prosper, as discussed earlier; students can compare this to high-yield issuers' attraction to 144A issues (see Fenn, 2000). Finally, Prosper's loans are allocated through an auction system; here, the linkages for markets students are especially extensive.

Instructors often discuss Treasury auctions in markets courses,[9] and students may already be familiar with eBay auctions. (See Freedman and Lin, 2008a, for a comparison of Prosper and eBay auctions.) Prosper's listing/bidding system is yet another example of this issuance method. Since all successful lenders receive the same yield in a Prosper auction, Prosper's system is comparable to the current, single-price Treasury process (where winning bidders all receive the stop-out yield).[10] Students can compare Prosper's system to other auction models, and to the strategies that participants might employ under them. For example, bidders may bid more aggressively under Prosper's single-price system than under a discriminatory system (like the Treasury's old system), where winning bidders receive the yield for which they bid. (See Stevens and Dumitru, 1996, and Bikhchandani and Huang, 1996.) Having noted some of the possible pedagogical links between the traditional finance curriculum and a Prosper loan portfolio, we turn now to the specifics of our student managed fund.

THE FOUR HORSEMEN INVESTMENTS FUND

Our fund's mission is education, not profit. The structure of the fund—its relationship to the curriculum, the nature of the initial funding, the role of the instructor, and the responsibilities of the students—helps clarify that the participants are *students*, not investment advisors. The process that the students use to screen loans and create the portfolio ensures that they learn investment principles, while also offering them the opportunity to further some of their own charitable goals. In this section, we discuss both the structure of our fund, Four Horsemen Investments, and the students' loan-selection process.

Fund Structure

Four Horsemen Investments (4HI) is an independent, not-for-profit entity funded by a donor for the express purpose of furthering students' education in investments. Students manage a portfolio of peer-to-peer loans. While there is a faculty advisor, students are solely responsible for lending decisions. This is consistent with the usual practice for SMFs: for example, Peng *et al.*, find that students in 56% of the funds in their sample are fully responsible for trading decisions, while professors never have this power.

Despite their control over the portfolio, the students managing our fund are not investment advisors. Investment advisors are required to register under the Investment Advisors Act of 1940; our students should not be . Clinebell, *et al.* (2008) note that there are several structural features of a student managed fund that help clarify its educational mission and thereby avoid the registration requirement.[11] The first is the fund's place in the academic curriculum. The authors describe four designs for a student managed investment fund: within the curriculum, the fund may be either the focus of a special credit-bearing class or an element of an existing class (such as investments); outside the curriculum, the fund may be part of a traditional extracurricular activity, bearing no academic credit, or part of an activity for which students are paid. Clinebell *et al.* note that paying students—even with a summer stipend for shepherding the fund over summer break—makes it very possible that they would need to register as advisors. Our fund is closest to the third, "club"-type structure: it is clearly outside the normal curriculum, and does not offer credit for any course. There is no remuneration for either the students or the advisor, and no expectation of any profit. Our students, therefore, do not appear to be acting as investment advisors, and should not need to register.

Our faculty advisors should not need to register, either. Since students make all of the investment decisions, the faculty advisors do not stray from activities that are "solely incidental to the practice of their profession." Teaching and overseeing extracurricular activities are part of a professor's normal professional purview; making investment decisions probably is not. Thus, although our advisors may retain veto power, the focus of their involvement, is teaching, so they should not need to register as investment advisors.

These registration interpretations are strengthened by the source of our funding. The money that will start the fund was a gift. The gift was specifically intended to be used for student lending on Prosper. The donor retained no rights to the funds; any return will remain in the fund. Clinebell *et al.* (2008) suggest that this type of donor funding, without expectation for professional management or investment return, helps avoid any liability issues. They view it as the "safest" approach for creating a student-managed fund.

A unique aspect of our donor funding is that it will be made to an independent 501(c)(3) organization, Four Horsemen Investments, not to our university. Carving out an SMF from an endowment is a common funding strategy for SMFs, but one that requires that the university bear fiduciary responsibility. In addition, student management of university funds may deter some potential university donors, who may not wish to have their money managed by students (Gullapalli, 2006).

We explored the traditional school-sponsored structure before deciding to form an independent entity to support our Prosper fund. Our university's administration was reluctant to permit a portion of the endowment to be managed by students,[12] and the risk/return history of these P2P loans appeared inconsistent with our institution's investment policies. Returns on Prosper portfolios have been comparable to those of savings accounts and CDs; Freedman and Lin (2008a) project that future Prosper returns will be around 6%. Thus, the suitability of these loans for the University of Puget Sound (U.P.S.) would appear to be governed by our Pooled Cash Investment Policy (as opposed to the policy governing our endowment, which calls for equity-like investments and expected returns). Our cash policy calls for "preservation of capital, maintenance of necessary liquidity, and maximization of investment return within appropriate risk constraints," none of which aligns with our expectations for our Prosper portfolio. No U.P.S. cash investment can exceed two years to maturity; all of Prosper's primary-market loans do. Until the resale platform is launched, there is no liquidity in this market. The risk and return associated with these loans depend upon the borrower characteristics chosen by the students; we cannot guarantee "maximization" subject to constraints, and may not even want to (since we are motivated by our educational mission). Thus, we will run our fund as an entity completely separate—in fundraising, investing, charitable outreach, and membership—from our university.

Student Involvement, Goals, and Lending Criteria

While Four Horsemen Investments is not officially affiliated with our university, the founding members are alumni and maintain strong ties to our business school. They will be making presentations to our investment club, hiring interns, and visiting finance courses. We expect that these contacts will generate interest in—and recruits for—4HI.

We plan to have students involved in the fund for at least two years. This two-year term corresponds with the U.P.S. finance curriculum, which begins in the junior year. Having members involved for two years also should allow them to observe problems with the loans they choose, since Freedman and Lin (2008b) show that Prosper loans are much more likely to "misperform"—default, make a late payment, or miss a payment—within the first 18 months. (After that, there is no significant increase in payment risk.) Finally, the two-year participation commitment should allow us to take advantage of the students' growth as lenders.

Freedman and Lin (2008a and 2008b) have shown that Prosper lenders change their behavior over time: they learn. For example, newer lenders tend to be more active than more experienced ones, and to concentrate their loans in extreme credit grades (AA/A and E/HR). As they mature as lenders, they migrate toward the middle-grade loans—B through D—moving to better credit grades if they experience a default. This learning is successful: "As lenders age, they clearly fund loans with a higher rate of return" (Freedman and Lin, 2008b). These successful, experienced lenders also become exemplars for novices. This is true not only for individual lenders, but also for cohorts, since, as Freedman and Lin (2008b) note, "new cohorts pick up the market trend." This cohort learning is facilitated by the now-numerous third-party websites that summarize Prosper's historical loan performance. Even Prosper itself has evolved in response to past performance (for example, by providing more information on borrowers, and by denying those with credit scores less than 520 access to the platform). We expect that our senior mentors will pass along these sorts of experiences to their junior protégés, so that we will be able to take advantage of both new-lender enthusiasm and experienced-lender learning as students cycle through the two-year program.

The founding members of the group have already demonstrated a commitment to such an approach. These students have identified two short-term and three long-term goals for the group, which are listed in Table 1. As one of their two short-term goals, they identified "positive reinvestments," which they described this way: "By analyzing the data we will acquire and by evaluating our experiences, we will be able to reinvest the money with the sound strategies we will gain from experience and research."

Table 1: Goals for Four Horsemen Investment Fund

Short-Term Goals	Discussion
create a legacy	We would like our endeavor to carry on to students in the future. We would like to set up a sound system of investing that allows future students to experience finance outside the classroom.
positive reinvestments	By analyzing the data we will acquire and by evaluating our experiences, we will be able to reinvest the money with sound strategies that we will gain with experience and research.
Long Term Goals	**Discussion**
create a scholarship fund	In the future, if this money could help fund a student's education, it would be being put to good use.
create a business experience fund	Money could be put toward other projects that would enhance learning. For example, it could help take students to conferences to present their research.
create an emergency discretionary fund	Money could be used to help students who come down with a sudden illness or get into any sort of accident.

This table lists and describes the goals determined by the founding members of Four Horsemen Investments.

The goals described in Table 1 also demonstrate clearly that our founding members have chosen to incorporate a charitable aspect in their lending. Charitable lending is not only consistent with the not-for-profit educational mission of our fund, it is also consistent with the behavior of many other participants on Prosper. Several authors note that some lenders, especially newer ones, enjoy the connection to "real people" that they get from Prosper's P2P network: Meyer (2006) describes this desire for connection as P2P lending's "anti-establishment twist."[13] Charity is also a feature of many other student managed funds, some of which explicitly incorporate social responsibility screens in their equity portfolios. For example, those at Villanova University manage their funds in accordance with the United States Conference of Catholic Bishops' Socially Responsible Investment Guidelines (Nawrocki, 2008). There is also a possible element of reciprocity, as in La Ferrara's (2003) microfinance/kinship study, since our founders wish to create a legacy, and hope that current borrowers within the student group become future donors and lenders.

Of course, if charity drives the loan choices, we may expect a lower return from the portfolio (Freedman and Lin, 2008b). However, we—like many SMF sponsors—are more concerned with furthering an educational goal than with generating above-average returns. (See Morgan, 2008.) Thus, the early

(relatively poor) performance of Prosper loans is not necessarily a deterrent to our lending (as it has not deterred other Prosper lenders, as documented by Freedman and Lin). However, our founding members nonetheless wish to make prudent loans, and have enumerated a set of criteria to guide their lending. For example, experienced Prosper lenders recommend lending no more than $50 to any borrower; we have adopted this limit as a guideline.[14] This allows us to be as diversified as possible, even with our small size. (This diversification requirement is consistent with those of other fixed-income funds concerned with preservation of principal; see Morgan, 2008.)   In addition, a majority of Four Horsemen's members must approve any loan before it is funded. The basic risk-management screens that will guide this approval are listed below in Table 2.

Table 2: Criteria for Initial Portfolio Loans

Criterion	Justification
no loans below credit grade C (below 640 credit score)	This was the consensus risk/reward cutoff.
no loans to borrowers with DTI above 20%	DTI > 20% signals too little available cash flow for loan service.
no loans for debt consolidation	"We do not want to become the new creditors they [borrowers] avoid."
no loans for start-up businesses	These sorts of loans were deemed too risky.
borrower must have been employed for more than 2 years at same job	Consistent employment signals stability. ("We like consistency.")
borrower should be a home owner	Homeownership also signals stability.

This table lists the lending criteria established by the founding members of Four Horsemen Investments. All quotations come from their project proposal (Glassman et al., 2008).

These criteria have been informed by the academic studies that have characterized lender learning during Prosper's first two years. For example, Herzenstein *et al.* (2008) show that Prosper listings are more likely to be funded as the starting interest rate rises, the amount requested falls, the listing period lengthens, the borrower's debt-to-income ratio falls, the detail in the explanation increases, and the borrower's credit rating rises. Borrowers are also more likely to have their loans funded if they are female, own a home, or are members of a group. Overall, financial metrics and effort measures are the most revealing features of a listing, while demographic factors are much less important (evidence, Herzenstein *et al.* assert, of P2P's "democratization" of lending). Ryan, *et al.*, 2007, find similar results.

Of course, our students are concerned with loan performance, not just loan funding. However, as Freedman and Jin (2008a) note, "the risk perception that lenders apply to key borrower attributes [and which presumably determines funding] is by and large consistent with how these attributes correlate with the loan's ex-post performance." Thus, by screening for borrowers with higher credit scores, lower debt-to-income ratios, and more stable jobs, our students expect our portfolio to perform acceptably well, even given its educational and charitable mission.

CONCLUSIONS

Many authors have documented the growth in student managed investment funds. These funds enhance student learning and enthusiasm through real-world experience. In this paper, we describe an unusual structure for such a fund: an independent, not-for-profit fund whose assets are Prosper peer-to-peer consumer loans.

Our fund is unique for several reasons. Most student-managed funds are run with some explicit connection to a university program; ours is independent, and is set up as its own not-for-profit entity. Debt-focused funds are rare to begin with, and ours, to our knowledge, is the only one of those that focuses on peer-to-peer lending. The debt funds that do exist are quite large; ours is extremely small, even relative to equity funds. Prosper's minimum loan size of $50 means that even the smallest schools

can create this type of fund, even if traditional types are out of reach. (The smallest fund in Neely and Cooley's, 2004 survey is *100 times* the initial size of our fund.)

The nominal infrastructure requirements add to the appeal for small schools. While there are twenty students, on average, running the fixed-income funds in Morgan's (2008) study, Prosper portfolios can be run with far fewer. Prosper's lender expense ratio (1% of the outstanding note balance per year) is higher than Morgan's average 0.4%, but infrastructure costs—i.e., internet access—are negligible. However, the minimal requirements do not translate into educational irrelevance: some projections put the P2P loan market at $9 billion by 2017. (See Herzenstein, *et al.*, 2008.) The new technology incorporated by Prosper, by itself, is an enticement for students: Brown *et al.* (2008), who let students use their own money to teach pit trading, find that "a combination of technology and direct participant interaction is most likely to be an effective [instructional] format. This provides the dual benefits of increasing students' enjoyment in learning the material while also making complex material less abstract and more intuitively accessible."

Thus, studying Prosper, the United States' oldest and largest P2P platform, not only teaches students investment basics, but also prepares them to understand and appreciate the tech-heavy P2P market's growth. Morgan (2008) notes that most existing fixed-income funds are based in "emerging" business schools—those competing with the "older, higher profile" schools. As fixed-income funds allow newer schools to compete with more established ones, so Prosper allows even the smallest schools to compete with the more well-endowed. Prosper offers an unusual opportunity for small business school: as Prosper democratizes lending, so may Prosper portfolios democratize student managed funds.

ENDNOTES

[1] It is difficult to determine the total number of respondents in Morgan's survey, but it appears that most of his tests involve between 10 and 15 funds.

[2] Through January 2008, Freedman and Jin (2008b) report that the most popular uses of proceeds mentioned in listings are consolidation of credit card debt (33%); funding of business (23%), mortgage (15%), or education (22%), "family purposes" (such as weddings; 20%); and repayment of payday loans (6%).

[3] This example was found on http://www.prosper.com/lend/, under "funded loans," accessed 2/12/09. Note that most loans end up effectively being "posted-price transactions," since lenders stop bidding once the listing amount has been reached, and the borrower ends up paying her listed maximum rate. For example, in Herzenstein, *et al.*'s (2008) sample, the correlation between final and starting rates is 0.99.

[4] Page 12; emphasis original. Also see Ye, *et al.* (2004) for a discussion of the role of "locally trusted third parties" in building trust in automated, resource-sharing P2P systems.

[5] However, they find worse performance for group loans versus non-group loans overall. This may be because before September 2007, Prosper used to compensate group leaders to new loans made to group members, which may have created the incentive for leaders to emphasize quantity over quality.

[6] The five Cs of credit are character, capacity, capital, collateral, and conditions.

[7] See http://www.nyse.com/equities/nysearcaequities/1156241406908.html for a description of NYSE Arca's electronic trading platform.

[8] See http://www.batstrading.com/ for information on the electronic BATS market.

[9] They may soon discuss auctions for more than Treasuries, as corporate issuers increasingly choose auctions over traditional underwriting. However, as the Google IPO illustrated, the technology for and acceptance of large-scale public auctions are not yet developed enough to pose a serious threat to firm commitment deals.

[10] The stop-out yield is the highest accepted yield in a Treasury auction. Freedman and Lin (2008b) assert

[10] that, on Prosper, "the prevailing rate is set as the minimum interest rate specified by the first lender excluded from funding the loan" (page 6). However, the discussion in Prosper's prospectus is more consistent with the interpretation that winning bidders receive the yield on the last *accepted* bid, not the yield on the first bid shut out.

[11] This discussion is not meant to provide legal advice. The conclusions we draw are based heavily on Clinebell *et al.* (2008), a work still in progress. However, given the large number of student managed fund that exist, and assuming that the participants in those funds are not required to register (registration is not mentioned as a requirement in the literature we have seen on SMFs), it seems obvious that it is possible to create a fund free of registration requirements. We are currently researching this point further.

[12] One of our financial administrators put it this way: "Student investments in the name of the university are problematic on many levels, including governance, policy, resources and time constraints, etc. A great deal of learning can take place with no-money investment clubs using virtual portfolios. Why not go this route?" (Davis, 2009)

[13] See, for example, Freedman and Lin, 2008; Herzenstein, *et al.,* 2008. For a discussion of the charitable motivations of other types of P2P lending, see Kristof, 2007.

[14] Particularly strong borrowers may be lent more than $50, if a majority of the Four Horsemen membership agrees.

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AN EXAMINATION OF A DIVERSITY CONCENTRATION FOR A GRADUATE LEVEL BUSINESS DEGREE PROGRAM

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Diversity has become an increasingly important issue in the business world as multi-cultural working environments become commonplace. Businesses, operating in today's global environment, require the ability to leverage diversity by utilizing knowledge and experiences from different groups of workers. A number of benefits are realized by organizations that embrace diversity. As business realizes diversity as a significant factor for organizational competitiveness, demand is created for professionals prepared to think critically about multifaceted diversity issues in the workplace. While the benefits of diversity in society are well established, business schools have not always actively incorporated elements of diversity into their curriculums. In this paper we conduct a survey of twenty-eight universities in Southern California. Our survey results indicate that a large portion of business schools do not incorporate diversity into their curriculum. We provide recommendations for how business schools might effectively incorporate diversity into their curriculum.

JEL: I21, J24, A23, 77

KEY WORDS: Diversity Curricula; Pedagogy; Teaching; Graduate; Education

INTRODUCTION

P reparing students for the diverse world ahead of them should be a key objective for universities that promote a global perspective in their business schools. Since the 1980s changing demographic trends have been a major factor in the emergence of corporate diversity initiatives. The foundation of diversity has been established in academics and the real world. Current trends demand a transition from concern with compliance to a consideration of the business case (Cox, 1994).

Promoting diversity education has moved from a prior platform of social justice to a platform of engagement at the academic level. In the United States, diversity has been conditioned by a historical legacy of social and racial heterogeneity. It has also been associated with tensions deriving first from slavery and then from mass immigration (Kurowski, 2002). This has influenced diversity through two main routes. Women and minorities drove the civil rights movement in the 1960s; this, alongside increasing racial and urban tensions transformed the political and legislative environment for business (Bond & Pile, 1998). While the need to prepare students for the new, ever-changing global marketplace has been established, surprisingly universities have been slow in responding to this need. There is a real lack of synergy in multicultural education curriculums (Lynch, 1989).

University business school curriculums must prepare the next generation to deal with the culturally diverse business world. Essentially the business case rests on the competitive advantage to be derived from three broad elements: attracting and retaining skilled workers, servicing increasingly diverse markets, and improving organizational creativity and learning (Cox, 1994). Culture and business are ever changing. Educating business school students in corporate change initiatives is a given. Recognizing that change is a constant element of cultural identities is equally as important (Solarzano, 1989).

Legislative measures and demographic trends have shaped employers' diversity strategies. By 2000, ethnic minorities were 29% of the total workforce, up from 22% in the mid-1980s, with blacks accounting for 14% & and Hispanic groups 10%. Women represented 47% of the total labor force, and were the majority among black groups (Ferner et al., 2005).

In the United States, and California, considered a microcosm of the global environment, the demographic trends point to a multi-cultural environment. Table 1, U.S. Government Census Data, Origin Demographics illustrates current origin demographics in the State of California and the United States. The concept of race as used by the Census Bureau reflects self-identification by people according to the race or races with which they most closely identify. These categories are socio-political constructs and should not be interpreted as being scientific or anthropological in nature. Furthermore, race categories include both racial and national-origin groups.

Table 1: U.S. Government Census Data, Origin Demographics, State of California and USA

U.S. Census Bureau	California	USA
White persons, percent, 2007 (a)	76.8%	80.0%
Black persons, percent, 2007 (a)	6.7%	12.8%
American Indian and Alaska Native persons, percent, 2007 (a)	1.2%	1.0%
Asian persons, percent, 2007 (a)	12.4%	4.4%
Native Hawaiian and Other Pacific Islander, percent, 2007 (a)	0.4%	0.2%
Persons reporting two or more races, percent, 2007	2.5%	1.6%
Persons of Hispanic or Latino origin, percent, 2007 (b)	36.2%	15.1%
White persons not Hispanic, percent, 2007	42.7%	66.0%
Foreign born persons, percent, 2000	26.2%	11.1%
Language other than English spoken at home, pct age 5+, 2000	39.5%	17.9%

The Census Bureau's Population Estimates Program (PEP) produces July 1 estimates for years after the last published decennial census (2000). Existing data series such as births, deaths, and domestic and international immigration, are used to update the decennial census base counts. PEP estimates are used in federal funding allocations, in setting the levels of national surveys, and in monitoring recent demographic changes.
The racial classifications used by the Census Bureau adhere to the October 30, 1997, Federal Register Notice entitled, "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity" issued by the Office of Management and Budget (OMB). The OMB requires five minimum categories (White, Black or African America, American Indian and Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander) for race. The race categories are described below with a sixth category, "Some other race," added with OMB approval. In addition to the five race groups, the OMB also states that respondents should be offered the option of selecting one or more races.

This is a transitional time for universities and the challenge is to move forward and reach beyond the traditional business school circulars, and forge into the future. It could be perceived as educational malpractice not to thoroughly prepare students to deal with the culturally diverse business atmosphere they will encounter. Incorporating the cognitive theory of understanding culture can only benefit business students. This involves an in depth look at thinking, teaching and emphasizes the importance of cultural differences (Fettermen, 1989). Universities must commit to a curriculum where cultural diversity and the global business world are intertwined.

Throughout this paper, we will explore the various issues surrounding cultural diversity as it relates to academics and business. This paper is structured as follows: examination of diversity as a business advantage, a review of cultural diversity concepts, definitions and current issues, followed by research that demonstrates the deficiency of higher education diversity curriculum offerings. In the end, the final considerations, limitations and future lines of research are addressed.

LITERATURE REVIEW

Coming to a true understanding of where diversity fits into our world and the business world is necessary (Locatelli, 2002). The importance of cultural diversity as it relates to business cannot be overlooked

(Fetterman, 1989). Since the sixties the concept of multicultural education has been promoted. In his book Education in a Multicultural Society, Fred Rodriguez (1983, p.3) states, "multicultural education recognizes cultural diversity as a fact of life in American society, and it affirms that this cultural diversity is a valuable resource that should be preserved and extended." What is significant about Rodriguez' statement is that cultural diversity is viewed as a precious resource. The benefit of multicultural education is developing and preserving that resource to be used to the greater good off all of us.

Research suggests that universities are not providing a curriculum that meets current or future business needs. Lynch (1989) indicates stagnation in progress towards embracing cultural diversity in academics. We have a responsibility to the global cause to recognize that education must cross cultural barriers (Garcia, 1998). While the subject of education and diversity in a global environment sounds like a worthy cause, it is also perceived as our duty to do so. Author Rosa Hernandez Sheets (2003), states that multicultural education is a responsibility to our children.

Definition of Cultural Diversity

Cultural diversity is defined as the differences among individuals and groups, which involve place of origin, age, language, physical abilities, gender, class, religions, professional occupation and academic knowledge (Parvis, 2003). Iowa State University's college of liberal arts and science defines diversity as being able to appreciate the differences in cultures, humanity and having respect for experiences that are unlike the ones we know (2009). If we are to understand diversity and the differences of culture, we need to begin with an exploration of that understanding. The benefits brought by cultural diversity in the workplace vary as each individual group tries to enhance the organization's objective with their own flavor of cultural background, lifestyle, vision and fulfillment of challenges.

In referring to the term culturally diverse we are referring to the qualities that make a person unique. Author Ricardo Garcia (1998), states that frequently diversity is thought of as something that deviates from the norm. If we define ourselves and cultural as normal, that the danger is every other cultural is not normal. We need to come to terms with being unique or different, isn't being abnormal according to Garcia (1998). Trying not to define normal but to understand others is the first step in beginning to open up the dialog for diversity. Education is the next step in valuing diversity.

Embracing cultural diversity at the academic level and in the business world, assumes a commitment to understanding differences. It would be arrogant to think that only one way or one culture is right, yet some educational perspectives have supported that view. Paul L. Locatelli (2002, p.1), states, "We have to understand how our lives are vitally linked to Earth and all who live on it." The implication is that we have a global responsibility to comprehending the differences that make us unique on this planet.

Effects of Cultural Diversity on Business Performance

Many trace the first significant attempts to rely on diversity to provide business benefits to 1987 when the Hudson Institute published its Workforce 2000 report (Skeet, 2003). The report's statistical analysis anticipated that the labor pool and population of the United States would become increasingly diverse. In addition, it identified a gap between employer demand and the number of skilled workers (Skeet, 2003). The implications were clear, if a company wanted to be competitive in the future, it had to become more diverse to attract talent and to satisfy a more diverse customer population. Indeed, according to the National Urban League study, companies which employed diversity initiatives generated 18% greater productivity than the U.S. economy overall (Peoples, 2004).

In 1991, Blake & Cox connected diversity with such business benefits as more creativity, higher productivity, and decreased costs. According to Blake & Cox (1991), diversity initiatives increase job

satisfaction of women and minorities. Higher job satisfaction decreases turnover, which, in turn, reduces costs. Thus, diversity initiatives result in lower costs (Blake & Cox, 1991). The benefit of increased productivity combined with added creativity is attractive to business.

Organizations' ability to attract, retain, and motivate people from diverse cultural backgrounds, may lead to competitive advantages in cost structures and through maintaining the highest quality human resources. Further capitalizing on the potential benefits of cultural diversity in work groups, organizations may gain a competitive advantage in creativity, problem solving, and flexible adaptation to change (Blake & Cox, 1991).

Ely & Thomas (2002) suggest that companies who take an approach to diversity that values all differences (differentiation) and those companies that take a "we are all the same" approach (assimilation) do not see a positive impact to their bottom line. Those companies who combine the two approaches into a learning and effectiveness paradigm do see an impact on the bottom line (Ely & Thomas, 2002). According to Ely & Thomas (2002), this paradigm connects diversity to approaches to work.

Connecting diversity to approaches to work is a skill set that must be acquired and developed (Diboye & Jayne, 2004). This skill set includes analysis, experimentation and learning methodologies, and group process skills (Bezrukova et al, 2002). These are skills that are developed in business schools (Porter, 2007).

Published in 2004, Leveraging Diversity to Improve Business Performance: Research Findings and Recommendations for Organizations by Robert L. Dipboye and Michele E.A. Jayne outlined factors that increased the chances of producing business benefits by leveraging diversity (Dipboye & Jayne, 2004). Companies who are adept at implementing diversity initiatives are more competitive for the best talent, more successful in satisfying a diverse customer base, and more adept at producing results from teams populated with a diverse set of employees (Diboye & Jayne, 2004).

Recently, a 2007 study outlined the specific factors that were more likely to increase diversity in the managerial ranks of a company (Dobbin, Kalev & Kelly, 2007). It was a study that was nuanced enough to distinguish between the types of training that produce benefits and the types that do not -- according to the study, training aimed at stereotypes is ineffective (Dobbin, et al., 2007). According to Dobbin, Kalev & Kelly (2007), when a company's managers are culturally aware, able to identify specific problems and remedies, buy-in to the goal of diversity, and feel accountable for the changes necessary to meet diversity goals - they are able to increase diversity.

ISSUES IN MULTICULTURAL EDUCATION

The global business world and economy confirm that the need for multicultural education is more relevant that ever According to Haskins and Kirk-Sanchez (2006). The ethnic minority population has increased tremendously over the last ten years. Latino and Asian groups make up the highest concentrations of the changing demographics (Haskins & Kirk-Sanchez, 2006). According to Barbara Bowman (1994), educational performance differences appear early in children from diverse backgrounds.

Education should provide a competitive edge for students to be able to compete in the global marketplace. According to James Ward (1992), there is an economic impact in how we respond to the demographic changes that indicate increasing populous of Hispanic, African American, and immigrants into our educational system and society. If we fail to respond from an appropriate educational standpoint, there will be a financial implication and well as a societal implication. According to Rodriguez (1983), the multicultural movement has not been well defined or understood. Author Christine Clark (2003), believes that multicultural organizational development is essential piece to making multicultural education work.

In truth academia is a distance away from true multicultural education and the concept of equal education for all. There is a crisis situation that has resulted from the problem of unequal educational opportunities (Jost, Whitfield and Jost 2005). The main issues of inequality in education have to do with race, social status and the school curriculum itself (Jost, Whitfield and Jost, 2005). The goal to achieve multicultural diversity is acceptance, respect and understanding of what makes us unique, and to value those differences. According to Guang-Lea Lee (2002), one challenge is in creating an educational environment that promotes respect for diversity.

Most educators agree that they would like to reach the goal of having a diverse multicultural curriculum that would bring the student together. Some are saying the problem of not achieving equal education and the lack of effective diversity education is because of the teachers themselves. According to Jost, Whitfield and Jost (2005) teachers often do not have the background, knowledge or historical reference of the various cultures to fix the inequities.

Cultural self-identity development is formed in the educational environment (Garcia, 1998). Education has a key role and a responsibility in creating a multicultural society. This is the reason that a program that embraces and teaches cultural diversity in an effective way is so important. Garcia (1998) believes that there is a problem of elitism that affects curriculum in the schools.

Elitism is not intentional, but a by-product of the way teachers were trained as well as their own biases. Being able to openly address the problem and work together to improve it is what is important going forward. Embracing diversity needs to start with education.

Diversity Education in Business Schools

Are universities responding to the cultural diversity need, and how do executives and managers develop diversity competencies if their company is not providing opportunities beyond training aimed at eliminating bias or eliminating reliance on stereotypes? Unfortunately, they cannot rely on business schools. Not surprisingly, business school curricula are filled with classes on finance, management, accounting, and leadership. Some of those schools also contain concentrations on so-called soft skills such as human resources and communications.

Business schools teach students concepts and how to apply those concepts within the context of a company's organization and people (Cabrera, 2009). They also teach students about leading and managing teams (Alsop, 2005). When diversity concepts are taught in business schools within the framework of these factors, the likelihood that a student will evolve into a manager who is capable of producing business benefits from diversity initiatives is increased.

When a student learns about diversity concepts in a business school environment, and when he or she learns to apply those concepts within specific business factors such as organizational culture, strategy, environment, and people, the future manager is more diversity competent.

And if, as Alsop (2005) suggests, the corporate world depends on academic institutions to supply it with qualified people, then business schools are already in a position to provide corporations with the people they need to leverage diversity into a positive impact on the bottom line.

Moreover, business schools are already developing people with the right skill set to be successful in the diversity arena; the problem is they are not, as Ely & Thomas (2002) suggest, connecting that skill set to diversity.

But there is another reason business schools can be a key player in producing benefits from diversity initiatives. Business schools are uniquely positioned to help companies redefine what constitutes both a "societal good" and "good business" (Gabor, 2008) and thus, are able to overcome the criticism of diversity as a cynical attempt to meet equal opportunity and affirmative action goals (Harrell et al., 2008).

Unfortunately, business schools aren't producing graduates who are diversity competent. A curriculum review was conducted of each of the 28 universities throughout the State of California, accredited by the Association for the Advancement of Collegiate Schools of Business, that offer undergraduate degrees in business and/or management none include diversity as a concentration or area of specialty, only nine include a course in diversity, none offer more than course.

If California is any indication, diversity is not a skill that is being widely taught in business schools. California is the most diverse state in the United States. If any state would be home to business schools with a strong emphasis on teaching diversity skills, it would appear to be California.

This omission is not explained by the fact that diversity is a soft skill; communication is a soft skill and at least 20 of those same business schools offer a course in communication. Nor is this explained by the fact that diversity is people-oriented; almost all of those schools offer at least once course in human resources management and nearly half offer a concentration in human resources.

Is the lack of diversity concentrations and courses in business schools due to the fact that executives don't value diversity enough? That may be a partial explanation. When diversity is little more than sensitivity training or a defense to discrimination lawsuits, diversity is not being fully valued. But the actions and comments of some Fortune 500 companies seem to indicate that diversity is valued.

Does Business Value Diversity in Higher Education?

In examining twenty of America's largest and best-known corporations filed a legal brief strongly supporting the University of Michigan in a lawsuit challenging its admissions policies.

The brief argued that diversity in higher education plays a critical role in preparing students to be leaders in business and other pursuits that affect the public interest.

The brief stated that racial and ethnic diversity in institutions of higher education is vital to the corporations' efforts to hire and maintain an effective workforce. A diverse learning environment in colleges and universities promote the development of a highly skilled, diverse workforce prepared for the opportunities presented by a global economy, said the friends of the court brief.

"Steelcase's success as a global company is dependent on our ability to hire people who have experience in and are knowledgeable about working in a diverse environment with diverse ideas and with people from all walks of life. Without a strong commitment to diversity from the world's leading academic institutions, it will become more and more difficult for multi-national corporations to compete at the global level," said James Hackett, CEO of Steelcase.

But do people develop diversity competencies, as Mr. Hackett suggests simply by being in a diverse environment? Diversity is a complicated subject and can be perceived differently in an academic versus a corporate environment. In addition to a strong commitment from academic institutions, the proponents of diversity point to published research that indicates a correlation between a company's commitment to diversity and a positive influence on its bottom line.

However, a more detailed look at the research indicates the results are more mixed. There are some companies who make a commitment to diversity who do not see any positive impact on their bottom line. Other companies do. What is the difference?

Research suggests that companies who take an approach to diversity that values all differences (differentiation) and those companies that take a "we are all the same" approach (assimilation) do not see a positive impact to their bottom line. Those companies who combine the two approaches (integration) do see an impact on the bottom line. Among other things, what this research demonstrates is that leveraging diversity is a skill set and it is a skill set that must be acquired. If it is not acquired through one-day seminars, then how is it acquired?

Managing Diversity is a multi-billion dollar proposition (Hansen, 2003). According to Diboye & Jayne (2004) $8 billion is spent annually on diversity training alone. Another $400-$600 million annually is spent on diversity consulting fees (Hansen, 2003). In their quest to satisfy legislative requirements, improve business performance and seek competitive advantage, billions of dollars have been spent by corporate America on diversity initiatives in the past 20 years.

But there is an alternative; if as the amicus brief in the University of Michigan case suggests, the corporate world depends on academic institutions to supply it with qualified people, then business schools are also in a position to provide corporations with the people it needs to leverage diversity into a positive impact on the bottom line.

An article on the CNN website recounted how businesses are looking to business schools to fill their need for expertise in the use of business intelligence (Walker, 2006). Similarly, businesses looking to improve the return on their diversity investment could do worse than to look to business schools to produce executives and managers who have the knowledge and skill to leverage diversity.

DATA AND METHODOLOGY

To determine the extent to which universities incorporate diversity into their curriculum, we conducted a survey of universities. Universities located in the Southern California area were selected for inclusion in the study; specifically, universities within a 50-mile radius of Azusa Pacific University were surveyed. Schools identified as universities, although lacking traditional business degrees were also included. The inclusion of universities offering non-traditional degrees into the survey allowed us to determine if non-traditional universities were more effective in incorporating diversity into their curricula.

The survey was conducted by examining the curriculum materials posted on the website of each university. In instances where the website was incomplete or unclear, a telephone call soliciting information was placed to the university. All survey data, website examination and telephone calls, were conducted from April through July 2009. The survey resulted in a net of twenty-eight usable observations.

Schools were classified based on the number of students that attend the university. Specifically, universities were grouped into the following categories: enrollment of 0-1000 (Table 2), 1000-9999 (Table 3), and 10,000 and beyond. This classification allows us to determine if larger schools, that presumably have larger budgets and additional resources, have been more effective in incorporating diversity into their curriculum.

RESULTS

To assess diversity curriculum offerings, research was conducted by Helm, Hunt, and Wallace (May through July, 2009). Results of our survey are presented in Tables 2, 3, and 4. The research provides information about diversity curricula in higher education schools with student enrollment of 0-1000 (Table 2), 1000-9999 (Table 3), and 10,000 and beyond (Table 4).

The results for schools with less than one thousand students, presented in Table 2, indicate that none of the universities included in the survey offer either a diversity concentration or degree. The results of the survey for schools having 1,000-9,999 students are presented in Table 3. The results indicate that none of the universities surveyed offer a diversity degree. However, one southern California school, Azusa Pacific University, does offer a diversity concentration. The results of the survey for schools having 10,000 or more students, presented in Table 4, show that none of the schools surveyed offer either a diversity concentration or degree.

Overall, the results indicate that, regardless of size of the university, there is a lack of diversity curricula in both diversity concentrations and degrees. Southern California universities have not been effective in incorporating diversity into curriculum. The results in Table 2, 3, and 4 demonstrate the lack of diversity curriculum offerings by higher education.

Table 2: Student Enrollment 0 – 1000 College Listing, State of California, July 2009

College Listing	City	Student Enrollment		Diversity Curriculum	
		Undergraduate	Graduate	Degree	Concentration
American Jewish University	Los Angeles	200	100	NO	NO
Antioch University Los Angeles	Culver City	110	0	NO	NO
Bethesda Christian University	Anaheim	245	0	NO	NO
California Design College	Los Angeles	N/A	N/A	N/A	N/A
California National University for Advanced Studies	Northridge	355	0	NO	NO
California University of Management and Sciences	Anaheim	75	32	NO	NO
Charles R. Drew Univ. of Medicine and Science	Los Angeles	214	40	N/A	N/A
Columbia College: Hollywood	Tarzana	N/A	N/A	NO	NO
Concordia University	Irvine	1331	N/A	NO	NO
DeVry University: Sherman Oaks	Sherman Oaks	573	142	NO	NO
Harvey Mudd College	Claremont	738	N/A	NO	NO
Hope International University	Fullerton	652	N/A	NO	NO
Interior Designers Institute	Newport Beach	515	N/A	N/A	N/A
ITT Technical Institute: Anaheim	Anaheim	825	N/A	NO	NO
ITT Technical Institute: Torrance	Torrance	875	N/A	NO	NO
LA College International	Los Angeles	247	N/A	NO	NO
Laguna College of Art and Design	Laguna Beach	346	N/A	N/A	N/A
Life Pacific College	San Dimas	514	414	NO	NO
Mt. Sierra College	Monrovia	458	N/A	NO	NO
Pacific States University	Los Angeles	138	248	NO	NO
Platt College: Ontario	Ontario	250	N/A	NO	NO
Scripps College	Claremont	954	18	NO	NO
Soka University of America	Aliso Viejo	388	6	NO	NO
Southern California Institute of Architecture	Los Angeles	278	230	N/A	N/A
The King's College and Seminary	Los Angeles	525	N/A	N/A	N/A
University of the West	Rosemead	65	N/A	NO	NO
Vanguard University of Southern California	Costa Mesa	N/A	N/A	NO	NO
West Coast University, California	Los Angeles	556	N/A	NO	NO
Westwood College: Anaheim	Anaheim	980	N/A	NO	NO
Westwood College: Inland Empire	Upland	993	N/A	NO	NO
Westwood College: South Bay	Torrance	600	N/A	NO	NO
World Mission University	Los Angeles	108	N/A	NO	NO
Yeshiva Ohr Elchonon Chabad/ West Coast Talmudical Seminary	Los Angeles	118	N/A	N/A	N/A

In the above table we have complied data showing area universities with enrollment of 0-1000 diversity curricula offerings. This table illustrates a lack of diversity curricula. While we have noted our research is that of a 50-mile radius of Azusa Pacific University, located in Southern California, it is indicative of a larger concern.

Table 3: Student Enrollment 1000 – 9999 College Listing, State of California, July 2009

College Listing, State of California	City	Student Enrollment		Diversity Curriculum	
		Undergraduate	Graduate	Degree	Concentration
Art Center College of Design	Pasadena	1504	0	N/A	N/A
Art Institute of California: Orange County	Santa Ana	1694	0	N/A	N/A
Azusa Pacific University	Azusa	4858	3508	NO	YES
Biola University	La Mirada	3610	N/A	NO	NO
California Baptist University	Riverside	3072	917	NO	NO
California Coast University	Santa Ana	2580	0	NO	NO
California Institute of Technology	Pasadena	921	1205	N/A	N/A
California Institute of the Arts	Valencia	863	501	NO	NO
Chapman University Orange	Claremont	4293	1289	NO	NO
McKenna College	Claremont	1211	N/A	NO	NO
DeVry University: Long Beach	Long Beach	878	237	NO	NO
DeVry University: Pomona	Pomona	1711	223	NO	NO
ITT Technical Institute: San Bernardino	San Bernardino	1225	N/A	NO	NO
ITT Technical Institute: Sylmar	Sylmar	1000	N/A	NO	NO
La Sierra University	Riverside	1495	404	NO	NO
Loma Linda University	Loma Linda	1177	1543	NO	NO
Loyola Marymount University	Los Angeles	5676	1964	NO	NO
Mount St. Mary's College	Los Angeles	1883	469	NO	NO
Occidental College	Los Angeles	1846	22	NO	NO
Otis College of Art and Design	Los Angeles	1140	66	NO	NO
Pacific Oaks College	Pasadena	239	825	NO	NO
Pitzer College	Claremont	1025	N/A	NO	NO
Pomona College	Claremont	1532	N/A	NO	NO
Southern California Institute of Technology	Anaheim	921	1205	N/A	N/A
The Master's College	Santa Clarita	1039	124	N/A	N/A
University of La Verne	La Verne	1548	2026	NO	NO
University of Redlands	Redlands	2336	98	NO	NO
Whittier College	Whittier	1291	N/A	NO	NO
Woodbury University	Burbank	1254	N/A	NO	NO

In the above table we have complied data showing area universities with enrollment of 1000-9999 diversity curricula offerings. This table illustrates a lack of diversity curricula. While we have noted our research is that of a 50-mile radius of Azusa Pacific University, located in Southern California, it is indicative of a larger concern.

Table 4: Student Enrollment 10,000+ College Listing, State of California, July 2009

College Listing, State of California	City	Student Enrollment		Diversity Curriculum	
		Undergraduate	Graduate	Degree	Concentration
California State Polytechnic University: Pomona	Pomona	19220	1970	NO	NO
California State University: Dominguez Hills	Carson	9291	3560	NO	NO
California State University: Fullerton	Fullerton	31428	5568	NO	NO
California State University: Long Beach	Long Beach	31564	6327	NO	NO
California State University: Los Angeles	Los Angeles	15588	5155	NO	NO
California State University: Northridge	Northridge	30235	5973	NO	NO
California State University: San Bernardino	San Bernardino	13947	3699	NO	NO
University of California: Irvine	Irvine	22122	4432	NO	NO
University of California: Los Angeles	Los Angeles	26536	11138	NO	NO
University of California: Riverside	Riverside	15708	2317	NO	NO
University of Southern California	Los Angeles	16608	14457	NO	NO

In the above table we have complied data showing area universities with enrollment of 10,000+ diversity curricula offerings. This table illustrates a lack of diversity curricula. While we have noted our research is that of a 50-mile radius of Azusa Pacific University, located in Southern California, it is indicative of a larger concern.

EXPLORATION OF MULTICULTURAL/DIVERSITY CONCENTRATION

Based upon the survey data, it would appear that higher education is not on the cutting edge of providing a diversity curriculum that meets the needs of business. If higher education were to response to business needs, what should universities offer as it relates to diversity? The literature on diversity consistently identifies three areas where leveraging diversity provides value – diversity helps companies compete in the global marketplace for high performing talent; diversity helps a company market and sell to an

increasingly diverse customer base, and diversity increases the collective idea generation and problem solving abilities of teams.

A business school concentration in diversity should strive to develop managers who can be successful in those areas. An on-line course offered by Cornell University also offers some guidance. Its course description begins as follows:

> *"The management of diversity and inclusion has evolved from handling day-to-day compliance issues to leveraging diversity for competitive advantage. Organizations that no longer see diversity as a legal or moral requirement, but as a competitive advantage, have an opportunity to improve performance at the financial, employee, customer, and community levels.*
>
> *Diversity and inclusion practices must be embedded in an organizational culture to make a positive impact on performance. This course summarizes the evolution of diversity and inclusion management; outlines key management practices for improving performance, contextualizes diversity in terms of current challenges, and provides direct linkages between diversity and the bottom line at the organizational and functional levels."*

Meeting the needs of companies is a priority for business schools; accordingly a diversity concentration would start with a basic understanding of diversity and focus on the components of that deliver bottom-line benefits for some companies.

Acknowledging that the benefits of diversity begin with an organizational culture that explicitly acknowledges differences and encourages people to bring all relevant insights and perspectives to their work, a diversity concentration would contain the following types of courses: 1.) To help managers understand diversity and improve team performance -Managing in a Multi-Cultural Environment, 2.) To help managers compete for talent in an increasingly diverse candidate pool -Recruiting and Retaining a Diverse Workforce and 3.) To help managers engage their own and other's culture in the context of a global marketplace while understanding how those cultures may impact the bottom line - Cultural Explorations in Global Business.

In keeping with the global business place, diversity concentrations could also be added to incorporate the latest trends and challenges faced by businesses. For example, more and more companies are taking serious steps to demonstrate social responsibility. These steps often involve partnerships with community-based organizations. Thus, a class on leveraging community partnerships would provide a benefit.

<u>Organic Diversity</u>

There is another important benefit of adding a diversity concentration to business schools. By populating the workplace with managers and executives who possess a strong diversity competency, diversity becomes more organic to organizations. This is important for several reasons – it increases the chances that organizations can leverage diversity into a positive impact on the bottom line, it improves the work environment for all employees, and it reduces corporations' $8 billion spend on diversity training. The benefits to business are clear.

Most importantly, when diversity is organic it increases the chances that diversity becomes engrained in the culture of the organization rather than a flavor of the month initiative. Making diversity more organic in a corporation means growing the diversity competency from within. This is important because as a course description for diversity at Cornell University notes, "Diversity and inclusion practices must be embedded in an organizational culture to make a positive impact on performance." (Roberson, 2009).

Organic diversity means that diversity competencies are brought into the company by employees (executives, managers, and others) instead of by outside consultants or outside trainers. Once the diversity competencies are brought into the company, they are grown and nurtured by people within the organization. This can occur through knowledge transfer from more highly tenured employees to less tenured employees and through coaching and mentoring.

Organic diversity is important because it mitigates the possibility that diversity initiatives become a flavor of the month with no real and lasting impact. As one set of researchers observed corporate leaders bemoan the fact that innovative diversity strategies come and go but improvements in their diversity results do not budge (Dobbins, 2007).

Positioning the human resources department as the place where diversity subject matter expertise resides also contributes to making diversity organic within organizations. If employees with questions about diversity can rely on HR instead of calling a consultant, the organic nature of diversity is increased. Similarly, if managers who need help implementing a diversity initiative can turn to HR then diversity becomes more organic.

The benefits of organic diversity include the following: a company is able to reduce its dependence on outside consultants as the keeper of diversity expertise. And it means changing the nature of (or perhaps even reducing) the amount of formal diversity training. It opens the possibility that diversity best practices can be shared by and among managers through coaching and mentoring rather than imported from outside of the company.

CONCLUSION

Diversity in the workplace has taken on a dramatically more important role in the business community. As we progress into the 21st century, diversity curriculum in higher education is becoming increasingly important. Embracing the value of offering diversity curriculum is critical to improving the world business environment. International business opportunities and global competition are forcing the need for higher education to prepare students for a culturally diverse world.

However, business schools have not kept up with this change by offering programs that focus on diversity. Through the survey of twenty-eight Southern California business schools, this paper examined the extent to which business schools incorporate diversity into their degree programs. Our research clearly indicates a true lack of response by universities in Southern California in answering the need for diversity curriculum.

This paper is limited in several ways. First, our survey is limited to a group of schools in Southern California. Expanding the research to include other geographical areas would provide a more comprehensive look at the situation. This sample may or may not be representative of U.S. universities in general or of international business schools. More research is needed to determine if the findings presented here are also prevalent in other academic environments.

We also suggest further research to determine effective curricula components of diversity competencies of business education. Furthermore, an additional area of future research would include the effectiveness and competitive advantages of diversity curricula.

If California is any indication, diversity competencies are not being widely taught in graduate level business schools. As our demographics and global marketplace shift, universities have a duty to offer curricula that is relative to businesses operating in the global marketplace.

Universities, as a vital part of modern society, must and should, enhance society through their contribution in providing skilled professionals, which can assist business to differentiate themselves in the marketplace and create innovative solutions to meet the needs of an increasingly diverse customer base. Increasing awareness of this gap should have the effect of business schools beginning to re-evaluate their curriculums and expanding diversity concentrations.

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BIOGRAPHY

Roxanne Helm-Stevens joined Azusa Pacific University in 2000 as a professor in the School of Business
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THE USE OF CASE ANALYSIS TRAINING AND COMPETITIONS TO ASSURE LEARNING AND SCHOOL-WIDE QUALITY

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ABSTRACT

Accrediting agencies have mandated that member schools provide evidence of the assurance of learning of students in the educational process. This study describes a learning structure based on student participation in case study analysis. After training 103 business students in case method analysis an assessment test of concepts underlying case analysis was administered. Students were given two opportunities to pass the assessment test with a score of 80 percent or higher. The first assessment had an overall pass rate of 87 percent. It was found that upperclassmen performed significantly better than underclassmen with an average score of 91 versus 84 percent. The authors validate the use of the case analysis by engaging students in national case competitions. Based on the portfolio outcomes of the case competitions the authors create an annual Key Performance Index for the School. This index assesses the School's overall success in competing in and winning national case competitions. It is suggested that the combination of case analysis training, followed by competitive case performance, provides important student competencies and skills and that the data gathered from such activity outcomes can be used to assess the quality of the educational delivery system of the School.

JEL: A-2; M00

Keywords: Case analysis, Case competitions, Assurance of Learning, Communication Skills Development, Student Competencies, Key Performance Index

INTRODUCTION

University accrediting bodies are focusing on outcome based- assessment of academic programs offered by the nation's business schools. This is largely done by assessing students' skill sets or core competencies. Each program is judged based on how well its curricula is designed and supported, to deliver the core competencies. The problem is that each program needs a valid and reliable assessment of students' performance based on these competencies. This paper examines the use of case studies in course curricula and the performance of students in national case competitions to assure the following competencies: (1) the ability of students to integrate various business disciplines into a solution set, (2) the ability of students to present results in a concise written and oral technology-based presentation, (3) the ability to convert data collected from various sources into information to support decisions and facilitate problem solving and (4) the ability to work as an effective team, with poise.

First, we separate the training aspects of case analysis from the competitive case structure. Later we combine the theoretical with simulations and practical applications to form a new construct. In the non-competitive case analysis area, the emphasis is on the development of student educational competencies (theoretical) as outlined above. Although there is overlap, we suggest that subsequently engaging students in case competitions (application) further develops competencies such as initiative, confidence, creativity, resourcefulness, resiliency, focus, and the ability to perform under pressure both individually and as a team. Additional benefits accrue in the form of prestige, and self-esteem. School-wide reputation is also enjoyed due to a student team's winning place in a national case competition. The extrinsic value of this

activity is not unlike the enhanced self image that flows from a winning football, chess, or tennis team. It is argued that these benefits also accrue to the greater student population of the institution.

The remainder of the paper proceeds as follows: We begin with the review of literature regarding non-competitive case analysis and competitive case structures. In the next sections we outline the background and methodology used in the School to teach case analysis and the method used to assess and assure learning. A section regarding the employment of case teams in national competitions follows. And, we complete this research with a suggested approach for continuing enhancement of the School by presenting a model to monitor the performance outcomes (or returns) of the School's case teams from the portfolio of competitions attempted. The conclusion and suggestions for future research in this area immediately follows.

LITERATURE REVIEW

Non-Competitive Case Analysis

The case study method was developed by Harvard University as a way to expose business students to "real" corporate problems. Since its introduction the case method has gained notoriety for its ability to enhance students' critical thinking and analytical skills. Good case based learning is designed to assure that students do more than memorize information for the purpose of an assessment, but actually learn material to apply it to real world situations (Wood, et al. 2001). Harvard Business School expanded the use of cases (Shulman, 1986), and "the case study method continues to be the most effective teaching technique because of its applicability to real management situations". Ballantine (2004) amplifies this statement as follows:

> "Those who practice business are in the real world making decisions that have real consequences. The case method is intellectually engaging for students because they acquire the knowledge, skills, and tools to deal with the kind of problems they will encounter in their careers. Because they go through this inductive reasoning process to arrive at answers, the learning process is more powerful." (Ballantine, 2004, p. 173)

Shugan, (2006) although reluctant to embrace the case method, indicates that case analysis allows students to "sift through the irrelevant details and determine the relevant facts". Cases may also help learners to develop problem-solving skills and collaborative skills that are recognized as key outcome skills which students will need in their future professional lives (McNaught 2005). After case based learning was implemented in junior and senior classes of liberal arts and education majors it was shown that the method is an effective way to develop higher order cognitive and effective learning and critical thinking ability, especially as it relates to learning, unlearning, and relearning (Wood, et al. 2001). Case-based learning can also be helpful in teaching accounting, because accounting is a discipline, subject to "generally accepted principles" and is full of situations that require sound judgment in response to loopholes and ethical dilemmas (Hassell, 2004, Anthony, 1974). Based on a survey of accounting professors, the common theme throughout professor responses was that cases are considered valuable learning tools to develop competencies needed for today's accounting students as dictated by professionals (Hassell, 2004).

Researchers have also found that there is an improvement in student collaborative skills such as the ability to engage in academic conversations and to pay mutual respect to each other after going through a case-based learning experience (Lee, 2007). However, there have been critics of the case study method who believe that some cases provide too much information which does not allow students to make decisions in an environment of uncertainty. The major complaint was that MBA graduates could not solve on the job decisions without perfect information (Gloeckler, 2008). On the other hand, Cochan (2000), states that the

Harvard case study method allows graduate students to step into the shoes of decision makers in real organizations and deal with the issues managers face.

Case Competitions

Credle (2007), states that case analysis and in particular case competitions should not be the equivalent of putting together a puzzle, but a requirement that forces students to "scratch out" information from various data sources, to provide supportable assumptions, etc. that have a bearing on the solution or the decision at hand. Case competitions can be stressful and the pressure of competition can be overwhelming. Many students agree that case competitions are, at times indeed stressful, but the pay-off makes it worth it, Gardiner, (2005).

Case competitions are considered important in developing a real life format to solve organizational or managerial problems in an intense competitive environment (Rynn, 2001). The other benefits of the case competition is the monetary rewards , the possibilty of networking, and opportunities such as student internships or offers of permanent employment. Moreover, the host school of the winning team, also benefits from the annual bragging rights and the direct assessment and perception of the institution's quality, Gardiner (2005).

An article by Dunham (2003), entitled "Business-School contests give job hunting students an edge," seeks to identify a relationship between participation in business case competitions and internship and job placement. The basis of the theory is that case competitions allow for networking and give companies the opportunity to observe and hire those candidates who have the capacity to solve real business problems (Dunham, 2003). The competencies illustrated during case competitions have a significant impact on the hiring process of many companies resulting in job offers to many case competition participants.

The literature regarding the use of and the value of case analysis is mixed. To many the use of the approach enhances the educational experience and develops desirable student attributes. Others believe the case approach is lacking and in some examples is a weak teaching methodology. There is also disagreement among scholars regarding the value of case-based competitions. As indicated in Figure 1, we believe a viable solution to this disagreement is to incorporate both the education case analysis training structure with the deployment of national case competitions. This assures that students not only understand case-based concepts, but that they are also capable of applying these concepts in a competitive environment

BACKGROUND

Colleges and universities are measured according to several criteria including, graduation and retention rates, SAT and ACT scores, job placement, alumni contributions, etc. In recent years, Hampton University's School of Business (HU) students have participated in numerous nationally recognized case competitions against several top ranked institutions. Many organizations sponsor case competitions in which students from business schools around the nation display their skills sets. These national competitions are usually awarded with cash, prizes, and the positive publicity associated with winning against leading business schools. Sponsoring organizations have included the National Black MBA Association, The Institute of Supply Management, PricewaterhouseCoopers, The National Urban League, and the Executive Leadership Council, to name a few. HU has made a lasting impact in the business education arena by achieving first or second place in many of the competitions it has entered in the past few years. This phenomenon has increased external stakeholder interest and has reinforced the School's emphasis on case analysis as a part of the curriculum. The use of the case analysis training as presented in this research results in a construct which assures the development of desired students competencies.

We believe that case study analysis provides students with competencies that are crucial to their subsequent success as business professionals. However, a methodology is needed to measure these competencies and to assure that such learning has actually taken place. The authors have developed a methodology that adequately trains and assesses a student's understanding of case studies and provide evidence of such by subsequent student performance in examination(s) and, the validation of such training from actual competitive case performance results. This process is illustrated in Figure 1.

After completing the training module with a successful score, students are filtered into pools and may be selected to compete in national case competitions. When the competition is announced, select students are identified to work on a team for the specific case competition. (See Exhibit A for the portfolio of competitions). For example: the Executive Leadership Council's (ELC) annual case competition is by invitation only. The case is sponsored by a fortune 500 corporation such as Shell Oil Company. The case was sent to 29 business schools (which included Ivy League or major schools such as Harvard, Columbia, NYU, Dartmouth, etc.). The first level of competition is on the written case. Each team writes their response to the case problem and offers an analysis which includes strategies for improvement. The panel of expert judges selects the best three case analyses for presentation at the national headquarters of the host corporation.

The three finalists present their case analyses in this competitive and challenging environment using and demonstrating high technical presentation proficiency. Immediately following there is a question and answer session conducted by experts in the field. ELC representatives as well as several employees from the host corporation are in attendance at this event. Based on the presentation and answers to the questions, an award ranking of first, second and third place is announced. The winners are announced in the print media and on the web site of the ELC. Hampton University earned second place in the 2007 competition and was awarded $12,000.00. The Wharton School of Business was awarded first place and Emory University placed third. The Hampton University team was the first HBCU and the youngest team to ever make it to the finals in the ELC competition.

The first examination was administered in the beginning of October 2006, to 103 students of the HU's Department of Business Administration. The test was given to sophomore to graduate level students. Students were primarily African American, Native American and Hispanic Americans between the ages of 18-23. Students were given 45 minutes to complete the assessment. A second examination was administered at the end of October 2006. This examination included students who failed to take the first test as well as those who did not pass the first test with a score of 80 percent or higher. In total, twenty students took the second exam. The second assessment consisted of a different though equally difficult set of questions. The next assessment period will be held during fall semester 2009 including students that were freshman during 2006 and subsequent classes.

Figure 1: Case Training and Competitions: Assurance of Learning and School Quality Performance Index
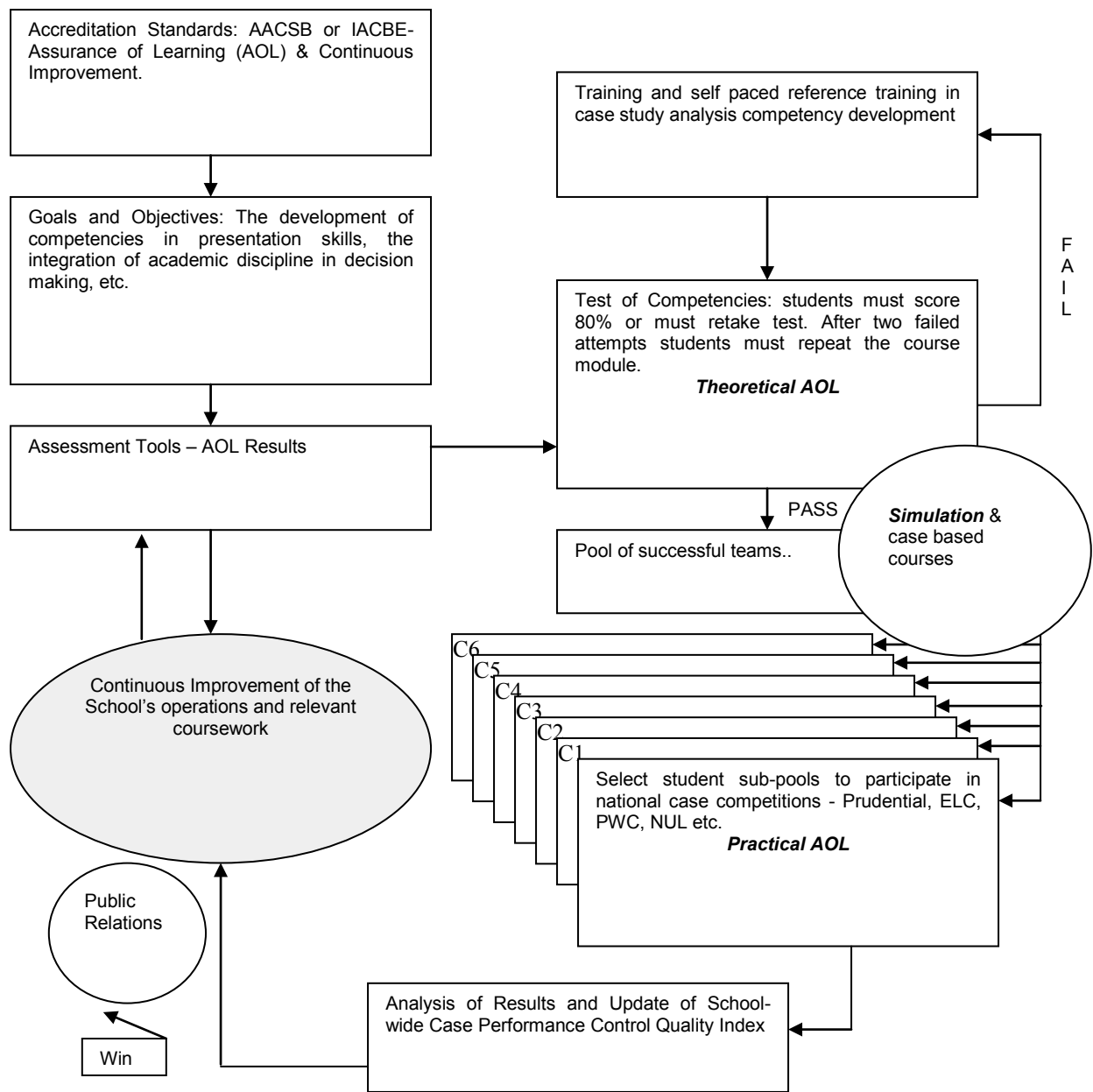
This figure provides a conceptual view of the case training and competition process and ends with the use of the outcomes from the case competitions to provide one of a number of the School's key performance indexes which are used to monitor the School's progress. As can be seen, following accreditation guile-lines, the School first trains students in the conduct of case analysis. Next, these students are provided two attempts at a proprietary case analysis examination. The outcomes of which provide information regarding the accreditation assurance of learning objectives. From data derived from the testing apparatus the School subsequently selects participants to compete against the leading schools in national case competitions. Participation in the portfolio of cases competition provides data which is then formulated into an annual performance quality index. The index includes the number of teams competing, the rankings of competing teams and the amount of awards received, etc. The index has been calculated for the past 6.5 years.

ANALYSIS

A summary of exam one performance is presented in Table 1.

Table 1: Case Assessment 1 Pass Rates and Test Averages by Classification

Case Assessment: First Attempt				
Year	Students Who Attempted	Students Who Passed	Pass Rate > 80%	Average Score
Sophomores	37	29	78%	84%
Juniors	21	20	95%	89%
Seniors	27	24	89%	88%
Graduate Students	18	17	94%	93%
Total	103	90	87%	88%

In this table we summarize the student scores received on the first test subsequent to case training by classification. We expect at least 80 percent of students to pass on the first attempt. As the table indicates 88 percent of the 103 students taking the test passed. As expected the sophomores had the lowest pass rate at 84 percent and graduate students had the highest average score of 93 percent.

As noted in Table 1, surprisingly students in the junior year had the highest pass rate, at 95 percent. Students in the graduate year had the highest average score at 93 percent. As expected, the lowest pass rate of 78 percent and the lowest average score of 84 percent were received by the sophomore group. To further analyze the data the class levels were divided by lower and upperclass student's categories. The histograms noted in Figure 2 compare upperclass and underclass performance test scores to the normal distribution.

Figure 2: Case Assessments Normal Distribution of Upperclassmen and Underclassmen

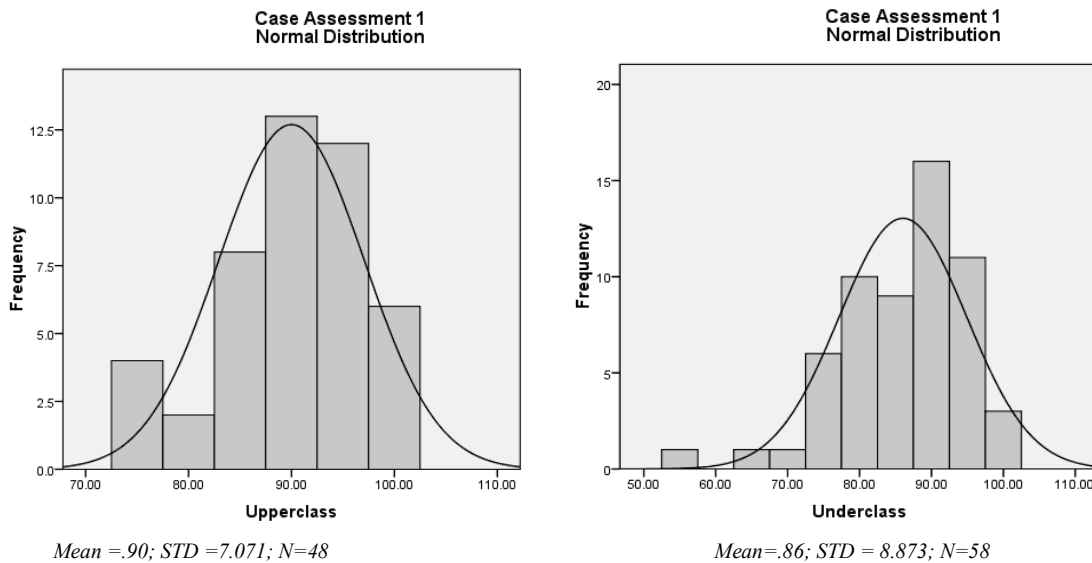*Mean =.90; STD =7.071; N=48*   *Mean=.86; STD = 8.873; N=58*

Figure 2 summarizes the distributions of the results of the student performance on the case analysis test segmented by upperclass and lower class students. The results indicate that the 48 upper-class students had a mean of .9 with a standard deviation of 7.07 and the 58 lower-class students had a mean of 86 percent and a standard deviation of 8.87 percent.

It is observed in Figure 2, that the 48 upperclass students scored higher on the examination than the 58 underclass students. For the upperclass students, we observe a mean score at 90, and observe a standard deviation at 7.071. The distribution of the sophomore and junior scores exhibit a similar pattern to the upperclass student scores, but with a mean of 86 and a higher standard deviation of 8.873. Table 2 presents the results for the first assessment, comparing students in the sophomore and junior year (underclass) with, senior and graduate year (upperclass) students. As can be seen, 90 students of the 103 students who attempted the examination passed.

Table 3 presents the results for the second assessment. The table indicates that only 7 of the 20 students or 35 percent passed the second assessment. This indicates that of the 110 students (123 data points) that sat for the two examinations, 97 passed, and 13 had to repeat the course module.

Table 2: Case Assessment 1: Pass rates and Averages by Class Level

Case Assessment: First Attempt				
Year	Students Who Attempted	Students Who Passed	Pass Rate	Average Score
Sophomores & Juniors	58	49	84%	86%
Seniors & Graduate Students	45	41	91%	90%
Totals	103	90	87%	87%

Table 2 indicates the pass rates and averages score on the case assessment test by upper-class and lower-class students. As noted, the fifty eight lower-class students had an average score of 86 percent and a pass rate of 84 percent with 49 students passing. The 45 upper-class students had a passing rate of 91 percent. Forty one students passed the test with an average score of 90 percent.

Table 3: Second Assessment Pass Rates and Averages Scores by Classification

Case Assessment: Second Attempt				
Year	Students Who Attempted	Students Who Passed	Pass Rate	Average Score
Sophomores	11	3	27%	68%
Juniors	0	0	-	0%
Seniors	6	4	67%	78%
Graduates	3	0	0%	65%
Totals	20	7	35%	71%

Table 3 provides data by classification for the second attempt at the case test. Seven of the 20 students taking the exam passed.

Data was also segmented into upper and lower class student groups for the second examination attempt. Upper class students again out-performed the under class students as noted in Table 4. The results collectively indicate that learning is taking place moving from lower division to upper division with respect to the case analysis set of competencies. These results would hold, lacking the measurement and impact of other non-observable confounding factors. For example it must be considered that upper classmen are simply better test takers due to maturity or alternatively that the group, as a whole have a greater experience with case studies. However, the structural results indicate that 97 of 110 students (88 %) possess in a theoretical sense the competencies necessary to conduct case analysis. To further test this result select students from the pool of trained students were engaged in case competitions to validate the development of these competencies. The question is whether these select students can compete (and win) with those of other nationally ranked business schools in national case competitions.

Table 4: Second Assessment: Pass Rates and Average Scores by Class Level

Case Assessment: Second Attempt				
Year	Students Who Attempted	Students Passing	Pass Rate	Average Score
Sophomore & Juniors	11	3	27%	68%
Seniors & Graduate Students	9	4	44%	74%
Totals	20	7	35%	71%

Table 4 summarizes the second assessment pass rate on the case analysis test by upper-class and lower-class students. In this test 20 students took the test and 7 students or 35 percent passed. The average score was 71 percent.

CASE COMPETITION QUALITY PERFORMANCE MODEL

Case competitions provide an opportunity to measure a student's performance against their peers from other universities and to validate the case analysis training model. Although the case study method is known for its ability to increase students' analytical and problem solving skills, there are few, if any, tools available that can accurately measure increased student performance in this area. Lacking a current methodology to assess the impact of the case study method on the performance of HU students in case competition, we have developed a relative index of performance.

A model was developed of student's performance in business case competitions using this relative measure, based on the formula noted below.

$$\text{Quality Performance Index} = \rho*(W_1*\alpha + W_2*\lambda + W_3*\varphi + W_4*\eta + W_5*\kappa + W_6*\mu) \tag{1}$$

Where:
ρ:	=	1 if the school participated in the competition during current year.
α:	=	Normalized contribution based on the team's success in reaching the final round.
λ:	=	Normalized contribution based on the team's placement in the competition.
φ:	=	Normalized contribution of the quality of the case competition based on the overall ranking of the participating schools.
η:	=	Number of teams in the competition.
κ:	=	Normalized contribution based on type of competition e.g. open, invitational or HBCU only.
μ:	=	The ratio of the total prize fund to the prize amount won by the HU teams.
W_i:	=	The subjective weight assigned to each of the factors, where (i =1, 2 ...6)

The case annual performance (or quality) index is derived by multiplying the final placement of the School's teams in the competition, the number of teams competing, the number of teams in the final competition, and the average ranking scores of the schools competing. A scale of 1, 0 and -1 is used to calculate a value for placement of first place, second place, and third place, respectively in each competition. The average ranking score is calculated using The U.S. NEWS & WORLD REPORTS Annual Rankings of Business Schools, and the BLACK ENTERPRISE'S Annual "Best Schools for Minorities" rankings. The BLACK ENTERPRISE rankings are used in competitions that were restricted to Historically Black Colleges and Universities (HBCU) rather than the US NEWS & WORLD REPORT rankings. BLACK ENTERPRISE rankings most accurately reflect the quality of education at HBCUs according to Credle, Maheshwari & Davenport (2008).

Each school in the rankings is assigned a point score reflecting the quality of the school. For either ranking type the top rated school receives a score of one. Each ranked school's score is two percentage points lower than the previous score. For example, Harvard received a score of one while Stanford, the second ranked school, received a score of .98, and so on.

The average of all the school scores competing in the various competitions is calculated and inputted into the model. The various factors were then weighted to express the objective of the School. The School's objective was to compete against the best schools, win, and secure much needed scholarships for our students. In doing so our expectation was an enhancement of the stature of the School and a validation of our teaching model. It is expected that other universities may reflect other weighting scales to align with

their particular mission. The weight of the various factors was determined by those attributes considered important from both a student and a school point of view. Weights attached to each attribute are presented in Table 5 below:

Table 5: Weights Used in the Case Competition Performance Quality Index Score

Factor	Weight	Weight Percentage
Finalist (α)	W_1	3%
Rank (λ)	W_2	35%
Quality (φ)	W_3	30%
Team (η)	W_4	5%
Type (κ)	W_5	2%
Money Ratio (μ)	W_6	25%
Total		100%

In table 5 the weights used in the quality index score are provided. The weights range from 3 to 35 percent, with the highest weights assigned to the winning placement of case teams, the quality of the competition at 30 percent and the amount of awards received at 25 percent.

As noted in Table 5, the quality of the teams that the School competes with is weighted 30 percent and the final placement of the HU team is weighted 35 percent. The proportional amount of award or scholarship monies received is weighted 25 percent. It should be noted that students of the school do not have to win every contest to receive a positive score. Weight is assigned for the type of contest, the number of teams competing and whether the schools team makes the finals. It is expected that competing in a case competition is an experience for which there is educational value added to each participant,

The composite scores for each of the competitions in a given year are summed to create a Performance Quality Index Score. The index score value is calculated each year and compared to previous years. This provides a year by year comparison of the student's success or failure in applying the case analysis training, the case competitions entered and won and indirectly assesses the quality of the School's educational delivery system. It is expected that the Performance Quality Index Score will either remain constant or increase each year.

ANALYSIS

The case method of teaching is a widely used to expose students to real world problems and to increase the analytical ability of business students. These skills insure the student's ability to integrate various disciplines, such as, accounting, finance, engineering, operations, marketing, management and entrepreneurship into a problem solving construct. The desire for measurement and the validation of the approach to enhancing these skills has resulted in the author's efforts to create a universal model or test, to measure the performance of its business students in case competitions. It is believed that the resulting index can accurately (albeit relatively), measure the HU students' performance in case competitions over a period of time. And, in so doing validate the case training model employed at the School. Table 6 presents the HU competition performance results since academic year 2002.

In recent years, HU has been very successful in competing in business-related competitions on the graduate, undergraduate or mixed classifications, using differing teams primarily from those students who successfully completed the case method training. HU has placed first or second in at least seven national competitions over the past two years.

This string of success has been attributed to the rigorous curriculum and the widely used case method of teaching. As can be seen in the last column of Table 6 with the introduction of case method teaching the School's success has increased monetarily from $25,000 noted in 2006 to $33,000 for the first *half year* of 2009.

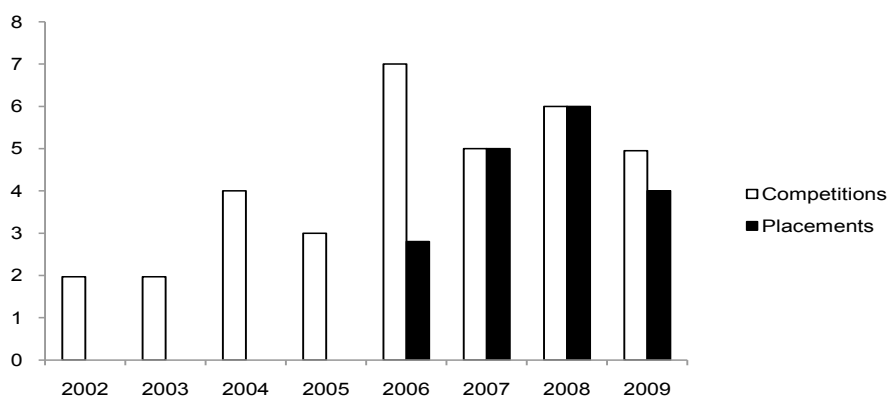Table 6: Number of National Case Competitions, Wins and Awards

Year	Competitions	First	Second	Third	Total Wins	Amount Won
2002	2	0	0	0	0	**0**
2003	2	0	0	0	0	**0**
2004	4	0	0	0	0	**0**
2005	3	0	0	0	0	**0**
2006	7	1	2	0	3	**$25,000**
2007	5	2	2	1	5	**$45,000**
2008	6	1	4	1	6	**$ 41,000**
2009 (Half Year)	5	1	2	1	4	**$33,000**
Totals	34	5	10	3	18	**$145,000**

Table 6 indicates the number of case competitions that the school's students competed in since 2002 and the place that the school's teams earned. For example it can be seen that between 2002 and 2005 the school competed in 11 national competitions and did not place in any of these contests. The awards received were zero. In contrast, from 2006 to July 2009 the School competed in 23 case competitions and came in first, second or third a total of 18 times winning approximately $145,000.

A total of $145,000 has been awarded to student teams of the school since the case training module was employed. (Please see Exhibit A for additional information). As noted in Figure 3 the school has competed in case competitions since 2002.

What is most significant is that first to third award placement was not achieved until 2006, after the cases analysis emphasis was placed in the curriculum. For example in 2006, the School's team won first place in the National Urban League's national case competition hosted by the United Parcel Service (UPS) and repeated the first place performance in 2007. The incorporation of case analysis into the overall curriculum with associated assurance of learning assessments began during the 2006-07 academic year. As can be seen, in Figure 3, the number of first, second or third final placements jumped from three to six, in 2006 to 2008. During the half year ending June 2009, the School has placed in four events.

Figure 3: Annual Participation and Placements in the Case Competitions (Number of Competitions and Placements)

In figure 3 we provide a graphical summary of the number of national case competition that the school competed in annually between the years 2002 and the half year of 2009. The range in competitions was from two in 2002 to seven in 2006. The school's team started placing first second and third in 2006. In 2007 and 2008 the school placed in 100 percent of the five and six contests entered respectively.

CONCLUSION

The Goal, Data and Methodology

The goal of this paper was to present an innovative approach to assure learning in the competences associated with case analysis and case competitions. The results of which indicate that case analysis can be both taught and provide evidence of increased student competence, confidence critical thinking and presentation skills. We have also found that case training can provide students with the capability to perform in a competitive and challenging environment. Moreover we have demonstrated that performance in case competitions can be accurately monitored and measured year after year through the creation of a Quality Performance Index. The creation of this index can be used by the School to measure student team performance over time, and thus, indirectly, provides information for continual improvement of the process and to assess the educational delivery system employed.

For data and methodology, we initially trained 103 students in case analysis and then tested them to assure that the theoretical concepts of case analysis training were actually learned. Students were given two chances to pass the test with a score of at least 80 percent. Based on this scoring hurdle, 90 students passed the test on the first attempt with an average score of 88 percent.

Primary Findings

The primary findings of this study provides empirical evidence that the use of educational based case analysis provides a platform to assure the following competencies: (1) the ability of students to integrate various business disciplines into a solution set, (2) the ability of students to present results in a concise written and oral technology-based presentation, (3) the ability to convert data collected from various sources into information to support decisions and facilitate problem solving and (4) the ability to work as an effective team, with poise. We also find evidence of other desirable competencies by subsequently engaging students in case competitions which further refines students' initiative, confidence, creativity, resourcefulness, resiliency, focus, and the ability to perform under pressure both individually and as a team.

In our assessment, the value of this research lies in the fact that the use of case analysis coupled with case competition adds a greater level of competency than either method alone. An empirical proof of sorts is evidenced by the data provided by the Quality Performance Index. While an assessment is a viable way to assure student knowledge of case analysis, it is believed that the observed performance of students in national case competitions strengthens and validates the competencies that were developed during case analysis training. For example, it was found that upper level students performed higher on case analysis than lower level students. This indicates increased understanding of case analysis and evidence of assurance of learning as students move from early classes to upper divisional coursework. The longer students are in the program, the more case analyses and competitions they have been exposed to, which although somewhat "fuzzy" leads to observable evidence of desired competencies. The quality of this growth is illustrated with the increase in the Performance Quality Index over time as noted in Figure 4 below.

The figure 4 indicates that since the School began incorporating case analysis in the curriculum in 2004-05 and began the assessment of this area during 2006-07, there has been a continual increase in the School-wide Quality index. As can be seen the School has competed in a number of case competitions, against high quality schools while placing first, second or third, since the direct emphasis on case training in (2005-2006). We suggest that the Quality Performance Index can be used by many of the nation's schools that participate in case competitions, to provide a methodology for the continual improvement of the school.

Figure 4: Annual Case Competition Quality Index by Academic Year as of July 2009
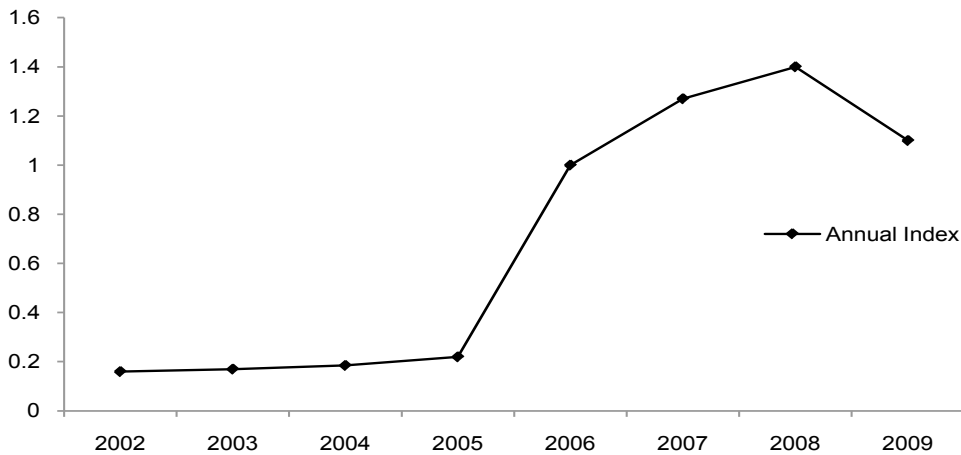

Figure 4 presents the quality performance index based on formula (1) of the School's student team's case competition outcomes for the years 2002-2009 (half year). The index indicates that the School has done increasing well in securing high placement, and financial awards against increasing competition against the leading business schools in the nation. The index has increased each year with the most prominent jump from .20 to 1.00+ during 2006.

Limitation

The methodology and the test of the impact of the case training of students, results in a fuzzy indication of assured learning since it can be argued that not all of the results can be attributed to the case training *per se* but to the maturity or test taking skills of its participants. The paper is limited in this sense. However, even though there may be limits to the test methodology and confounding factors with respect to the test results, the subsequent performance of a sample of trained (and tested) student teams in case competitions indirectly validates the conclusion that the case training was very effective.

Future Research

It is suggested that future research possibilities would compare students' participation in case analysis training and competitions with their GPA or SAT/ACT scores. A possible research question would be; "Does student participation in case competitions, result in a material difference in cumulative grade point averages?" Or, do students with high GPA or SATs do a better job in case competitions? Another research question would be "Does a higher proportion of students that compete in case competitions, receive job or internship offers at a greater frequency than those students who do not"?

This measurement may support the assumption that case based learning is beneficial to student development regardless of whether they compete in case competitions. Or, it may be consistent with the author's view that the combination of the two approaches (where case analysis is followed with simulation and practical application in case competitions) provides additional competencies not found in the separate approach.

APPENDIX

Exhibit A: Case Competition Award Money Won Since 2002

Year	No.	Name	Rank (λ)	Competition's Quality (φ)	Number of Participating School Team (η)	Money Won by Hampton University
2002	1	National Black MBA Association	0	4494	40	$ -
	2	Opportunity Funding Corporation	0	2924	20	$ -
2003	1	Opportunity Funding Corporation	0	2924	20	$ -
	2	Johnson and Johnson	0	4317	11	$ -
2004	1	National Black MBA Association	0	4494	40	$ -
	2	Opportunity Funding Corporation	0	2924	20	$ -
	3	PWC Extreme Accounting	0	4387	60	$ -
	4	Johnson and Johnson	0	4317	11	$ -
2005	1	Executive Leadership Council	0	4801	25	$ -
	2	Opportunity Funding Corporation	0	2924	20	$ -
	3	PWC Extreme Accounting	0	4387	60	$ -
2006	1	National Urban League	1	3109	10	$ 3,000.00
	2	Executive Leadership Council	0	4801	25	$ -
	3	Federal Reserve Challenge	0	3783	12	$ -
	4	National Black MBA Association	2	4470	40	$ 12,000.00
	5	Opportunity Funding Corporation	0	2924	20	$ -
	6	PWC Extreme Accounting	2	4387	60	$ 10,000.00
	7	Students For Free Enterprise	0	3199	31	$ -
2007	1	National Urban League	1	3188	18	$ 3,000.00
	2	Executive Leadership Council	2	4801	25	$ 12,000.00
	3	Opportunity Funding Corporation	0	2924	28	$ -
	4	Prudential Financial	1,2 &3	4000	1	$ 30,000.00
	5	PWC Extreme Accounting	0	4387	60	$ -
2008	1	Goldman Sachs	2	3880	5	$ 1,000.00
	2	Opportunity Funding Corporation	0	3014	20	$ -
	3	PWC Extreme Accounting	2	4387	84	$ 10,000.00
	4	SAM Management	0	3644	6	$ -
	5	Students For Free Enterprise	2	3186	5	$ 500.00
	6	Prudential Financial	1,2&3	4000	1	$ 30,000.00
2009	1	Goldman Sachs Portfolio	0	4350	4	$ -
	2	Opportunity Funding Corporation	0	2924	28	$ -
	3	Institute of Supply Management	2	3657	4	$ 3,500.00
	4	Prudential Financial	1	4000	1	$ 30,000.00
	5	Key Bank	0	4631	16	$ -
Total Money Won Since 2002						**$ 145,000.00**

Exhibit B: LAP Case Study Assessment Plan Fall 2007

Purpose
The purpose of case study analysis in the Business Administration program is to prepare students with the tools to act as business problem solvers and decision makers. Case study analysis moves beyond merely summarizing business issues by allowing students to evaluate and make sound recommendations to complex business issues. While creating solutions to complex issues is the focus of case study analysis, students learn a wide array of other skills such as collaboration, organization, critical thinking, oral and written communication, and the application of discipline specific concepts and theories.

Plan
To expose students to the components of case analysis, students will read and review *The Case of Pirate Pandemonium*. This scenario describes a team of students, the Pirate Pride Team, who have an assignment to analyze a case as a requirement in their Business Simulation course. As students read and analyze the dilemma of the Pirate Pride Team, they will identify issues related to case study analysis. At the end of the story, there are open-ended questions that students will need to research to answer. The questions will help students prepare to complete the assessment on "how to analyze a case study".

The Case of the Pirate Pandemonium
The date is November 15, 2006. The location is the fourth floor study room of the campus library. It is one week before the Thanksgiving break and the Pirate Pride case study team is eager to complete the assignment due in their Business Simulation class. The assignment, as everyone understood it, required the team to analyze the Wycoff Company case study. The company is seeking to expand in global markets in the toy industry. Prior to the meeting, the team agreed that before the team meets, everyone should read and analyze the case independently. At today's

team meeting, each member is expected to report on their finding after analyzing the case. The team agreed this approach would make the meeting more productive.

The team began the meeting at 8:00 pm. After a little casual conversation and a few members strolling in a little late, the meeting finally began at 8:30 pm. Janie volunteered to be the team leader and began the meeting by asking everyone what they thought the professor meant by case study approach. Sandra replied "I believe it means that we have to read the case and summarize what we think it is about". Marcus chimed in and agreed with Sandra, but added "Sandra, I agree, but with this being a 300 level course I'm sure there is more to it than just summarizing". Sandra replied, "Why do you always create more work than necessary? I bet you read this case at least ten times. Let's just keep it simple". Janie, a star student of the business school exclaimed "I want to get the most out of all of my courses and I agree with Marcus, I'm sure there is much more involved in case study analysis". Ok, said Sandra, "I guess I'm convinced, but where do we start?

With Sandra now on board, the Pirate Pride team continued their work by creating a strategy to tackle the assignment. Sandra suggested, why don't we start with the best recommendations based on some assumptions since Professor Greene assigned 30% of the grade to recommendations". Oh no! shouted Janie and Marcus, that makes no sense we barely understand the case and there are ten pages of reading. "Ok maybe we should agree on important facts about the company and the case", said Sandra. Marcus added, " In class, Professor Greene mentioned we should consider a SWOT analysis, Porters Five Forces Model, issues specific to global expansion, and corporate and business strategy, where do you think all that fits in? "I'm not sure, said Janie, but we can put those items on our list to research". The team continued to ponder over how to start the case study analysis and what resources they could use to get more information.

With a long night ahead, the team stared blankly at the assignment sheet provided by the professor. The grading rubric indicates the highest grades will be given to assignments that include a thorough analysis of the case, a visual display of any models used in the case, appropriate financial analysis, strategy analysis, and sound recommendations. The final deliverable includes a PowerPoint Presentation and a ten page paper. The professor is giving extra credit to teams who can explain how case studies are written. Can you help this team with their assignment?

Student Instruction
Read "*The Case of Pirate Pandemonium*" Consider the following open-ended questions. Research and discuss the appropriate responses to the questions. You will be allowed 2 attempts to earn 80%. If you earn 80% after completing CS1, you do not need to proceed to CS2.
1. What is a case study?
2. What skills can be learned from case study analysis?
3. What are some of the pitfalls to collaborative case study analysis?
4. Should you read a case study several times? Why or why not?
5. Why isn't a mere summary of the case sufficient?
6. What are the steps in analyzing a case?
7. What is Porters Five Forces Model and how can it be used in case study?
8. What is a SWOT?
9. What type of financial analysis may be required in case study analysis?
10. What type of issues may surface in a case involving global expansion?

Exhibit C: Sample test questions used on the exam. Select the best answer

1. A business case study is:
    a. An essay of someone's desired experience
    b. A synopsis of a business situation or issue that requires analysis
    c. A story about a person or company looking for the attention of students
    d. A promotional opportunity for struggling companies

2. Case study analysis provides students with all of the following skills EXCEPT:
    a. Problem-solving
    b. Decision-making
    c. Storytelling
    d. Critical thinking

3. True or False: Case analysis in courses at the 300 level and below only requires summarizing the facts of the case.

4. Other than a good grade, what else might the Pirate Pride team gain from successfully completing this case study?
    a. Competitive analytical skills
    b. Collaborative team building skills
    c. Demonstrated ability to address organizational issues
    d. All of the above

5. The following are steps to analyzing a case:
    1. Identify the organizations SWOT
    2. Recommend the best course of action
    3. Analyze corporate and business level strategy
    4. Identify the most important facts that already exist (historical profile)
    5. Evaluate SWOT
    6. Analyze structure and control systems
    What is the correct order of the steps to analyzing a case?
    a. 3,4,5,2,1,6
    b. 4,1,5,3,2,6

       c.   3,2,1,5,4,6
       d.   1,2,3,4,5,6

6. What do you typically NOT have to do when analyzing a case?
    a.   Analyze the exhibits and tables provided
    b.   Read the case more than once
    c.   Rewrite the case
    d.   Consider financial implications

7. What does SWOT stand for?
    a.   Strategy, Willingness, Organization, and Thinking
    b.   Shortcomings, Weaknesses, Opportunities and Threats
    c.   Strengths, Weaknesses, Opportunities, and Threats
    d.   Strategy, Worldwide, Opportunity, Thinking

8. True or False: There is no room for assumptions when conducting case study analysis

9. True or False: It is likely the Pirate Pride team will need to make some basic assumptions in order to complete their case study.

10. The Pirate Pride team investigated Porters Five Forces Model as the instructor suggested. What did they likely discover?
    a.   The model will help them determine if the toy industry is an attractive industry
    b.   The model will help them determine if the company was profitable
    c.   The model will help them determine where to cut costs
    d.   The model is too detail oriented

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REVISING A SUPPLY CHAIN CURRICULUM WITH AN EMPHASIS ON THE TRIPLE BOTTOM LINE

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ABSTRACT

This paper discusses a benchmarking study that we conducted over the summer of 2008 as part of the ongoing re-design of our Supply Chain & Operations Management (SC&OM) curriculum. The motivation for this study was our desire to emphasize sustainability (or the triple bottom line of economics, environmental, and social equity performance) more strongly in all of our Supply Chain & Operations Management courses. We performed an analysis of our Supply Chain & Operations Management program compared to nineteen other undergraduate programs in Supply Chain and/or Operations Management in the United States. We found only one other program that requires a course in sustainability and no other programs that require elements of sustainability within their required courses. In addition, we found that we needed to cover purchasing and transportation topics in greater depth. Both of these topics are fertile areas for discussion of sustainability topics. Finally, through our benchmarking study and the research we conducted, we determined that we needed to add more experiential sustainability exercises in our Supply Chain & Operations Management courses.

JEL: I23, M11

KEYWORDS: Sustainability, Supply Chain Management, Curriculum, Triple Bottom Line

INTRODUCTION

This paper discusses a benchmarking study conducted over the summer of 2008 as part of the ongoing re-design of our Supply Chain & Operations Management (SC&OM) curriculum to reflect an underlying theme of sustainability (or the triple bottom line of economics, environmental, and social equity performance) in our Supply Chain & Operations Management major courses. We compared our Supply Chain & Operations Management program to nineteen other undergraduate programs in Supply Chain and/or Operations Management in the United States.

The remainder of this paper is sub-divided as follows. First, we review the literature that relates sustainability to supply chain management, discuss how universities have integrated sustainability in their curricula, describe how various Colleges of Business have integrated sustainability in their curricula, and provide an overview of the integration of sustainability in supply chain management curricula. Second, we present an overview of our Supply Chain & Operations Management program. Third, we discuss the data and the methodology that we used. Fourth, we describe the findings of our benchmarking study. Fifth, we conclude with proposed changes to our program.

LITERATURE REVIEW

Relating Sustainability to Supply Chain Management

The first widespread definition of sustainable development was presented in *Our Common Future* (World Commission on Environment and Development, 1987, p. 8) in which sustainable development was described as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Later, other authors, e.g., Elkington (1994, 1998), expanded the

definition of sustainability to include the triple bottom line of economic, environmental, and social equity performance. Economic performance measures profits. Environmental performance measures items such as ecological impact or carbon footprint. Social equity performance measures effects on people. Norman and MacDonald (2004) listed various indicators of social equity performance (e.g., diversity measures such as percentage of senior executives who are female, percentage of workers represented by unions, health and safety measures, number of children working in a facility, and community involvement measures such as pre-tax dollars donated to the local community). Factors driving proactive corporate environmental management include cost factors (pollution control, pollution prevention, costs savings from waste reduction); regulatory demands (more stringent regulations, increasing liabilities, stricter enforcement); stakeholder forces (public demand for environmental protection, customer demand for clean processes and products, shareholder aversion to risk); and competitive requirements (new business opportunities, international trade agreements, spread of quality management principles, voluntary standards) (Berry & Rondinelli, 1998).

Wu and Dunn (1995) were some of the first authors to introduce the concept of greening the supply chain. They proposed a model that showed how daily operational decision-making impacts overall firm environmental performance up and down the supply chain. Markley and Davis (2007) argued that one of the few remaining ways that companies can hope to find competitive advantage is through a sustainable supply chain. Preuss (2005) suggested that sustainable supply chain management should focus on the following five areas: (1) products to be purchased (buying greener); (2) manufacturing processes used by suppliers (the buying company could require that suppliers be accredited to an environmental management standard); (3) supplier assessment (the buying company could include environmental performance in its assessment of suppliers); (4) manufacturing processes within the manufacturing company itself (internal initiatives); and (5) downstream logistics activities (product recovery, recycling, and improved coordination of incoming and outbound shipments).

Integrating Sustainability into University Curricula

UNESCO trumpeted the importance of education for sustainable development when it declared 2005-2014 the United Nations Decade of Education for Sustainable Development (UNESCO.ORG, n.d.). The Association of University Leaders for a Sustainable Future (n.d.) promotes sustainability education as a critical focus of teaching, research, and operations at universities worldwide (its members include more than 350 university presidents and chancellors from more than 40 countries who have signed the 1990 Talloires Declaration). Moore (2005) made seven recommendations for sustainability at the university level: (1) Infuse sustainability into all university decisions, e.g., update the sustainability development policy, use sustainability as the overall goal of the university, and use the campus as a living/learning laboratory; (2) Promote and practice collaboration, e.g., create incentives for collaboration, implement broader based admissions standards, and promote group work; (3) Promote and practice transdisciplinarity, e.g., increase program flexibility for undergraduate students, redesign programs, and promote reflection of worldviews; (4) Focus on personal and social sustainability, e.g., increase job security for lecturers, reduce workloads, and promote personal wellness; (5) Integrate planning, decision making and evaluation, e.g., by creating appropriate criteria for evaluating and rewarding faculty; (6) Integrate research, service, and teaching, e.g., promote the scholarship of teaching and community service learning; (7) Create space for pedagogical transformation, e.g., create space and time for reflection, dialogue, and action. Sherman (2008) argued that sustainability should become a big idea that transforms pedagogy in a university's curriculum. Kagawa (2007) cautioned that students strongly associate sustainability with environmental aspects; therefore, curriculum changes must demonstrate the connections between the other two aspects of sustainability, economic and social. Integration of sustainability in non-business curricula appears to be strong in the engineering disciplines in particular (e.g., El-Zein, Airey, Bowden & Clarkeburn, 2008; Lourdel, Gondran, Laforest & Brodhag, 2005;

Mulder, 2004). This is not surprising given engineering's influence in product design, process design, project management, etc.

Integrating Sustainability into Business School Curricula

As sustainability topics have become more prevalent in universities as a whole, those topics have filtered into business school curricula. For example, the Aspen Institute Center for Business Education (n.d.), in its most recent study of full-time 112 MBA programs accredited by AACSB, found that 35 of those MBA programs offer a special concentration or major that allows students to focus on social or environmental issues; however, the proportion of schools requiring content in core courses regarding social and environmental issues remains low. Murray (2006) also lamented that sustainability topics often are taught as optional units instead of being integrated into mainstream business courses. In another study, Biello (2005) cited sixty courses in sustainability offered in accredited graduate programs and in two non-accredited business schools (Bainbridge Graduate Institute and Presidio School of Management) that offer MBAs in sustainable business. Much of the literature concerning sustainability in business schools appears to focus on what skills students should develop and how to integrate sustainability into the curriculum. These topics are discussed next.

Some authors emphasize the development of students' skills when integrating sustainability into the business curriculum. For example, Kearins and Springett (2003) advocated that instructors develop the following skills in students: reflexivity, critique, and social action/engagement. Reflexivity would require students to reflect on the personal and societal values that impact on personal and management decisions. Critique requires students to consider issues of power and ideology that shape a given reality, e.g., the way in which a company is organized, to challenge those issues, and to investigate organizational forms that are more democratic. Social action/engagement motivates students to think about ways in which they could act in a more sustainable manner and how they could facilitate making their broader environment more sustainable. Bradbury (2003) discussed experiential exercises in sustainability geared toward management, organizational behavior, and strategy courses. The intent of these experiential exercises is to prod students into questioning what sustains their own lives, the lives of others close to them, and the organizations in which they work. Those experiential exercises could be designed around case studies of companies that have implemented sustainability concepts, personal vision quests (walking around campus and pondering issues important to themselves), exercises that require students to reflect on their personal use of natural resources, and participating in projects to make an environmental improvement.

As for research on integrating sustainability into undergraduate business curricula, Bridges and Wilhelm (2008) proposed a framework for integrating sustainability into a marketing curriculum. They discussed a 4Ps (product, price, place/distribution, and promotion) approach to curricula in sustainable marketing by which sustainability issues could be included in courses as the 4Ps are presented. Then, they described an MBA elective that they developed. The elective incorporates current readings and cases that focus on sustainability. Their future plans include adding an experiential learning activity to the course, creating a database of marketing internships with sustainable firms, requiring students to develop a marketing plan for making the university more sustainable, and starting a speaker series on sustainable marketing strategies.

Integrating Sustainability into Supply Chain Management Curricula

Inclusion of sustainability topics in supply chain management courses appears to be very limited. Roome (2005) reported on Sustainability and Supply-Chain Management residency (module) offered by OneMBA, a consortium of five MBA programs located in Hong Kong, Brazil, Mexico, Europe, and the U.S. This module used three different types of pedagogy: (1) lectures, (2) experiential learning (cases, exercises, projects, and role-playing), and (3) visits to companies. Based on our research, examples of

integrating sustainability principles into supply chain management undergraduate programs appear to be almost non-existent except for our program (described next). We believe that our Supply Chain & Operations Management program is unique with its emphasis on sustainability. An overview of our Supply Chain & Operations Management program follows.

UW OSHKOSH SC&OM PROGRAM

As of May 2008, our program required 18 hours of required courses: BUS 342: Analytical Methods, BUS 343: Manufacturing Planning & Control, BUS 344: Supply Chain Management, BUS 445: Supply Chain Strategy, BUS 450: Environmental Management, and BUS 460: Advanced Quality Management. We also required 3 hours of electives in a Junior or Senior course offered in the College of Business (we have been advising students to take an elective in Sourcing that we have offered over the last 3 semesters). Table 1 highlights the topics taught and pedagogy used in each course. As of May 2008, sustainability-related topics and pedagogy were included in BUS 343 (Manufacturing Planning & Control), BUS 344 (Supply Chain Management), BUS 445 (Supply Chain Strategy), and BUS 450 (Environmental Management). BUS 343 includes discussion of remanufacturing along with readings of three sustainability articles. BUS 344 includes discussion of reverse logistics. BUS 445 requires students to maintain a reflection journal in which they ponder their thought processes and how their thought process is affected by outside influences (e.g., peers and the media). BUS 450 includes a broad array of topics and pedagogy, including a sustainability project carried out by student teams at local businesses.

Table 1: Topics Taught & Pedagogy Used in UW Oshkosh SC&OM Required Courses (May 2008)

Course Number: Name	Topics Taught; Pedagogy
BUS 342: Analytical Methods	Topics: Linear programming, project scheduling, waiting line models, simulation, decision analysis, multicriteria analysis. Pedagogy: Lecture & cases requiring the use of Excel Solver.
BUS 343: Manufacturing Planning & Control	Topics: Types of manufacturing processes, remanufacturing, forecasting, sales & operations planning, master scheduling, material requirements planning, capacity planning, production activity control, JIT/lean, theory of constraints, inventory management. Pedagogy: Lecture; cases requiring the use of Excel Solver; reading and discussing three sustainability articles related to topics such as sustainability and its impact on operations management (Inman, 1999), Green MRP (Melnyk, Sroufe, Montabon, Calantone, Tummula & Hinds, 1999), and accounting for waste when planning capacity (Guide, Srivastava & Spencer, 1996).
BUS 344: Supply Chain Management	Topics: Supply chain flows; drivers of supply chain performance; supply chain metrics; designing distribution networks; warehousing, packaging, and materials handling; project management; planning supply and demand in the supply chain; quantity discounts; safety inventory; transportation modes and costs; reverse logistics; sourcing decisions; information technology; coordinating the supply chain. Pedagogy: Lecture & cases requiring the use of Excel Solver.
BUS 445: Supply Chain Strategy	Topics: Strategy, integration, technology, facilities, lean/quality, organizational design. Pedagogy: Lecture, cases, major research project, journal, on-line discussion.
BUS 450: Environmental Management	Topics: Environmental issues, government regulation, facility design, product design, process design. Pedagogy: Lecture, sustainability cases, guest speakers, videos, sustainability project, on-line discussion.
BUS 460 Advanced Quality Management	Topics: Quality gurus, total quality management, statistical process control, quality award, ISO 9000, seven management and planning tools, six sigma principles, measurement systems analysis, design of experiments, failure mode and effects analysis. Pedagogy: Lecture & cases.

This table shows the required courses in our Supply Chain & Operations Management program. For each required course, we have indicated the topics covered and the pedagogy used.

DATA AND METHODOLOGY

We studied twenty programs in Supply Chain Management and/or Operations Management. Note: We intentionally excluded programs with a primary focus on Engineering, Management Science, or Transportation because those types of programs either are so vastly different from our current program or would require expertise from a major (e.g., Engineering) not currently offered by UW Oshkosh.

First, we identified universities with APICS Student Chapters. APICS is an organization that emphasizes both Supply Chain Management and the traditional Operations Management fields (APICS, n.d.). We also used personal knowledge of universities with comparable programs to develop our list of programs. Table 2 contains the list of the twenty Supply Chain and/or Operations Management programs (including ours) that we studied.

Table 2: List of Supply Chain and/or Operations Management Programs Studied

University	Web Address of Supply Chain and/or Operations Management Program
Auburn University	http://business.auburn.edu/
Arizona State University	http://www.eller.arizona.edu/
Ball State University	http://cms.bsu.edu/Academics/CollegesandDepartments/MillerCollegeofBusiness.aspx
Boise State University	http://cobe.boisestate.edu/
Bowling Green State University	http://www.business.bgsu.edu/cba/index.html
California State University – Chico	http://www.csuchico.edu/cob/
Colorado State University	http://www.biz.colostate.edu/
Miami University	http://www.fsb.muohio.edu/
Michigan State University	http://www.bus.msu.edu/
Northern Illinois University	http://www.cob.niu.edu/
Penn State University	http://www.smeal.psu.edu/
Syracuse University	http://whitman.syr.edu/
University of Arizona	http://www.eller.arizona.edu/
University of Delaware	http://www.lerner.udel.edu/
University of Wisconsin Eau Claire	http://www.uwec.edu/cob/
University of Wisconsin Milwaukee	http://www4.uwm.edu/business/
University of Wisconsin Oshkosh	http://www.business.uwosh.edu/currentstudents/undergraduate/majors/supplychain.php
University of Wisconsin Stout	http://www.uwstout.edu/programs/bsba/
University of Wisconsin Whitewater	http://www.uww.edu/cobe/
Western Michigan University	http://ism.hcob.wmich.edu/

This table lists the 20 Supply Chain & Operations programs and their web addresses.

Next, we analyzed the College of Business web site of each program to identify the supply chain courses required by each program. In particular, we studied syllabi and course requirements posted on the web sites to determine which courses were similar in content even though the course names were different. For example, we viewed the syllabi and other course documents on the web sites to determine similarities in introductory courses named "Supply Chain Management" and "Logistics."

Finally, we used the knowledge gleaned from our literature review and benchmarking study to identify similarities between our program and the others, to confirm the uniqueness of our program's approach to sustainability, and to ascertain the limitations of our current course topics and sustainability-related pedagogy. In particular, we wanted to identify important topics that were missing from our courses and pedagogical approaches that would expand the breadth of our sustainability-related pedagogy beyond the use of readings (articles).

FINDINGS

Similarities between UW Oshkosh SC&OM Program and Other Programs

Table 3 is a summary of the Supply Chain and Operations Management courses required by the twenty programs. The UW Oshkosh Supply Chain & Operations Management program includes the top four

courses required by all programs studied: Supply Chain Management/Logistics, Operations Planning & Control, Quality Management, and a Strategy/Applied Projects/Cases/Capstone course. Regarding our other required courses, the BUS 342 course (Analytical Methods) is required by three other programs.

Table 3: Supply Chain & Operations Management Required Courses

Course	Number of Programs Requiring Course
Supply Chain Management/Logistics	16
Operations Planning & Control	13
Quality Management	10
Strategy/Applied Projects/Cases/Capstone Course	10
Purchasing	8
Transportation/Distribution	7
Management Science/Analytical Methods/Quantitative Business Analysis	4
Enterprise Systems	4
Project Management	3
Modeling/Spreadsheets	3
Sustainability/Environmental Management	2
Productivity Improvement	2
Negotiations	1
Safety	1

This table lists the Supply Chain and Operations Management courses required by the twenty programs. For each course, we have listed the variations on the name of the course. For example, whether the courses are called, "Supply Chain Management" or "Logistics," the courses are similar in content.

Uncommonness of UW Oshkosh SC&OM Program

The required course in Sustainability is uncommon—only one other supply chain program (Colorado State University) has a required course in Sustainability. That course, like ours, looks at supply chain management practices through the triple bottom line perspective. None of the other programs that we studied integrates sustainability topics throughout its curricula as we currently do. As Sherman (2008) recommended, we are treating sustainability as the big idea, or guiding principle, as we revise our curriculum.

Limitations of our Current Required Course Topics and Sustainability-Related Pedagogy

Regarding course topics, it is evident that we are not emphasizing purchasing and transportation sufficiently in our program. Eight other programs require a purchasing course, and seven other programs require a transportation course. We cover these two topics currently over a two-week module in our Supply Chain Management course. Given that entire courses could be devoted to both topics, it is evident that we need to expand coverage of these topics.

Our current sustainability-related pedagogy consists currently of readings (somewhat dated) in one course (Manufacturing Planning & Control); sustainability cases, videos, speakers, and projects in another course (Environmental Management); and discussion topics, e.g., reverse logistics in Supply Chain management and remanufacturing in Manufacturing Planning & Control. Our primary experiential exercise consists of sustainability projects in the Environmental Management course that have involved student groups measuring waste and energy usage at local service and manufacturing firms. Although our Supply Chain Strategy course includes a requirement that students maintain a journal of self-reflection, that journaling exercise lacks consideration of sustainability topics, e.g., a student's personal use of natural resources as recommended by Bradbury (2003). Likewise, all of our courses lack personal vision quests (i.e., walking around campus and pondering issues important to themselves) as recommended by Bradbury (2003). Finally, our program tends to emphasize the environmental aspect of the triple bottom line and does not follow the advice of Kagawa (2007) who advocated demonstrating the connections between

environmental performance and the other two parts of the triple bottom line (social equity and economic performance).

UW Oshkosh SC&OM Program Improvements

We are focusing improvements in our required courses in two areas: (1) deeper coverage of purchasing and transportation topics, and (2) additional sustainability pedagogy. Table 4 highlights some of the proposed changes to our program.

Table 4: New Topics & Pedagogy in SC&OM Required Courses

Course Number: Name	New Topics Taught; New Pedagogy
BUS 342: Analytical Methods	New Topics: Linear programming & sustainability. New Pedagogy: In-class exercise: Linear programming using environmental constraints.
BUS 343: Manufacturing Planning & Control	New Topics: Sustainability and operations management. New Pedagogy: Readings: Discussing current article relating sustainability to operations management (Kleindorfer, Singhal & Van Wassenhove, 2005). Cases: Chlorine and the Paper Industry, Dow Chemical Company Version A, Honda of America Manufacturing Inc: Lean Manufacturing and Environmental Management at Honda, Specialty Glass Inc.: Cost Accounting and Hazardous Wastes (World Resources Initiative (n.d.)).
BUS 344: Supply Chain Management	New Topics: Increased emphasis on reverse logistics. New Pedagogy: Readings: Discussing current articles on reverse logistics (Srivastava & Srivastava, 2006; Visich, Li & Khumawala, 2007). Cases: Bayerische Motoren Werke AG (BMW) Version B & Epson (China) Co. Ltd.: Adoption of Environmental Management Practices (World Resources Initiative (n.d.)).
BUS 445: Supply Chain Strategy	New Topics: Purchasing, transportation, negotiation, & social equity. New Pedagogy: Readings: Discussing current article on social equity in supply chain management (Ansett, 2007). Cases: Rainforest Negotiation Exercise (World Resources Initiative (n.d.)).
BUS 450: Environmental Management	New Topics: More emphasis on emerging energy issues & political regulations.
BUS 460 Advanced Quality Management	New Topics: Sustainability as an extension of TQM; Introduction to the ISO 14000 Standard. New Pedagogy: Readings: Discussing articles relating sustainability to TQM (Corbett & Klassen, 2006; Isaksson, 2006). Cases: AT&T Environment and Safety & Eastman Kodak (World Resources Initiative (n.d.)).

This table lists new topics and pedagogy to be added to our required SC&OM courses.

Coverage of Purchasing and Transportation

Initially, we were going to introduce a new course in Purchasing & Transportation. Introducing a new course became infeasible during the Spring Semester, 2009, when budget cuts were announced within our College of Business. Instead, we plan to expand coverage of purchasing, transportation, and a related topic, negotiation, within our Supply Chain Strategy course as noted in Table 4. This change will require that we reduce the number of manufacturing cases required in this course.

New Topics & Pedagogy

As indicated in Table 4, we will add a sustainability exercise to the Analytical Methods course. This linear programming exercise will integrate environmental and economic performance, with an objective function based on profit maximization and constraints that ensure that desired levels of environmental performance are met.

In the Manufacturing Planning & Control and Supply Chain Management courses, we have added more current readings relating sustainability to supply chain management and sustainability cases from the Bell Teaching Case Studies listed on the web site of the World Resources Institute. Those cases integrate environmental and economic performance.

In the Supply Chain Strategy course, we will include discussion of an article related to social equity (labor) issues. In addition, we are considering revising the journaling exercise to include students' reflections on their current environmental practices, such as purchasing practices (e.g., buying eco-friendly vs. low-cost products), tracking their waste generation (e.g., packaging, and paper waste), etc. We also are considering adding a case from the Bell Teaching Case Studies listed on the web site of the World Resources Institute. This case is a negotiation exercise requiring discussion of environmental and economic performance. Finally, we are considering adding a vision quest during one class period in which students could walk along the river that borders our campus. During this vision quest, students would consider personal career and sustainability goals. In the Advanced Quality Management course, we are considering adding sustainability cases from the Bell Teaching Case Studies listed on the web site of the World Resources Institute. Those cases integrate environmental and economic performance.

CONCLUDING COMMENTS

Integrating sustainability into a Supply Chain Management curriculum is an on-going project that will require changes as we learn more about the long-term effects of pollution, as natural resources continue to decrease, and as accounting practices change to reflect a product's true cost. Given that this integration is in its infancy stage, any program must be careful to assess which types of pedagogy most effectively lead to increased student environmental awareness. After sustainability is integrated into all of our SC&OM courses, we will have to debate whether to continue to require the Environmental Management course. Finally, we will have to be vigilant to avoid student burnout on sustainability topics by not duplicating sustainability definitions and content in our required courses.

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EVIDENCE ON STUDENT-MANAGED FUNDS: A SURVEY OF U.S. UNIVERSITIES

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ABSTRACT

An analysis of student-managed funds' operations in 35 universities in the U.S. was conducted with the data collected through an Internet-based survey. The results indicate that CAPM is used in most SMFs as the means to estimate the required rate of return. Value Line and Wall Street Journal are the two most widely used information sources by SMFs. It is not common for a SMF to be equipped with its own trading room. The median value of the SMFs is $460,000, but the sampling distribution of the SMFs' market capitalizations is highly right-skewed. Most of the SMFs have the same asset allocation decision. In total, about 69% of the SMFs in our sample invest at least 90% of the capital in Equity.

JEL: G00; A29

KEYWORDS: Education, Finance

INTRODUCTION

The literature in financial education supports the premise that a student-managed fund class (SMF) contributes positively to students' learning experience and education. One line of research focuses on the history of the SMF in the U.S. and its development. Another line of research examines the operation and management of a SMF. This paper falls in the class of papers that examine the operation and management of a SMF.

Recently, Neely and Cooley (2004) conducted a SMF survey in the U.S. stressing qualitative aspects of an SMF. It appears that it would be a valuable addition to the literature by providing an update to this work and to examine additional qualitative aspects and quantitative aspects of SMF programs nationwide. In particular, we wanted to obtain information about SMFs, such as: 1. What databases are used? 2. Reilly and Norton (2006, P. 130) indicate, "about 90% of a fund's returns over time can be explained by its target asset allocation policy." As such, we would like to determine how a SMF's asset allocation decisions are made. 3. Is the CAPM used by a SMF? If so, how? 4. How is an expected return calculated if it is part of the security selection process? These and other questions are explored in the research presented here.

The results of the survey summarized in this paper indicate significant variations in the nature of SMFs and in the way SMFs are managed. These differences partly are based on the relative size of the funds. Some funds have less than $25,000 of assets while others have more than $10 million. The findings suggest inconsistencies between what is taught in classrooms and what is utilized by SMFs. These findings suggest that universities and instructors should re-examine the importance of various pedagogies. These results provide valuable insights for both experienced SMF instructors and universities as well as for universities and instructors aspiring to start an SMF.

The remainder of the paper is organized as follows. In the next section, the relevant literature is discussed. Our survey methodology is described in the following section. This is followed by a summary of the survey results. The paper closes with some concluding comments.

LITERATURE REVIEW

According to Lawrence (1990), one of the first student-managed funds in the U.S. was created at Gannon University in 1952. However, the concept of having a SMF on a college campus was not popular until the late 1990s. Since that time, a SMF has been used increasingly as a tool for teaching and learning finance among business schools nationwide. There were about 30 SMFs in the early 1990s per Lawrence (1994), but that number is more than 200 today, according to the Association of Student Managed Investment Programs at Stetson University.

Another line of research emphasizes the operation and management of a SMF. Block and French (1991) discuss the process of establishing and operating a SMF, while Bhattacharya and McClung (1994) describe in detail a special case in which the SMF was built on borrowed money from a local bank. While the SMF discussed in Bhattacharya and McClung (1994) is located in a relatively rural area, Kahl (1998) presents the challenges and opportunities of a SMF operated by a metropolitan university. Johnson *et al.* (1996) focus on the pedagogical approaches used in teaching a SMF, and they argue that using an electronic meeting system (EMS) in a SMF class is better than the traditional face-to-face student group meeting with verbal communications, because "an EMS facility can result in a higher level of participation by students (P. 101.)" In a similar vein of pedagogical exploration, Grinder *et al.* (1999) contend that a student investment club on campus should be a viable complement to a more formally structured SMF in the finance curriculum.

Recently, several new trends have emerged from the development of SMFs across the U.S. Worrell (2006) reports that one newer type of the SMF, a student-managed venture fund, would give preferential treatment to entrepreneurs who are alumni of the university; and one example cited in the article is the University Venture Fund that was formed by four universities: Brigham Young University, The University of Utah, Westminster College, and Wharton School of Business. Gullapalli (2006) reports that some school administrators would try to limit the growth of their SMFs in size due in part to the fact that some donors to the schools might not "be comfortable knowing that a large percentage of their money is managed by students." Both Alsop (2007) and Gullapalli (2006) describe the emerging trend that some SMFs would only invest in companies with good social responsibility records. One example cited is a SMF in Villanova University such that it would avoid investing in companies that make military weaponry – believing that such choice is not unpatriotic and against their church's values.

SURVEY METHODOLOGY

The survey was conducted by using Internet-based technologies, and the prospective survey respondents were either a current or a past SMF-teaching faculty. An email was sent to instructors of the SMFs included in the Association of Student Managed Investment Programs requesting their participation. There were a total of 205 emails sent, and we received a total of 35 usable responses (one obvious duplicate response and one with no university information were dropped.) Therefore, the overall response rate is approximately 17%. The survey was contained in a password-protected webpage. After taking/marking the survey, the faculty clicked the "Submit Survey" button at the bottom of the webpage, thereby returning the completed survey automatically. It does appear that surveys conducted through Internet-based technologies have certain merits as described in Peng *et al.* (2007) and differs from the survey methods used by Neely and Cooley (2004). The survey instrument is provided in the appendix.

SURVEY RESULTS

Although our sample size is relatively small, it covers a wide range of the quantitative characteristics of existing SMF programs in the U.S. For example, one SMF in our sample started in 1962, while the latest SMF started in 2005. In addition, geographic diversification is provided in our sample, such as Oregon,

New York, Missouri, Texas, California, and Florida. About 57% of the SMFs are offered by public universities. The market cap of the largest SMF has more than $16 million, while the smallest has about $21,000.

As shown in Table 1, more than 60% of the SMFs did not exist until the second half of the 1990s. The persistent bull stock market in the U.S. since that time may have contributed to the rapid growth of the SMFs. Individual Donations and University Endowments are the major resources for a SMF's origination. In addition, a number of the SMFs have had additional funds added to the initial fund balance. About thirty percent of the SMFs in our sample are equipped with their own technology room. Most SMFs are "dormant" during the summer, i.e., no classes would be offered at that time.

Table 1: Summary Statistics for Background Information for the SMFs in the Survey

Panel A		
The Fund Was Launched In	**Frequency**	**Percent**
1960 to 1969	1	2.86
1970 to 1979	2	5.71
1980 to 1989	6	17.14
1990 to 1994	3	8.59
1995 to 1999	11	31.43
2000 to 2009	12	34.29
Total	35	100
Panel B		
The Financial Resources of the Fund's Origination	**Frequency**	**Percent**
University Endowment	8	24.24
Corporate Donation	1	3.03
Individual Donation	13	39.39
Other	11	33.33
Total	33	100
Panel C		
Which of the following best describes the addition to the principal of the fund?	**Frequency**	**Percent**
No additional principal is added since the fund's inception	14	41.2
Additional funds are added periodically after the fund's inception	20	58.8
Panel D		
Question	**Yes**	**No**
Does the fund have its own trading room?	10 (29.4%)	24 (70.6%)
Is the class offered in the summer?	4 (12.1%)	29 (87.9%)
Is the university public?	19 (57.6%)	14 (42.4%)

Panel A summarizes when the fund was launched. Panel B summarizes the source of the funds. Panel C summarizes the policies for adding additional funds. Panel D summarizes whether there is a supporting trading room, whether the fund is active in the summer and whether the university is private or public.

Table 2 summarizes aspects of the decision-making authority in SMFs. Most commonly, the students have this authority. For the SMFs in the sample, 56% allowed students enrolled in the class to have full control of the investment-making decision. In seven cases, representing 20.6 percent of respondents the instructor had veto making authority. In an additional six cases, some other mechanism was used. It is noteworthy that no SMF operates as "The instructor makes the decisions." Thus, each SMF class is taught with the mode of faculty being the "guide on the side", rather than the "sage on the stage."

The databases and information sources that SMFs either subscribe to or have access to are reported in Table 3. Forty-eight percent had access to Bloomberg and 37 percent had access to Standard and Poor's Compustat Research Insight. Mergent, S&P Outlook and CRSP round out the resources utilized by more than 25 percent of SMFs. The most widely used information sources are Wall Street Journal and Value Line with 77.1% and 74.3% of the SMFs using or having access, respectively. *Value Line Investment Survey* is one of the most widely used investment advisory services, and our survey result appears to attest to it. Less than half of the SMFs use or have access to any one of the other sources. The careful reader

will notice that the Wall Street Journal is utilized by about five times as many SMF's than Investor's Business Daily.

Table 2: Summary of the responses to the question

Who makes the buy/sell decisions?	Frequency	Percent
Class makes the decision	19	55.9
Class and the instructor make the decisions	2	5.9
The instructor makes the decisions	0	0.0
The class makes the decisions, but the instructor has a veto.	7	20.6
Other	6	17.6

There was no significant association between whether the buy/sell decision was made by the class or by the class with instructor input , whether the fund was university endowment vs not a university endowment, an individual donation vs not being an individual donation, a corporate donation vs not a corporate donation, or the current value of the fund. Chi-Square tests based on the 2x2 table were performed for all except the current value of fund for which a two-sample t-test was performed.

Table 3: Information Sources for SMFs

Source or Database	Frequency	Percent
Wall Street Journal	27	77.1
Value Line	26	74.3
Bloomberg	17	48.6
Standard and Poor's Compustat Research Insight	13	37.1
Mergent	12	34.3
Standard and Poor's Outlook	10	28.6
CRSP	10	28.6
Investors Business Daily (IBD)	5	14.3
WRDS subscription	4	11.4
Datastream	2	5.7
Other	12	34.3

Investigation of which databases and information sources SMFs subscribe to or Have Access to based on responses in the survey. Respondents indicated whether they used or had access to each of the sources. The sources are ordered by most to least frequently that the fund had access and/or used.

The withdrawal policy of the SMFs is summarized in Table 4. About 40% of the funds allow both the principal and the interest/dividend to be withdrawn; while roughly the same proportion of the funds would not allow any withdrawal at all. About 18 percent of funds only allow the interest or dividend income to be withdrawn. Although it is not reported in the table, our correspondents indicate that the purpose of withdrawals, when allowed, is limited to academic use, i.e., for students' scholarships.

Table 4: Withdrawal Policy of the SMFs

Which of the following best describe the withdrawal policy of the fund?	Frequency	Percent
Both the principal and the interest/dividend can be withdrawn.	14	42.4
Only the interest/dividend can be withdrawn.	6	18.2
No withdrawal is allowed.	13	39.4

Summary of the responses to the question "Which of the following best describe the withdrawal policy of the fund?" in the survey.

Table 5 summarizes the current value of the funds in the sample. The sampling distribution of the market values of these 35 SMFs is highly right-skewed. The sample average and the standard deviation are $1.44 million and $3.07 million, respectively. However, the sample median is only $460,000. Thus, our result generally suggests that a new SMF may not be "capital intensive" to be established. One fund had more than $10 million and two additional funds had between $3 million and $10 Million. Eight additional funds had current values between $1 million and $3 million. The results indicate that only two of the funds have less than $25,000. Unfortunately, it is not possible, with the data available, to distinguish between original investment and accumulated earnings.

Table 5: Current Value of the Funds

Current Value of a SMF	Number of SMFs	Percentage of SMFs
≤ $25,000	2	6.06
between $25,000 and $100,000	4	12.12
between $100,000 and $200,000	5	15.15
between $200,000 and $500,000	7	21.21
between $500,000 and $1,000,000	4	12.12
between $1 million and $3 million	8	24.24
between $3 million and $10 million	2	6.06
> $10 million	1	3.03
Total	33	100

Summary of the current value of the fund for the 33 funds that provided a response to the question in the survey. The estimated average and standard deviation are $1.44 million and $3.07 million, respectively. However, the sample data is highly right-skewed with a median value of $460,000.

Table 6 summarizes the asset allocation and orientation used by the funds. Panel A addresses the proportion of capital invested in equity instruments. Seventeen funds invest their entire capital in equities. All of the funds invested at least sixty percent of their funds in equities with one exception. The one exception was a fund that invested none of its portfolio in equities. Panel B inquires about the extent to which the investment allocation changes between equities and fixed instruments by semester. In general, funds maintain a stable asset allocation strategy from semester to semester with only five funds indicating an asset allocation change.

Panel C of Table 6 examines the orientation of the fund. Based on a 95% one-way ANOVA test the mean current value for the "Other" portfolio orientation funds is significantly higher than the other groups. There is no significant difference in mean current value among the "Growth", "Value" or "Blend" portfolio orientation funds. Most of the SMFs in our sample have the same asset allocation decision with 49% of the funds allocating 100% of the capital to equity. In total, about 69% of the SMFs in our sample invest at least 90% of the capital in equity. One SMF invests 100% of the capital in fixed income. The reason for this strategy was stated as, "The original portfolio funded by the bank loan is for fixed income securities." For the rest of the funds, the proportion of the funds invested in Equity is at least 60%.

Table 6: Normal Asset Allocation and Orientation of SMFs

Panel A: Proportion of the Capital Invested in Equity			
Proportion in Equity	Number of SMFs	Percent of SMFs	Mean Current Value
100%	17	48.5	$1,568,390
Between 90% and 100%	7	20.0	$317,643
Between 80% and 90%	5	14.3	$4,037,125
Between 70% and 80%	4	11.4	$680,093
Between 60% and 70%	1	2.9	$775,000
0%	1	2.9	$600,000
Total	35	100	$1,441,261
Panel B: Alternating Allocation by Semester			
Does the class alternate from equities to fixed income and vice versa one semester to the next?	Number of SMFs	Percent of SMFs	
Yes	5	14.3	
No	30	85.7	
Panel C: Orientation			
Portfolio Orientation	Number of SMFs	Percent of SMFs	Mean Current Value
Growth	4	12.5%	$75,786
Value	5	15.6%	$636,700
Blend	21	65.6%	$1,263,695
Other	2	6.3%	$5,845,790

Investigation of the SMFs' normal asset allocation and orientation for the funds in the survey. The percentage of the capital invested in equity, the response to the question "Does the class alternate from equities to fixed income and vice versa one semester to the next?" and portfolio orientation (growth, value or blend) is summarized.

Table 7 reports the results regarding how the SMFs determine the required rate of return and the expected return. Over 68% of the funds (22 out of 32) use the CAPM for computing the required rate of returns. In the CAPM formula,

$$E(R_j) = R_{f1} + (R_m - R_{f2}) \times beta_j \qquad (1)$$

some may prefer to use a different risk-free rate in the market risk premium calculation. In the survey, we asked how they would choose a proxy for the nominal risk-free return. Thirty six percent of the funds (8 out of 22 who answered the question) use the 10-year T-note return as the proxy for R_{f1}, while 45% (10 out of 22) indicated that they use $R_{f1} = R_{f2}$. The most commonly used proxy for the market return is the *S&P* 500, by 36% of the funds (8 out of 22 who answered the question). Value Line was the most common approach to obtaining beta, 48% (11 out of 23 who answered the question). It is interesting to note that about half of the funds surveyed in our sample would not ask every student enrolled in the SMF to compute an expected return of a stock in the security selection process. For those funds that do, about 46% (6 out of 13 who answered the question) use variations of a *DCF* model to obtain the intrinsic value of the stock. About 23% of the funds (3 out of 13 who answered the question) project the *EPS* for a number of years, i.e., five years, multiply this projected *EPS* with Value Line's projected *P/E*, plus dividends expected, then divide the sum by the current stock price and annualize the return. It is noteworthy that CAPM is not used by about one third of the SMFs in the survey.

Table 7: Use of CAPM, and Required Rate of Return and/or Expected Return

Question	Yes	No
Is the CAPM used by the class?	22 (68.8%)	10 (31.2%)
Is a required rate of return calculated for each stock?	19 (61.3%)	12 (38.7%)
Do members of the class calculate an expected return for each stock?	16 (48.5%)	17 (51.5%)

Summary of the use of CAPM, and whether a required rate of return and/or an expected return is calculated for the funds in the survey.

CONCLUSIONS

The literature in financial education supports the premise that a student-managed fund (SMF) contributes positively to students' learning experience and outcomes in finance classes. There have been some qualitative characteristics of SMFs reported in the literature, but little on the quantitative characteristics of these SMFs. The survey presented in this paper sheds some light on the quantitative aspects of SMFs' operations in the US. The survey includes information on 35 SMFs of varying age and size operating in both public and private universities. The source of the funds managed comes from both university endowments and donations earmarked for the SMF.

The results of this survey should be of interest to those who are considering starting a SMF as well as to an experienced SMF professor. Our results suggest that Wall Street Journal and Value Line are the two most widely used databases by SMFs. These data sources should be available in libraries of most universities. In addition, a SMF can be established with the amount of capital as low as $25,000. In the meantime, our result indicates that there is not much variation in asset allocation decisions among SMFs despite the fact that we usually emphasize its importance in our teaching. It is noteworthy that CAPM is not used by about one third of the SMFs in our sample. It is rare for the decisions of a SMF to be made by anyone other than the students. Approximately 30% have a technology room and they use a variety of databases and information sources. The validity of CAPM is still debated in the finance literature, but it is applied in the decision making process of many SMFs. Perhaps because SMF classes are offered in academia, *DCF* models are also often used to compute the expected return. This is quite different from how a practitioner would evaluate a stock; see Dukes, *et al.* (2006).

This survey included only US SMFs. In conclusion, we believe that a similar survey of those SMFs operated in overseas higher learning institutions would add value to the literature. We have seen the emergence of a few SMFs in universities in countries such as China, Mexico and Israel. It is our intention to provide additional updates on the state of the SMF programs in the U.S. as well as those offered overseas.

APPENDICES

List of Universities in Survey

University of Kentucky	Central Michigan University	Brigham Young University
University of Tulsa	University of Missouri - St. Louis	University of Illinois at Urbana-Champaign
Franklin & Marshall College	The University of Texas at Austin	Iona College
Texas Tech University	University of Houston	Ouachita Baptist University
Creighton University	Millsaps College	University of Missouri - St. Louis
Trinity University	University of Utah	West Texas A&M University
Oregon State University	John Carroll University	Ohio University
Washington State University	University of North Florida	Moravian College
Santa Clara University	Eastern Illinois University	Morehouse College
Portland State University	Illinois State University	Cameron University
Appalachian State University	Ashland University	University of Oklahoma
University of Iowa	Baylor University	

Survey Instrument

1. When did the fund start?

   The name of the University is _____ Semester _____ Year _____

2) What were the financial resources of the origination of the fund?

   a. University Endowment   b. Corporate Donation   c. Individual Donation   d. Other (please specify) _____

3) Which of the following best describes the addition to the principal of the fund?

   a. No additional principal is added since the fund's inception
   b. Additional funds are periodically added after the fund's inception

4) If you choose answer-choice b. in Question 3) above, what is the source of the funds? (Please skip this question if you did not choose the answer-choice.)

5) Does the fund have its own trading room?

   a. Yes   b. No

6) Who makes the buy/sell decisions?

   a. Class makes the decision.
   b. Class and the instructor make the decisions
   c. The instructor makes the decisions
   d. The class makes the decisions, but the instructor has a veto
   e. Other (please specify) _____

7) Is the class offered in the summer?

   a. Yes   b. No

8) The university is _____.

   a. Public   b. Private

9) What databases and information sources does the fund subscribe to or have access? (Please check all of the following that are applicable.)

      a. CRSP   b. Standard and Poor's Compustat Research Insight   c. WRDS subscription   d. Datastream

      e. Bloomberg   f. Mergent   g. Value Line   h. Investors Business Daily (IBD)

      i. Investors Business Daily (IBD)   j. Sandard and Poor's Outlook   k. Other (please specify) _____

10) Which of the following best describe the withdrawal policy of the fund?

      a. Both the principal and the interest/dividend can be withdrawn
      b. Only the interest/dividend can be withdrawn
      c. No withdrawal is allowed

11) If money is allowed to be withdrawn from the fund, please describe the purpose of the withdrawals.

12) What is the current value of the fund?

      $ _____ Note: If the fund has maintained a periodic, i.e., monthly, return file (since the inception of the fund), we would appreciate receiving it as an attachment at the following email address:

13) What is your normal Asset Allocation of the fund?

      Equity   _____%
      Fixed Income   _____%
      Derivatives (Futures, Options and Other Derivatives)   _____%
      Others   _____%

14) If you choose "Others" in Question 13) above, please explain. (Please skip this question if it is not applicable.)

15) Does the class alternate from equities to fixed income and vice versa one semester to the next?

      a. Yes   b. No   c. Other (please specify) _____

16) Is the portfolio oriented to _____?

      a.   Growth   b. Value   c. Blend   d. Other (please specify) _____

17) Is the CAPM used by the class? [$R_i = R_{f1} + (R_m - R_{f2}) \times beta$]   a. Yes   b. No

18) Refer to Question 17. If yes, what is the proxy for R_{f1}?

      a. 1-mo. T-Bill   b. 3-mo. T-Bill   c. 6-mo. T-Bill   d. 10-yr T-note   e. 20-yr T-Bond   f. Other (please specify) _____

19) Refer to Question 17. If yes, what is the proxy for R_{f2}?

      a. The same as R_{f1} b. The current 3 mo T-Bill   c. 10-yr T-Note, the same time period as R_m
      d. 20-yr T-Bond, the same time period as R_m e. Other (please specify)

20) Refer to Question 17. If yes, what is the proxy for R_m?

      a. Ibbotson data, arithmetic mean for large cap stocks from 1926 to date
      b. Ibbotson data, geometric mean for large cap stocks from 1926 to date
      c. Selected time period from Ibbotson's data, arithmetic mean
      d. Selected time period from Ibbotson's data, geometric mean
      e. Wilshire 5000, equity return for a specific time period
      f. S&P 500 return
      g. Other (please specify) _____

21) If you choose "S&P 500 return" in Question 20) above, what is the time-period used? (Please skip this question if it is not applicable.)
      _____

22) Refer to Question 17. If yes, how is the coefficient of beta determined?

      a. Calculated by the class from the data available
      b. The beta estimate reported by the Value Line
      c. The beta estimate reported by Standard and Poor's
      d. Use brokerage house betas, i.e., from those reported by Merrill Lynch
      e. Other (please specify) _____

23) Is a required rate of return calculated for each stock?   a. Yes b. No

24) Refer to Question 23. If yes, how is the required return calculated?

        a. By use of the CAPM   b. Return greater than twice that of the 20-year T-bond yield
        c. Return greater than twice that of the 10-year T-note yield d. Other (please specify) _____

25) If you choose "No" in Question 23) above, please explain. (Please skip this question if it is not applicable.)
        _____

26) Do members of the class calculate an expected return for each stock?

        a. Yes   b. No   c. Other (please specify) _____

27) Refer to Question 26. If yes, how is the expected return calculated?

        a. Annualize the Holding Period Return (*HPR*) for 3 years
        b. Annualize the Holding Period Return (*HPR*) for 5 years
        c. Annualize the Holding Period Return (*HPR*) for more than 5 years
        d. Project a price based on expected EPS growth plus dividends expected, then divide the sum by the current stock price and annualize the return.
        e. Project the EPS for a number of years, i.e., five years, multiply this projected EPS with Value Line's projected P/E, plus dividends expected, then divide the sum by the current stock price and annualize the return.
        f. Use of the constant growth model to obtain the price, plus dividends expected, then divide the sum by the current stock price and annualize the return.
        g. Other (please specify) _____

28) If you choose "No" in Question 26 above, please explain. (Please skip this question if it is not applicable.)

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SCREENCASTS AS A LEARNING RESOURCE TO ENHANCE A QUANTITATIVE BUSINESS METHODS COURSE

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ABSTRACT

The challenge of teaching the required Quantitative Business Methods course is the diversity of Excel and quantitative skill levels of the students. Some students are able to keep up with the course assignments while others become frustrated and fall behind. Screencasting is a technology that is used to capture each action a user is performing on their computer screen accompanied by audio narration describing what the user is doing on the screen. The screencasts were used to demonstrate Excel lessons and example problems for the class. Screencasts were recorded outside of class and posted to the course management site. Student survey results indicated that the majority of the students who viewed more than 25% of the screencasts found them to be helpful for completing the homework assignments, staying up to date in the course, studying for the tests, and completing the course project. Technical difficulties were encountered downloading and viewing the screencasts by the students. Further study of the effectiveness of the screencasts is suggested. To overcome the technical difficulties that were encountered by using the course management system to post the screencasts, students could be provided with a CD-ROM of the screencasts at the beginning of the course.

JEL: A2; C88

KEYWORDS: Screencasts, Podcasts, Lecture recordings, Camtasia studio

INTRODUCTION

Quantitative Business Methods is a required course in the business program for management, marketing, finance, and accounting majors. The challenge of teaching the required Quantitative Business Methods course is the diversity of Excel and quantitative skill levels of the students. The majority of the students in the business program are transfer students. The pre-requisite Statistic, Algebra, and Introductory Computer courses are taken primarily at community colleges. Most students have not taken an Excel course in over a year and some students have never taken an Excel course. Students have expressed concerns about the difficulty of the Quantitative Business Methods course, their Excel knowledge, and keeping up with the homework for the course.

The classes have 30-35 students making it difficult to give individual attention during the lab time. The classrooms that accommodate these students are physically large making it difficult for the professor to physically navigate the room to help students. Some students are able to keep up with the course assignments while others become frustrated and fall behind. To address the concerns of students about completing assignments and keeping up to date with the course the professor developed screencasts outside of class to provide a supplemental learning resource to help students. This paper reviews the experiences of a professor using screencasts during the fall 2008 semester to enhance the core business course Quantitative Business Methods.

The remainder of this paper is organized as follows. In the next section, the relevant literature is discussed. A discussion of the data utilized in the paper follows. Next the test results are presented. The paper closes with some concluding comments.

LITERATURE REVIEW

In this section, a review of the literature is provided. The literature review is organized as follows. First the literature related to computer aided instruction is presented. Next, more specific literature related to podcasts is discussed. Finally, a discussion of the mechanics of screencasts is presented and finally the literature related to screencasts is discussed.

Computer Aided Instruction

In the 21st century technology is a critical tool for enhancing the student learning experience. With the growth of distance learning courses computer aided instruction has become essential for enabling students understand course content and learn how to use software. However, computer aided instruction is not new. Early models date back to the 1950's (Bontempt, 2003). Initially computer aided instruction was viewed as a replacement for a teacher or as "skill and drill" instruction (Bontempt, 2003). Computer based instruction follows a student centered instruction model that is more effective than traditional classroom instruction because it allows students to learn at their own pace (Bontempt, 2003).

The level of student motivation can determine the outcome of computer aided instruction just as computer aided instruction can help motivate students with low levels of motivation for learning (Bontempt, 2003). Computer aided instruction that is supplemental to classroom instruction has shown significant increases in achievement across all disciplines (Kinzie, 1992). Newer technologies such as podcasts and screencasts are being used as part of distance learning and face to face courses as learning resources. The following sections will review the effectiveness of these types of instruction methods at universities worldwide.

Podcasting Lectures-An International Initiative for Universities Worldwide

A podcast is a digital media file that is distributed on the web using RSS (Really Simple Syndication Technology) a form of web syndication that identifies and retrieves new files when they are made from a source. A user subscribes to podcasts in which the content is automatically delivered to their computer (Winterbottom, 2007). Special research projects have been undertaken to study the effects of podcasting technology at universities worldwide.

Early uses of podcasting were by faculty at Georgia College and State University in liberal arts courses using i-pods starting in 2002 (GCSU, 2009). The use of the i-pods increased student engagement by having students create podcasts outside of class and post them to the course management system. During the 2005-2006 academic year the enrollment in these courses increased to over 40 new i-pod enhanced classes being offered (GCSU, 2009). Faculty found that the i-pod allowed them to "maximize higher order thinking in class by shifting less demanding tasks outside of class" (GCSU, 2009) with students having more critical thinking discussions in class (GCSU, 2009).

The IMPALA project was funded under the Higher Education Academy in the United Kingdom in early 2006 with partners including University of Leicester, Royal Veterinary College London, Kingston University and the University of Gloucestershire (IMPALA, 2009). The first outcome of the project was that podcasts needed to have a purpose within in the course to address a particular pedagogical issue. The podcasts were integrated into online courses and used as supplemental instruction for face to face courses. Some of the applications of podcasts generated by faculty who participated in the IMPALA project were providing summary lectures, recorded lectures, instructions for field trips, and giving feedback to students (IMPALA, 2009). Students used podcasts to generate their own content such as interviews of experts, documentaries of field work, and class discussions (IMPALA, 2009). The researchers learned that video works better than audio for practical-based learning such as providing instructions on how to use a

software program, field-based learning, and for visual-based learning such as laboratory session demonstrations (IMPALA, 2009). Video has the disadvantages that the file sizes are large and it will require a camera if there needs to be video of the instructor. Podcasts have the advantage of being reusable giving instructors the flexiblity to update their work easily and share it with others (IMPALA, 2009). An instructor could develop a digital repository of podcasts for future use or of student work for assessment (IMPALA, 2009). The research showed that student-developed podcasts "promoted active, independent and collaborative learning" (IMPALA, 2009).

Universities in Australia, Canada, United Kingdom, and the United States are podcasting lectures for their students (Lee, 2007, Nie, 2008, Pinder –Groover, 2009; Winterbottom, 2007). In January 2006 Apple Incorporated marketed a software package called iTunes U to universities to host and manage online resources such as podcasts (Apple Incorporated, 2009). Universities that use iTunes U include Cambridge University, Oxford University, Stanford University, Harvard University, Texas A&M University, Massachusetts Institute of Technology, and Carnegie Mellon University. The company promotes the use of video and audio podcasts as allowing students to "study at their own pace, wherever and whenever they want" (Apple Incorporated, 2009).

At universities internationally faculty have had the same concern that student attendance would decline if in class lectures were recorded. However, this was not the case as recorded lectures had a minor effect on attendance (Copley, 2007, Gosper, 2009; Lane, 2006). Students worldwide have reported that they use the lectures to review the material, for exam preparation, for note taking, or when they can not come to class due to illness or emergency (Bongey, 2006; Copley, 2007; Harpp, 2007; Gosper, 2009). Students attend class because they like the classroom interaction (Copley, 2006; Gosper, 2009) and structure (Copley, 2006) of having face to face meetings. Even though the recorded lectures have had a minor impact on attendance students have reported viewing the recorded lectures instead of attending class on days when they only had one class, but not as a regular habit (Gosper, 2009). The studies of recorded lectures have focused on large lectures classes. Evidence from a Washington State University study indicates that students think recorded lectures are more appropriate for class sizes over 100 rather than for small classes of less than 50 students (Lane, 2006).

Podcasts were developed as supplemental materials for a Water Resources Management module from the Earth Sciences and Geography department at Kinston University (IMPALA Project Exemplar, 2009). The podcasts were 5-6 minute audio files that reviewed key concepts, introduced the next week's lecture, and provided additional material, but did not repeat the lecture. Student feedback was assessed through questionairres about their listening patterns of the podcasts and reasons for not listening to the podcasts. Student focus groups were also used to asses the podcasts. The feedback from the students about the podcasts was positive. Students found that "lisening was easier than reading" (IMPALA Project Exemplar, 2009). The new tool increased their curiosity in learning as podcasting was a "new way of learning" and the students wanted to learn about how it works (IMPALA Project Exemplar, 2009). They liked having a summary of the lecture. The instructor found that it took up two hours to create a five minute podcast and would like to have students involved in creating the podcasts (IMPALA Project Exemplar, 2009) .

Screencasts

Screencasting is a technology that is used to capture each action a user is performing on their computer screen accompanied by audio narration describing what the user is doing on the screen. Screencasting is well suited for software tutorials and demonstrating basic concepts (Educause Connect, 2006). It allows students to learn at their own pace in a self directed manner (Educause Connect, 2006). Screencasts are well suited for classes with students that have varying levels of proficiency with a subject. Students who would find the material remedial can choose not to view the screencasts while other students who find the

material very challenging can view them several times and rewind them when they need the information repeated (Kroski, 2009). This technology is effective for both visual and auditory learners as there is video and narration that is less complicated than written directions (Rethlefsen, 2009). Camtasia Studio and other screencasting packages allow for editing. When making a presentation using screencasting software the presenter is forced to perform the demonstration in a step by step manner describing every action they are performing on the screen. Users of the packages can edit non value added speech such as "um" or "uh" and wasted motions reducing the time and increasing the quality of the presentation beyond the level of an in person presentation (Undell, 2005).

The major advantage to screencasting is that lessons are delivered succinctly. Screencasts are different from recorded lectures, in that, they should not last more than 10 minutes (Costello, 2009; Whistlemedia.net, 2009). A screencast is intended to promote active learning. It should not contain any wasted speech or motions on the computer screen. Recording should take place using a professional headset microphone in a quiet area. Before recording it is recommended that the screen resolution be adjusted to 800X600 (Costello, 2009). In order to effectively deliver a screencast the instructor should script the lesson in advance. A written script may be prepared in advanced. The audio track should not be silent for more than 3 seconds (Whistlemedia.net, 2009) which can be accomplished through editing (Undell, 2009). Both the voice narration and the video can be edited. Screenshots and narration can be inserted or removed. Through editing Undell was able to reduce a 10 minute screencast to 3 minutes (Undell, 2005). Title slides are recommended to guide the user through the presentation (Whistlemedia.net, 2009). Callouts such as arrows can annotate the screen during the presentation to call the users attention to important features. After the screencast there are a variety of options for production. In academic settings screencasts are posted to course management systems or to blogs. Files are saved in a format compatible with the file size, resolution, hardware, and software for the users (Educause, 2006).

Traditionally students learned how to use library resources by trial and error, asking a librarian, or attending workshops offered by library personnel at the library. Screencasts were initially used primarily for library tutorials (Peterson, 2007). Librarians at Schwabe Williams, & Wyatt in Portland, Oregon and the Off Campus Library services at Indiana Weselyan University's Adult and Graduate Studies program have developed screencasts for instructional tutorials for searching online databases (Information Today, 2007). Screencasts were developed by the computer automation librarian at Schwabe Williams, & Wyatt for Endnote bibliographic software training and for demonstrating how cataloging such as adding a volume to a serial, creating a new copy, and how to change the location of an item is done (Information Today, 2007).

Washington State University has developed a database of 21 screencasts for its Tour and Tutorials page (Washington State University, 2009). Some of these resources are similar to those previously described including screencasts for specific types of database searches for books and articles by citation and creating endnotes. Other resources guide users on how to borrow an item through interlibrary loan, provide instruction about reliability, validity and authority of resources; and how to save preferred searches (Washington State University, 2009).

Creating screencasts is time consuming for librarians. Since there are many common user issues the Animated Tutorial Sharing project was started to promote the sharing of screencasts by librarians (ANTS, 2009). The ANTS project is sponsored by The Council of Prairie and Pacific University Libraries (COPPUL) which is a consortium of 20 Canadian university libraries located in Mantoba, Saskatchewan, Alberta, and British Columbia (COPPUL, 2009). During February 2009, the Library Information Literacy Online Network web was started to provide librarians with screencasts using open source software and wikis to share ideas.

Is computer based library training as effective as traditional classroom training? To answer this question Canadian researchers (Zhang, 2007) reviewed 10 studies of computer assisted instruction versus face to face instruction for teaching undergraduate students basic library skills such as library cataloging, interlibrary loan, and online searches. These studies were from the United States, Canada, and Australia. The researchers found that computer assisted training was equally as effective as face to face training for basic library skills to undergraduate students (Zhang, 2007). The implications of this research along with the COPPUL project are that having readily available online training for library users can potentially create library training that is more accessible for users who can not attend in person training. For students that need training for a specific skill while completing a last minute assignment having screencasts available for quick training may prove to be very valuable resource.

Faculty use screencasts to provide feedback to students on course work such as papers or projects (Educause, 2006). The majority of students preferred voice feedback to written comments on returned papers in a study of students taking a writing course (Still, 2006). Voice feedback provides a context for the student letting them listen to the instructor's criticisms about their paper (Educause, 2006; Still, 2006). Listening to an instructor giving feedback is more personalized similar to direct conversation with the instructor (Educause, 2006; Still, 2006). It enhances the connection between the student and the teacher especially for commuter students who may not feel as tied to the campus community (Kates, 1998). Podcasting was also shown to provide more personalized and effective feedback for participants in the IMPALA 2 project (Nie, 2006). The disadvantage of audio recordings is that they can be complex requiring the listener to concentrate and process the information (Still, 2006). The screencast is visual and provides voice narration. Unlike a voice podcast the student can see exactly what the teacher is criticizing and hear the instructor's feedback for reasons for the grade. The screencast eliminates the cognitive load that voice only feedback requires allowing the student to better focus their attention on how to correct their mistakes.

Research Studies about the Effectiveness of Using Screencasts for University Course Instruction

Research studies about the effectiveness of screencasting have been conducted in Australia, United Kingdom, and United States. Winterbottom (2007) developed a series of lectures for a second year environmental science course at the University of Stirling, a university in the United Kingdom (Winterbottom, 2007). Eight lectures were recorded outside of class using Camtasia Studio. The students completed a questionnaire about their access patterns and the effectiveness of the lectures. The majority of the students (85%) responded that they liked having the screencasts with 76% indicating that they would like to have more lectures delivered in this format (Winterbottom, 2007). Students had a tendency to fall behind in the course with "45% reporting that they accessed all or most of the lectures within a week of release, 34% started to access them regularly, but fell behind, and 21% only accessed them during final exams week" (Winterbottom, 2007). Students reported technical difficulties on the questionnaire, however, did not report them when they encountered them. The drawbacks to screencasting reported by the students on the survey were the time it took to view the screencasts and that it was easy to fall behind in viewing the lectures. The students enjoyed the flexibility of being able to view the lectures at any time rather than being constrained to the class schedule (Winterbottom, 2007). The author concluded that screencasts should be used as a supplemental resource for teaching the theoretical material of the course rather than a replacement for face to face teaching so as to use the class time for discussion and practical based teaching (Winterbottom, 2007).

In the United States, Pinder-Groover (2009) developed screencasts to supplement a large lecture course MSE 220, Introduction to Materials and Manufacturing. Several different types of screencasts were created. These screencasts included "explanations for topics that were identified by the students as unclear"; homework, quiz and exam solutions, and lectures (Pinder-Groover, 2009). Student's responses to an online questionnaire indicated that the majority of the students thought the screencasts were helpful

for "clarifying misunderstandings, to supplement the lecture material, and review for the exams." Despite the student opinions that the screencasts were helpful in learning the material their screencast usage did not correlate with student performance (Pinder-Groover, 2009). Another study similar to the Pinder-Groover study also did not show improvement in student performance when mini-lectures were posted to the course management system, despite extensive student use (Harpp, 2004).

Researchers from Australia experimented with screencasts to determine whether they would be effective for students to learn BlueJ so that they could transition the skills they learned with BlueJ to writing JAVA code. The study found no significant effect of screencasts for learning BlueJ (Lee, 2008). The authors concluded that there needed to be follow-up research to determine whether there were other factors such as the students not being prepared to participate in the data collection for the study that contributed to the results (Lee, 2008).

Students have traditionally been expected to learn how to use software with textbooks that have screenshots and step by step directions. With this approach students often need individual or group support in order to use the software (Mount and Chamber, 2008). With larger class sizes providing individual attention to students is difficult for professors. Professors teaching at small colleges and universities often do not have a teaching assistant for the course making it more difficult to attend to the needs of individual students. At the University of Nottingham, Mount and Chambers encountered these difficulties with teaching students how to use Geographical Information Systems software using printed materials, Additionally, GIS software required geography students to understand discipline specific knowledge in order to grasp how to use the software. To overcome the frustrations that students were experiencing using printed materials, Mount and Chambers created 24 video podcasts to replace the 60 pages of paper based manual and 45 screenshots (Mount and Chambers, 2008). Instead of using paper manuals, the students viewed 136 minutes of video podcasts that were available as downloadable video podcasts or as streaming video on the WebCT course management site (Mount and Chamber, 2008). Students reported that the new method of instruction motivated them to become independent learners as they were able to learn at their own pace. The video podcasts had the effect of creating individual instruction without needing a staff member present to help the student. The rich media of the moving images and narration of the podcasts compared to the still images of the paper screenshots allowed them to learn the material independently so that they did not need help from the tutor (Mount and Chambers, 2008). These results are consistent with prior research by Durbridge that audio has the advantage over printed media by "adding clarity and meaning and motivating the student "by conveying a directly a sense of the person creating those words" (Durbridge, 1984).

The researchers noted that the video podcasts were not a "quick fix", but rather part of a clear teaching strategy in which students had the skills and technology to use the podcasts (Mount and Chambers, 2008). The video podcasts were an effective instructional technique because they were less redundant and abstract than text materials allowing the learners to process the information more efficiently (Mount and Chambers, 2008). With increased learning efficiency and a more flexible approach to learning students became more motivated and engaged (Mount and Chambers, 2008).

Video podcasts have been effective in helping students prepare for laboratory sessions. The teaching staff at the Royal Veterinary College in London prepared narrated animated video podcasts about anatomical specimens of tissues and structure used for study during laboratory and practicum sessions. The specific topics for the video podcasts were selected by asking student focus groups to identify the topics that were most difficult. The 5 minute video podcasts were delivered through the course management system. The advantage to having the podcasts available before the laboratory sessions was that access to the specimens was limited on a personal and individual basis due to the class size in the modules. By having access to the podcasts, students were able to use their video i-pods to learn the material at a time that was convenient for them making it easier for them to prepare for laboratory sessions ahead of time (Cox,

2008). During the laboratory sessions students were able to use the staff and session time more efficiently as a result of the video podcast allowing them to be more prepared for the practicum (Cox, 2008).

Summary of Literature Review

All of the prior studies reviewed about screencasting and podcasting show that students worldwide in Australia, Canada, United Kingdom and the United States like the flexibility of being able to view them at their own pace. Having this convenience increases student motivation to learn. The cognitive load to understand screencasts and podcasts is less than reading printed materials as research has shown that children are wired to speak and listen, but not read (Lee, 2007). The screencasts do not necessarily correspond to an increase in performance, however, students do report that they like having them as a supplemental resource. Moreover, if the screencasts were not made available as a resource, students who miss class or do not have thorough notes may become frustrated and not complete the course. An individual student may not perform as well if they had not had this resource available, a variable which the research studies do not measure.

DATA AND METHODOLOGY

The professor created screencasts to demonstrate Excel lessons and example problems for the Quantitative Business Methods course.   Screencasts were recorded outside of class using Camtasia Studio 6.0 software and posted to the course management site. The presentations were edited to remove wasted motions and unnecessary speech. Camtasia Studio supports high definition quality video for the web and mobile devices.   It allows the user to capture full screen videos and zoom in on important actions that the user is performing. The screencasts files posted to the course management system were windows media files. The professor made four different sets of screencasts. These screencasts were screencasts that were Excel tutorials (13 screencasts), demonstrations of example quantitative analysis problems (6 screencasts), screencasts that reviewed the sample tests (3 screencasts), and screencasts that were posted to help students do their project (4 screencasts).

RESULTS

There were five criteria that were used to assess the learning outcomes achieved by the screencasts. The five criteria were: 1.) student feedback on a survey about the screencasts and other teaching techniques 2.) percentage of students submitting homework assignments during the fall 2008 semester compared to prior semesters 3.) quality of homework submitted during the fall 2008 semester 4.) number of hits to the course management site where the files were stored and accessed and 5.) test scores.

Criteria 1: Student Feedback Survey

A student feedback survey was administered during the middle of the semester to assess the effectiveness of the screencasts. Of the 28 students in the class 21 completed the survey and 14 of the 21 students said they viewed the screencasts outside of class. The survey was analyzed in terms of the entire class response, students who had viewed less than 25% of the screencasts, and responses of students who were regular viewers. A regular viewer was defined as a student who viewed at least 26-50% of the screencasts. Five students were classified as regular viewers. The major limitation of the survey was the small sample size.

Columns 1 through 4 of Table 1 list the topic of the screencast, the number of students who viewed the screencast, the percent of students from the entire class who viewed the screencast, and the percent of regular viewers who viewed the screencast. The most popular screencasts were the screencasts for the

Table 1: Screencasts Viewed by Students

Topic	Number of Students Viewing Screencast	Percent of Students Viewing Screencast	Percent of Regular Viewers Viewing Screencast	Percent of Students Claiming to Know Skill at Beginning of Semester-Not Regular Viewers	Percent of Regular Viewers Self Reporting to Know Skill at Beginning of Semester
Scenario Manager	9	64%	100%	6%	0%
IF Statement	8	57%	100%	12.5%	0%
Screencasts for Project	8	57%	100%		
Basic Formulas	7	50%	80%	69%	40%
Calculating Loan Payment	7	50%	100%	31%	20%
Absolute and Relative References	6	43%	100%	12.5%	0%
Using Goal Seek to Find Breakeven Point	6	43%	80%	6%	0%
Decision Making Under Uncertainty	5	36%	80%		
Screencasts for Sample Test	4	29%	60%		
Decision Trees	2	14%	40%		

This table contains data from the student feedback survey to determine which screencasts were watched by the students in comparison to their self reported Excel knowledge at the beginning of the semester. There are no figures reported in columns 5 and 6 for decision making under uncertainty or decision trees screencasts as the survey did not ask if students had prior knowledge about these topics. Multiple skills were included in the screencasts for the project and sample test so no data is reported in the 5th and 6th columns. A higher percentage of students who viewed 0-25% of the screencasts or did not view the screencasts self reported knowing Excel skills at the beginning of the semester than students who were regular viewers of the screencasts.

scenario manager, IF statement, and the project. These were screencasts that few students reported having prior knowledge about. However, the decision trees screencast, screencasts for sample tests and decision making under uncertainty were the least viewed and contained material specific to the Quantitative Business Methods course. It is speculated that since more class time was spent on these topics that students may have not needed to view the screencasts. The primary reason reported for not watching the screencasts by 71% of the students who did not watch the screencasts was that they learned the material in class or by using the textbook.

The data in columns 5 and 6 of Table 1 is being used to assess what percentage of the students who viewed a screencast in comparison to their prior knowledge of the skill at the beginning of the semester. There are no figures reported in columns 5 and 6 for decision making under uncertainty or decision trees as the survey did not ask if students had prior knowledge about these topics. These were topics that were specific to the Quantitative Business Methods course. Multiple skills were included in the screencasts for the project and sample test so no data is reported for prior skills in the 5th and 6th columns. It would be expected that students who already knew a particular skill would be less likely to view a screencast about that skill. A higher percentage of students who viewed 0-25% of the screencasts or did not view the screencasts self reported knowing Excel skills at the beginning of the semester than students who were regular viewers of the screencasts.

Table 2 is a summary of the percentage of students rating the screencasts as helpful of very helpful for completing the homework, completing the car decision case study, studying for the test, and staying up to date with the course that had viewed 0-25% of the screencasts, were regular viewers, viewed the screencasts for the project, and viewed the screencasts for the sample test. There were 9 students who viewed 0-25% of the screencasts, 5 students who viewed at least 26% of the screencasts, and 7 students who did not view the screencasts. The students who viewed 0- 25% of the screencasts thought they were most effective for helping them do their homework as 88% of the respondents rated the screencasts as helpful or very helpful for completing the homework. Over 50% of the respondents who viewed 0-25% of the screencasts rated them as helpful or very helpful for completing the car decision case study, studying for the test, and staying up to date with the course. All of the regular viewers rated the screencasts as helpful or very helpful for completing the homework and staying up to date in the course.

Table 2: Effectiveness of Screencasts as a Resource

	Percent rated helpful or very helpful by 0-25% of viewers	Percent rated helpful or very helpful by regular viewers	Percent rated helpful or very helpful by respondents who viewed the screencasts for the project	Percent rated helpful or very helpful by respondents who viewed the screencasts for the sample test
Complete the homework	88%	100%		
Complete the car decision case study	55%	60%	75%	
Study for the test	66%	80%		75%
Stay up to date with the course	55%	100%		

Table 2 is a summary of the percentage of students rating the screencasts as helpful of very helpful for completing the homework, completing the car decision case study, studying for the test, and staying up to date with the course that had viewed 0-25% of the screencasts, were regular viewers, viewed the screencasts for the project, and viewed the screencasts for the sample test.

To specifically evaluate the effectiveness of the screencasts for completing the car decision case study and studying for the test the responses from respondents who viewed these specific screencasts were tabulated. There were 4 respondents who viewed the car decision case study and 8 respondents who viewed the screencasts for the project. The screencasts for the car decision case study and studying for the test were rated as helpful or very helpful by 75% of the respective respondents.

Criteria 2 & 3: Quality and Quantity of Homework Submitted

The percentage of homework submitted increased from 72% during fall 2007 to 76% and 75% for sections 1 and 2 respectively during spring 2008, to 84% during fall 2008 as shown in Figure 1. The increase may be due to the screencasts as 80% of the students who regularly viewed the screencasts reported turning in at least 90% of the homework compared with 71% of the students who never viewed the screencasts and 44% of the students who viewed 25% or fewer screencasts outside of class reported turning in at least 90% of the homework. Also, less class time was spent reviewing homework. More material was covered in the course during the fall 2008 than in prior semesters. Homework scores increased slightly.

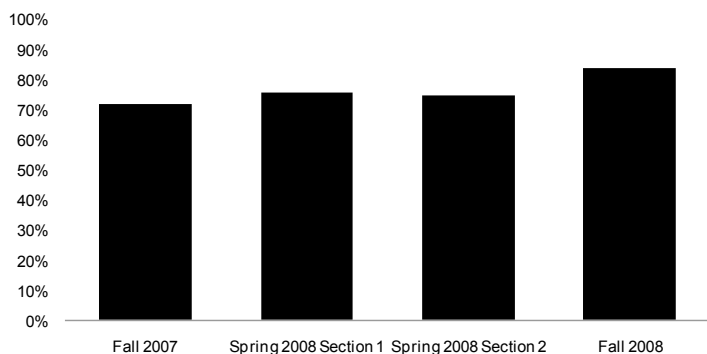Figure 1: Percentage of Homework Submitted

Figure 1 lists the percentage of homework assignments submitted during the fall 2007, spring 2008, and fall 2008 semesters for all students enrolled in the Quantitative Business Methods course. There were two sections of the course taught during spring 2008.

The homework assignments were assigned from the textbook used for the course. The textbook for the fall 2008 semester (Render, 2009) was a different book coauthored by the same authors as the book used during the previous year that was no longer in press for the fall semester (Balakrishnan, 2007). Since the new book used for the fall 2008 semester was written by the same authors some of the problems were identical to the problems used in the prior year's book while other problems had similar concepts, but

different data. However, there was more supplemental Excel material in the textbook used during the 2007-2008 academic year. To compensate for the lack of Excel material in the new textbook, the professor included an Excel book as a course textbook for the fall 2008 semester.

The professor gave a similar number of assignments during all three semesters; however, the assignments were not identical. A supplemental Algebra review assignment was given during the beginning of all three semesters. There were supplemental introductory Excel assignments in the spring 2008 and fall 2008 semesters, but not the fall 2007 semester. The professor chose similar problems covering break even analysis, mathematical models, decision making, project management, and forecasting during all three semesters. The fall 2007 and fall 2008 semester class covered more linear programming topics than the spring 2008 semester.

The most notable increases in grades for assigned work was the project grades increased from an average of 79 to 87 from spring 2008 to fall 2008. The project was the same for the spring 2008 and fall 2008 semesters. The project grades account for 28% of the total grade.

Criteria 4: Number of Hits to Course Management Site

The professor calculated the average number of hits to files from the course management site to determine which resources the students were accessing the most. The average number of hits for PowerPoint files used for the lectures was 51, Excel files needed to do the homework assignments files was 43, the answers to homework problems was 32, and the screencasts was 19. The screencasts files had the lowest average access. The survey was anonymous; however, the course management system records gave the professor an indication of the percentage of students accessing the screencasts. The screencast files were being accessed in patterns that confirmed the results of the student survey about the percentage of students using the screencasts.

Technical difficulties were encountered downloading and viewing the screencasts by the students. The files had to be posted to the discussion section of the course management system instead of the course content section causing difficulty in locating the files. To further compound the access problem the students could not open the screencasts by clicking on the link. They had to save the file first and then open it. Since the files were windows media files students with Apple computers had to download the Windows Media player. To overcome technical difficulties encountered by using the course management system to post the screencasts students could be provided with a CD-ROM of the screencasts at the beginning of the course.

Criteria 5: Test Scores

The average test score for the first test was within 1% of the averages from prior semesters. The majority of the students that were regular viewers of the screencasts scored in the 80-89 range with one student failing the test and one student scoring above 90. The test followed a similar format having 20 multiple choice questions accounting for the 40% of the test followed by opened ended problems accounting for 60% of the test. The multiple choice questions were taken from the test bank provided by the publisher. The professor does not allow student to keep the tests. Open ended questions are reused on subsequent tests, but the tests are not identical. The professor has a bank of open ended question that have been adapted from the textbook and the test bank provided by the publisher. To prevent academic dishonesty, there are three different versions of the test given during a class period meaning that the tests given during the same class period are different for the open ended questions. The data is changed for the open ended problems keeping the concepts tested the same. The multiple choice questions and answers are scrambled. About 20% of the multiple choice questions are taken directly from the sample test. The open ended problems are similar to the sample test problems, but not identical.

CONCLUDING COMMENTS

Screencasts were rated by students as helpful for completing assignments and staying up to date with the course. Project grades and homework submissions grades increased from prior semesters; however average test scores on all three exams were similar to prior semesters. The improvement in student performance may be due to screencasts or other factors. Students who chose to view the screencasts are the students who self report lower Excel skill levels at the beginning of the course.

Technical difficulties were experienced most often by the students who viewed 0 to 25% of the screencasts. The most frustrating technical difficulty reported was not being able to open the screencasts. Further study of the effectiveness of the screencasts is suggested. To overcome technical difficulties encountered by using the course management system to post the screencasts students could be provided with a CD-ROM of the screencasts at the beginning of the course.

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BIOGRAPHY

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AN EXPLORATORY ANALYSIS OF INCORPORATING CUSTOMER EXPERIENCE FRAMEWORKS WITHIN AN EMBA PROGRAM

Francis Petit, Fordham University

ABSTRACT

The purpose of this research is to determine how to effectively incorporate customer experience management frameworks within the marketing and management of Executive MBA Programs. To determine this information, two customer experience management frameworks were discussed in detail and then an analysis ensued on its potential applicability of enhancing the EMBA student experience. The main findings of this study indicate that as a result of this "experience economy", incorporating a targeted, consistent and branded customer experience within any product or service, with EMBA Programs being no exception, is of critical importance. The results of this exploratory study can have significant implications on the future management and marketing of Executive MBA Programs.

JEL: A23, I 23

KEYWORDS: customer experience, EMBA program, accreditation, AACSB.

INTRODUCTION

T he primary thesis of this research is to illustrate the importance of Customer Experience Management (CEM) and why CEM principles must be rigorously applied to the marketing and management of Executive MBA Programs. The ultimate goal of this research is to illustrate how such principles, if implemented effectively, can create "program enthusiasts" and "product evangelists" among the student body. The concept of "Customer Experience" is a relatively new phenomenon. It first emerged within the literature within Pine and Gilmore's *The Experience Economy*, published in 1999. Since that time, other research emerged indicating that the overall customer experience is extremely important and that consumers are willing to pay a premium for a unique and desired experience. Various brands have successfully incorporated this concept of "experience' within the consumption process of products and services, thus differentiating themselves within the market.

Yet these new Customer Experience Frameworks that have been developed have not been seriously applied to the management, marketing and execution for programs within higher education. There have been a variety of reasons why this has not occurred which will be illustrated within this paper. Therefore, with this as a background, and as a Dean for a recently Ranked Executive MBA Program within the United States, the goal of this research is to illustrate how CEM Frameworks could potentially be interwoven within the management, marketing and execution of the Executive MBA Product. The ultimate goal of this strategy is to create a market buzz for such a product. In order to conduct such an investigation, this paper will first, within its literature review section, analyze the emergence of the experience economy as well as companies that are utilizing the concept of experience to their advantage. The literature review section will also analyze whether Executive MBA students should in fact be considered customers. The research will then present two specific CEM Frameworks in detail and examples will be given on their potential applicability within the management, marketing and execution of the Executive MBA product. Conclusions will be presented as to its potential viability as a strategy within the administration of an Executive MBA Program.

LITERATURE REVIEW

his next section will highlight the following three themes as seen in the literature. First, it will illustrate the "Experience Economy" that now encompasses the lives of all consumers. It will also discuss organizations and "brands" that are utilizing "experience" as a differentiating factor. Lastly it will analyze the premise of whether executive students should be considered customers. Such an analysis is imperative in order to apply such CEM Frameworks to a program.

The Emergence of Experience

The traditional marketing concept of determining the needs and wants of target markets and delivering on these needs and wants with products and services is the foundation to any company's marketing program. (Kotler, 2003, p.29). The traditional marketing paradigm also includes the importance of communicating the product's features, benefits and value to prospective and current customers. In addition, the traditional marketing concept assumes that consumers are rational and make purchasing decisions based on an overall utility analysis. (Schmitt, 1999, p 13). Yet things have changed since the industrial revolution when the traditional marketing concept was established. The information economy, as it is now coined, has given prospective consumers the ability to research the features and benefits of any product in question thus making them more informed than ever before. It is almost as if the features and benefits of a product are now expected and consumers desire much more such as "breakthrough solutions, cutting-edge products and brands they can connect with and be stimulated by." (Schmitt, 1999, p. 21).

Secondly, the concept of experiential marketing, as opposed to marketing solely a product's features and benefits, has also emerged as a communication strategy within this "Age of Experience". This strategy has ignited and increased the amount of emotional and impulse driven purchases centered on a desired experience. (Schmitt, 1999 p. 22). In addition, the experience concept has also redefined branding to more than just logos, slogans, awareness and image. Branding is now become an experiential concept. (Schmitt, 1999, p. 31). The brand, in essence, is now more about creating and delivering a specific targeted experience associated around a product and/or service.

Evolution of the Experience Economy—the Birthday Party Phenomenon

All of the above has led to the "Experience Economy". A great example that illustrates this phenomenon can be seen with the evolution of birthday parties. More specifically, approximately fifty years ago, the celebration of a birthday entailed the mother of the "birthday child" purchasing ingredients such as butter, sugar and milk for the purposes of making a birthday cake from scratch. These ingredients became "the commodity" within the cycle and led to the main celebration of eating the cake. (Pine II and Gilmore, 1999, pp. 20-21).

Phase II of this process occurred during the 1960s and 1970s when parents started to purchase a "Betty Crocker" or "Duncan Hines" mix to make the cake. In addition, parents began organizing parties which included games and fun in the backyard. The "commodity" of butter, sugar, and milk became transformed to that of a "purchased good" which is now the cake mix (Pine II and Gilmore, 1999, pp. 21). Within Phase III of this process, parents stopped making cakes at home altogether and started purchasing them from either the supermarket or local bakery. This moved the process away from "the good" of the cake mix to that of a purchased cake which is now "the service". While the costs of purchasing a cake exceeds that of making one from a mix, parents viewed this service as essential in order to plan other elements of the backyard party. (Pine II and Gilmore, 1999, p. 21).

Stage IV of this evolution or the final stage, began in the new millennium when parents started, with frequency, outsourcing these birthday parties to places such as *Chuck E. Cheese's*, *Discovery Zone*, and

*Club Disne*y.   These parties have become very expensive and can cost the parents several hundred of dollars. However, parents are willing to make this expenditure as they are paying for the "desired experience" that this outside venues offer. (Pine II and Gilmore, 1999, p. 21). This example illustrates that the "Experience Economy is everywhere. The "commodity" of butter, eggs and milk to make the cake is very inexpensive. "The good" of a cake mix raises the overall cost slightly. "The service" of purchasing a cake increases the cost slightly as well. However, the largest increase in costs for the party over this evolution is the outsourcing of the party in the final stage.

Companies Offering Experiential Differential

The "Experience Economy" has also led to the development of many interesting and successful companies.   One example of such a company is Starbucks which opened in 1971 in Seattle from an initial $10,000 investment from its original owners of Gerald Baldwin, Gordon Bowker and Zev Siegl. (Smith & Wheeler, 2002, pp. 4-5). Howard Schultz, in 1987, then purchased Starbucks and expanded its operations to Chicago and a host of other cities. For an eleven year period from 1987-1998, Starbucks, as a strategy, spent less than $10 million on advertising. Their goal was that providing a unique, consistent and branded experience can be more effective then spending hundreds of millions on advertising (Smith & Wheeler, pp. 4-5).

It is interesting to note that even though the Starbucks hot drink can be purchased for $2.50 and above, the actual cost to produce it is approximately eighteen cents (Smith & Wheeler, 2002, p. 6).   Yet, what Starbuck's enthusiasts are paying for is not necessarily the taste of the hot drink but rather the total immersionary experience of that "third space" between home and the office. (Schmitt, 2003 CEM p. 7). This phenomenon of the "Experience Economy" and "Starbucks" can be seen in Figure 1 which is also, in principle, similar to the birthday party phenomenon.

Figure 1: Price of Coffee Offerings
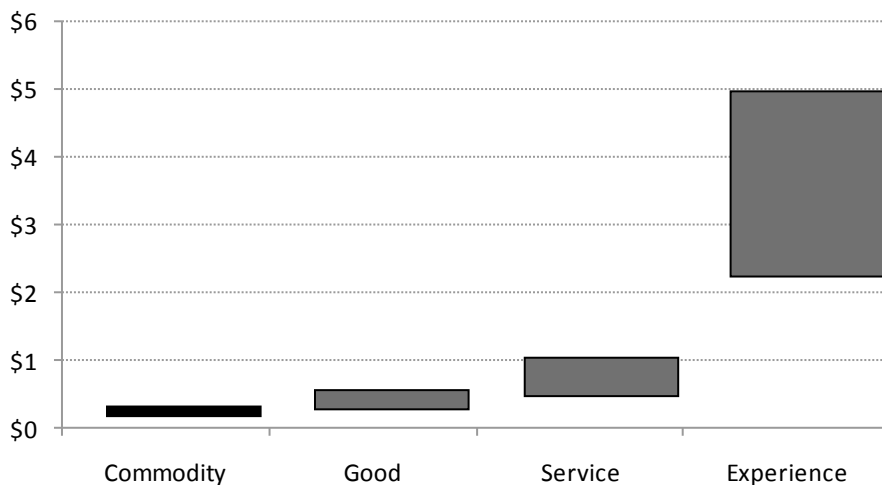
This figure e illustrates the four stages "a good" travels in order to become an "experiential product". More specifically, it also illustrates how consumers are willing to pay a premium for a unique and branded customer experience. In the case of Starbucks,' the commodity" are the coffee beans, 'the good" is the coffee can in the supermarket,' the service" is the cup of coffee at the delicatessen and "the experience" is purchasing the coffee at Starbucks. (Source: Pine II and Gilmore, The Experience Economy, 1999, p. 2)

Avis is another company that falls within this category. This car rental firm has the "We Try Harder" slogan and has set itself apart from its competitors because of the total experience it offers to its customers. Mr. Robert. F. Salerno, Avis President and COO in 2002, further illustrated this point:

Avis has dedicated tremendous amounts of resources over the last several years to develop a process for managing the customer experience and to provide our employees with the tools for supporting our strategies of winning customer loyalty and service excellence. Customers are telling us that there is something special about Avis and the value we deliver that the others cannot match. (Smith & Wheeler, 2002, p. 33)

The result of this strategy is significant as Avis achieved the highest level of customer loyalty among its peers according to a survey conducted by Brand Keys (Brand Keys 2001 Customer Loyalty Leader's Index). In addition, Avis received the highest points for customer loyalty among 129 companies surveyed across 24 industry categories and further scored top billing on customer service compared to its competitors. (Brand Keys 2001 Customer Loyalty Index). Harley Davidson is another company that has differentiated itself with its customer experience. Overall, Harley brands itself as a "total ownership experience" and has created the Harley Owners Group (H.O.G.S.) with over 100,000 active Harley members. (Smith & Wheeler, 2002, p. 34).   This organization within Harley sponsors group rides and members actively participate on the Harley web site.   This feeling of ownership has created a customer base with a deep and personal relationship with the Harley Brand. Such a relationship has many of its riders tattooing the Harley Logo on their bodies which is a true testament to the Brand Experience. (Smith & Wheeler, 2002, p. 34).

These brands illustrate how important the customer experience process is with creating a loyal customer base. However, at this point, before continuing this discussion, it is critical to explore the next question about executive students and whether they should in fact be considered customers. It is important to analyze this question if one would like to incorporate the CEM Frameworks within the management and execution of Executive MBA programs.

ARE EXECUTIVE STUDENTS CUSTOMERS?

Should Executive MBA students be considered customers?   There has been much research done on this type of question when higher education, in the early 1990s, began to question whether to implement the Total Quality Management Frameworks within the management of such institutions. As a background, the TQM movement is an extension of W. Edwards Deming's management philosophy that was implemented so successfully in manufacturing and service type settings. (Dobyns & Crawford-Mason, 1994). Upon witnessing this management philosophy's success in other sectors and also compounded by market pressures within academia, educational personnel in higher education saw an urgent need to consider the implementation of TQM within their own institutions. (Schwartzman, 1995)

The research that emerged throughout this period focused on how institutions of higher education should treat students and whether they should be considered actual customers like consumers are considered in other industries.   Two subsequent positions emerged. The first position states that since students are paying tuition then they are in fact customers. The tuition is for a service and establishes a contract between the university and student. The items can range from participation in classes, coursework, access to faculty to other services such as billing, registration and financial aid.   The main point that supports this argument is as follows: if tuition revenue is the predominant revenue generator for the college or university, then institutions have no choice but to treat the students as its customers. (Schwartzman, 1995).

The support behind this argument is relatively straightforward. First, it potentially allows the institution to be more accountable. (Schwartzman, 1995).   Universities have become very departmentalized, over its evolution, with its own objectives and agendas. This is especially prevalent within faculty led departments and areas.   Therefore, this type of structure can potentially lead units to be "oblivious to students" and even "contemptuous of them". (Schwartzman, 1995).   As a result, treating students as

customers and responding to their academic questions, inquiries and needs can allow institutions of higher education to improve cooperation among all stakeholders and recognize the students as official participants in the educational process rather than passive recipients. (Schwartzman, 1995). In addition, this argument creates a situation where university personnel have an obligation to serve their students which is critical. (Marchese, 1993).

More specifically, this argument can be applied to the student service arena of a university which includes registration, billing, food services, and maintenance.   Improving these services, which are considered "business like transactions", can easily be benchmarked and can subsequently improve the entire experience for students. (Beaver, 1994). The second position that resulted from this research is that students should not be considered customers for the following two points. The first point, which is more elusive, is that universities have difficulty defining their customers given the many benefactors. The second point indicates that institutions will compromise short term satisfaction with long term learning if they do in fact consider students as customers. (Schwartzman, 1995).

In terms of this first point, the customer of a university can be considered quite scattered as "colleges and universities have no clear understanding of who the customers, either internal or external, are". (Winter, 1991, p. 59).   Is the student receiving the education the sole customer? Or are customers the local, national and international communities since they are all benefactors, to some extent, of this education? (Rinehart, 1993, p. 57).   Since the recipients of these benefits are so intertwined within society, this argument indicates it is very difficult to determine the actual customer.

The second point of compromising short term satisfaction with long term learning brings up the important point of "is the customer always right?" For example, how are curriculum issues set forth by the Faculty of a University upheld if there exists a conflict with the students if an institution considers the student as a customer? This could, in fact, be an issue within this argument. Therefore, this argument supports the premise that students retreat to a university degree program to not only learn new concepts but to also develop an entirely new thought process.   During this period of academic and intellectual renewal and discovery, students cannot be considered customers as their judgments may not be useful and "they have no conception on what they must learn." (Rinehart, 1993, p. 59).   This argument subsequently dictates that students, during the learning process, lack the needed expertise to determine the content and quality that must be taught. (Beaver, 1994).

In addition, within this argument, another point that emerges is that which customers do institutions listen to?   Issues can arise since some of the customer's "perception of quality can be considered perverse." (Peters, 1987, p. 102).   University personnel who treat students as customers, especially with academic issues, may be easily put into a position where a judgment call must be made which can be considered difficult and not necessarily in the best interest of the institution.Therefore, when examining both sides of this argument and for the purpose of this research, executive students will be treated as customers and the reasons are as follows:

- Executive students pay a premium tuition price for their programs
- Executive students are paying more out of pocket for these programs. In 2001, 44% of all EMBA students were 100% fully financially sponsored and only 9% were self financially sponsored. In 2007, the market has changed as only 33% of EMBA students were fully financially sponsored and 33% of students were self financially sponsored.   As one can see, an increased amount of corporations are unwilling to pay full freight for such programs leaving the tuition burden on the EMBA students themselves. (EMBA Council, 2007).
- Full financial corporate sponsorship for Executive MBA Programs from 2001 to 2003 has declined from 44% to 38%. (Shin, 2004). In addition, the percentage of self-sponsored students has increased from 19% to 24% during this same time period. (Shinn, 2004).

This decline in company sponsorship has created a new type of consumer for Executive MBA Programs which can be seen as follows: "EMBA programs are quickly adjusting to satisfy the new consumer—a more demanding, international, self-sponsored executive who's always on the go." (Shinn, 2004, p. 31). In addition, executive students, are also already catered to by their universities especially in service areas such as billing, registration and advisement. (Petit, 2004). Therefore, when one combines (1) the premium price of an EMBA program with (2) full financial sponsorship for these programs are decreasing with (3) EMBA students, by definition and practice, are positioned as the most senior student in the MBA program portfolio with (4) executive students are already being catered to with student services issues, for the purpose of this study and the application of the CEM Frameworks, executive students will be considered customers.

CUSTOMER EXPERIENCE MANAGEMENT – PRINCIPLES AND APPLICATIONS

Administrators within Executive MBA Programs can apply various frameworks for marketing and managing the customer experience within the execution of programs. For the purposes of this article, two customer experience frameworks will be presented and examples will be given on their potential application and relevance to EMBA Programs.

Framework I - Behavioral Science

The first framework focuses on improving customer relations and the overall experience through the strategic use of behavioral science. This framework was developed from the research of Richard Chase and Sriran Dasu in which they developed a five (5) step process that can allow for improved and sustainable customer experiences. The framework is as follows:

1. Build commitment via choice
2. Finish Strong—leave lasting impression
3. Get bad experiences out of the way early
4. Segment pleasure with pain
5. Celebrate rituals (Chase and Dasu, 2001).

Within the first step, enthusiasts of behavioral science agree that customers enjoy the product, the brand and the experience when choice is given throughout the entire product offering. (Chase & Dasu, 2001, p. 79). Since customers and/or prospective customers do not like to be told "what to do", "how to do it", "what to like" and "how to like it", choice and/or the perception of choice can create an energized and enthusiastic customer base that can take personal ownership of the product experience in question. This brand ownership can potentially create "product evangelists" among the consumers. (Chase & Dasu, 2001, p. 79).

The concept of choice can easily be applied to the execution of EMBA Programs. Going beyond the typical choice offerings of elective possibilities, executive students can be given choice and/or the perception of choice for a variety of initiatives including the study tour, scheduling and issues such as menu. Giving executive students the possibility of choice even for what at first seems as unimportant issues can have a positive impact, according to Chase and Dasu, on the overall brand and product experience. In addition, it can create an enthusiastic student base that will have a vested interest in the future success of your program.

The second recommendation of "finishing strong" is of critical importance as "the end….remains in the customer's recollections." (Chase and Dasu, 2001, p. 73). Executive Programs can easily take note of this recommendation by offering, for example, the international residential as a capstone pedagogical experience just prior to graduation. In addition, gala celebrations beyond the University Commencement in celebrating the completion of the degree is another example of reinforcing the concept of finishing

strong. Such a strategy can leave a wonderful taste in the mouths of the EMBA students which, in the end, can create additional buzz and momentum for a program.

The third principle of "getting the bad experiences out of the way early" is similar to the previous principle. By utilizing this strategy, it allows a level of trust to develop between the customer and vendor that enables the relationship to "finish strong". (Chase and Dasu, 2001, p. 77). This formulation of trust is critical to any product or service including Executive MBA Programs. For example, if there are any structural and/or programmatic issues within an EMBA Program (i.e. method for selecting electives) that could potentially anger students during the program, then it is best if the students are warned of these issues during the recruitment process. Like with any product, students can be accepting of a program deficiency and can even be forgiving, however the timing of the communication is critical.

The fourth principle of "segment pleasure with pain" is a standard takeaway from any negotiations course. Disney Theme Parks effectively utilize this principle by distracting the customer during the long lines for the rides in which they have to wait. While a ride may only last for ninety (90) seconds, Disney makes those ninety (90) seconds worthwhile by distracting the customers on the long lines and thus "lessening their discomfort" (Chase and Dasu, 2001, p. 78). This principle can be easily applied to EMBA Programs especially with the use of faculty. For example, if there is a faculty member who is not very strong but must teach in the EMBA Program, perhaps that faculty member and the course could be combined or team taught with other courses or other strong faculty members. This can allow this issue of a sub par faculty member to be less of a negative since this person is combined somehow or someway with strong assistance.

The last principle, under this framework, of "celebration of rituals" plays a critical role in the "customer's perceptions of the experience." (Chase and Dasu, p. 81). The research indicates that customers can potentially enjoy rituals especially if they are unique to the product. An example of a ritual can be something such as an "afternoon tea time" served in a hotel to the grand opening and celebration of a retail chain to a community. A ritual can also include specific call times scheduled to customers and keeping within those guidelines. It is critical that unique rituals must be established and organizations must stick to those rituals. If creatively done it can certainly differentiate a product or service within the marketplace.

One can apply the principle of rituals to the execution of an Executive MBA Program. For example, such rituals can be something as simple as planned social events and happy hours to alumni networking events and dinner/award celebrations. It can even be something as simple as putting a York Peppermint Patty mint on the seats of the participants during the lunch break, as done by the MIT Sloan School of Management Executive Education Programs as was experienced by this author in 2008. Such a ritual allows participants to not only be surprised and delighted at first but also adds a level of uniqueness and consistency as the program continues. Overall, the five (5) principles of behavioral science that Chase and Dasu describe can be implemented in the management and execution of an EMBA Program. In addition, this framework can also have a substantial impact on the overall customer experience of the students. It is important to note that in the end, "only one thing matters in a service encounter—the customers' perception of what occurred." (Chase and Dasu, 2001, p, 82). The implementation of behavioral science can certainly impact this perception.

Framework II – CEM Framework

The second framework that will be explored is the concept of Customer Experience Management developed by Bernd Schmitt. This concept focuses on developing a targeted and branded customer experience to all stakeholders. The framework can be seen as follows:

1. Analyzing the Experiential World of the Customer
2. Building the Experiential Platform
3. Designing the Brand Experience
4. Structuring the Customer Interface
5. Engaging in Continuous Innovation (Schmitt, CEM, 2003, p. 25).

The first step of the framework looks at "analyzing the experiential world of the customer".   When examining one's own products and brands, Schmitt indicates that it is imperative that organizations try to provide and understand "original insight into the customer's world". (Schmitt, 2003, p. 25).   More specifically, companies must not only be aware but also must "become more responsive to customers and incorporate customer insight into their strategies and implementations." (Schmitt, 2003, p. 46).   It is of paramount importance to determine what exactly the customer potentially wants from a specific experience from a product or interaction. Understanding the customer and seeing the world from their point of view is critical in this stage. This first step can easily be applied to the execution of Executive MBA Programs. What do EMBA prospective students want to experience from this degree program? Are students just looking for top scale faculty members to teach in the program? Do they want to be part of dynamic and professionally diverse class? Do they want to be pampered by program staff since they are paying a premium in tuition? Do they want to "operationalize" the pedagogy directly back into their professional lives? Do they want a high impact experience beyond the academics with team building exercises? Is it all of the above or some of the above?   Is it none of the above? Finding out exactly what prospective and/or current students want from the EMBA Experience and/or determining what they want as a result of getting into their "experiential world" is a critical first step.

Once the experiential world of the customer is determined, the second step in this framework is "building the experiential platform".   Simply stated, this platform "effectively communicates internally and externally what an organization, its brand, and its products stand for and what value they offer to customers." (Schmitt, 2003, p.87). Similar to a value proposition of a product or service, the "experiential platform" not only focuses on features and benefits that the product or service offers but also on the overall customer experience in obtaining and utilizing the product.

Establishing an experiential platform can certainly be applied to EMBA Programs.   What is the entire experiential value proposition that a specific program offers? Directors and Deans, when recruiting students, must be able to discuss the "Branded Customer Experience—which is a service experience that is intentional, consistent, differentiated, and valuable". (Smith & Wheeler, p. 1).   Executive MBA Programs must develop an "experiential platform" beyond the use of top faculty as this feature and benefit is now expected within this industry. (Petit, 2006). Overall, when managing and executing a program, the experiential platform must be used as the foundation to this strategy.

The third step of the process is "designing the brand experience."   This step follows the "building the experiential platform" phase as once the platform and theme are developed, one can move on the design of the brand experience.   Such an experience can include "the product, the look and feel surrounding it, and experiential communications." (Schmitt, CEM, 2003, p. 140). More specifically, the product experience is the focal point for the customer. This experience takes into account the product's features and benefits as well as the "experiential features" which "serve as a springboard for a customer's brand experience." (Schmitt, CEM, 2003,p. 126). These features can include not only how the product works but also the aesthetic appeal associated with the product. Examples of the brand experience can be seen with the look and feel surrounding a product as well as its visual identity around the name, logo, signage, packaging, store design and overall web presence. (Schmitt, 2003, CEM, p. 128).

This third step of "designing the brand experience" can be applied to the execution of EMBA Programs. More specifically, an experiential marketing campaign can certainly be implemented for EMBA

Programs that does not necessarily communicate the products features and benefits but rather a powerful experiential message. For example, a well received method of communicating the program experience can be inviting program alumni to participate in admission information sessions. What occurs when one implements such an initiative is that these alumni become the center of the session answering many questions and discussing the EMBA Program "experience" in detail. There is no better person to illustrate the program experience than current students and graduates.In addition, the brand experience for EMBA Programs can also be designed with the visual identity elements including the look and feel of the classroom and facilities, the logo and signage. These elements can be strategically designed to enhance the experience and reinforce the brand and managing this process is of utmost importance.

The fourth step in this framework is "structuring the customer interface." According to Schmitt, this is the most difficult step to effectively implement as it involves cooperation and action from the entire personnel of an organization. This communication and exchange that results from this step, for all employees, must be consistent during all customer interfaces. (Schmitt, 2003, CEM, p. 142).   Overall, "this interface refers to the dynamic exchange of information and service that occurs between the customer and company—in person, over the phone, online, or in any other way." (Schmitt, 2003, CEM, p. 141).

The implementation of this step within the execution of an EMBA Program requires determination and diligence. For example, if "dazzling service" is part of the implementation theme for your EMBA Program, then all personnel within the University that have a "touchpoint" with the EMBA students must "walk the talk." Implementing it, as a result, can be difficult as there are many units outside your jurisdiction (i.e. Bursar, Registrar, etc.) that can have multiple touchpoints with each student. The bottom line is whatever the implementation theme is, structuring the customer interface is a non-stop process that must always be evaluated and reevaluated. It is a step that if done correctly can certainly create product evangelists among any customer base. The last step of "engaging in continuous innovation" refers to innovation not only with the product but also with the entire customer experience. Product innovations can refer to technology, service and experiential innovations. (Schmitt, CEM, 2003, p. 167).

The application of the "continuous innovation" step within an EMBA Program can be seen with the selection of faculty and guest speakers that add value to the program. It can also be seen with the international residential as a pedagogical innovation. In addition, it can be applied to the student service area of registration, billing as well as logistical issues within the international trip. The question one must always ask is how can a program keep providing a specific targeted customer experience and how can this experience continually improve. Creatively combining two separate and potentially incompatible themes such as "EMBA Programs and Holistic Living" and benchmarking best practices outside your industry can be two methods to continually innovate the experience. (Schmitt, 2007). Always reaching for the most innovative experience possible is what this step is all about.

RECOMMENDATIONS

It is the recommendation of this research that Executive MBA Program administrators must seriously consider the implementation of the CEM philosophy within their program experience and can do so with both frameworks at varying degrees.   As discussed, consumers in society are now engaged within the "Experience Economy". Within this economy, the features and the benefits of any product or service are now assumed and consumers are now not only desiring a unique experience but are also willing to pay a premium for it.   No where is this more applicable than with Executive MBA Programs as the features and benefits of such programs (academic curriculum, outstanding faculty, convenient schedule) are now a given and in order to differentiate a program, a unique, buzz creating experience is desired by students.

In terms of the two frameworks presented, the CEM Framework, generated by Bernd Schmitt, provides the most comprehensive analysis of the entire experiential innovation process. This framework, within its five steps, forces the administration of any program to take a thorough analysis of the entire EMBA experience, examine and inquire what exactly the Executive MBA students want to potentially experience and develop and incorporate an experiential value proposition that is the driving force behind the custom branded experience. Because of its comprehensive approach, the new potential experience that can develop as a result of incorporating the CEM Framework can be an "experiential innovation" that can create market buzz and reposition a brand within a market. Hence, this tool has the potential of creating an "experiential innovation" that can change the market perception of any product or brand, with Executive MBA Programs being no exception.

The second framework of Behavioral Science is also a useful framework however it is most effective when trying to fine tune an already established experience rather than creating an entirely new experiential value proposition. The steps of this framework are more advisory in nature as it provides recommendations and advice on how to improve an already established experience verse creating an entirely new experiential platform. Overall, both frameworks can be very useful for Directors' of Executive MBA Programs in differentiating their programs. Pending their commitment level in creating an entirely new experiential innovation can dictate the framework that is best suited for each EMBA Program.

IMPLICATIONS ON AACSB ACCREDITATION

Implementing the CEM Frameworks within an Executive MBA Program or even an entire Graduate School of Business Administration can potentially have a positive impact on the AACSB Accreditation process. Overall, according to the AACSB web site, this international accreditation agency for "Schools' of Business" assures the following for the multiple stakeholders of an accredited institution. AACSB International accreditation assures stakeholders that business schools:

- Manage resources to achieve a vibrant and relevant mission.
- Advance business and management knowledge through faculty scholarship.
- Provide high-caliber teaching of quality and current curricula.
- Cultivate meaningful interaction between students and a qualified faculty.
- Produce graduates who have achieved specified learning goals (AACSB, web)

More specifically, the goal of the AACSB Accreditation status is to not only assure all of the stakeholders of a particular institution but to also assist the institution itself in delivering the best possible business education that it can deliver. With this said, the CEM Frameworks can have a positive impact on the AACSB Accreditation process and can assist in facilitating with this goal especially with the "advancement of business and management knowledge" as well as the "current curricula." For example, the ultimate goal of implementing the CEM Frameworks within an EMBA Program is to not only deliver a unique, targeted branded experience but to also create "Program Evangelists" among the students. If this were to successfully occur, there would be a plethora of proactive and supportive graduates of a particular program. Such support can certainly assist a professional school in numerous ways.

It can, for example, increase the institution's network and support. Such an increase in this area can positively impact the institution from a resources and job placement perspective. It can also create a more active graduate who would be enthusiastic to participate on "Advisory Boards" as well as the strategic planning of the institution. Such strategic planning initiatives could entail curriculum reform and/or incorporating "best practices" within the EMBA or MBA Experience. Overall, having committed graduates who are willing to participate and "give back" in terms of their time, advisement and expertise can only potentially greatly assist with the "advancement of business and management knowledge" as well as the "current curricula."

Yet to feel the impact of the implementation of such a program will take time. The CEM Frameworks must be strategically implemented throughout the entire twenty two month "EMBA Journey". Upon graduation, such alumni involvement can commence, however, it will only become stronger, in time, with the success of these stakeholders' careers. Even as graduates, the CEM Frameworks must continue in order to fully create such a "Program Evangelist." Therefore, in conclusion, feeling the impact of implementing the CEM Frameworks for AACSB purposes may take time. However, in the long term, it could potentially have a positive impact on the AACSB Accreditation process and the role of the school in advancing business and management knowledge as well as curriculum reform.

CONCLUSIONS

In closing, the goal of this research was to illustrate two recent CEM Frameworks that have emerged within the literature and to discuss why these frameworks must be rigorously applied to the management and execution of Executive MBA Programs. The recommendations of this research, as illustrated within this paper, indicate that positive and memorable customer experiences are critical to the success of any business or organization with EMBA Programs being no exception. With this said, managing each customer interface scenario strategically, may be difficult, but can certainly give any product or service, including EMBA Programs, a competitive advantage within the marketplace and can also create "program enthusiasts" and "product evangelists" among the student body.

This study, though, does have its limitations. Applying such frameworks to a "cohort style" professional school program (Business, Social Work, Education) may be more straightforward then perhaps Ph.D. programs in Arts and Sciences. The reason why is that bonding and camaraderie natural develop through a cohort format which can also enhance the experience. When the student travels this academic journey more as an individual, such as within a Ph.D. program Arts and Sciences, it may be more difficult to implement such frameworks effectively.

In terms of further study, it would be critical to measure the long term impact of such frameworks in terms of program referrals and alumni giving. Such an analysis would measure the true impact of such frameworks within not only an EMBA Program but other types of professional school programs. It would also be important to measure how such frameworks could be successfully implemented within Ph.D. programs in Arts and Sciences. Overall, increased research is necessary to measure the entire impact of the CEM Frameworks within higher education.

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MANAGING DISTANCE EDUCATION CLASSES BY CERTIFYING INSTRUCTORS

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ABSTRACT

When developing online classrooms it is necessary to ensure that all learners will be successful in the course. This paper outlines the dilemmas faced by one university in its struggle to improve retention rates in their distance education courses. The case study will also serve as a justification for instructor certification for online courses at Indiana University of Pennsylvania. While these courses span multiple facets of higher education such as technology, criminology, mathematics, business, and general studies, the core competencies to develop a structurally sound online learning environment remain unchanged. The need to have faculty who are trained both in the pedagogy of an online learning environment and the tools to deliver content will improve student success. The intent of this paper is to identify the need for such a certification by looking at recent trends in both online and face to face education at both the graduate and undergraduate levels. Data gathered for online courses compared to the same course that is offered in a face to face setting. Incorporating strategies of instruction in an online course to mirror those of a traditional course are essential to maintain consistency and satisfy all students.

INTRODUCTION

T his paper addresses the importance of online pedagogy that can be utilized to make the online course development successful. Specifically this paper focuses on the courses being offered at Indiana University of Pennsylvania (I.U.P). Like other institutions I.U.P has a diverse student body and must take into account different learning styles. This research study opens with a review of related literature that details the challenges facing online educators and developers. The paper then focuses on the recent history of online and traditional retention rates at I.U.P. The paper will finally outline what is meant by instructor certification for online education and recommendations for future research.

Correspondence courses, training files, radio, television, and most recently the Internet have all played a key role in the history of distance education (Blake, Blackwell, & Gibson 2005). The Internet has changed the face of education as traditional institutions are now in a rush to offer online courses. The number of programs and online students has increased dramatically over the last decade. Over the past decade the Internet has changed the face of distance education. The number of programs offered as well as the number of online students has skyrocketed. As the Internet has grown, programs are becoming more advanced, telecommunication speeds are increasing, and interactive applications are more readily available. During this time online institutions have searched for methods to increase enrollment and retain students. As applications and programs become more advanced the face of online learning should follow suit. Advances in online platforms, programs, and interactive tools are providing online educators the opportunity to design courses as if the instructor was in the room. As Salter, Richards, and Carey note:
"Current educational literatures stresses the importance of a task based approach to instruction, rather than an emphasis on content delivery. However as institutions attempt to meet the demand for online courses, many offerings still focuses on presenting online content resources with minimal opportunity for interactions and active learning" .

The launching of new systems, technology tools, and applications has created enthusiasm among educators and academic programs offering technology courses. This enthusiasm and need to stay abreast of new technology may sometimes blur good judgment when introducing the most recent technologies into the classroom. While the inclusion of new technologies into the classroom can be beneficial in many ways, the rush to update the curriculum and increase online enrollments may produce unforeseen and unplanned dilemmas.

Furthermore, distance education courses may need to balance between the practical use of technology as well as knowledge of the concepts behind the technology. Denning (2001) argues that Learning the techniques and strategies associated with a specialty information technology is as important as learning the intellectual core of computing. The mark of success lies in an ability to balance the two. The current academic tendency is to downplay skill-specific training that does not fit a profession. Training should include practices as well as descriptive knowledge. It must include training as well as general education.

The remainder of this paper is organized as follows. In the next section the relevant literature is presented. The following two sections discuss the data utilized and the results. The paper closes with some concluding comments.

LITERATURE REVIEW

The existence of online education is a hot debate on many traditional college campuses. These debates not only involve the quality of education, but also the tools, platform, and programs that can be used to deliver quality instruction (Singh & Pan, 2004). While academic institutions are competing against pure online universities for enrollment, many faulty have mixed opinions on online education. Diaz (2002) notes that instructors had conflicting attitudes about distance education. While they expressed a willingness to teach distance learning courses, they rated the courses as equal or lower in quality than traditional courses taught on the same campus.

One could argue that this negative stigma on online education could spill over into the online classroom design. If faculty believe that these course do not match up to traditional courses could they be led to believe that less time is needed to develop and online class? Online development may also not be for every instructor. While technology faculty have an understanding on the technology and tools available, the same cannot be said for non tech savvy faculty. Hannay and Newvine (2006) agure that online instructors must have a special skill set. They must not only be computer literate but must also be flexible and responsive. Instructors must be able to think differently about presenting course materials online and be able to create an appropriate learning environment. Additionally, they need to be life-long learners who have a desire to update their skills and incorporate new technologies. Finally, they must be able to communicate in writing effectively be able to actively and regularly communicate with students.

The reasoning behind an instructor certification is twofold. This certification is meant to not only accustom the faculty member wit the technology available to deliver an online class, but also the pedagogy involved with designing and delivering an online course. Online classes can be developed using tools such as e-mail, instant messenger, company intranets, or through online platforms. While each platform will have a different look and feel, the content, communication methods, and tools used to deliver the material will be similar. Stow (2005) notes that a major problem in distance education is the use of a single type of interaction. In many cases the student interacts with the class content in a manner similar to an independent study course. The student interacts with the course material, finishes assignments and turns them in for grading. Despite potentially being well executed, this interaction might is one-dimensional. The interaction does not necessarily promote learning, thus potentially causing an increase in transactional distance. Educators should incorporate multiple methods of interaction in order to keep dialogue and structure at an appropriate level.

As technology advances, the virtual classroom must change accordingly. Technological advancements drive distance education to go beyond simply posting text and assignments in the course room (Kachel & Henry & Keller, 1005). Online material should be in small manageable pieces that will hold the learner's attention while effectively delivering the necessary content. The online learning environment offers a means to share information twenty-four hours a day, seven days a week regardless of the learner's location. As a result the course designer must make careful decisions regarding the methods and tools used to facilitate this continuous learning process.

There are numerous tools that faculty can incorporate into an online class to enhance a virtual classroom. Customized tools such as Flash interactive programs, screencasts, Web casts, simulators, and virtual labs enhance distance education classrooms. These tools provide unlimited possibilities when moving traditional classes into an online environment. An ongoing instructor certification programs would insure that faculty are abreast of new educational technology trends as faculty who wish to teach online would need to keep their certification updated.

DATA

In the fall of 2008 a request was made on the author's behalf to I.U.P's Planning and Analysis Department. The data sought was a head to head comparison of online courses that are also taught in a face to face environment. Classes offered only online or only face to face were not used in this study. The data retrieved was broken down first by the grade earned by the student and the withdrawal rate. In addition this data was also categorized by the class level of the course offered. The data gathered shoed results from the 2003 through 2008 academic years. In addition the results of each course were also provided so that specific classes and trends could be analyzed.

Traditionally drops rates are higher for online classes as compared to traditional face to face courses. As noted by Diaz (2002) that: "Drop rates for distance education classes have been consistently higher than those of traditional classes and, according to some researchers, tend to suggest academic non-success."

RESULTS

The data used in this study were gathered by the research Office of Institutional Research, Planning, and Assessment at IUP. While the dataset could not be obtained for this study, the Office of Institutional Research, Planning, and Assessment were able to provide all of the statistics requested for this research study. Table 1 shows grades assigned in traditional courses by class level for the years 2003-2008. Table 2 shows grades assigned in online courses during the same time period.

An examination of Tables 1 and 2 show that online undergraduate students are more likely to drop out of an online class as relative to the same traditional face to face course. Students were more than twice as likely to drop a course taken in an online format as the undergraduate withdrawal rate of traditional courses was 6.36% as compared to 9.78% in the same online courses. Tables 1 and 2 also show that the graduate withdrawal rate of online classes were also much higher relative to face-to-face classes. It was found that online graduate students are more than 53% likely to drop out of an online class as compared to the same traditional face to face course. While it can be argued that some blame can be placed on the student, management and faculty cannot ignore the fact that they must also share some of the responsibility for the high withdrawal rates.

Table 1: Traditional Course Grades by Student and Class Level 2003-2008

GRADE	A	B	C	D	F	W	W %	Total
PANEL A: GRADUATE								
500 and above	861	289	48	0	5	29	2.35%	1232
Total	861	289	48	0	5	29	2.35%	1232
PANEL B: UNDERGRADUATE								
100-199	23650	20598	14586	6432	8279	5175	6.57%	78720
200-299	4162	4551	4028	2106	2010	2043	10.81%	18900
300-399	5272	5020	3246	998	702	771	4.82%	16009
400-499	1691	1293	706	142	100	133	3.27%	4065
Total	34775	31462	22566	9678	11091	8122	6.36%	117694

This table shows grades assigned to students in traditional courses.

Table 2: Distance Education Grades by Student and Class Level 2003-2008

GRADES	A	B	C	D	F	W	W %	Total
GRADUATE								
500 and above	863	172	23	0	12	56	4.97%	1126
Total	863	172	23	0	12	56	4.97%	1126
UNDERGRADUATE								
100-199	2288	1293	589	226	524	487	9.01%	5407
200-299	413	448	392	236	292	413	18.82%	2194
300-399	1096	1464	850	271	259	324	7.60%	4264
400-499	1010	652	298	82	87	82	3.71%	2211
Total	4807	3857	2129	815	1162	1306	9.78%	14076

This table shows grades assigned to students in distance education courses.

SUMMARY

As programs and applications continue to advance, educators must stay abreast of the technology changes available in designing their online courses. This study outlines the dilemmas facing online education at Indiana University of Pennsylvania (I.U.P.) and methods being discussed to improve the pedagogy of online classes. The study also explained the resent history of online classes at I.U.P. and their attempts to address the challenges of designing and delivering a class in the online world.

While the focus of instructor certification is still in the discussion phase at U.I.P., additional variables are also being examined. Some of these variables include the University changing from WebCT to a new online learning platform, and possible union and University conflicts with mandating such a certification. A follow up study is required to assess the effectiveness of the planning and the delivery of this certification, thus additional reviews and audits during the discussions will continue.

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BIOGRAPHY

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CREATIVE THINKING THROUGH VISUAL LITERACY

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ABSTRACT

In an increasingly globalized and competitive world, larger numbers of entrepreneurs with creative minds are needed. This paper discusses the role of visual literary in nurturing creativity and explores the experience gained in a course in creative thinking through visual literacy that was taught as an elective at Nanyang Technological University (NTU). It discusses the teaching methodologies to nurture creative minds in Business undergraduates, teaching issues encountered when teaching the course, and outcomes achieved from the course. It also provides advice for educators considering adopting such a program.

INTRODUCTION

A small city-state with no natural resources, education has always been Singapore's top priority. The primary focus of its education system had been on science and technology and in this it has done very well. In its latest study in 2003, the National Center for Education Statistics of the US Department of Education had Singapore's eighth graders topping 45 developed and developing countries in both science and mathematics (TIMSS, 2003). This strategy in developing a highly skilled and disciplined workforce for its economic development has served it well, propelling it from a third world to a first world economy in the four decades since its independence in 1965 (Lee, 2000).

The 2007-2008 Global Competitiveness Report (WEF, 2008) ranked Singapore 7th out of 131 economies and among the 31 which have transited the *factor-driven* and *efficiency-driven* stages to the *innovation-driven* stage. It will now have to be more creative and innovative to maintain its competitiveness.

To stay ahead and remain competitive, Singapore has embarked on the challenge to transform itself into the artistic and international business hub of the region, to become a vibrant cosmopolitan centre which can punch above its weight and support and influence markets beyond its natural boundaries (M.I.A., 1995). To realize its goal and to ensure continued economic progress, it has set out to cultivate a creative and thinking society with its graduates equipped not only with traditional skills and knowledge, but also having the extra competitive advantage of creative minds and the entrepreneurial spirit.

In response, schools have begun to restructure, allowing students greater flexibility and multiple pathways to develop their talents. Creative areas such as the arts and design now play a more significant role in a broad-based education aimed at developing the "whole person" (M.T.I., 1986). At the tertiary level, a key step taken is the broadening of the curriculum towards one aimed at providing students with greater choice and ownership in their learning, and the introduction of more courses which can nurture creativity and innovation and not just produce "one-dimensional engineers and accountants" (Straits Times, 2003).

This paper presents and discusses the experience gained from a course in visual literacy which is intended to nurture creativity and bring out the creative energies in business students. This elective course was introduced at the Nanyang Technological University (NTU) in response to the need for more creative, thinking and entrepreneurial graduates, ones who will have that additional competitive advantage in an increasingly globalized economy.

We first discuss the need to nurture creativity in education when a country's economic development has moved into the innovation-driven stage, taking the small city-state of Singapore as an example. Next we examine the concept of creativity and the role visual literacy plays in nurturing creativity and communication. This is followed by a detailed study, based on an elective visual literacy course introduced at NTU, of the effect of visual literacy in the training of creative thinking for business undergraduates. Highlighted are the rationale, structure and approaches taken in nurturing creative thinking in visual communication and in the creation of brand identities. The learning outcomes and performance of the students, based on the student projects completed, are also discussed and presented. Observations are drawn from the analysis of the students' feedback. This paper concludes with some implications and advice in nurturing creative thinking in business undergraduates.

LITERATURE REVIEW

Challenges of a Globalized Economy

Entrepreneurs are "agents of change and growth…and…act to accelerate the generation and application of innovative ideas" (OECD 1998). They are important and necessary drivers of innovation, growth, and job creation (Audretsch, 2002). Recognizing the central role they play in economic growth and competitiveness, governments and policy makers have increasingly explore different ways to promote and enhance entrepreneurship, not least through formal entrepreneurship education. The European Union, for example, adopted an Entrepreneurship Action Plan in 2004 with the aim of reviving Europe's "lagging economic competitive performance" (European Commission, 2004). A vital component in entrepreneurship is creative behavior. Management experts have emphasized the creative processes apparent in opportunity search and business model development, amongst many others (Berglund and Wennberg, 2006; Drucker, 1985).

In response to the need for creativity and entrepreneurship in business and industry, there has been a recent explosion in the number of universities offering entrepreneurship courses and programs (Vesper and Gartner, 1997; Johannisson et al., 1998). However, the academic focus on rigor and analysis together with the teaching style of traditional business education tend to clash with the entrepreneurial demands of creativity, novelty and synthesis. It has even been claimed that business education has worked to inhibit, rather than enhance, entrepreneurship (Gibb, 1996). Knowledge plays a paradoxical role in creative endeavors, supplying the raw materials from which creative new ideas are forged on the one hand, but also having the potential of inhibiting creativity on the other (Ward, 2004).

Creativity and Visual Literacy

Creativity is a highly diverse concept which has been studied in a wide range of disciplines, with much research done on defining, measuring, nurturing and managing creativity (Runco, 2004; Fletcher, 1990). It includes the generation of new ideas, possibilities and alternatives (Smith, 1998). Creativity has also generally been regarded as useful innovation, novelty that can be applied and add value to an organization (Oldham and Cummings, 1996). It has long been recognized that creativity is an essential quality in entrepreneurship and innovative business behavior, translating into idea development, new product innovations, and improving existing innovations (Walton, 2003; Ward, 2004; Kirton, 1987).

Recent studies suggest that all human beings are potentially creative, having the same neural processes, although whether such creativity are expressed or suppressed and whether they are affected by personal experiences and the environment (Findlay and Lumsden, 1988). All undergraduates thus have the potential to be creative with the problem only in how such creativity can be nurtured and brought out into expression.

Creativity also relies heavily on a sound knowledge base which aids not only in the generation of ideas but also their evaluation, placing them in proper context and relative importance. According to Rhodes (1987), one approach of structuring creativity research is to divide it into person, process, product, and press. In this work, only the person and the process are of relevance, with the process involving various brainstorming and other creative activities.

Visual Literacy: According to A. Pennings, "Visual literacy is an emerging area of study which deals with what can be seen and how we interpret what is seen. It is approached from a range of disciplines that:

1. Study the physical processes involved in visual perception,
2. Use technology to represent visual imagery, and
3. Develop intellectual strategies used to interpret and understand what is seen" (Chauvin, 2003).

R. Hobbs defines visual literacy as "the ability to access, analyze, evaluate, and communicate information in any variety of form that engages the cognitive processing of a visual image" (Hobbs, 1977).

Why Visual Literacy: Lyn Lacy, public school media specialist and visual literacy advocate, identified six crucial roles of visuals in promoting thinking and learning which were adapted by Landra Rezabek, Past-President of the International Visual Literacy Association (Rezabek, 2005) (see Table 1)

Table 1: Role of Visuals in Promoting Thinking and Learning

Role of Visuals	Role of Visuals
People will become more creative and critical thinkers by identifying, analyzing, interpreting and evaluating what they see.	People will become more responsible citizens by being aware of the roles visuals play in reflecting and influencing a society.
People will become visual makers themselves, demonstrating the ability to create mental images and to communicate visually with others	People will become more discriminating consumers, understanding the motives, methods and emotional appeal of advertising visuals in a modern society.
People will be more perceptive individuals by recognizing and appreciating aesthetics of visual imagery and by understanding, accepting and valuing personal, cultural and historical differences in image creation.	People will become lifelong learners, with a positive attitude about learning how to learn about visual images.

Crucial roles of visuals in promoting thinking and learning (Rezabek, 2005)

While calling for heightened attention to visual literacy in educational curricula, Paul Messaris argued that "by acquiring visual literacy, people enrich their repertoires of cognitive skills and gain access to powerful new tools of creative thought" (Messaris, 1998). Edmund Feldman when he was president of the American National Art Education Association stated that "Art is a language of visual images that everyone must learn to read. In art classes we make visual images and we study visual images. Increasingly these images affect our needs, our daily behavior, our hopes, our opinions and our ultimate ideals. This is why the individual who cannot understand or read images is incompletely educated. Complete literacy includes the ability to understand, respond to and talk about visual images" (Feldman, 1982). It is also recognized that problem solving in art involves divergent thinking and multidisciplinary knowledge which in turn nurture creative thinking. As Elliot Eisner, Professor of Education at Stanford University, contended that "the value of arts in education is that arts teach students that problems in life can have more than one 'right' answer and that they teach that complex forms of problem solving are seldom fixed, but often change with circumstances" (Wong, 2001).

NURTURING CREATIVE THINKING THROUGH STUDIES IN VISUAL COMMUNICATION

This paper examines the effects of a free elective course entitled 'Creative Design in Communication and Marketing' conducted at NTU's School of Art, Design and Media. Approved by the University Academic Committee, the objectives of this course are to nurture creative thinking in conceptualization; understand the planning and strategy involved in developing creative solutions including brand identity creation; and the training of visual perception, analysis and communication using design fundamentals.

Course Description

This course introduces ways to attain creativity in design that is intended to inform, persuade and to shape perceptions of a distinct brand or identity for marketing. Students are introduced to the creative thinking processes and techniques that unlock their potential power in visual imagination. They learn to develop dynamic concepts and develop value innovation strategies that generate creative solutions. Students also learn how to use design basics to get creative results and their applications in designing brand identity.

Data Used for the Study

This course is conducted weekly with 3-hour lecture-cum-tutorial classes over 12 weeks.   It is available to all NTU undergraduates as a general elective complementing their majors and minors. It has been running for eight semesters starting in July 2004. The maximum enrolment was 40 students but it has been increased to 50 since January 2008 semester because of its popularity. The majority of those who have taken this as elective course were Business students with final year students outnumbered year one and year two students as enrolment preference is given to final year students. Survey conducted indicates that almost all of the students enrolled had no background in visual art. This, however, is expected as visual art education has been sidelined in Singapore's primary and secondary education system until recent years.

This paper reflects on the experience gained in the teaching of this course as part of a regular teaching load by the author who is also the lecturer since July 2004. Also discussed are its modes of delivery and the extent to which the objectives have been met in inculcating an appreciation of visual literacy and in nurturing creative thinking in the Business students.

Rationale, Structure and Approaches to Nurture Creative Thinking in Visual Communication

Visual communication involves developing a creative solution to a visual design problem and delivering this effectively to the target audience. In order to conceptualize the idea for the creative solution, one needs to come up with an innovative, original and fresh approach leading to a new improved situation. Creative thinking is the process of getting this 'big' idea that fits the solution perfectly. Thus, to be creative in thinking, one first needs to be able to produce original ideas or thoughts.

The teaching implications of creative thinking in visual communication thus include the need to:
 - develop the ability to rapidly produce ideas (Fluency); produce original, divergent solutions (Flexibility) and be able to frequently come up with original ideas (Originality). These are the three types of traits common in people of high creative ability according to Guilford (Moriarty, 1986);
  - enhance visual literacy skills which involve the ability to interpret, use, appreciate, and create images and video using both conventional and 21st century media in ways that advance thinking, decision making, communication, and learning (enGauge 21st Century Skills).

In this course, students are firstly introduced to various ways of creative thinking to generate ideas. These include divergent thinking (Guilford, 1959), associative thinking (Young, 1975), lateral thinking (de Bono, 1970), analogical thinking (Gordon, 1971) and visual thinking. An "open-ended" mode of inquiry is encouraged in order to get a free flow of original and novel ideas for divergent solutions.   In conceptualizing for a creative solution, students learn the essentials of background research, and the strategy and approach to a creative outcome. They also learn and apply design elements and principles to achieve creative results. The emphasis is on cognitive growth, on comprehension of knowledge learnt, on perception of visual images, and on verbal and written analysis using the design basics in order that students can reconstruct and organize their personal knowledge and understanding. Figure 1 illustrates the Learning Model used to nurture creative minds.

Secondly, while understanding design basics can help students to engage their visual senses, and to infer the meaning intended in a visual message, the approach taken also helps them to engage their feelings, and subsequently express emotions when conceptualizing ideas. Thirdly, students are given as much opportunity as possible during this course to develop their fluency, flexibility and originality. During class, students form themselves into small groups after the lecture for each topic to work on an exercise which involves brainstorming and applying the concepts learnt. This develops in them, through actual practice, their fluency, flexibility and originality. Each group then presents its solutions to the whole class for peer comments and discussions.

Students also form themselves into teams of four each to work on a final project which is to create a brand identity for a product, for a company or for an event. These projects provide opportunities for students to conceptualize and experiment with original and novel ideas, and to brainstorm in a group to challenge preconceived patterns and to further explore new ideas. The aim is to facilitate formation of a new, one-of-a-kind identity as a creative solution to a design problem. The goal of this process is to nurture creative thinking by providing opportunities for cognitive growth, to learn through sensory interactions, to explore and experiment in a team, to challenge one another's mind and to learn from one another's talent. Each team has to submit a report on how they conceptualize the idea, the creative strategy and approach involved, and present this to the whole class. The aim for all these approaches is to nurture creative minds.

Figure 1: Learning Model to Nurture Creative Minds
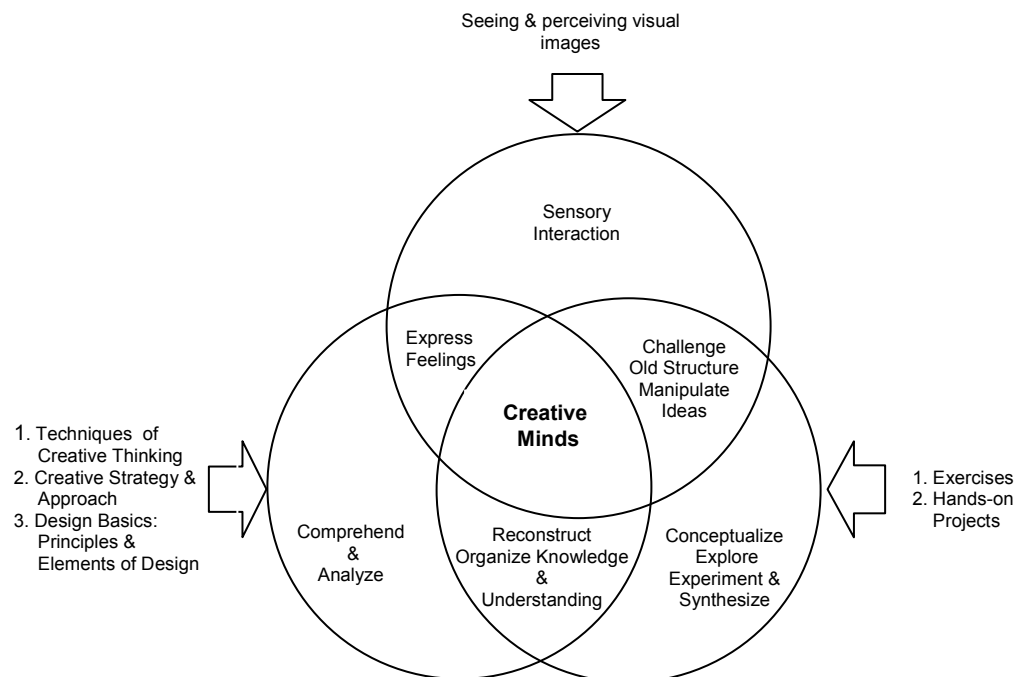
This figure shows knowledge comprehension while interacts with one's senses and hands-on activities allows individual to explore and experiment with new ideas. These multiple experiences set in an enriching environment enable deep engagement and creativity which in turn nurture creative minds.

LEARNING OUTCOMES

Assessing the Final Team Project

Based on the quality of the team projects and presentations made by students in the course over the past 8 semesters, the students taking this course can be broadly classified into three categories:

The first consists of those who evidently show enthusiasm and strong interest and who had gone through thorough brainstorming and come up with very creative ideas. They successfully created distinctive brand identities with designs that are original and novel. They exhibited excellent strategies and approaches and constantly improved on their designs. They also put in extra efforts and submitted more design applications than was required. Before they made presentations on their project, they used other media, such as video, to set the mood so that the audience could have a better idea about the nature of their project. It is encouraging that over 40% of the students fall under this category. The results show that this category of students, while not majoring in art and design, has the interest in, and talents for, becoming excellent creative designers.

The second category, comprising about 35%, submitted works in which very good brand identities were created. There were some originality in the designs indicating that these teams had gone through their brainstorming and came up with some reasonable strategies and approaches. They submitted sufficient applications and made good presentations. It is clear that these teams have grasped the fundamentals and can produce good results in visual communication to support their area of work in business.

The third category consists of students who submitted works in which the brand identities were not clear. Although there were some good ideas for the designs, these were not well executed indicating lack of commitment or enthusiasm among these students. There seems to be also a lack of thorough brainstorming for creative ideas and the strategies and approaches proposed needed further improvements. This category, comprising about 25% of all the students, only submitted applications which met the minimum requirements.

Observations from Exercises Done in Class and Students' Feedback

It is observed that students enjoyed themselves and had fun when they were in small groups doing their exercises. Most were relaxed, had good team spirit and spent a great deal of effort in brainstorming and discussion. They were instructed to delay judgment on their peers' ideas and, consequently, came up with quite divergent and novel solutions on the same problem given. For example, instead of just the 'visual with words' idea, some groups worked out a storyboard for a TV commercial.

To gauge the effectiveness of the course in meeting its objectives, student feedback were conducted at the end of each semester. Although many students indicated that, prior to taking the course, they did not have the background or interest in creative design, most students rated this elective course very favorably. In order to analyze students' experience of engagement and creativity, Anna Reid's and Ian Solomonides' model (Reid & Solomonides, 2007), illustrated here in Figure 2 can be used.

Although the model in Figure 2 represents key features of variation in design students' experience of engagement and creativity, many of these features can also be found in the Business students enrolled in this course. According to Reid and Solomonides, the center of this model is the 'Sense of Being' hub which denotes students' personal relationships and approaches to engagement and creativity. This hub emphasizes their confidence, happiness, imagination and self-knowledge. From the feedback conducted, 87% of the students expressed that they enjoyed doing the exercises and the final team projects although they also, at the same time, admitted that this was hard work and much effort and time were needed to

achieve creative results. They used very positive languages like "enjoyed immensely…fun and exciting…eye-opening, rewarding and challenging…very insightful module…memorable experience…end result was absolutely satisfying…we are able to churn out non-conventional ideas and are willing to put in effort to make our ideas work…I enjoy the process of starting from nothing and ending with something we are all very proud of."

Figure 2: Design Student's Experience of Engagement and Creativity
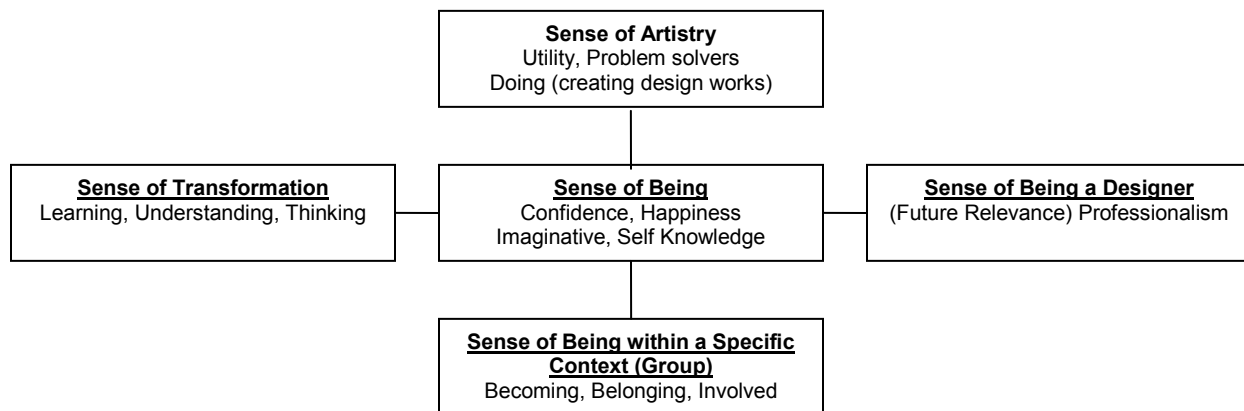
This figure illustrates Anna Reid's and Ian Solomonides' model of the key features of variation in design students' experience of engagement and creativity. The core feature, the 'Hub' represents a 'Sense of Being', the referential self with an axis about which the outer components of the 'wheel' turn. The outer components of the wheel represent the different ways that the students expressed their understandings of engagement and creativity that contributed to their understanding of 'self' as a design student (Reid & Solomonides, 2007).

According to Reid and Solomonides, students' Sense of Being is central to their experience of 'Artistry, Designer, Transformation and Context' in which each serves as a wheel component relating to a different aspect of the experience of being a design student. A 'Sense of Transformation' is a category that relates to the ways students' Sense of Being is changed through learning. 83% of the students fed back that the creative thinking skills that they had learnt would help them seek divergent solutions and not just settle for the first idea that comes to mind. This group also cited "valuable learning experience… see things which I never see before…seeing how others have done their projects has also inspired me to create my own designs…I want to be a trend setter for green (referring to the project to promote environmental friendliness)."

In this study, the 'Sense of Being within Specific Contexts' would be more appropriately applied to how students recognized their experience while working in a team and the nature of their involvement. 80% cited "having fun brainstorming in a group…learning to share ideas…understand the creative differences between people…my email account is flooded with discussions and the responses are fast and furious…making the learning journey fun and enjoyable…learn from one another…made new friends". Some were fortunate to have "super fabulous team mates who are committed and creative" while some others struggled with differences in ideas.

In the category 'Sense of Artistry', engagement is represented by students' responses to their ability to solve design problems and the creation of the actual design. 81% were positively engaged with comments including "enjoy the process of starting from nothing and ending with something we are all very proud of…very satisfied with the final outcome …able to apply what we learnt in class…a peek into the work of advertising agencies, copywriters, graphic designers – which was definitely no easy task. We were initially intimidated by the huge amount of work needed: conceptualization, brainstorming, making the form work. We had to throw away many ideas we liked because it was impossible to execute with our limited skills in computer software. Nevertheless, the end result was absolutely satisfying – we mastered the various design concepts and tools with many sleepless nights. My experience will definitely help my career in the future...It was fun creating something physical. I felt like an Art student…In the end, there were surprisingly so many good different solutions presented in class …the challenge was to come up with innovative ideas that have not been used before." Some of the common responses students gave were the limited skills in design software resulting in difficulty in execution. A few were inspired by this

difficulty to take up courses in *InDesign* and *Photoshop* to sharpen their technical skills while some indicated that they would like to take more elective courses in visual literacy and other similar courses.

In the category 'Sense of Being a Designer', it would be more appropriate to focus on how students perceive themselves as effective visual communicators in their future careers rather than being a professional with the design community as Reid and Solomonides have intended in this model. 81% indicated that with their newfound abilities in perceiving and creating visual images, they were confident of becoming effective visual communicators. A few cited "I've learnt to think about the possible thoughts and processes which go through designers' minds…I felt like I was really working for an advertising company." Some, in fact, had started to engage themselves in free lance design work, both for their own interest and to earn some extra income.

OBSERVATION AND CHALLENGES FACED

The heavy Business curriculum at NTU leaves little time and space for students to strive for creative, original ideas. In the team projects, while most strived for good results, not all members put in the same effort. Still, the team project brought out the different talents the group had – one may be good in computer graphics, another in writing the report, and others in presentation and in organizing the group effort. Students learn the importance of working together in a team, leveraging on each other's talent and, equally important, to have fun. It is observed that those who had fun went through a very thorough brainstorming process and were motivated to put in extra efforts to produce more creative results.

A sample of works by this category of students is shown in Figure 3 which illustrates the talents and tremendous effort a team put in in designing a brand identity for a Flea Market. These were the students who attained a real 'Sense of Being', experiencing deep personal engagement and creativity which will likely change their outlook and benefit them in their future careers. It is also noticed that works that were not original and unique reflected a lack of thorough brainstorming and a tendency to take short cuts. As students can opt for pass-fail grade in all electives, the tendency for some not putting in sufficient effort in creative solutions will persist unless this option is taken away.

The challenge for educators is to understand that students learn to experiment with original and creative ideas in an environment where they find enjoyment and fulfillment. As educators, we enrich the learning environment by facilitating understanding and comprehension of visual messages through our perception, our senses and our emotions. Aldous Huxley, author of the novel *Brave New World* carried on to say that " the more you know, the more you see" (Lester, 2001). Activities that can draw students together in a relax environment where they can brainstorm without inhibition, challenge each other's ideas, and learn from each other's talents can further enhance learning, personal engagement and creativity.

Experts in visual literacy advocate that "training for visual literacy should begin at least by school age and continue in college or on the job" (Kirrane, 1992). Developing countries like Singapore, which focused on science and technology to power its industrial economy and at the same time putting visual literacy on the side now face catching up time for the art. As technology changes the way economy works, and as our economy becomes more visual and globalizes, today's students need to develop skills to enable them to stay competitive in the new global market. Visual literacy can add another dimension to their core knowledge, helping them recognize and explore multiple perspectives and resolutions through creative thinking skills. More studies in this area on a wider scale can be explored beyond the scope of this paper to find out whether visual literacy remains beneficial to working graduates when conducting their businesses.

Figure 3: Example of a Brand Identity Design for a Flea Market

Figure 3 shows the creative solutions for a design problem to promote an eco-friendly 'Flea Market'. The problem was selected by a group of students themselves. They designed the creative strategy, creative approach and the message for their target audience. They also designed the visual applications like the posters, stationery etc to create a visual brand identity for this event. The outcome is a very attention grabbing brand identity with designs that are creative and original, and professionally executed.

CONCLUSION AND IMPLICATIONS

In an increasingly competitive and interconnected world with its globalize economy, to become and to remain among the top economies, entrepreneurs with creative minds and are multidisciplinary and able to see the big picture will be needed in sufficient numbers. Those who are effective visual communicators and have the skills of bringing good design into marketing and business will have a clear competitive advantage over others. As Tom Watson, a former Chairman of IBM puts it, "Good design is good business" (Wheeler, 2003).

Governments and universities have responded to this challenge and recent times have seen efforts at producing larger numbers of such entrepreneurial and creative graduates. One approach in developing such workers in sufficient numbers is to introduce art and design, and in particular visual literary skills, to the large number of engineering and business graduates. The success and popularity of one such elective course at NTU indicates that a large portion of students majoring in business do have creative skills which can be nurtured and developed. Exit surveys among students taking this course showed clearly that they are well aware of the relevance of such creative skills learnt and the impact that these skills can make in their future careers. It is also clear, from their feedback, that most of them will make continual effort to pursue and sustain creative thinking not only in visual communication but also to extend this into business and to combine the multidisciplinary knowledge acquired to seek new frontier and create new enterprises.

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BIOGRAPHY

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THE IMPACT OF BRAND PERSONALITY ON BRAND PREFERENCE AND LOYALTY: EMPIRICAL EVIDENCE FROM MALAYSIA

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ABSTRACT

This article examines the roles of the perception of brand personality in consumers' brand preference and loyalty. This research conducts a survey of 300 adults in Malaysia with regard to brand personality, brand preference and loyalty in investigating two foreign brand coffee outlets, Starbucks and Coffee Bean. A questionnaire was used to gather data from respondents in various cities in Malaysia using purposive and convenience sampling methods. Statistical tests including factor analysis, reliability analysis and multiple regressions were utilized. The results of the analysis revealed that there are differences in consumer's perception on brand personality attributed to foreign coffee outlet brands. The results indicate that Starbucks is a better brand than Coffee bean. The result shows that brand personality has a strong effect and influence on brand preference and consumer loyalty. This study suggests that intangible attributes contribute to brand perceptions, consumer preference and loyalty. The research findings provide useful insights for practitioners, brand managers and academicians.

JEL: M3, M31

KEYWORD: Brand personality, Starbucks, Coffee Bean, Personality Inventory, Malaysia

INTRODUCTION

Brands constitute the basis by which organizations position themselves in a competitive surrounding. They serve as a vital distinction element in what any given organization offers relative to its competitors. Thus, purchasing a particular brand may enable individuals not only to achieve maximum benefit by way of the brand's implemental meaning, but also to express their personalities through the product's symbolic meaning (Slaughter, 2004).

It is a well-known fact that consumer brands have significance that goes far beyond their utilitarian, functional, and commercial value (Ericksen, 1996; Leigh and Gabel, 1992; Czikszentmihalyi and Rochberg-Halton, 1981; Mick, 1986; Levy, 1959) Consumers do not "consume brands for their material utilities but consume the symbolic meaning of those brands as portrayed in their images" (Elliot, 1997). Thus, the brands that are consumed are not only "bundles of attributes that yield particular benefits" (Holt, 1995) but they are capable of signifying symbolic meaning to consumers. This was confirmed by a recent study by Bhat and Reddy (1998) who reported that brands have both functional as well as symbolic significance for consumers. Marketing scholars have become increasingly interested in understanding and measuring the symbolic meaning consumers attribute to brands. It is expected the more a consumer perceives a brand to have personality dimensions the better they can generate preference. This article examines the role of the perception of brand personality in consumers' brand preference and loyalty. The remainder of the paper is organized as follows. In Section 2 there will be literature review, section 3 describes the theoretical framework, section 4 explains the research methodologies used in the study

followed by presentation of result and analysis. Finally, the paper is concluded with a discussion, limitations of the study and description of future work in Section 5.

LITERATURE REVIEW

In recent years there has been a considerable amount of literature published on brand personality. Amidst the existing researcher regarding brand equity, a central fundamental is concerned with the image of a brand. The work of Kapferer and Theoning (1994) anticipated that brand image is the determinant of mental representations, emotional and/or cognitive, an individual attribute to a brand or to an organization. Brand personality is one of the indispensable constituent of brand image. Plummer (1985) delineates brand personality as being perceptions of a consumer about a brand. The brand has a peculiar personality profile. David Aaker (1991) in fact points out that any brand has an identity and nature, i.e a brand personality. This view is supported by Keller (1993) concluding that it tends to serve a symbolic or self-expressive function. Some researchers define brand personality from its expressions. Upshaw (1995) argues that brand personality is the same as brand image or brand reputation. In fact, the visual aspect of a brand is the extraneous personality depicted by the brand, like that of a person. An external personality is something that is given to the characteristic of a brand, and functions as the causal connection between the brand and the consumer either now or in the future. The more riveting and engrossing a brand, the more emotional the consumer communication will be. Hence, like the idea of Macrcac (1996), communication with consumers has the feature of variance dependant on brand personality profiles.

Furthermore, some researchers define brand personality from its construction. Rajeev Batra (1999) claim that brand personality is the internal link of the whole brand image. It includes, but is not bounded to, all of the relationships among the brand specialty, the brand identity, and the lifestyle and characteristics of a consumer. All such relationships create the entire image of a brand. Langmeyer (1994) concludes a brand personality is built by its characteristics and the fascinating response process of consumers in the market surrounding; precisely like that the personality of a person is based on his or her genetic endowment and his or her environment. Their researches show that the image of a product or service can be measured independently, and it is not related to the target consumers.

Aaker (1997) considered that brand personality represents the set of human characteristics associated with a brand. For example, Absolut Vodka was described as a cool, hip, contemporary 25-year old man. The personality traits associated with a brand, such as those associated with an individual, tend to be relatively enduring and distinct. Among all brand research, little has been done based on the Chinese market, and far less is founded in the perceptions of consumers about their preference, attitude, loyalty, and buying intent. Aaker (1997) insisted that brand personality, used as a heuristic cue, might influence consumer attitudes. The brand personality framework and scale developed by Aaker have important applications for researchers examining the perceptions of brand personality across cultures. Nonetheless, the scale might not be appropriate for measuring brand personality in different cultural contexts.

Aaker (1997) developed a 42-item Brand Personality Scale (BPS) to structure and measure the brand personality of any brand across five key dimensions. The research focuses on dimensions in examining the salience of brand personality for each brand as perceived by consumers. Although brand personality dimensions and framework create by Aaker (1997) were tested across many product categories (such as shoes, clothing, cars, fragrance, soft drink, credit card and so on) in different countries, the theories have only been tested by Bamini, A.Saufi and Amran (2008) in the car market of Malaysia. It was found that only when consumers perceive a brand to have descriptive personality does it influence the preferences. The idea here is that consumers become "attached" to a brand on the personality and intangible level whereby feelings influence brand preference and loyalty. Bamini et al (2008) suggest that further investigation is needed in different brands and product levels for further confirmation and

understanding. Therefore, this study provides a significant contribution on determining the effectiveness of Aaker's dimension in a Malaysian context in a different market setting.

CONCEPTUAL FRAMEWORK

Figure 1: Proposed Theoretical Model Framework the Relationship between Brand Personality Perception with Brand Preference and Loyalty
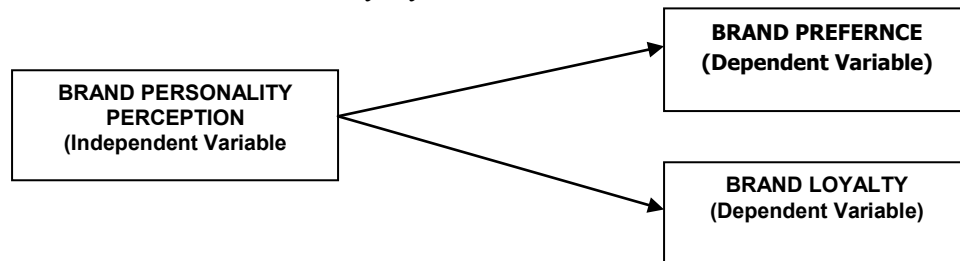
The theoretical framework in Figure 1 shows the important elements of this research. Consumers perception on brand personality serves as an independent factor influencing the brand preference and loyalty as the dependent factors.

Figure 1 shows the proposed theoretical model. Extensive literature on personality in psychology and other behavioral sciences has persuaded marketing researchers to theorize that brand personality characteristics should predict brand preference and other types of buyer activity (Bamini et.al 2005, Engel, J., Blackwell, R. & Miniard, 1995). Therefore, within such a framework the direct effect of personality attributes on consumers perception about a brand create brand preference and loyalty. Brand personality is different among different brands. Thus, it is important to distinguish brand differences, since brand personality influences the perceptions of consumers.

RESEARCH HYPOTHESES AND METHODS

Brand personality is different among brands. It is important to distinguish brand differences, because brand personality influences the perceptions of consumers. The perception of a brand personality is considered an expressive valuation of a brand in the mind of consumers. Based on brand personality valuation, a hypothesis is set up as follows:

The perception of brand personality influences directly the consumer's preference and loyalty.

A non-student sample representing the population in Malaysia was collected. Fifty percent of the sample was female respondents aged between 20 and 50. A sample of various working respondents from the government and private sectors were surveyed. To enhance generalizability, according to Nunnaly (1978), a sample of 300 respondents is sufficient to test measurement scales in a research study. Thus, a sample (n = 300) that represented the Malaysian population with respect of working adults with purchasing power in making decision on selecting a particular brand were selected. The subjects in the two brand surveys were selected from the same sample base. Using an intercept survey method, these respondents were approached conveniently, and were delivered a questionnaire by hand. The survey was conducted with the assistant from the researcher if required. The surveys were conducted in Malaysia including the main cities of Penang, Ipoh, Kuala Lumpur, Kuantan, Johor Bharu, Kota Kinabalu and Kuching . Approximately 70 questionnaires were distributed at each research location. This approach was taken to provide equal ratio of sample for each area. Usable responses of 261 out of 280 collected which translate to 87% of response rate.

For the purpose of brand personality testing, two mega-foreign coffee brands in Malaysia were chosen: Starbucks and Coffee Bean & Tea Leaf. All respondents who participated in the study were supposed to

be familiar with these two brands. Two filter questions were included to eliminate the non-respondents, as "You know the brand Starbucks/Coffee Bean?" Using a five-point Likert scale (1=extremely descriptive, 5=completely non-descriptive), subjects were asked to rate the extent to which 42 personality traits (Aaker, 1997) described the brand Starbucks; the same was done for Coffee Bean. We used also a five-point semantic scale to test the image of a brand as follows:

I think Starbucks is a _____ brand.

Good---------(1)----(2) --------(3)------(4)-----(5) Bad
Positive------(1)----(2) --------(3)------(4)-----(5) Negative
Exhilarating (1)----(2) --------(3)------(4)-----(5) Depressing

Two statements were developed to measure the brand preference, the brand reputation, the consumer's loyalty to the brand. Each statement used a five-point Likert scale (1=totally agree, 5=totally disagree). For example, 1) the brand preference was measured by "I like the brand"; 2) the brand reputation was measured by "If someone asks my opinion about this brand, I will give a positive comment"; 3) the consumer's loyalty to the brand was measured by "I will recommend the brand to my friends".

ANALYSIS RESULTS

First, a paired sample t-test was used to examine the difference of the respondents' attitudes toward Starbucks and Coffee Bean. The attitude of the respondents was measured by the goodness, positiveness, and exhilaration of the brand. The resulting output is shown in Table 2, which produced the following conclusions: The brand Starbucks was as good as Coffee Bean, The brand Starbucks was more positive than Coffee Bean and The brand Starbucks was more exhilarating than Coffee Bean.

Table 1: Result of Paired Sample T-Test for Starbucks and Coffee Bean

| | Starbucks/ Coffee Bean | | | |
Attitude	Difference (Mean)	Standard Deviation	T value	2 tail Sig.
Good	-.038	.935	-.618	.532
Positive	.264	1.034	3.978	.000***
Exhilarating	.286	1.055	4.208	.000***

This table shows the results of the paired T-test for differences in means. ***, **, and * indicate significance at the 1, 5 and 10 percent levels respectively.

Second, we identified the brand personality dimensions as perceived in consumers' minds for Coffee Bean and Starbucks based on Aaker's brand personality scale. Principal components analysis and a varimax rotation were utilized. For each of the brands, Starbucks and Coffee Bean, a four–factor solution resulted based on the criteria in Table 2.

Table 2: Criteria for Four Factor Solution

All four factors for Starbucks and Coffee Bean had Eigen values greater than one.
The four factors for each of the two brands were the most meaningful, richest, and most interpretable.
Every four-factor solution for the two brands, Starbucks and Coffee Bean, explained a level of variance in brand personality as 68.83% ~ 66.12%.
The Cronbach's Alphas were high (see Table 2）, which indicates a high level of internal reliability.
The Barlett test of Sphericity is significant and the Kaiser Meyer Olkin Measure is far greater than 0.6 that is 0.914.
Inspection on the anti-image correlation matrix reveals that all the measures of sampling adequacy are well above the acceptable level of 0.5.

This table shows the criteria for the four factor solution based on the work of Aaker (1997)

The results are presented in Table 3. For Starbucks, the factor 1 has high coefficient for V31 (SB_Confident), V32 (SB_Upper class), V20 (SB_Up-to-Date), V26 (SB_Intelligent), V29 (SB_Successful), V30 (SB_Leader), and V35 (SB_charming). Therefore, this factor may be labeled as a Confident and Successful factor. Factor 2 is highly related with variables V33(SB_glamorous), V8

(SB_original), V18 (SB_imaginative), V9 (SB_cheerful), V15 (SB_spirited). This factor may be labeled as a Glamorous and Spirited factor. Factor 3 is highly related with variables V13 (SB_trendy), V19 (SB_unique), V11 (SB_friendly), V16 (SB_Cool), so this factor may be labeled cool and trendy. The last factor may be labeled as one of the original dimensions of brand personality, Ruggedness with a high coefficient for V42 (SB_rugged) and V39 (SB_Masculine).

A propose of the brand Coffee Bean, factor 1 has high a coefficient for V84 (CB_rugged), V62 (CB_independent), V72 (CB_confident), V60 (CB_unique), V65 (CB_hardworking), V69 (CB_contemporary) and V54 (CB_trendy) so this factor may be labeled as a modern and unique factor. The factor 2 is highly related with variable V67 (CB_intelligent), V50 (CB_cheerful), V77 (CB_charming), V61 (CB_up-to-date), V65 (CB_upperclass) and V53 (CB_daring). Thus, this factor may be labeled as Charm of Intelligence. Factor 3 is highly related with V79 (CB_smooth), V47 (CB_sincere) and V57 (CB_cool). It may be labeled as a cool and smooth factor. The last factor's brand personality trait, which is highly related with variable V55 (CB_exciting), V52 (CB_masculine) and V52 (CB_friendly) is labeled Friendly and Exciting.

As a result, the data can be summarized by stating that the Malaysia consumer appeared to perceive four major kinds of brand personality for each coffee outlet brand respectively from Starbucks: Confident and Successful, Glamorous and spirited, cool and trendy, Rugged and Coffee Bean: Modern and Unique, Charm of Intelligence, Cool and Smooth, Friendly and Exciting. This resulted that Malaysians' perceive the personality of both foreign coffee brands distinctly and are able to distinguish each with different traits.

One of the major objectives of this research is to test the impact of brand personality on Malaysian consumers' brand preference and loyalty. Here, a series of multiple regression analyses were used to examine the relationship among the dependent variable, consumers' brand preference and loyalty and independent variables related to the four factors of brand personalities of Starbucks and Coffee Bean. For example, the four major kinds of brand personality traits from Starbucks are Confident and Successful, Glamorous and spirited, Cool and trendy and Rugged. The four major kinds of brand personality traits from Coffee Bean: Modern and Unique, Charm of Intelligence, Cool and Smooth and Friendly and Exciting.

For Starbucks (SB) a 2 multiple regression model is estimated as follows:

$V_d = \beta 0i + \beta 1i\ F1_{SB} + \beta 1i\ F2_{SB} + \beta 1i\ F3_{SB} + \beta 1i\ F4_{SB} + E,\ _{d\ =\ brand\ preference\ and\ loyalty}$

The regression coefficients were presented in Table 4. Accordingly the F-test of the null hypothesis $\beta ij=0$ (j=1,2,3,4, i=preference (V85) and loyalty(V86) or R square = 0 were rejected. Thus, both βij and R square were statistically different from zero at $\alpha = 0.001$. Since all variance inflation factor (VIF) scores of explanatory variables were less than or equal to 1 within the accepted threshold values, the regression outcomes were unlikely to be effected by potential multicollinierity problems. In addition, the hetereoscedasticity tests performed for all regression equations showed that, that regression were free from hetereoscedasticity.

Model 1: $V(85)preference_{SB} = 0.335^a\ F1_{SB} + 0.415^a\ F2_{SB} + 0.331^a F3_{SB} - 0.093^c\ F4_{SB} + 1.942^a$ shows that the regression was positively related with F1 Confident and Successful, F2 Glamorous and Spirited and F3 Cool and Trendy. However, it was negatively related with F4 Rugged. The same results are found from Model 2 V Loyalty. In other words, the consumers' loyalty was positively related with F1 Confident and Successful, F2 Glamorous and Spirited and F3 Cool and Trendy but the influence of F4 Rugged was vague.

Thus, some brand personality traits such as F1 Confident and Successful, F2 Glamorous and Spirited and F3 Cool and Trendy of Starbucks have a good contribution to the brand perception value, but traits like F4 Ruggedness should be transformed because it had a negative effect on consumers' brand preference and vague impact on brand loyalty.

Table 3: Factors Affecting Starbuck's / Cofee Bean's Personalities Inventory

Brand (% variance explained)	Factors	Variables included in the factor loading		Cronbach's Alpha
	F1: Confident and Successful	V31 SB_confident	.909	
		V32 SB_uspperclass	.808	
		V20 SB_up to date	.740	
		V26 SB_intelligent	.717	.897
		V29 SB_successful	.675	
		V30 SB_leader	.636	
		V35 SB_charming	.612	
	F2: Glamour and Spirited	V33 SB_glamorous	.853	
		V08 SB_original	.814	
Starbucks (68.83%)		V18 SB_imaginative	.732	.847
		V09 SB_cheerful	.592	
		V15 SB_spirited	.575	
	F3: Cool & trendy	V13 SB_trendy	.806	
		V19 SB_unique	.693	
		V11 SB_friendly	.572	.725
		V16 SB_cool	.552	
	F4: Rugged	V42 SB_rugged	.842	.604
		V39 SB_masculine	.695	
	F1: Modern & Unique	V84 CB_rugged	.810	
		V62 CB_independent	.789	
		V72 CB_confident	.757	
		V60 CB_unique	.725	.885
		V65 CB_hardworking	.698	
		V69 CB_contemporary	.683	
		V54 CB_trendy	.613	
	F2: Charm of Intelligence	V67 CB_intelligent	.768	
		V50 CB_cheerful	.743	
Coffee Bean (66.12%)		V77 CB_charming	.727	
		V61 CB_up-to-date	.676	.863
		V65 CB_upperclass	.659	
		V53 CB_daring	.643	
	F3: Cool and Smooth	V79 CB_smooth	.731	
		V47 CB_sincere	.580	
		V57 CB_cool	.536	.663
	Friendly and Exciting	V55 CB_exciting	.876	
		V81 CB_masculine	.644	.722
		V52 CB_friendly	.617	

Table 3 shows the factor of brand personality trait derived for both Starbucks and Coffee Beans and the internal reliability of the traits.

Table 4: Regression Model on Preference and Loyalty for Starbucks

Explanatory Variable	Model 1 B (V85) preference	Model 2 B (V86) Loyalty
(Constant)	1.933[*]	2.254[*]
	(46.478)	(43.668)
Starbucks F1	.335[*]	.192[*]
	(7.959)	(3.704)
Starbucks F2	.415[*]	.447[*]
	(9.781)	(8.455)
Starbucks F3	.331[*]	.328[*]
	(5.514)	(6.378)
Starbucks F4	-.093[*]	.132[***]
	(-2.242)	(1.849)
R Square	.667	.553
F-Statistics	49.126	46.288
Sig.	.000	.000
Number of Observations	261	261

All regressions are estimated by ordinary least square (OLS). Dependent variable is preference or loyalty. Figures within parentheses are t-test results [*], [**], [***] denote significance at 0.001, 0.01 and 0.1 levels, respectively. The Collinearity Statistics indicates that all models do not have a collinearity problem with VIF=1.

For Coffee Bean (CB), as with Starbucks, two multiple regression models were estimatedas follows:

$$V_d = \beta 0i + \beta 1i\ F1_{CB} + \beta 1i\ F2_{CB} + \beta 1i\ F3_{CB} + \beta 1i\ F4_{CB} + E,\ {}_{d = brand\ preference\ and\ loyalty}$$

The regression coefficients are presented in Table 5. Based on an F-test, the null hypothesis $\beta ij=0$ (j=1,2,3,4, i=preference (V87) and loyalty(V88) or R square = 0 were rejected. Thus, both βij and R square were statistically different from zero at $\alpha = 0.001$. Since all variance inflation factor (VIF) scores of explanatory variables were less than or equal to 1, within the accepted threshold values, the regression outcomes were unlikely to be effected by multicollinearity problems. In addition, the hetereoscedasticity tests performed for all regression equations showed that, that regression were free from hetereoscedasticity.

Table 5: Regression Model on Preference and Loyalty for Coffee Bean

Explanatory Variable	Model 1 B (V87) preference	Model 2 B (V88) Loyalty
(Constant)	2.214[*]	2.218[*]
	(46.478)	(43.668)
Coffee Bean F1	.396[*]	.431[*]
	(11.538)	(8.508)
Coffee Bean F2	.424[*]	.386[*]
	(8.681)	(7.566)
Coffee Bean F3	.342[*]	.320*
	(5.514)	(5.378)
Coffee Bean F4	.225[*]	.185[*]
	(3.634)	(3.630)
R Square	.633	.557
F-Statistics	63.959	47.680
Sig.	.000	.000
Number of Observations	261	261

All regressions are estimated by ordinary least square (OLS). Dependent variable is preference or loyalty. Figures within parentheses are t-test results [*], [**], [***] denote significance at 0.001, 0.01 and 0.1 levels, respectively. The Collinearity Statistics indicates that all models do not have a collinearity problem with VIF=1.

Model 1: V87preference$_{CB}$ = 0.396[a] F1CB + 0.424[a] F2$_{CB}$ + 0.342[a] F3$_{CB}$ + 0.225[a] F4$_{CB}$ + 2.214[a] shows that the regression was positively related with F1 Modern and Unique, F2 Charm of Intelligence and F3 Cool and Smooth and also F4 Friendly and Exciting. The same result can be found from Model 2 V88 Loyalty.

In other words, the consumers' brand preference and loyalty for Coffee Bean was positively related with F1 Modern and Unique, F2 Charm of Intelligence and F3 Cool and Smooth and also F4 Friendly and Exciting. Thus, all brand personality traits as perceived by consumer for Coffee Bean have a good contribution to the brand perception value with statistically significant impact.

CONCLUSIONS AND CONTRIBUTIONS

This paper examines the brand characteristics of Starbucks and Coffee Bean. The results indicate that the perceptions of consumers are different for the two brands. The results indicate that, the characteristics of foreign coffee outlet brand Starbucks by consumer are F1 Confident and Successful, F2 Glamorous and spirited, F3 Cool and Trendy and F4 Rugged. However, the characteristics of the foreign coffee outlet brand Coffee Bean are F1 Modern and Unique, F2 Charm of Intelligence, F3 Cool and Smooth and F4 Excitement. It is interesting that there are no common combinations of traits for these two brands even though they are both well known foreign brand coffee outlets.

In the global and international sights, the first impression is the most crucial in the brand personality characteristics. The first characteristic of Starbucks regarded by consumers is Confident and Successful, and the second is Glamorous and spirited. For Coffee Bean, Modern, Unique, and Charm of Intelligence are more distinctive. This leads to a number of interesting questions for further research. Most interesting might be the question of: Is there a gap between the brand personality strategy set by the organization and the one expected and perceived by the consumers? Second, we found that Starbucks and Coffee Bean are really two good brands for consumers, but Starbucks was more positive and exhilarating than Coffee Bean with regard to brand image. To unveil the exact reason behind such a difference, more research will be necessary.

Third, the results show that brand personality has a strong effect and influence over consumer brand preference and brand loyalty. The sense of brand for Malaysian consumers is very strong. Hence, international firms should pay attention to the building of their brands when expanding into the Malaysian market. Marketers must get under the skin of the brand and to consider the non-functional personality elements of the brand. An excellent brand with good perception from consumers will offer higher value attributes to the products under the brand umbrella. Finally, this research also reaffirms the validity of Aaker's brand personality framework in Malaysia markets thus contributing further on the pioneering work done in Malaysia on the impact of brand personality by Bamini et.al (2008). The perception of brand personality varies in different cultural backgrounds. Since cultural background influences the perception of brand personality to consumers, reorganizing cultural influences in brand personality is a strategy conducive to the value proposition of products.

This study is limited because it addresses only one market, foreign coffee brand outlets. Future research should examine other markets. The study of the impact of brand personality might also be examine consumer's attitude and intentions to purchase.

APPENDIX

SECTION B: BRAND PERSONALITY
Instruction: To answer the questions in this section respondent is required to look at the coffee brands as if it is carrying human personality traits (e.g. down-to-earth, honest, intelligent, etc.)

    1.   Please indicate your agreement to which extent that the brand personality attributes below describe each brand.

Scale
(1) = Extremely non-descriptive
(2) = Non-descriptive
(3) = Neutral
(4) = Descriptve
(5) = Extremely descrptive

Statement This personality attribute below describes the brand's personality:										
PERSONALITY ATTRIBUTES/ *BRANDS*	**Starbucks**					**Coffee Bean AND TEA LEAF**				
DOWN-TO-EARTH	1	2	3	4	5	1	2	3	4	5
FAMILY ORIENTED	1	2	3	4	5	1	2	3	4	5
SMALL TOWN	1	2	3	4	5	1	2	3	4	5
HONEST	1	2	3	4	5	1	2	3	4	5
SINCERE	1	2	3	4	5	1	2	3	4	5
REAL	1	2	3	4	5	1	2	3	4	5
WHOLESOME	1	2	3	4	5	1	2	3	4	5
ORIGINAL	1	2	3	4	5	1	2	3	4	5
CHEERFUL	1	2	3	4	5	1	2	3	4	5
FRIENDLY	1	2	3	4	5	1	2	3	4	5
SENTIMENTAL	1	2	3	4	5	1	2	3	4	5
DARING/	1	2	3	4	5	1	2	3	4	5
TRENDY	1	2	3	4	5	1	2	3	4	5
EXCITING	1	2	3	4	5	1	2	3	4	5
SPIRITED	1	2	3	4	5	1	2	3	4	5
COOL	1	2	3	4	5	1	2	3	4	5
YOUNG	1	2	3	4	5	1	2	3	4	5
IMAGINATIVE	1	2	3	4	5	1	2	3	4	5
UNIQUE	1	2	3	4	5	1	2	3	4	5
UP-TO-DATE	1	2	3	4	5	1	2	3	4	5
INDEPENDENT	1	2	3	4	5	1	2	3	4	5
CONTEMPORARY	1	2	3	4	5	1	2	3	4	5
RELIABLE	1	2	3	4	5	1	2	3	4	5
HARDWORKING	1	2	3	4	5	1	2	3	4	5
SECURE	1	2	3	4	5	1	2	3	4	5
INTELLIGENT	1	2	3	4	5	1	2	3	4	5
CORPORATE.	1	2	3	4	5	1	2	3	4	5
SUCCESSFUL	1	2	3	4	5	1	2	3	4	5
LEADER	1	2	3	4	5	1	2	3	4	5
CONFIDENT	1	2	3	4	5	1	2	3	4	5
UPPERCLASS	1	2	3	4	5	1	2	3	4	5
GLAMOROUS	1	2	3	4	5	1	2	3	4	5
SOPHISTICATED	1	2	3	4	5	1	2	3	4	5
GOOD-LOOKING	1	2	3	4	5	1	2	3	4	5
CHARMING	1	2	3	4	5	1	2	3	4	5
FEMININE	1	2	3	4	5	1	2	3	4	5
SMOOTH	1	2	3	4	5	1	2	3	4	5
TOUGH	1	2	3	4	5	1	2	3	4	5
MASCULINE	1	2	3	4	5	1	2	3	4	5
WESTERN	1	2	3	4	5	1	2	3	4	5
RUGGED	1	2	3	4	5	1	2	3	4	5

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AN ECONOMICALLY AND ENVIRONMENTALLY SUSTAINABLE BUSINESS MODEL INITIATIVE FOR MICRO ENTERPRISE IN GUATEMALA: OBSERVATIONS FROM FIELD RESEARCH

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ABSTRACT

Five research teams representing the HEB International Peace Program at the University of the Incarnate Word in San Antonio, Texas completed field work in the coffee industry and micro enterprise in Guatemala during October 2008. Of special interest to one team was the As Green as it Gets (AGG) organization, an incubator for micro enterprise. AGG began in 2005 when founder, and now director, Franklin Voorhes identified the opportunity to improve the lives of disadvantaged families in Guatemala with a non-governmental organization (NGO) model of incubation. Voorhes partnered with coffee farmer Felix Poron to pilot a small business development program. AGG now includes non-coffee micro enterprise owners such as jewelry and textile producers and assists the owners to operate as both economically and environmentally sustainable enterprises.

The authors' focus in this paper is upon the AGG business model, its process to provide financial support, and how it identifies viable micro enterprises to incubate. In addition, the authors describe how AGG has made a difference in the success patterns of its client micro enterprises, and how those patterns may be exported to other economies.

JEL: G21, O16, O18

KEYWORDS: Sustainable business, micro finance, micro enterprise, field research, Peace Program

INTRODUCTION

There are over a billion people who are living on less than one dollar a day. In response to this situation, the United Nations has proposed a variety of instruments to aid in the reduction of this stifling poverty; among them is the increasing reliance on micro-enterprises. "Micro-enterprises have been viewed as a way to offer financial assistance to help the poor and vulnerable groups increase their income and ultimately break the cycle of poverty" (Vargas, 2000). Enterprise Development International, a non-governmental organization (NGO) that oversees micro-enterprise programs defines micro-enterprises as systems for providing small loans and business training to help the poor start income generating enterprises (Vargas, 2000).

The University of the Incarnate Word H.E.B. International Peace Program sent five research teams to Guatemala to conduct field research on the coffee industry and other micro enterprises. The As Green as it Gets (AGG) organization, an incubator for micro enterprise, is the focus of this research team's paper. The team traveled to Antigua, Guatemala where they met with Franklin Voorhes, the founder and now director of AGG. In 2005, Voorhes partnered with Felix Poron, a coffee farmer, to pilot a small business development program that now includes coffee production, forestry, textile production and jewelry.

There are just over 13 million people currently living in Guatemala. Of those 13 million people, about 56% live below the poverty line. The legal minimum wage is equivalent to $7.00 per day, which represents an increase of just over 50% over the last year. Voorhes stated that wages in Guatemala are not applied equally among all people. For example, Women make less than men for performing the same job, and an 18 year-old makes less than a 30 year-old. While the reported average family income is $3400.00 per year, that figure is grossly overstated given the income distribution discrepancy.

According to the Bertelsmann Transformation Index (2003), a global ranking system that evaluates and analyzes the development and transformation processes in 116 countries, Guatemala's illiteracy rate is 32%, with the average school attendance just 4.5 years. Social development indicators, which include such things as infant mortality and illiteracy, are among the worst in the hemisphere (U.S. Department of State, 2008). Furthermore, about 32% of the population lives on less than $2.00 per day, and 13.5% of the population lives on less than $1.00 per day (U.S. Department of State, 2008).

Guatemala's agricultural sector, with coffee as its main export, accounts for one-tenth of the country's gross domestic product (GDP) and half of its labor force (CIA, 2008). However, over the last several years, tourism and exports of textiles, apparel, and nontraditional agricultural products have exploded (U.S. Department of State, 2008). There are organizations in Guatemala involved in all of these areas of business, and the NGOs in particular are attempting to assist the marginalized people of the country so that they and their families can establish sustainable micro enterprises.

Prior to this paper's analysis, other works within micro enterprise, NGOs, Fair Trade, and agricultural impacts on the environment, will be explored in conjunction with the field research on AGG. The following analysis will interpret AGG's business model, its process of providing financial support, and how the volunteer identify viable micro enterprises to incubate. Not only does the AGG organization help families start their desired ventures, but they assist the families in operating as both economically and environmentally sustainable enterprises.

The remainder of this paper includes a literature review, discussion of the methodology employed, the researchers' findings, a discussion section and a conclusion section. Information regarding NGOs and the Fair Trade Certification for coffee is discussed in the literature review. The methodology section provides support for and describes the qualitative techniques utilized in the research. The findings include a detailed discussion of AGG with regards to its business model and philosophy. The information contained in the discussion section consists of a brief summary of the research and how AGG is helping the people of Guatemala. Lastly, the conclusion section summarizes the overall goal of the research and the paper and provides information regarding limitations and suggestions for future research.

LITERATURE REVIEW

Non-governmental organizations are non-profit organizations that are not funded by any state or government. They are typically funded at least partially, if not fully, by the private sector. NGOs face many challenges as they work with economically disadvantaged people or marginalized people. The NGOs also have a social change mission, which creates more challenges. One major difficulty faced by NGOs is leadership development (Hailey & James, 2004). NGO leaders face a barrage of issues with access to few resources as they assist those involved with their organizations. This type of situation means that those leaders must be able to perform multiple tasks that include finance, marketing and training, along with other responsibilities. It is essential that future leaders of NGOs be recognized and appropriate leadership development be established so that there is a future for successful NGOs (Hailey & James, 2004).

There are many successful NGOs with high-quality leaders that operate within the coffee industry either through funding or setting up operations in the field. Scholer (2006) provides information about Coffee Kids, an NGO started by American coffee retailer, Bill Fishbein, who realized the opportunity to improve the quality of life for Guatemalan children and their coffee producing families. Coffee Kids works with other local NGOs such as Women's Health Collective and regional democratically run coffee cooperatives on an annual budget of $700,000. One of its main programs provides microcredit to women to build economic stability, encourage saving, and provide access to small, low-interest loans to start or expand small businesses. Coffee Kids has made it possible for these women to open general stores, midwife clinics, pharmacies, and food stands much like those from AGG (Scholer, 2006).

NGOs have become an important business aspect not only in Guatemala but in other areas of the world as well. According to Stafford and Hartman (2001), the world market is becoming more and more globalized, and the role of national government is shrinking. There is a growing trend with the collective influences global business has on people's lives and the planet, that there requires an increased obligation for social and environmental responsibility. This trend has allowed NGOs to realize their opportunity for leverage with the global business community as collaborative partners rather than adversaries in advancing environmentally sustainable practices (Stafford & Hartman, 2001).

According to Domeisen (2006), NGOs must be a part of the mainstream of trade development because they can help address the limitations of official trade development efforts. Governments, donors and developmental agencies should cooperate with NGOs to improve trade development and make the trade development a primary focus. Cooperation between these groups affords the opportunity for harnessing specialized knowledge from all groups with a positive outcome for all (Domeisen, 2006). If effective programs are developed from partnerships with NGOs, economic sustainability becomes more realistic.

Another issue among coffee producers in Guatemala is whether or not to obtain Fair Trade certification. Fair Trade is not forced upon any producer, but the purpose is to incentivize producers to adhere to social guidelines as they earn the higher Fair Trade price rather than the world market price. Fair Trade has gained much attention with its labeling initiative that symbolizes that the coffee inside the package was produced using environmentally sustainable processes while also addressing social issues of the coffee producers (Taylor, Douglas, & Raynolds, 2005). According to the Fair Trade Labeling Organization (2005), which developed the Fair Trade standards, participating coffee producers must meet three requirements: 1) be small family farmers, 2) be organized into small, democratic organizations, and 3) use environmentally sustainable processes. The key objectives of Fair Trade include guaranteeing a Fairtrade Minimum Price for the coffee, facilitating pre-financing when necessary, charging buyers a Fairtrade Premium that will then be used for social and economic development, facilitating long-term relationships between buyers and producers, and ensuring social, economical, and environmental responsibility (FLO, 2007).

In January 2007 the minimum price for Arabica coffee (that which is grown in Guatemala) by Fair Trade standards was $1.21/lb. ($1.36/lb. for organically grown), whereas the price based on the world market was $1.06/lb (Steinrücken & Jaenichen, 2007). Therefore, in theory, producers working under Fair Trade earn a higher price for their coffee than those coffee farmers who choose not to acquire Fair Trade certification. However, there are costs associated with obtaining the Fair Trade certification. Based on inspection times and the size of the producer group, annual fees for certification range from $2500.00 to $10,000. For small producers with less than 50 members, a new fee category was established in 2007 that gave these small producers a discount of up to 35% on certification fees (Fair Trade Certified, 2008).

A producer must decide if certification costs will be recovered after receiving the Fair Trade product price rather than the world market price. Steinrücken and Jaenichen (2007) provide detailed analysis for profit comparison between Fair Trade price and world market price and conclude that depending on the relative

costs each producer faces, one could make more profit staying with the world market price. However, those producers run the risk of suffering a decline in the world market price, while Fair Trade producers are guaranteed a price, thus creating a stronger incentive to switch to Fair Trade production standards.

Buyers often view buying products with the Fair Trade label as a contribution to social and environmental awareness. A number of studies in the United States (US) and the United Kingdom (UK) have recently suggested that customers are taking note of whether or not organizations are behaving in an environmentally responsible manner (Bhaskaran, Polonsky, Cary, & Fernandez, 2006). This sense of responsibility from buyers then gives supermarket chains and food service franchises the ability to influence their suppliers to adopt environmentally sustainable standards. An example of this is the strict environmental standards that Starbucks commands its "preferred suppliers" to adopt (Bhaskaran, Polonsky, Cary, & Fernandez, 2006). Value must be created not just on an economic level, but value must also be created on environmental, social and ecological terms (Wheeler, McKague, Thomson, Davies, Medalye, & Prada, 2005).

METHODOLOGY

Qualitative research places an emphasis on the dynamics between the researcher and the topic of study. The authors employed a qualitative research method for this study because it best exemplified the desired path in seeking the preferred outcome. Specifically, the authors wanted to gather information concerning the business model of the As Green as it Gets organization, which operates in Guatemala and serves as an incubator for micro enterprises. During October 2008, five research teams from the University of the Incarnate Word in San Antonio, TX visited Guatemala and conducted field research in an attempt to discover effective business practices in that country. The three authors of this paper purposely focused on AGG. While in Guatemala, the authors spoke with Franklin Voorhes, the organization's director, and they were also able to conduct direct observations of some of the micro enterprises in order to gather additional information from some of the entrepreneurs associated with AGG. After returning to the United States, the authors gathered some more detailed data from Voorhes via email communications.

Secondary data was also used in this study. The AGG website, which contains information such as newsletters, the mission statement, the AGG philosophy and its stand on Fair Trade, offered some more insight for the authors to consider as they continued to conduct research. This information supplemented the information gathered through personal interviews and field observations by the researchers. Other secondary information relating to NGO's, Fair Trade, and economic sustainability was used as a comparison point with AGG's practices and means of operation.

FINDINGS

AGG has a team of volunteers who work with the business owners who are involved with the organization. The director, Franklin Voorhes, started this small business development program with coffee farmer Felix Poron in 2005. AGG focuses on product development, business management and marketing. The philosophy of AGG centers on giving the entrepreneurs enough knowledge that they are able to function independently with little or no charity. Teaching the proper skill set gives the business owners the opportunities necessary to improve quality of life while maintaining a sense of dignity. As the researchers met with and observed several businesses within the AGG organization, it was obvious that those business owners had a sense of accomplishment and were proud people.

AGG coffee is 100% pure Arabica coffee grown in the Antigua valley of Guatemala and is hand-picked and processed with little to no herbicides or pesticides. The farmers and producers from AGG receive 100% of all income associated with the sale of their particular product, and all seasonal workers must be paid more than the minimum Fair Trade wages. Furthermore, AGG and the management staff receive no

income, salary or financial compensation from the sale of any products sold by the business owners. Instead AGG recognizes the needs of the business owners and helps them to become better at what they do in order to improve their opportunities for economic sustainability.

Rather than using a cooperative model as a business structure, micro enterprises working with AGG are sole-proprietorships, associations or corporations. In order to overcome emergencies, every business has a backup system. For example, if the father in the family is the coffee farmer, at least two other family members can duplicate the necessary tasks. This type of structure prevents a total shut down of the business should the main business owner become unable to perform his job. AGG also partners with Common Hope, a non-profit organization that provides support to children and families in Guatemala, especially in the areas of education, health care, housing, and community and family development. Putting money into the hands of these entrepreneurs, helping to insure a future for other family members, and providing support helps AGG fight poverty in Guatemala.

Although there are various types of businesses, some of which will be discussed later, coffee production is by far the most successful and accounts for approximately 80% of the business volume in the AGG micro enterprises. As the researchers discovered in their field research when they had an opportunity to climb up the side of a mountain and pick coffee beans alongside a coffee farmer, there is a lot of time and hard work that goes into harvesting a coffee crop. The two to three mile walk to the site where the coffee trees were located was only the beginning of their journey. For the actual coffee farmers, the journey begins with purchasing land and coffee trees. After that, the truly difficult work begins. The coffee farmers clear the land to plant their coffee trees, haul manure in wheel barrows to the site and then cultivate the land throughout the year. This process is repeated each year until a good harvest is achieved.

We asked the director of AGG, Franklin Voorhes, to supply us with a sense of what it takes to be a business owner with AGG. He provided us with some general guidelines. The entrepreneurs should have some type of skill set or resource with which the organization can assist and use as a base. For example, someone might have a knowledge base or a piece of land. Someone else may have sewing or weaving skills. The business owners must be flexible and open to new ideas. They need to have confidence in the decisions and recommendations made by AGG so that they do not recede back to the previous problems.

An entrepreneurial spirit is an important aspect of the AGG micro enterprise owners. As Voorhes stated, "We can teach folks a lot of things – how to export, how to roast coffee, how to host tourists, how to handle homestays, whatever. It's very hard to teach someone to be a hard working entrepreneur." A great filter for success is that the family is trying to earn money. Therefore, prior to asking a business owner to join AGG, it must be clear that there is drive and motivation present. These same hardworking people must also fall into the "disadvantaged" category, typically having a combined family income of less than $2000 per year. These families are not the poorest families in the area, but are instead lacking a good sense of business fundamentals.

A major difference between AGG and other coffee producers is AGG's stance on the Fair Trade certification in Guatemala. According to Voorhes, several reasons exist that contribute to his decision not to pursue certification. First of all, "democracy in business does not work," says Voorhes. With Fair Trade certification, the organization that is certified must operate within a democracy. This model requires that all decisions be made in a democratic format. Voorhes believes that this type of system does not work correctly, and each decision cannot be made in a democratic manner. For example, there are times when a decision must be made by one person and not a group that votes on the issue before a decision can be reached.

Another reason for opting out of the Fair Trade certification is the financial aspect. The cost of certification and subsequent fees do not justify membership by AGG's coffee producers. As a matter of fact, the fees alone are more than the maximum annual family income allowed by the families who

receive assistance from Common Hope. Although AGG seeks to eliminate middlemen fees, Fair Trade's parent company, Transfair, receives $.05 per pound of coffee from Fair Trade coffee producers. In essence, the middleman is placed back into the mix, and AGG is philosophically opposed to this type of transactional fee. Additionally, the five cent per pound fee was earmarked for community development programs. This development has not occurred, according to Voorhes.

Additionally, while Fair Trade guarantees a minimum price for unroasted coffee, it does not guarantee a minimum price for roast coffee. AGG coffee producers pursue roast coffee markets; therefore, the value of having the Fair Trade certification is nominal. For example, the current guaranteed price provided by Fair Trade for the type of coffee produced by AGG farmers is $1.25 per pound. However, the fair market price for AGG coffee is considerably higher, with some plantations in the Antigua Valley earning over $7.00 per pound.   For these reasons, AGG has decided that their coffee producers are better off economically without the Fair Trade certification.

Although not a member of Fair Trade, AGG is able to continue to successfully assist its micro enterprises. As with most businesses, financing is a factor for economic sustainability. Loans are available to the business owners on both a short-term and long-term basis. The system for loans differs greatly from the typical loan process to which most people in the US are accustomed. Short-term loans are a year or 13 months in duration, and the loan amount is usually $125.00 from the financier. The producer can receive up to about $1500.00 in these small loans depending on the business, its history with AGG, probability for success, and AGG's subjective analysis of their risk as a person. The loan pay back schedule is based on sales, not on the calendar. When harvest time approaches, the producer pays back the loan principle as cash and the 5% annual interest in kind.

If these same producers were to obtain a local loan, the interest rate would be 30% to 36%. That percentage is highly unrealistic given the fact that the business owner would then need to have 30% to 36% in gross sales just to break even. AGG does not own the money for the loans; the financier owns the money. The financier coordinates with the business owner, therefore avoiding typical loan origination fees, closing fess, service fees, etc. There is also no compounding for the loan interest because the business owners have limited math skills and do not understand compounding.

An aspect of the loan arrangements in the micro enterprises with AGG is the lack of any formal contract or collateral. While this is a foreign concept, and even an unacceptable practice to most business people, the idea is that, "If a person's word is good, you don't need a contract. If a person's word isn't good, neither is their contract." says Voorhes. There are no resources to fight legal battles over contracts, so there are no contracts. As Voorhes states, "Contracts, collateral, and the like are basically fancy ways of saying, "I don't trust you so sign this paper." That's the wrong attitude to use, so we don't bother with them."

The philosophy behind long-term loans is similar to that of short-term loans. Only when the financier requests a contract is a contract written up and signed. However, there is typically no contract, simply a promise to repay the loan. These long-term loans are for about five years. The nominal 5% interest that is paid in kind is paid each year, and lump sum repayment is expected at the end of the five year term for land purchases. The fifth year harvest itself is pledged to be used as collateral against the loan. Loans for equipment are paid back at 20% per year in cash and 5% interest in kind.

Rather than assessing the average income of its coffee farmers, AGG is beginning to create a quality of life index to quantify the changes that are occurring. The system is very subjective. For example, moving from a dirt floor to a concrete floor is improving quality of life but cannot be factored into an average income for coffee production. Voorhes did offer a statistical example but cautioned us not to simply use this one statistic since it does not represent the full story. Prior to joining AGG, San Miguel farmers make less than $2000 combined family income and about $750 net income from their coffee

businesses. After working with AGG, coffee farmers make an average of $1875 per year from their coffee businesses. Again, caution should be taken when considering these numbers since there are others factors that can affect the overall average income of the coffee farmers.

Once with AGG, it takes coffee farmers a good part of a year to get their product into the sales channel. Typically, the farmers begin with small quantities in order to make sure that their businesses will work. Once they see a higher income, the farmers will grow their volume in subsequent years. Everyone who has made it through a full year with AGG has remained with AGG. However, not everyone makes it through that first year, and about 25% actually drop out before they really get started. There are approximately 50 families who currently receive substantial help on a regular basis, and 150 to 200 families who receive minor assistance.

Business owners with AGG do work on a global level. Coffee bags are imported from India and Mahogany seeds from Cuba. Coffee farmers export their coffee to the US and Canada. AGG also has volunteers from the US and Australia with one more volunteer on the way from Denmark. However, Voorhes states that, "Globalization is a double-edged sword." Globalization intensifies problems that are already present in a developing country. There is no easy answer to the issue of globalization. Although AGG's producers often benefit from globalization, that same effect may not hold true for the average citizen.

AGG prides itself on taking care of the environment by incorporating land restoration, intercropping and organic farming as an integral part of its business model. Business models are more successful the more the farmer cares for the land. A major aspect of AGG environmental sustainability is its tree program. Coffee farmers maintain their coffee fields with a density of 160 trees per acre. AGG volunteers teach agroforestry and sustainable forest harvest. People are encouraged to plant trees rather than chop them down and financial incentives are sometimes offered to people for not chopping down rare trees. AGG also partners with the community to save current trees and plant new ones.

Farmers use about 50% compost and organic fertilizers in agricultural production. While some farmers have very simple composting programs, other farmers have fairly involved, large scale compost producing programs. Farmers also intercrop extensively; have some simple crop rotations and plant legumes. AGG does its part to increase environmental sustainability by planting trees, saving trees, intercropping, and sequestering carbon. It is an organization that continues to move forward with new ways to preserve our ecosystems.

DISCUSSION

"Improving the living conditions of so many people requires the integration of modern technology and traditional knowledge, individual initiative and collective effort and a genuine focus on sustainability through a balance of economic, social and environmental concerns. Successful micro-enterprises fuse economic sustainability, community well-being and environmental preservation" (Vargas, 2000). AGG, the focus of this research, is an organization with a group of dedicated volunteers that is working to help disadvantaged families in Guatemala improve their business process, and ultimately, their standard of living while promoting social and environmental sustainability.

Guatemala is a country full of people who somehow survive on earnings that are well below the poverty level. People are living in homes that would be condemned in the US. The researchers witnessed living conditions of people who had no indoor plumbing or indoor kitchen. Women were cooking tortillas outside that they would later sell to help earn money for their families. Meals for the family were also prepared outside. Children, as well as adults, were working during the day. Some of the families stated that their children attended school for half of a day. It is no wonder that the illiteracy rate is so

staggering. But there is hope for the future. As AGG assists some of these families and partners with other groups who offer assistance, these proud people are able to improve their standard of living. Families are able to have concrete floors and indoor plumbing. Two families have children attending universities. The standard of living, while not affluent, is definitely improving for the families associated with AGG.

Can the AGG business model work in other areas of the world? The answer is yes, but the extent to which people would accept this type of incubator for micro enterprises is the issue. In developing countries such as Guatemala, where business is conducted on a smaller scale, it might be easier to integrate this type of business model into the economic system of the country. However, in a country such as the US, the integration would be much more of a challenge. It is almost inconceivable in the US that a loan would be given to a business owner without some type of formal contract. Yet AGG has managed to make it happen, and it appears to be working.

Environmental sustainability, an issue that should concern everyone, seems to take a back seat to profits for some businesses. However, as more consumers are requesting more accountability from the producers, changes may come at a more rapid pace. If a small group of volunteers can make a difference in Guatemala, then surely both large and small business around the world can do the same. The issue of environmental sustainability is no longer an option; we are at a junction where decisions we make today will ultimately affect what we have tomorrow. Preserving our ecosystems is essential and can no longer be ignored.

Micro enterprises operate on both a local and global level. Many of these entrepreneurs need some form of assistance, whether it is financial or intellectual. We can all learn from the AGG model of micro enterprise incubation. It does not mean that every aspect needs to be adopted for every organization, but we can learn from AGG's practices and adapt to specific circumstances. It is the responsibility of everyone to help improve the living conditions of people around the world, both economically and environmentally. This help does not mean charity. We can help in others ways, and AGG has found ways to both help the environment and the marginalized and disadvantaged people of Guatemala.

The researchers in this study plan to further investigate micro-enterprises working under the guidance of AGG and other NGOs in Guatemala. Of particular interest is the stand on Fair Trade. An in depth study of the effects of Fair Trade on small coffee farmers is warranted to determine if the benefits of the certification justify the cost of obtaining certification. AGG is a fairly new organization, and a longitudinal study of its participants could yield information that would benefit AGG as well as other NGOs.

CONCLUSIONS

Five research teams traveled to Guatemala in October 2008 to conduct field research in the coffee industry in that country. As part of that research, each team was charged with selecting one specific area of interest and producing a scholarly work based on the team's findings. The researchers who produced this paper chose to focus on AGG because of its dedicated group of volunteers who are helping people who have a desire to build better lives for their families.

The researchers found that to be successful, AGG chooses its entrepreneurs very carefully. The organization expects each participant to have an entrepreneurial spirit that enables them to be open to new ideas so as to increase the likelihood of success. Unlike many Guatemalan coffee producers, those associated with AGG do not participate in the Fair Trade Certification. This stance against Fair Trade Certification is unusual given the associated benefits of the certification. However, upon further research, the authors found that the certification does not necessarily translate into increased profits for the small

coffee producer. The researchers also discovered how a business model that does not involve written contracts for loans can still be viable.

The research conducted in Guatemala is valuable to educators, volunteers, researchers and business people because it provides a frame of reference concerning the business models that are being employed in different countries. Educators and researchers can use the information to help students better understand how a method different from their own can work for others. The methodology used in this research could also provide a basis for others to conduct their own field research. Volunteers who might be seeking to help people in foreign countries can gain insight into how some of NGOs are assisting people from impoverished countries. The findings in this research also provide business people with new ideas that may be employed or adapted to fit their individual needs.

The research conducted in this study was limited to one country, Guatemala. However, some aspects of the research, especially those related to poverty and NGOs, can be generalized to others areas of the world. Poverty stricken people in countries other than Guatemala face many of the same problems that the authors found during their field research. The entrepreneurs associated with AGG are desperately attempting to improve their standard of living, and this is true of other people who live in poverty in other parts of the world. With some adaptations, the business model of AGG might be able to be utilized in places outside of Guatemala.

Future research in this area could include the study of NGOs and micro enterprise in other countries as well as a more in-depth study of the coffee industry in Guatemala. A longitudinal study of AGG could provide some valuable information relating to long-term viability and sustainability of its business model. There are numerous NGOs operating in Guatemala, and some of those organizations have different business models and philosophies from AGG. Therefore, it would also be valuable to study some of the other NGOs operating in Guatemala.

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BIOGRAPHY

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LEADING THE LEARNING ORGANIZATION

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ABSTRACT

Researchers have identified leadership as being one of the most important factors that influence the development of learning organization. They suggest that creating a collective vision of the future, empowering and developing employees so that they are better able to handle environmental challenges, modeling learning behavior and creating a learning environment, are crucial skills for leaders of learning organization. These roles are suitable to a transformational leader. Despite the potential for a transformational leader to positively affect the development of learning organization, little research has investigated the existence of this link. To understand the development of learning organization, it is important to understand the role of transformational leadership in learning organization. This article seeks to understand the role of transformational leadership in the development of learning organization.

INTRODUCTION

Interest in Learning Organization has been intense since the 1990s after Peter Senge popularized the concept in his best selling book "The Fifth Discipline" (Senge, 1994). Much scholarly work has been published on the topic since then. The present business world is characterized by unpredictable and accelerating turbulence in the realms of geopolitics, globalization, consumer and financial markets, technology, government policy and legislation, corporate organizational forms and practices and the politics of the environment (Kiernan, 1993) which has led to the emergence of new organizational forms known as Learning Organization. Under the present environmental conditions, transforming to learning organization has become an organizational imperative as the survival of the organization is at stake. This has motivated scholars and practitioners to identify a number of factors that influence the development of learning organization. Fiol & Lyles (1985) suggest that the organization culture, the strategy, organization structure and the environment in which the organization operates influence the development of learning organization. Caudron (1993), Schien (1993), Garvin (1993), Marquardt (1996) have identified the important role culture plays in creating a learning organization.

Many researchers have identified leadership as being one of the most important factors, among the many factors, that influence the development of learning organization (Senge, 1990; Johnson, 1998; Prewitt, 2003; Sadler, 2003). These scholars suggest that learning organization calls for a different kind of leadership as compared to the traditional leadership roles. The transition to a learning organization involves change in a complex system. Transforming a complex system is difficult without a leader who understands the needs of the situation, the people and the goal and undertakes the necessary action to achieve the transition. These scholars further suggest that creating a collective vision of the future, empowering and developing employees so that they are better able to handle environmental challenges, modeling learning behavior and creating a learning environment, are crucial skills for leaders of learning organization.

The plethora of studies on learning organization is mostly descriptive in nature. Studies on leadership have also focused mostly on the follower outcomes. In view of the current state of the literature, this study explores how leadership influences the development of learning organization. The type of leadership considered in this study is "transformational leadership". Transformational leadership has been the

subject of extensive research in the past decade and these leaders bring about changes in the followers and the organization through innovative or revolutionary ideas and a vision of future possibilities (Bass, 1985). Yet, despite the potential for a transformational leader to positively affect the development of a learning organization, little research has investigated the existence of this link. In view of paucity of research in this direction, this article seeks to understand the role of transformational leadership in the development of learning organization.

The article is organized as follows. The first section provides a brief overview of the literature on learning organization. The second section gives a review of the leadership theories with a focus on transformational leadership. The impact transformational leadership has on various subordinate and organizational outcomes has been reviewed in the third section. The section that follows provides support for the influence of transformational leadership on the development of learning organization.

LITERATURE REVIEW

As pointed out by various authors, studies on learning organization, though vast, do not offer suggestion to senior managers on how to transform their organization into a learning organization. Studies on leadership also do not specify the roles of leaders in learning organization. This article is an attempt to understand the leadership style appropriate to learning organization.

Developing into learning organization means transforming from a traditional organization to one which values people and emphasizes on learning to improve performance. This requires people who thrive on the challenge of change, who can foster environments of innovation, who encourage trust and collaboration and who are prepared to chart a course in unchartered territories. Hence, learning organization requires effective leaders who provide a sense of direction to organizational members and facilitates the transition and not top-down command and control. The primary role of leaders trying to transform their organization is to achieve an intellectual transformation of the workforce (Waldersee, 1997).

Leadership takes an important role in a learning organization where the leader motivates the individuals towards a shared vision, changes the mental model and fosters an environment of learning. Kofman and Senge (1993) identified that leadership should not be focused in one position or one individual, but a characteristic to be developed in all the members of the organization. Many authors have identified a number of factors or steps to be taken by leaders of learning organization. From this literature base, Johnson (2002) has identified three crucial roles: visioning, empowerment and leader's role in learning. Therefore learning organization Therefore learning organization requires transformational leaders who empower followers and motivates them to perform beyond expectation articulates and communicates a clear vision and is committed to learning. This article highlights the important role transformational leaders play in transforming an organization into a learning organization.

<u>Learning Organization</u>

Accelerating environmental change, technological advancement and globalization have rendered change as commonplace phenomena. Change is the only constant in the present day organizational life. It is hence clear to many organizations that only those organizations that have understood and proactively embraced change will survive. In this era of intensified competition and rapid transformation and change successful organizations are those that can recognize, react to, manage, and prosper in a changing environment (Johnson, 1998).

The capacity for change and improvement is linked with learning. To obtain and sustain competitive advantage organizations must enhance their learning capability and must be able to learn better and faster

from their successes and failures, from within and from outside (Marquardt, 1996). Learning is the critical competency of the 1990's (Dixon, 1992) and is the key to being able to identify opportunities and to exploit them rapidly and fully. Learning has now been recognized as an important ingredient of organizational change and the ability of individuals and organizations to learn becomes the primary means of winning.

This had led to the emergence of learning organization whose foundation lies in the belief that learning and change are closely intertwined. The basic principle of learning organization is that these organizations help people and organizations to cope with change. Learning organization have structures and systems and are designed in ways that help to anticipate and react to changes such that people and organizations can improve their performance and survive in the turbulent environment.

What exactly does learning organization mean is a debated issue and various authors have defined it from several viewpoints. Though there are differences in perspective all converge on the view that in the long–run organizational performance is measured by long-term survival and growth of the firm. To achieve this organizations have to adapt to the environment and this implies that organizations must have the potential to learn and transform themselves through this learning. Hence, to capitalize on uncertainty, organizations must transform to learning organization. For the purpose of this discussion, learning organization has been defined as **"***A learning organization is one which has the potential to transform itself by; harnessing the individual and collective learning of organizational members, empowering people both within and outside the organization, managing knowledge effectively, utilizing technology efficiently; so as to better adapt and succeed in the changing environment"*. This is similar to Marquardt (1996) who has defined it as one "which learns powerfully and collectively and is continuously transforming itself to better collect, manage and use knowledge for corporate success". Transformation is the key component in these definitions thus to be learning organization one must be continuously transformed.

Leadership

Burns (1978) has defined leadership as a reciprocal process whereby persons with certain motives and values, various economic, political and other resources, in a context of competition and conflict mobilize people to realize goals which could be independently or mutually held by both leaders and followers. Leadership enables the achievement of objectives by influencing the group's commitment and compliance to the objectives, group maintenance and identification and the culture of the organization (Yukl, 2002). As the definitions indicate, leadership can be referred to as an attribute of a person or as a social process involving influence and persuasion. Therefore, leaders play a key role in the individual or group performance and the achievement of goals. The success or failure of a group and the organization depends on the qualities of the leader.

In the past, many theories were developed to determine leader effectiveness. The trait theories describe leaders as possessing those traits, behaviors, characteristics and personality patterns that differentiated them from non-leaders. This theory proved insufficient to determine leadership effectiveness and led to the development of behavioral theories, which relate leaders' behavior to performance. This theory was also not sufficient in studying leadership as it ignored the situational perspective and emphasized on behavior as the main factor affecting outcomes. The situational approach sees leadership as relatively specific to the situation in which it is being exercised. As a refinement of the situational perspective is the contingency theory that focuses on identifying the situational variables which best predicts the most appropriate or effective leadership style to fit the particular circumstance. However, most of the work falling in this category involves complex models to which practicing managers find it very difficult to relate.

The theories discussed so far considered leaders as heroes who made all the decisions. This was based on the assumption that people on their own lacked power, vision and the ability to bring about changes therefore this had to be initiated by a few great leaders (Senge, 1994). Further he says when people have a 'sense of their vision and commitment' this style of leadership would not be effective. This requires a leadership style, which is participative and encourages the people to take initiative and work creatively. The present dynamic scenario calls for a different kind of leadership as compared to the traditional leadership roles.

To lead the present day workforce and organizations which are faced with a rapidly changing environment requires a leader who brings out the best in followers, leadership which is more adaptive and flexible. To achieve this, leaders could influence followers through their own extraordinary behavior and personal attributes of charisma or through reward/punishment. The leader can initiate lower order improvement, that is changes in degrees or marginal improvement, through an exchange process: a transaction in which follower's needs are met if their performance measures up to the explicit or implicit contracts with their leader. This is transactional leadership. However, leaders can also initiate a higher order improvement, such as changes in attitudes, beliefs, values and needs through innovative or revolutionary ideas and a vision of future possibilities. This is transformational leadership (Bass, 1985). Transactional leaders clarify roles and task requirements for their subordinates, recognize their needs and wants, and clarify how they will be satisfied if necessary efforts are made. Whereas transformational leaders motivate followers by elevating their consciousness about the importance of goals and the ways of achieving them, to work for the interest of the team or organization rather than self-interest and to aspire for self-actualization needs rather than the need for security. Transformational leaders go beyond rewards, they create and communicate a vision, empower employees to perform beyond expectation (Bass and Avolio, 1994).

Transformational Leadership Defined

Burns (1978) defined transformational leadership as the process of pursuing collective goals through the mutual achievement of the leaders' and followers' motives. Therefore, both leader and follower raise one another to higher levels of morality and motivation. Bennis and Nanus (1985) define transformational leaders as those who are able to achieve significant change by their capacity to understand the aspiration of the followers and encourage them to achieve the common goal by raising the level of motivation of both leaders and followers. Bass (1985) defined them as leaders who motivate followers to perform beyond their current level of performance for the achievement of higher level needs. Dvir et. al. (2002) define it as influencing followers by "broadening and elevating followers' goals and providing them with confidence to perform beyond the expectation specified in the implicit or explicit exchange agreement".

Tichy and Devanna (1990) consider them as change agents and suggest that transformational leaders are the ones who take on the responsibility for revitalizing an organization by recognizing the need to change, creating new visions, gaining support and commitment to those visions and finally transforming those organizations. Tichy and Ulrich (1984) also define it from the change perspective and describe transformational leadership as involving dramatic organizational changes including the development and implementation of a vision. Transformational leaders help to realign the values and norms of their organization, and when necessary, to accommodate and promote both internal and external change. There is consensus among authors that transformational leaders are able to derive commitment, loyalty and involvement from the followers and motivate them to higher level of performance and the achievement of higher level needs by bonding individual and collective needs. In this manner, transformational leaders are able to achieve a positive transformation of both the organization and organizational members. They develop followers to believe in themselves and their mission and to accomplish goals that followers' would not have normally accomplished.

For the purpose of this discussion, transformational leaders have been considered as change agents. The definition adopted for this discussion is the one provided by Tichy and Devanna (1990) and Tichy and Ulrich (1984). They have considered transformational leaders as change agents who implement a vision, realign the values and norms of their organization, and when necessary, accommodate and promote both internal and external change.

Bass (1985) identified four distinct characteristics through which transformational leaders elevate the needs of the followers: *idealized influence, inspirational motivation, individualized consideration and intellectual stimulation.* Podsakoff et. al. (1990) defined similar constructs of transformational leadership: *identifying and articulating a vision, providing an appropriate model, fostering the acceptance of group goals, high performance expectation, providing individualized support and intellectual stimulation.* Podsakoff et. al. (1990) various researchers have identified transformational leadership constructs and there is a great deal of consensus among the researchers on some of these behaviors.

Transformational Leadership and Follower Outcomes

Across many contexts, various empirical studies have been conducted to study the effect of transformational leadership behavior on follower outcomes and these studies have reported that transformational leadership has been significantly and positively related to various follower outcomes. Transformational leaders through idealized influence and inspirational motivation encourage followers to perform beyond expectation and thus create followers who are capable of handling challenges on their own. Followers become more innovative and creative through intellectual stimulation and individualized consideration (Avolio et. al., 1991). The leaders themselves engage in innovative, novel, unconventional and counter normative behaviors and hence encourage followers to think creatively and become innovators (Conger and Kanungo, 1987; Shin and Zou, 2003).

Dvir et. al. (2002) and Hetland and Sandal (2003) showed work motivation, or willingness to exert extra effort, is the outcome variable that is best predicted by transformational leadership. Transformational leaders motivate followers such that the followers find their work to be more meaningful, important and self-congruent which leads to increased job satisfaction (Bono and Judge, 2003). Transformational leaders raise the followers' self-concept, thus affecting the self-expression, self-consistency, self-esteem and self worth aspects of motivation, and thus inspire followers to improve their performance (Shamir et. al., 1993).

Followers of transformational leaders become self-motivated and are willing to take responsibility that enhances their ability to think and act on their own (Avolio et. al., 1991). Therefore, through follower development and empowerment, transformational leaders raise the ability and motivation of the followers to enhance their performance (Bass, 1997). By raising followers' social identification with the work unit or organization, transformational leaders empower employees by connecting them to the bigger entity, the organization, and raising their self-concept (Kark et. al., 2003; Dvir et. al., 2002).

One important outcome of transformational leaders is that followers do not resist self-development and demonstrate enhanced commitment to their job, coworker and the organization (Avolio et. al., 1991). Since transformational leaders empower employees, these employees see themselves as more capable and are able to influence their jobs and organizations in ways that are more meaningful. This leads to higher commitment to their job and organization (Avolio et. al., 2004, Bycio et. al., 1995). Through individualized consideration, transformational leaders raise the confidence of the followers' and enable them to respond to challenges facing them and their organization. Thus, they develop the followers' personal interest in line with the collective interest leading to the followers' long-term commitment to the organization (Walumbwa and Lawler, 2003; Barling et. al., 1996; Koh et. al., 1995).

Kark et. al. (2003) advocate that transformational leadership is positively related to personal identification of the followers with the leader therefore followers want to emulate the leader and share similar values and beliefs with them. By articulating a compelling vision, they arouse team spirit and inspire followers to focus on the goals and the shared vision (Bass, 1998). Kirkpatrick and Locke (1996) found that leaders' vision and vision implementation in the form of task cues had a positive influence on followers' performance. Vision led to higher congruence between the followers' and leaders' beliefs and values and inspires followers' to improved performance through setting of specific goals and raising self-efficacy, whereas task cues led to task clarity and intellectual stimulation.

LEADERSHIP AND LEARNING ORGANIZATION

Learning organizations do not happen automatically but require a deep commitment to building required skills throughout the organization (Watkins and Marsick, 1993). They indicate that a long-term commitment must be made at the absolute pinnacle of the organization. The learning organization "will remain a distant vision until leadership capabilities they demand are developed" (Senge, 1990).

Johnson (1998) examines leadership in the context of learning organizations. He identified three themes from the literature: visioning, empowerment and leader's role in learning, as the crucial skills for leaders of learning organization. The success and failure of a learning organization depends on leadership behavior. Leaders play an important role in creating and communicating a vision of the learning organization; considering learning organization as a solution to business problems and not a concept to experiment with; fostering a learning culture which requires leaders to shift their own habit and ways of working so that they are prepared to support a learning organization culture (Prewitt, 2003). The role of leaders in learning organizations therefore requires a willingness not only to keep learning but also to be open about this. They should encourage learning by asking challenging questions and stimulating intellectual curiosity. Leaders should possess the ability to facilitate the learning of others by acting as coach and mentor and making incentives and resources for learning available. They should foster a climate supportive of learning and develop mechanisms for the transfer of learning from individuals and teams into the organization's store of knowledge and experience (Sadler, 2003).

Peter Senge (1994) who popularized the concept of a Learning Organization has identified a different role for leaders in learning organization as compared to leaders in traditional organization. He suggested that "leaders in learning organizations are responsible for building organizations where individuals continually expand their capabilities to understand complexity, clarify vision, and improve shared mental models-that is they are responsible for learning". They play an important role in creating a climate where organizational learning can flourish and the learning organization can turn into a reality. The leaders are responsible for fostering learning as they encourage learning and are themselves learners. They enable organization members to understand the environmental complexity and think of new ways of solving problems. This enhances the creativity skill in followers and hence encourages them to seek new knowledge and new ways of doing the task, which in turn leads to learning-seeking behaviors in individuals therefore fostering a climate of learning in the organization.

Senge further identified three leadership roles that are important for building a learning organization. "Leaders as designers" who design the social architecture, in which others operate, build a shared vision and foster an environment where learning can flourish. "Leaders as teachers" who conceptualize and articulate the reality so that followers perform at a higher level of performance. "Leaders as stewards" who develop their sense of purpose and set an example to the followers. Similarly, Marquardt (1996) has identified six leadership roles in a learning organization. Like Senge's role of "teacher, he considers the role of "instructor", "coach" and "mentor" as the most important aspect of leadership in learning organization. Marquardt (1996) next identified the role of leader as "knowledge managers". As "colearners and model for learning", he considers leaders have to be learners themselves. As "architect

and designers", they are responsible for creating a learning environment. In the role of "coordinator," leaders bring out the best in followers and motivate them to perform at their best.

In the literature, leadership has been identified as one of the most important factor that influences the development of learning organization. The roles of leaders of learning organization from the literature can be summarized as: creating and communicating a vision of future possibilities and a desired state of the organization, developing and empowering the followers to understand the environmental complexity and respond to challenges on their own, creating and fostering a climate of learning and encouraging learning seeking behaviors in organizations. As discussed in the previous section, these roles are suitable to a transformational leader as they are change agents, who take the responsibility for revitalizing an organization. They define the need for change, create new visions, mobilize commitment to those visions and ultimately transform an organization.

Learning organizations are in a state of transforming from a traditional organization which order and guide human activity towards the attainment of organizational goals that emphasize the accomplishment of task to ones that are guided by a quality based purpose, clear mission and goals that are flexible and dynamic (Knutson and Miranda, 2000). They rely on individuals who are self-managed and collaborative and who engage in continuous learning. Therefore, learning organizations require the leadership of a transformational leader as these leaders shape organizational vision and transform assumptions and mental models by performing the role of "designer," "teacher" and "steward". They create the vision and determine the future of the organization yet pay attention to people's concern and ideas, set an example as they are learner's themselves, cultivate a supportive environment where risk-taking is encouraged and people have a sense of security. These are transformational leaders who empower employees and motivate them to work at a higher level of performance. Transformational leaders with their ability to conceptualize and communicate a shared vision, and a deep understanding of individual employees, motivate employees to achieve higher order needs and perform beyond expectation (Denton, 1998).

Environmental uncertainties are stressful to followers, as they do not understand the direction of change, the potential impact of the change, and the success of a particular response. Under such conditions, the idealized vision articulated by the leader provides a challenge and motivating force for change to the followers as it represents a perspective shared by all the followers and promises to meet their hopes and aspirations (Conger and Kanungo, 1987; Waldman et. al., 2001). This age of rapid change, calls for a new kind of leadership to enable organizations to transform and cope with the changes (Tichy and Ulrich, 1984). This new brand of leaders must have the ability to help the organization develop a vision of what it can be, to mobilize the organization to accept and work towards achieving the new vision, and to institutionalize the changes that must last over time. These new leaders are called transformational leaders as they must create something new out of something old i.e. out of an old vision, they must develop and communicate a new vision and get others not only to see the vision but also to commit themselves to it. Learning organizations are also operating under conditions of environmental uncertainty hence transformational leadership plays an important role to enable organizational members to understand and cope with change.

The maintenance of a learning organization requires the leaders to be sensitive to the learning needs of others (Knutson and Miranda, 2000) and encourage members to learn not just with the desire to respond and adapt to environmental changes but as an "impulse to be generative, to expand capabilities" (Senge, 1990). Transformational leaders pay attention to this as they are perpetual learners themselves and are the one's responsible for leading the organization to second-order (double-loop) learning, generative learning, transformational learning as the kind of learning required in learning organizations is one which motivates the examination of organizational assumptions and models and hence facilitates organizational effectiveness.

CONCLUSION

Accelerating change in the global economy has given birth to a new organizational form known as learning organization. These organizations are designed to enable people and organizations to be adaptive to the environment and responsive to change.

Despite the wide acceptance among scholars that leadership is a key contributor to the development of learning organization this relationship has been relatively understudied. This study highlights the important role transformational leadership plays in the development of learning organization.

The departure from traditional organizations that relied on rules and regulations to organizations that encourages its employees to think out of the box requires a visionary leadership, which brings out the best in the individuals. A learning organization requires a leader who can help cope with the changes in the environment as well as motivate the followers to work in collaboration towards the achievement of collective as well as individual goals. This kind of leadership is known as transformational leadership. Transformational leaders trust their subordinates and give them the freedom to breathe and grow. Therefore, this is a more developmental and constructive form of leadership for both individual employees and the organization as a whole. Hence, the development and maintenance of a learning organization requires a transformational leader.

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BIOGRAPHY

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